



**APPENDICES**

**SUSTAINABLE  
DEVELOPMENT  
DIRECTORATE**

**ORDINARY COUNCIL  
MEETING**

To Be Held

Wednesday, 23<sup>rd</sup> of November 2022  
Commencing at 5.00pm

At

Shire of Dardanup - Administration Centre Eaton  
1 Council Drive – EATON

This document is available in alternative formats such as:

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STATISTICS:

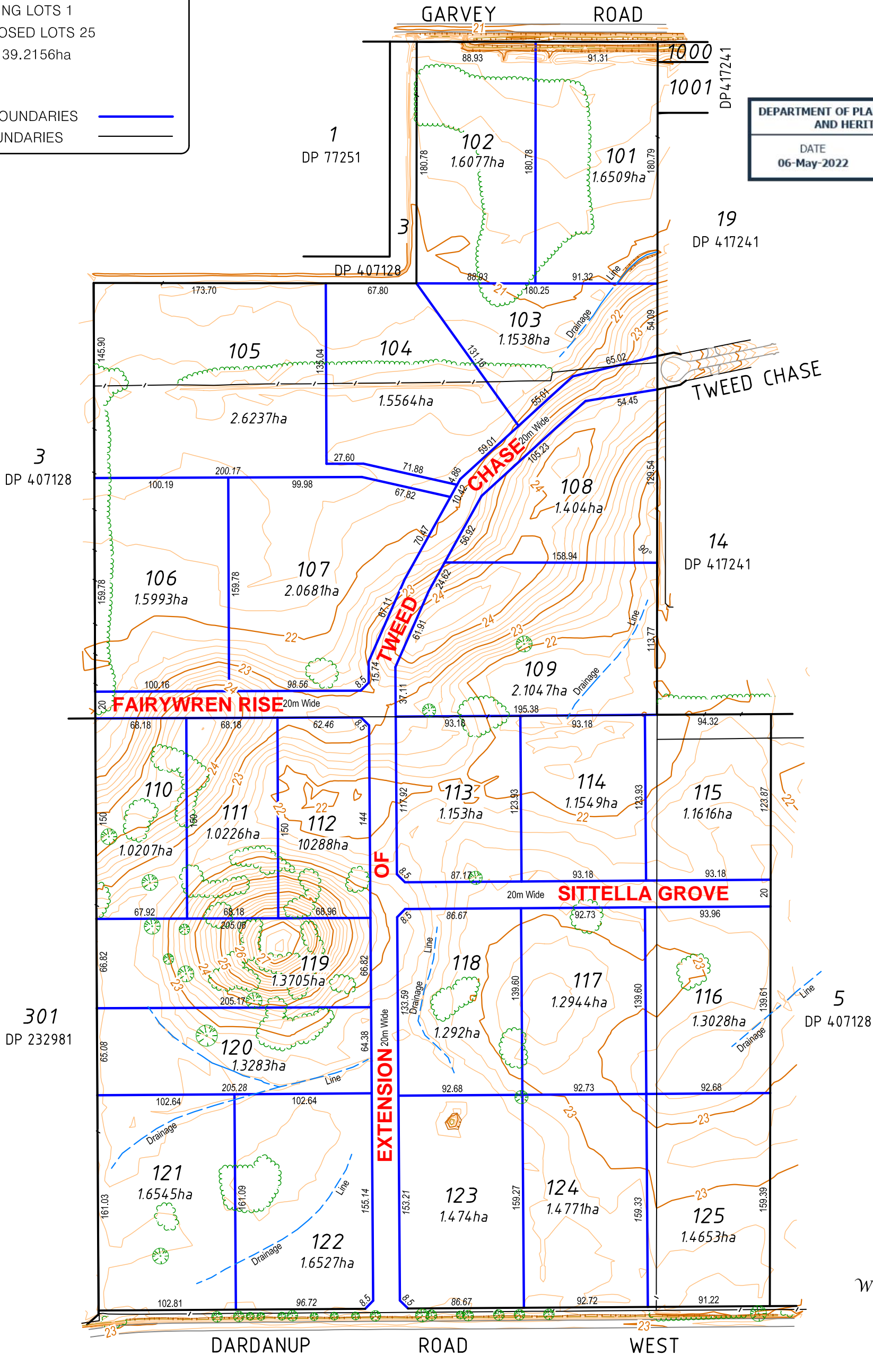
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No. OF PROPOSED LOTS 25  
TOTAL AREA 39.2156ha


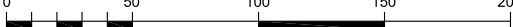
LEGEND

PROPOSED BOUNDARIES  
EXISTING BOUNDARIES

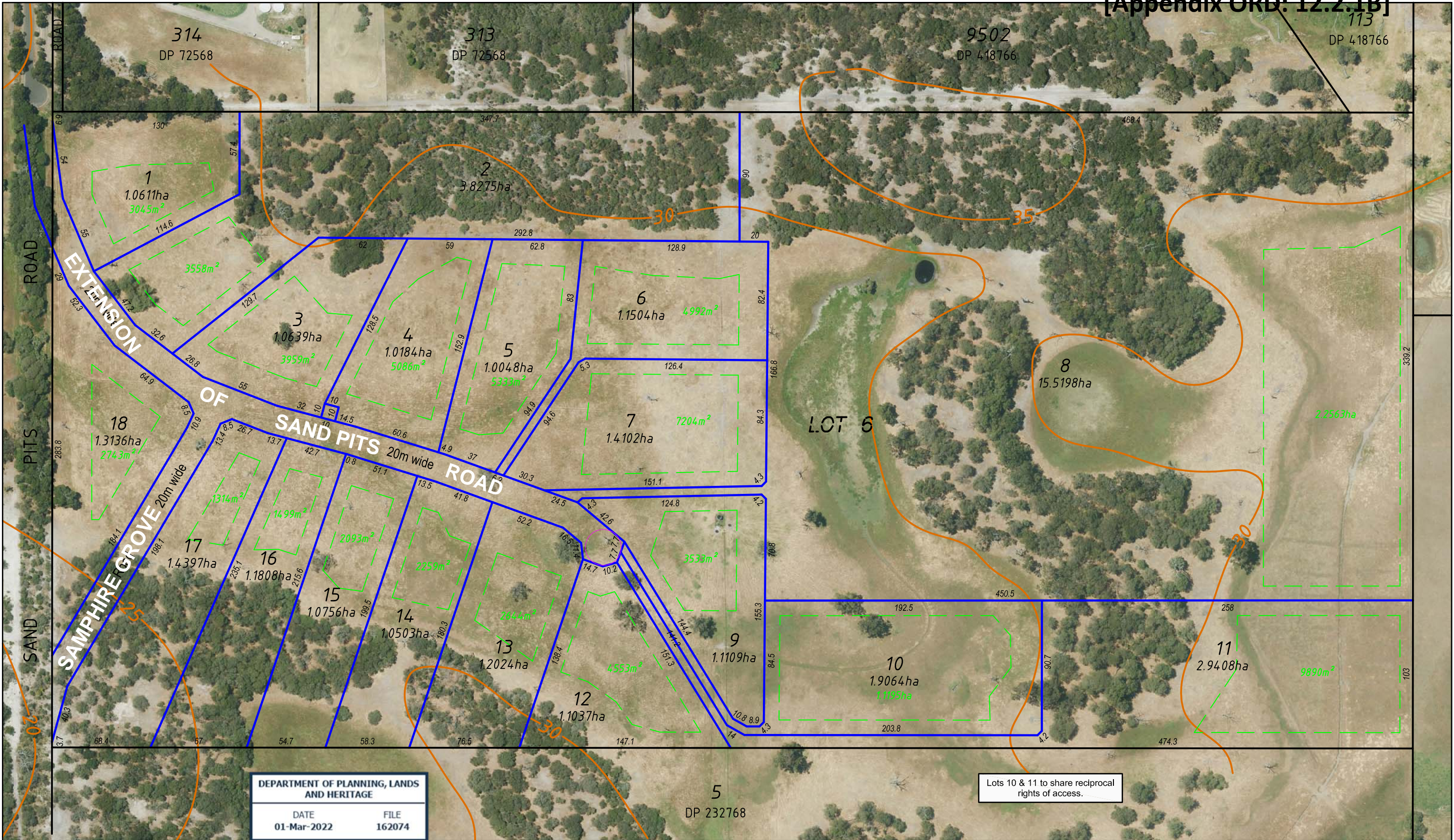
DEPARTMENT OF PLANNING, LANDS  
AND HERITAGE

DATE06-May-2022FILE162329



						PROPOSED SUBDIVISION of LOT 4 on DP407128 GARVEY ROAD, CROOKED BROOK	Scale	1:3000 @ A3	S H E E T  S I Z E  A3
							Datum	Horiz: MGA Vert: AHD	
							Drawn	Anthony Morgan	
							Surveyor	Malcolm Cockman	
							Date	28/3/2022	
							Job No.	23137	
A	Initial Issue.		A.M.	28/3/2022	M.G.C.		Drawing	23137ap-003a	
Rev.	Description		Drawn	Date	Checked	<div></div> <div>LICENSED LAND &amp; ENGINEERING SURVEYORS</div> <div>U4 / 14 Halley Road    Tel: (08)9344 8885    De Nada Surveys</div> <div>Balcatta                      Fax: (08)9344 8889    Pty. Ltd.</div> <div>W.A. 6021                      Email solutions@denada.net.au    ABN: 81 606 090 788</div> <div>www.denadasurveys.com.au</div>	Plan No.		Rev.
FILES: 23137-002-PreCal.dwg 23137-FS-001.dwg		<div>SCALE 1 : 3000 @ A3</div> <div></div> <div>ALL DISTANCES ARE IN METRES</div>			23137ap-003		A		



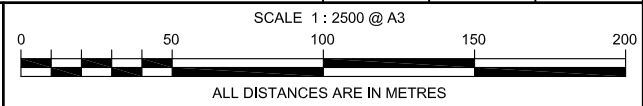


DEPARTMENT OF PLANNING, LANDS  
AND HERITAGE

DATE	FILE
01-Mar-2022	162074

B	Extend road/cul-de-sac east.	A.M.	3/2/2022	W.P.S.
A	Initial Issue.	A.M.	25/1/2022	W.P.S.
Rev.	Description	Drawn	Date	Checked

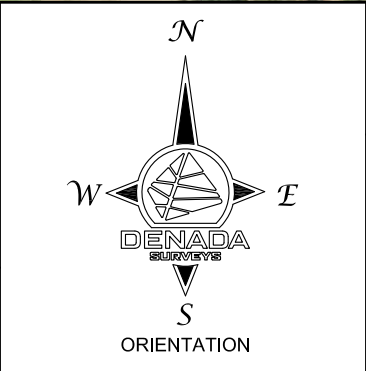
FILES:  
Lot 6 Sand Pits Road, Crooked Brook  
Structure Plan Map.pdf



The contents of this plan are current and correct as of the date stated within the revision panel. All consultants and persons wishing to utilise this data should satisfy themselves of the plans currency by contacting De Nada Surveys

PRECAL LEGEND

4,992m<sup>2</sup> Building Envelope



PROPOSED SUBDIVISION  
of LOT 6 on DP232768  
SAND PITS ROAD, CROOKED BROOK

**DENADA**  
SURVEYS

LICENSED LAND & ENGINEERING SURVEYORS  
U4 / 14 Halley Road    Tel: (08)9344 8885    De Nada Surveys  
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Scale	1:2500 @ A3
Datum	PCG2020
Drawn	Anthony Morgan
Surveyor	Wayne Stewart
Date	25/1/2022
Job No.	23118
Drawing	23118ap-001b.Dwg
Plan No.	23118ap-001
Rev.	B

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# [Appendix ORD: 12.2.1.C]

RISK ASSESSMENT TOOL								
<b>OVERALL RISK EVENT:</b> Proposed Road Names – Crooked Brook <b>RISK THEME PROFILE:</b> 3 - Failure to Fulfil Compliance Requirements (Statutory, Regulatory) <b>RISK ASSESSMENT CONTEXT:</b>								
CONSEQUENCE CATEGORY	RISK EVENT	PRIOR TO TREATMENT OR CONTROL			RISK ACTION PLAN (Treatment or controls proposed)	AFTER TREATMENT OR CONTROL		
		CONSEQUENCE	LIKELIHOOD	INHERENT RISK RATING		CONSEQUENCE	LIKELIHOOD	RESIDUAL RISK RATING
HEALTH	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.
FINANCIAL IMPACT	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.
SERVICE INTERRUPTION	Road naming is essential for location description and is used for postal services, addresses, navigation and emergency service responders.	Moderate (3)	Rare (1)	Low (1 - 4)	Not required.	Not required.	Not required.	Not required.
LEGAL AND COMPLIANCE	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.
REPUTATIONAL	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.
ENVIRONMENT	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.

# Extractive Industries Licence Application and Environmental Management Plan

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LOT 4580 ON DEPOSITED PLAN 205851

PANIZZA RD, CROOKED BROOK



REPORT PREPARED BY  
LUNDSTROM ENVIRONMENTAL CONSULTANTS PTY LTD

# [Appendix ORD: 12.2.2A]

Location: Lot 4580 on Deposited Plan 205851

Panizza Rd, Crooked Brook, Shire of Dardanup

Report type: Extractive Industries Licence Application and Environmental Management Plan (EMP)

Version Reference: 0.2

Date: August 2022

Prepared by Lundstrom Environmental Consultants Pty Ltd for Carbone Bros. Pty Ltd

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## Version Register

Version No.	Description	Author	Reviewed by	Date
0.1	Final	B.Woodward	M.Lundstrom	May 2022
0.2	Final (revised Water Management)	B.Woodward	M.Lundstrom	August 2022

Front cover image: *Landgate Image of the extraction area, January 2022*

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## 1 INTRODUCTION

### 1.1 GENERAL DESCRIPTION OF THE PROPOSAL

The purpose of this report is to provide all the necessary information required in support of an Extractive Industries Licence (EIL) application and a Development Approval (DA) application (Appendix 1) by the proponent, Carbone Bros Pty Ltd (Carbone) in relation to proposed gravel and sand extraction at Lot 4580 Panizza Rd, Crooked Brook.

This report sets out the details of the proposed lateritic gravel and sand extraction on the property together with maps. It also provides an environmental assessment of the proposal and environmental management plans.

### 1.2 PROPERTY DESCRIPTION, OWNERSHIP AND LOCALITY

The property is located approximately 3km east-south-east of Dardanup town site in the Shire of Dardanup.

Table 1. Property description

Property Description	Lot 4580 on Deposited Plan 205851
	Panizza Rd, Crooked Brook, Shire of Dardanup
Volume	1482
Folio	417
Area	54.5715 ha
Ownership	Millennium Inorganic Chemicals Ltd*

\* now known as Cristal Pigments Australia Ltd (Cristal). Cristal is a subsidiary of Tronox Inc.

Figure 1 shows the regional location of the property.

The proposed extraction area intersects Tenements M70/669 (expiry 10<sup>th</sup> March 2034) and M70/83 held by Cable Sands (WA) Pty Ltd (expiry 23<sup>rd</sup> January 2031). Cable Sands is a subsidiary of Tronox Inc. For both tenements surface rights have been granted for Lot 4580. Carbone have an agreement with Tronox to extract the superficial laterite and overlying sand that occurs at the property.



## 2 EXISTING ENVIRONMENT

### 2.1 CURRENT ZONING

The area is zoned as “Special Use” in terms of the Shire of Dardanup Town Planning Scheme No 3 with permitted uses being ‘Waste Management Facility’ and ‘Industry - Extractive’. The property is zoned as “Rural” within the Greater Bunbury Regional Planning Scheme.

### 2.2 LANDUSE AND SURROUNDS

As outlined in Section 1.2 Tronox holds a mining lease over the property but they have agreed to allow Carbone to extract the superficial laterite and overlying sand that occurs at the property. In 2014 Tronox, under the name of one of their subsidiaries Cristal Pigments Australia Ltd (Cristal), was developing a proposal to develop a residue disposal facility at the property to accept waste from their titanium dioxide processing plants. This proposal is no longer going ahead.

Figure 2 is an aerial photograph showing the site and surrounds.

The property currently consists of cleared agricultural land and remnant native vegetation. There are several historical and existing landfills located in the surrounding area.

The Dardanup Landfill Site (closed) and the Banksia Road Putrescible Landfill are located to the south of the site. A composting facility is located on Lot 4577 Depiazzi Road to the north of the site. Crushing and screening of a gravel stockpile also occurred on this property in recent years by B&J Catalano Pty Ltd. A facility for flying model and remote-controlled aircraft, owned by Dardanup Aeromodellers Society, is located to the west of the site. State Forest borders the property to the east.

### 2.3 TOPOGRAPHY, DRAINAGE, SURFACE WATER AND WETLANDS

The proposed extraction area has a maximum elevation of 78m AHD in the southeastern corner and falls towards the northwest to a minimum elevation of approximately 58 m AHD. The land slope is approximately 1 in 28 or 3.7%.

Farm dams currently collect surface water runoff on the property. One is located close to the centre of the proposed extraction area. One is located just upstream of the extraction area as shown on Figure 2.

The site is located within the Leschenault Estuary – Preston River Catchment within the Middle Preston subcatchment.

The property does not fall within a *Rights in Water and Irrigation (RIWI) Act 1914* Surface Water Proclamation Area.

The nearest wetland is a Multiple Use wetland located more than 800m to the east of the property. No other wetlands of conservation significance or lakes exist within 1 000 metres of the proposed extraction area (Landgate 2022).

## 2.4 SURFACE GEOLOGY AND SOILS

As part of the environmental approvals process for the residue disposal facility, a hydrogeological investigation was conducted by WML Consultants Pty Ltd (WML, 2014). This included the installation of testpits on a 100m grid across the property, which allow detailed information on the surface geology to be collected. The proposed extraction area generally consisted of a shallow topsoil nominally 0.1 m thick, overlying pale grey fine to medium grained sand of the Yoganup Formation to depths of between 0.6 and 1.8 m.

The base of the sand layer was marked by variably cemented laterite, cobble and boulder-sized fragments. The laterite within the proposed extraction area has an average thickness of 1 m but varies from 0.5 to 2.0 m. This is underlain by orange-brown, mottled light grey-brown, clayey, fine to medium grained, very dense and variably iron-cemented sand, forming the upper part of the Leederville Formation, but structurally modified by laterization.

A shallow sand infilled paleochannel was also identified running east west through the site.

## 2.5 GROUNDWATER AND HYDROLOGY

The permanent water table below the site occurs within the Leederville Formation. The hydrogeological investigation by WML (2014) indicated that groundwater level in this aquifer is more than 25m below the ground surface at the site. This level is consistent with levels recorded in the nearest DWER bore (BY14A) located approximately 2.8km to the southwest of the site.

The hydrogeological investigation conducted by WML Consultants Pty Ltd (WML 2014) identified a perched water table associated with the paleo channel as shown on Figure 2. This is described in more detail in the Water Management Plan attached as Appendix 3. The proposed excavation depth is approximately 2m and the extraction area has been designed to avoid the perched groundwater associated with the paleochannel. Therefore, it is highly unlikely that the excavation will disturb permanent groundwater.

The property does not fall within a RIWI Groundwater Proclamation Area. The nearest Public Drinking Water Source Area is a groundwater resource located 3km to the east of the property (Landgate 2022).

## 2.6 VEGETATION AND FAUNA

The area is cleared agricultural land and the proposed extraction area has been planned to avoid remnant vegetation on the property.

The remnant vegetation on the property to the south of the proposed extraction area may be Carnaby's black cockatoo (*Calyptorhynchus latorostris*) feeding habitat but is mapped as having a very low suitability for Western Ringtail Possum (Landgate 2022).

The nearest record of Threatened Flora to the site is a Priority 1 species, mapped approximately 1km to the east of the proposed extraction area (DBCA 2021). Nearby Threatened Fauna includes a Vulnerable Bird species mapped approximately 1.9km to the southwest and two species of Conservation Dependent Mammal approximately 1.6 and 1.9km to the southwest of the proposed extraction area (DBCA 2021).

## 2.7 ENVIRONMENTALLY SENSITIVE AREAS

An Environmentally Sensitive Area (ESA) is an area where the vegetation has high conservation value. ESAs are declared by the Minister in the Environmental Protection (Environmentally Sensitive Areas) Notice 55 (2005) under section 51B of the *Environmental Protection Act 1986*. There are no Environmentally Sensitive Areas (ESAs) as defined by the Clearing Regulations (DWER, 2019a) within

or adjacent to the proposed EIL area. The closest ESA is approximately located more than 1.5km to the northeast of the proposed extraction area.

## 2.8 DIEBACK DISEASE

The Dieback Public Map indicates that the remnant vegetation to the south of the proposed extraction area is Infested (Moderate Confidence) but most of the remnant vegetation to the east is mapped as Uninfested (Low Confidence) (SCNRM, 2013). The remainder of the site is largely disturbed/cleared therefore it is not possible to ascertain the dieback status thus it should be classified as Uninterpretable

## 2.9 BUSHFIRE PRONE AREAS

Part of the property and proposed extraction area falls within a bushfire prone area as designated by the Fire and Emergency Services (FES) Commissioner on 11 December 2021 (Government of Western Australia, 2021) as shown on Figure 2. However, the threat of bushfire from this operation is considered low and no habitable building, or any other structure, is to be developed.

## 2.10 CLOSEST RESIDENCES

There are no residents located within 1km of the proposed extraction area. The nearest resident is located more than 1.3km to the northeast of the proposed extraction area.

The EPA (2015) draft Environmental Assessment Guidelines "Separation distances between Industrial and sensitive land uses" lists the generic buffer for extractive industries where "grinding and milling works but no blasting" are proposed as 500-1 000m, depending on the type of processing. As this operation would be considered a "low scale" operation, the minimum generic buffer would be likely to apply.

## 3 THE DEVELOPMENT PROPOSAL

### 3.1 EXISTING DEVELOPMENT

As outlined in Section 1.2 Tronox holds a mining lease over the property, however they are interested in mining mineral sands in the area and have given Carbone permission to mine the laterite and the overlying sand. No previous commercial lateritic gravel extraction has occurred on the property.

Gravel was extracted on a neighbouring property to the north of the site during construction of a composting facility. Crushing and screening of a gravel stockpile also occurred on this property recently as detailed in Section 2.2.

### 3.2 PROPOSED EXTRACTION ACTIVITIES

Carbone proposes to extract sand and gravel from an area of approximately 11ha, in three approximately equal stages, as shown in Figure 3. This will result in the extraction of approximately 110 000 cubic metres (m<sup>3</sup>) of gravel and approximately the same volume of sand, in total.

Table 2 describes the timing of the proposed extraction operations. A summary of the actions is given below:

- The proposed extraction area is already cleared of native vegetation.
- There will be no blasting activity associated with the proposed extraction operations.
- Topsoil and overburden will be removed from the extraction area in 3 stages, with only one stage being open at a time. Topsoil and over-burden will be stockpiled separately along the edges of the extraction area, with stockpiles being no higher than 2 metres.
- Extraction will occur over a period of 5 years. The annual extraction will be approximately 40 000 tonnes per year of gravel and extraction approximately 35 000 tonnes per year of sand, but this will be dependent on demand.
- Within each current stage of extraction, a bulldozer will rip and blade material to a stockpile. A mobile crushing and screening plant will be used for approximately six weeks per year on site. Trucks will enter the pit and be loaded from the stockpile by a front-end loader.
- Stockpile heights will be 8 metres.
- Excavation includes the sand layer on top of the laterite (approximately 1m deep)
- Excavation will proceed until the laterite has been removed, resulting in a reduction in ground level of approximately two metres.
- Measures to limit noise and dust from this part of the operations are discussed separately in Sections 4.6 and 4.7.
- If Tronox is not planning any further mining or development at the site, topsoil will be replaced and seeded with pastures on a progressive basis, in fully extracted areas, prior to the commencement of winter.

Table 2. Proposed Stages of Extraction

Stage	Action	2022	2023	2024	2025	2026	2027
1	Strip, crush and stockpile						
1	Load and truck out						
1	Progressive rehabilitation of 4.14ha						
2	Strip, crush and stockpile						
2	Load and truck out						
2	Progressive rehabilitation of 3.24ha						
3	Strip, crush and stockpile						
3	Load and truck out						
3	Progressive rehabilitation of 3.65ha						
1to3	Monitoring and Maintenance						

### 3.3 SITE ACCESS AND EGRESS ROADS

The site will be accessed from Panizza Road through an existing access track as shown on Figures 2 and 3.

### 3.4 ESTIMATED TRAFFIC TO BE GENERATED

Operating times will be Monday to Friday 0700 and 1700 and Saturdays 0700 and 1200, excluding public holidays.

The following estimates are made:

Total annual gravel removal:	40 000 tonnes
Total annual sand removal:	35 000 tonnes
Number of working days per month:	22 days
Vehicle payloads (GAV's <sup>1</sup> ):	Single Semi-loader (24 tonnes)
Proportional use:	24 tonners (100%)

The above estimates suggest an average of 28 truck movements (14 in and 14 out) per day, but this will be dependent on demand.

<sup>1</sup> General Access Vehicle (in terms of Road Traffic Rules and Regulations 2002)

## 4 POTENTIAL ENVIRONMENTAL IMPACTS AND PROPOSED MANAGEMENT

Short term negative environmental impacts are to be expected in the process of all mining actions. However, these can largely be mitigated over the medium to long term provided that operating procedures are in accordance with acceptable standards and that rehabilitation measures are implemented as proposed. The following listed potential impacts are used as a check list to ensure that all potential major impacts are addressed.

### 4.1 FLORA AND FAUNA

Most of the property has already been cleared, and the proposed extraction area has been planned to avoid remnant vegetation. If Tronox is not planning any further mining or development the area will be returned to pastures once extraction is completed. Therefore, it is unlikely there will be significant impact to indigenous flora and fauna.

### 4.2 WEEDS

Carbone will implement a weed management plan as described in Appendix 2 of this report.

### 4.3 ALTERATION OF THE LAND SURFACE AND VISUAL IMPACT

No steep slopes will remain after extraction and this will ensure that the extraction area will blend into the surrounding landscape. The final land surface will be 1 to 2m below the original ground level and the edges will be battered back to a gradient of 1:6.

The proposed extraction is unlikely to generate problems with its visual impact given that Panizza Road is a *cul-de-sac*, so the site is not considered to be in a visually sensitive area. In addition, native vegetation in the verge of Panizza Road would provide screening of views of the operation. The other boundaries of the site are well screened from surrounding residences by relatively dense bushland (see Figures 2 and 3).

Once the land surface has been rehabilitated back to pastures there will be little evidence that extraction has taken place.

### 4.4 WATER

#### 4.4.1 Potential Impacts

In all mining operations the potential exists for impacts to be incurred on surrounding water resources, or by storm water erosion of exposed areas. This is dependent on the slopes associated with the site, the nature of the ground materials and the proximity of the site to sensitive receptors such as productive aquifers, wetlands, lakes or rivers. These impacts can be mitigated by the implementation of management measures. Surface water, stormwater and groundwater management will be undertaken as summarised below.

#### 4.4.1.1 Surface Water and Stormwater Management

The methodology implemented to manage stormwater within the extraction area has been obtained from Water Quality Protection Note 15 for extractive industries (DWER, 2019b).

Runoff generated within each extraction stage for the 2hr 10% Annual Exceedance Probability (AEP) rainfall event, has been calculated using the Rational Method. Storm-water management infrastructure (detention ponds and contour bunds) will be designed to manage at minimum this runoff. Runoff from areas outside the defined sub-catchments will be diverted away using diversion bunds.

Surface water and stormwater management is discussed in more detail in the Water Management Plan (Appendix 3).

#### 4.4.1.2 Groundwater Management

The depth of the extraction will be approximately 2 metres. As shown on Figure 2, the extraction area has been designed to avoid an area of perched groundwater associated with a paleochannel in the middle of the site. Permanent groundwater will not be exposed by the excavations.

Due to the low scale nature of the operations and limited groundwater, no groundwater contamination is anticipated and there is no risk to any private groundwater supply. No fuel or lubricant storage will occur on the site. Refuelling will take place using a mobile refuelling vehicle which is equipped with a “snap-on snap-off, fast-fill and auto shut-off” facility. Detailed hydrocarbon management is outlined in the Water Management Plan (Appendix 3).

### 4.5 NOISE

The proposed extraction activities will create some operational noise, the majority of which will be generated by bulldozers, crushing and screening, loaders and haulage trucks.

There are no noise sensitive premises within 500m of the proposed operations as detailed in Section 2.10. No noise impact is anticipated due to the remoteness of the operation. As a precaution measures to limit operational noise will be implemented as described below.

#### 4.5.1 Noise Management

- Hours of operation will be restricted to between 7 am and 5 pm on weekdays, excluding public holidays, and between 7am and 12pm on Saturdays.
- Late model equipment will be utilised with reduced noise level outputs
- The crushing and screening plant in each extraction stage will be positioned such that the product stockpiles will provide noise attenuation and be situated as far as possible from noise sensitive premises
- Machine reverse alarms will be lower frequency output units.

## 4.6 DUST

The proposed gravel extraction may emit dust to the atmosphere from the following activities:

- Removing topsoil.
- Excavation of sand and gravel.
- Stockpiles.
- Crushing and screening.
- Loading of haulage trucks.
- Trafficking on unsealed surfaces. Potential for dust uplift by trucks exists using the unsealed access road and Panizza Road (Figure 2). The remaining haulage route is on pre-existing sealed roads and highways.

A Dust Management Plan (DMP) is presented in Appendix 5 and a summary of dust control measures to be implemented are summarised in Table 3. Management actions will ensure no sensitive receptors are impacted by dust from the proposed operations.

Table 3. Summary of Dust Control Actions

Activity	Action	Control Measure	Result
Daily			
Topsoil Stripping and stockpiling	Visual inspection of site and access road for dust generation that is moving off site.	Water cart application over dust prone areas to reduce dust lift off.	Reduced dust generation. No dust leaving the properties.
Gravel extraction and product loading	Visual inspection of site and access road for dust generation that is moving off site.	Water cart application over dust prone areas to reduce dust lift off. Crushing and stockpiling activities located in topographic low points with stockpiles arranged such that windbreaks are created to further shield sensitive receptors.	Reduced dust generation. No dust leaving the properties.
Product transport	All loads covered before leaving the properties.	Cover loads.	Reduced dust generation from product transport.
As Required			
Training	Induct all employees and contractors working on site.	Site induction includes awareness of dust generation and management measures to be utilised by all personnel on site.	Activities undertaken to minimise dust generation on site.
Dust complaints	Provide a contact number for dust complaints.	Undertake review of potential complaints and implement appropriate action to reduce dust generation from site.	Reduced dust generation from the properties.
Rehabilitation /stabilisation of completed areas	Undertake rehabilitation on completed areas.	As per Section 5 of this report.	Reduced dust generation from the properties.



Visual monitoring will be undertaken to confirm dust management measures are effectively maintaining dust emissions at acceptable levels.

## 4.7 DIEBACK MANAGEMENT

Management measures will be put in place to minimise future spread of dieback on the property. Guidelines for the management of the pit and the movement of vehicles in and out of the pit are contained in the Dieback Working Group guideline document (Dieback Working Group 2010). The following controls will be put in place:

- The property will be fenced
- Access to the property will be via a single entrance gate.
- All machinery, trucks and other vehicles will arrive in a clean condition free of soil and organic matter that may contain dieback fungus.
- Any soil and plant material brought to the site for rehabilitation purposes should be from dieback free sources.
- Employees and contractors working on the site will be informed of the purpose of the above measures and their responsibilities in relation to dieback prevention.

## 4.8 HERITAGE SITES

A search of the Department of Planning, Lands and Heritage (DPLH) Aboriginal Heritage Inquiry System (AHIS) shows no registered sites or other heritage places on the property (DPLH 2022). The nearest registered site is the Ferguson River (Mythological) located approximately 1.5km to the northeast of the extraction area. If during the works, an Aboriginal cultural heritage site is discovered, the Proponent will immediately advise the DPLH and abide by the *Aboriginal Heritage Act 1972*.

## 4.9 ACID SULPHATE SOILS

A search of the CSIRO's Australian Soil Resource Information System (ASRIS) database identified the proposed extraction area as having an extremely low to low probability of occurrence for acid sulfate soils (CSIRO 2011).

## 5 REHABILITATION

If Tronox is not planning any further mining or development at the site, it will be rehabilitated as described below.

Although a clearing permit is not required, rehabilitation of each stage of extraction area will be completed in accordance with best practice, as outlined in the Clearing Permit Guidelines (DWER 2019a). There will be no pit wall gradients of any significance. The extraction area will be taken to an average depth of 2 metres. A gentle sloping gradient will be maintained at a maximum of 1:6 throughout the pit area.

### 5.1 PROPOSED REHABILITATION MEASURES

Rehabilitation of the completed areas will be progressive, and the following steps will be implemented:

- Topsoil and overburden will be retained on the site to be used during rehabilitation.
- The final rehabilitated surface will be at approximately 1m below the current.
- The area will revert to pastures after extraction has ceased.

The restoration goals proposed for the EIL Area are as follows:

- To restore the area to resemble, as closely as possible, that which is currently present on the site (pasture grasses).
- To create a landform that is stable, erosion resistant, aesthetically pleasing and safe for humans and animals, both on and surrounding the site.

### 5.2 MONITORING AND MAINTENANCE

Monitoring of rehabilitated areas will ensure that any areas requiring remedial work are identified. Monitoring will be carried out on an annual basis to assess:

- The physical stability of the landform in the rehabilitated areas.
- The success of germination of pasture grasses.
- The emergence of weeds.

Monitoring will continue until the completion criteria presented in Section 5.3 have been fulfilled. Maintenance procedures will be carried out where necessary and may include:

- Repair of any erosion damage.
- Replanting/seeding areas that may not have regenerated.
- Weed control.

### 5.3 COMPLETION CRITERIA

Completion criteria must be sufficiently stringent to ensure that the overall objectives of the rehabilitation have been met. These criteria must also be designed to allow effective reporting and auditing to define an endpoint for the rehabilitation activities. The completion criteria proposed for extractive operations on the properties are presented in Table 4.

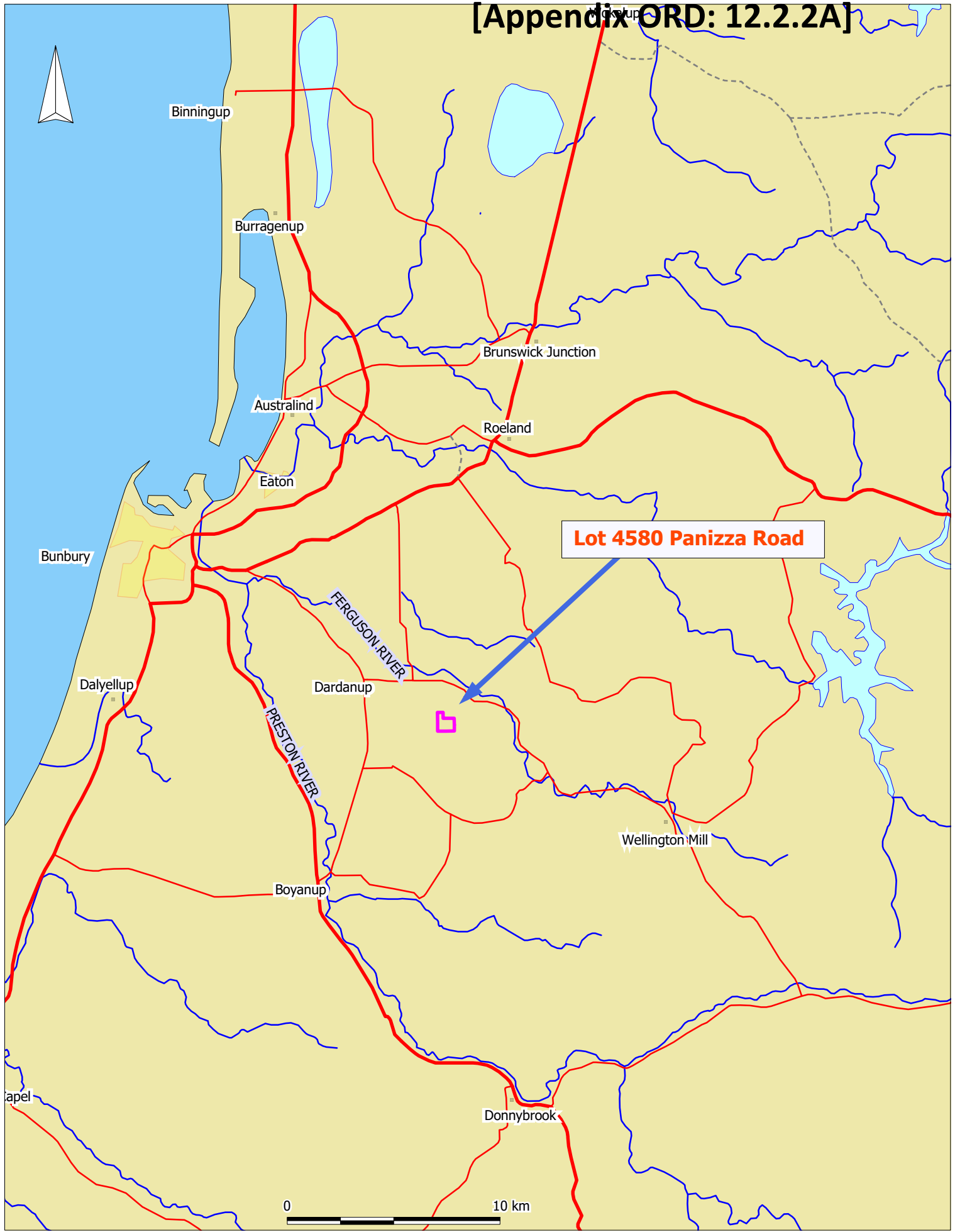
Table 4. Closure Criteria, Objectives and Interim Targets

Criteria	Objective	Interim Targets
a) Safety	The site is safe to humans and animals.	<ul style="list-style-type: none"> <li>Site is safe to humans and animals during operations.</li> </ul>
b) Sustainability	The site is sustainable in the long term without additional management inputs.	<ul style="list-style-type: none"> <li>On-going Management of short-term impacts</li> </ul>
c) Suitability	The site is suitable for the agreed land uses.	<ul style="list-style-type: none"> <li>On-going Management of short-term impacts</li> </ul>
d) Visual amenity and heritage	The rehabilitated extraction area blends into the surrounding environment.	<ul style="list-style-type: none"> <li>On-going Management of short-term impacts</li> </ul>
e) Off-site impacts	Significant adverse off-site impacts are prevented.	<ul style="list-style-type: none"> <li>Significant adverse off-site impacts are prevented.</li> </ul>
f) Hydrology	a. Site hydrology does not prevent the establishment of desired vegetation. b. Site hydrology does not reduce the stability of the landform. c. Stormwater is contained within the site.	<ul style="list-style-type: none"> <li>Stormwater is contained within the site during operations.</li> <li>Identification and mitigation of any hydrology related issues during operations.</li> </ul>
g) Soils and stability	a. Soil profiles and structures are sufficient to ensure pastures can be established. b. The landform is stable.	<ul style="list-style-type: none"> <li>Topsoil is respread in all rehabilitation areas.</li> <li>Identification and mitigation of potential erosion scars and scours during operations.</li> </ul>
h) Vegetation	a. Pasture grasses cover the entire targeted area. b. Pasture grass cover is sufficiently resilient to sustain grazing pressure. c. Monitoring will be conducted on an annual basis just prior to the wet season and will include pasture grass cover and stability of the constructed batters.	<ul style="list-style-type: none"> <li>After one year pasture grasses cover 30% of target area increasing by 20% per annum thereafter.</li> </ul>
i) Weeds	a. Declared pest weeds are absent. b. The level of weed species should not be detrimental to the planted seedlings.	<ul style="list-style-type: none"> <li>Declared weed species removed systematically during operations.</li> </ul>

## 6 REFERENCES

- CSIRO (2011). Atlas of Australian Acid Sulphate Soils. Shapefile downloaded from <http://hdl.handle.net/102.100.100/10531?index=1> May 2021.
- Department of Biodiversity Conservation and Attractions (DBCA) (2020). Threatened and Priority Fauna (DBCA-037). Digital data layer accessed at: <https://catalogue.data.wa.gov.au/dataset/threatened-and-priority-fauna>. Data last updated 3rd November 2020.
- Department of Biodiversity Conservation and Attractions (DBCA) (2021). Threatened and Priority Flora (DBCA-036). Digital data layer accessed at: <https://catalogue.data.wa.gov.au/dataset/threatened-and-priority-flora>. Data last updated 19th March 2021.
- Department of Planning, Lands and Heritage (DPLH) (2022). Aboriginal Heritage Inquiry System (AHIS). [Online], [https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS&runworkflow=Find\\_specific\\_Registered\\_Sites&searchId=](https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS&runworkflow=Find_specific_Registered_Sites&searchId=) Accessed March 2022.
- Dieback Working Group (2010). Management of Phytophthora Dieback in Extractive Industries. Best Practice Guidelines. Available on <http://www.dec.wa.gov.au>
- Department of Water and Environment Regulation (DWER) (2019a). A guide to the exemptions and regulations for clearing native vegetation, Under part V of the Environmental Protection Act 1986. Government of Western Australia.
- Department of Water and Environment Regulation (DWER) (2019b). Water quality protection note no. 15, Basic raw materials extraction. Government of Western Australia.
- Environmental Protection Authority (EPA) (2015). Draft Environmental Assessment Guidelines for Separation distances between industrial and sensitive land uses. Western Australia, September 2015.
- Government of Western Australia (2021). Bush Fire Prone Areas 2021 (OBRM-019). Downloaded from: <https://catalogue.data.wa.gov.au/dataset/bush-fire-prone-areas-2021-obrm-019>.
- Landgate (2022). Locate V5. [Online] <https://maps.slip.wa.gov.au/landgate/locate/>. Accessed: March/April 2021.
- South Coast Natural Resource Management (NRM) (2013). Project Dieback Priority Protection Area Analysis Boundary with Beards Pre European Vegetation Mapping attributed with *Phytophthora cinnamomi* impact susceptibility estimates. Map prepared by Tilo Massenbauer South Coast NRM, 26/09/2013.
- WML Consultants Pty Ltd (WML, 2014) Hydrogeological Investigation for Proposed Residue Disposal Area, Panizza Road Dardanup. Report prepared for Cristal Pigments Australia Pty Ltd. Draft for client comment dated 29<sup>th</sup> August 2014.

## FIGURES



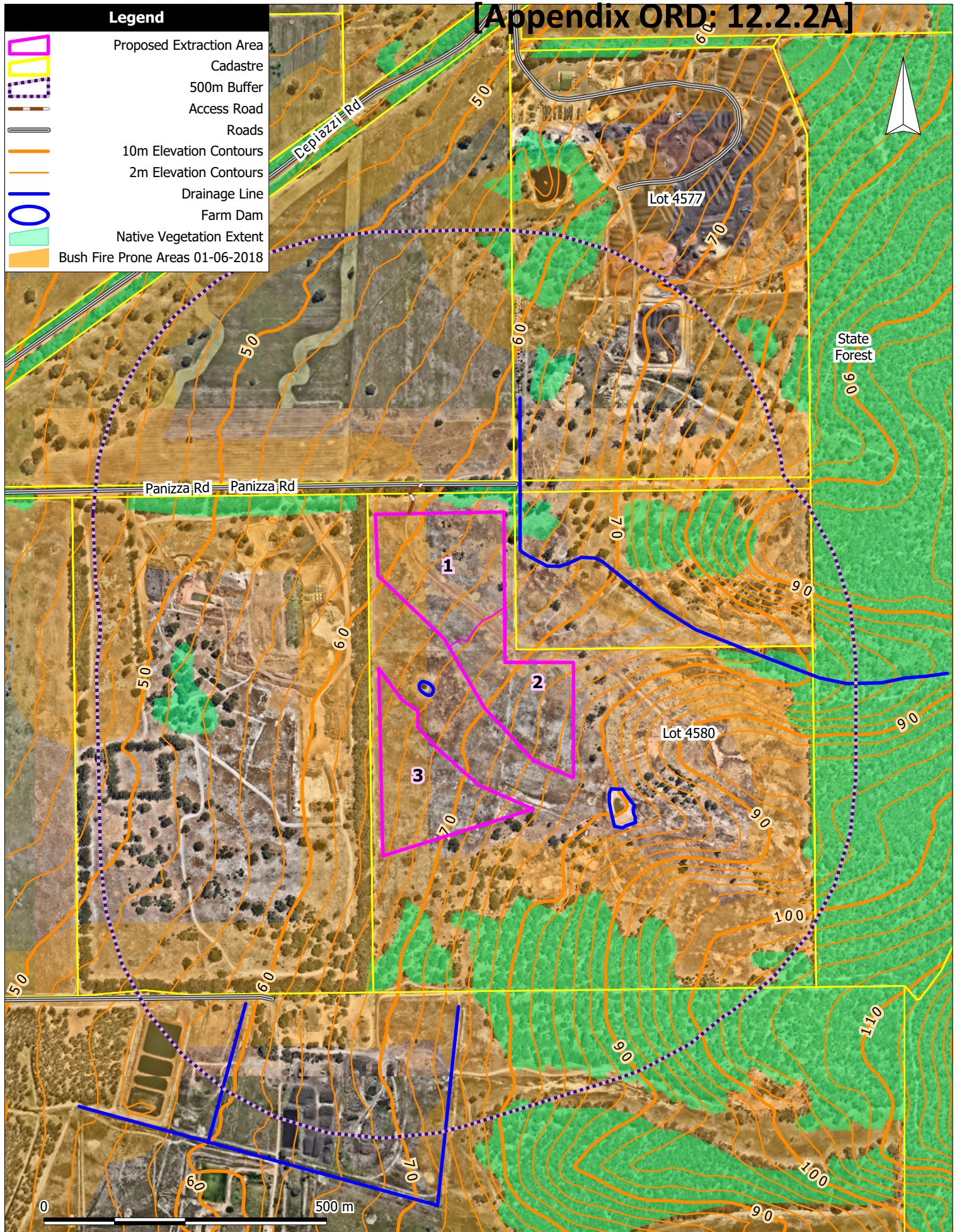
**Lundstrom Environmental  
Consultants Pty Ltd**  
Leeming WA 6149  
Mob: 0417934863  
mikelund1@bigpond.com

Scale: 1:220000  
Original Size: A4  
Datum: GDA94  
Projection: Australia MGA94 (50)

Client: Carbone Bros Pty Ltd  
Project: Gravel Extraction  
Location: Lot 4580 Panizza Rd  
Crooked Brook

**Figure 1:  
Locality Plan**





**Lundstrom Environmental Consultants Pty Ltd**

Leeming WA 6149  
Mob: 0417934863  
mikelund1@bigpond.com

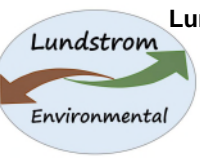
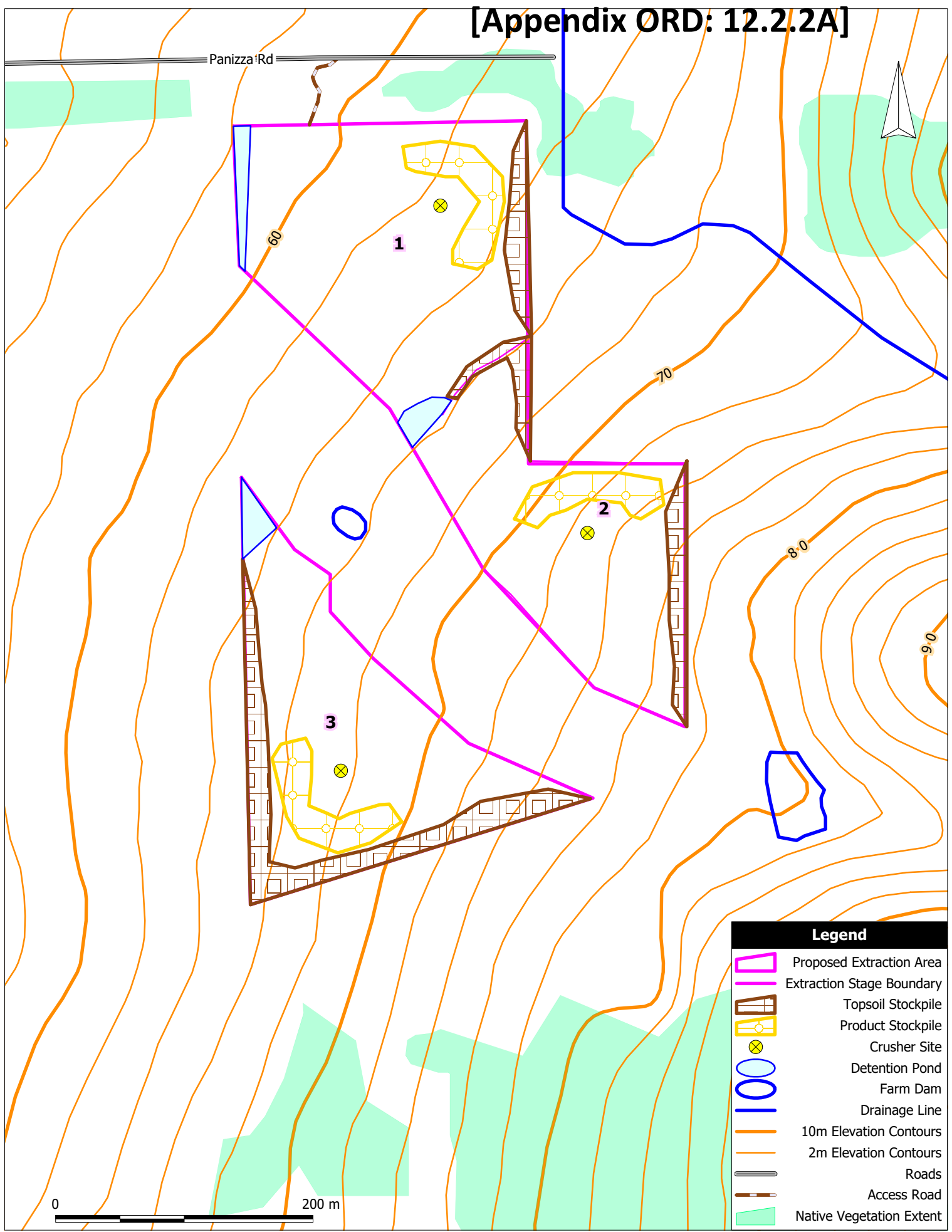
Scale: 1:8400  
Original Size: A4  
Air Photo Source: Nearmap Jan 2022  
Datum: GDA94  
Projection: Australia MGA94 (50)

Client: Carbone Bros Pty Ltd  
Project: Gravel Extraction  
Location: Lot 4580 Panizza Rd  
Crooked Brook

**Figure 2:**  
**Site and Surrounds**



# [Appendix ORD: 12.2.2A]



**Lundstrom Environmental Consultants Pty Ltd**  
 Leeming WA 6149  
 Mob: 0417934863  
 mikelund1@bigpond.com

Scale: 1:3700  
 Original Size: A4  
 Air Photo Source: Nearmap Jan 2022  
 Datum: GDA94  
 Projection: Australia MGA94 (50)

Client: Carbone Bros Pty Ltd  
 Project: Gravel Extraction  
 Location: Lot 4580 Panizza Rd  
 Crooked Brook

**Figure 3:  
 Proposed  
 Operations**



**APPENDIX 1**

**EXTRACTIVE INDUSTRY LICENCE, DEVELOPMENT APPROVAL AND GBRS  
APPLICATION FORMS AND CERTIFICATE OF TITLE**

# [Appendix ORD: 12.2.2A]

## SCHEDULE 3 SHIRE OF DARDANUP

Clause 7

### APPLICATION FOR AN EXTRACTIVE INDUSTRY LICENCE

1. Name Carbone Bros Pty Ltd.....(the “applicant”)
2. Address PO Box 61, Papps Road, Brunswick Junction, 6224.....
3. Telephone 9726 1178..... Fax : .....
4. Address                      and                      locality                      of                      proposed                      excavation                      site  
Panizza Rd, Crooked Brook  
.....  
.....
5. Lot No  
4580  
.....
6. Location No .....
7. Plan or Diagram No Deposited Plan 205851.....
8. Certificate of Title Volume: 1482..... Folio : 417.....
9. Owner                                              of                                              the                                              land  
Tronox Pigment Bunbury Ltd, ACN 008 683 627 (Formerly Cristal Pigment Australia Ltd)  
.....  
.....
10. Address                                              of                                              owner                                              of                                              the                                              land  
139 Old Coast Road  
Australind, WA 6233  
.....
11. Material                                              to                                              be                                              excavated  
Gravel and sand  
.....
12. If the application covers land that is the subject of an existing licence:  
Date                                              of                                              issue                                              of                                              that                                              licence  
.....  
Date                                              of                                              expiration                                              of                                              that                                              licence  
.....  
Conditions                                              applicable                                              to                                              that                                              licence  
.....  
.....  
.
13. Term                                              of                                              licence                                              sought  
5 years  
.....
14. Submitted with this application are :  
(a)3 copies of excavation site plan (cl.7(1)(a))  
(b)3 copies of works and excavation programme (cl.7(1)(b))  
(c)3 copies of rehabilitation and decommissioning programme (cl.7(1)(c))  
(d)datum peg evidence (cl.7(1)(d))  
(e)licensed surveyor’s certificate (cl.7(1)(e))  
(f)evidence of compliance with cl.6(1) and (2) (cl.7(1)(f))  
(g)copies of all land use planning approvals (cl.7(1)(g))

# [Appendix ORD: 12.2.2A]

- (h)written consent of the owner of the excavation site (cl.7(1)(h))
- (i)any other information that the Council has required (cl.7(1)(i))
- (j)licence application fee of \$250 (cl.7(1)(j)).

The applicant applies for a licence in respect of the proposed excavation site in accordance with and subject to the Shire of Dardanup Extractive Industries Local Law.

Dated this 9th day of May 2022

Signature of Applicant 

Signature of Owner of the land 

Signature of existing licensee  
(if applicable)

## SCHEDULE 4 SHIRE OF DARDANUP EXTRACTIVE INDUSTRY LICENCE

Clause 8(3)(b)

Licensee

Address

Land

Description

Material

to

be

Excavated

Term of Licence

Date of Expiry

This licence is issued in accordance with the Shire of Dardanup Extractive Industries Local Law subject to the following conditions :

Dates this day of 20

# [Appendix ORD: 12.2.2A]

Chief Executive Officer  
Shire of Dardanup

---

## TRANSFER ENDORSEMENT

Clause 9(3)

This licence is transferred to .....  
of

.....  
.....  
.....  
.....

from the date of the endorsement until

.....

subject to each of the above conditions and the following additional conditions –

Dates this ..... day of ..... 20 .....

Chief Executive Officer  
Shire of Dardanup



**APPLICATION FOR  
DEVELOPMENT APPROVAL**  
*Town Planning Scheme No. 3*  
**FORM 110**

Date stamp

**Part 1 Owner Details**

Full Name

Tronox Pigment Bunbury Ltd (Formerly Cristal Pigment Bunbury Ltd)

ABN (if applicable)

50 008 683 627

Postal Address

139 Old Coast Road Australind, WA 6233

Phone

9721 0209

Mobile

0419 426 002

Phone A/H

Fax

Email

trevor.lanigan@tronox.com

Contact person for correspondence

Trevor Lanigan

Signature

Date

05 / 05 / 2022

Signature

Date

09 / 05 / 2022

*The signature of the owner(s) is required on all applications. This application will not proceed without that signature. For the purposes of signing this application an owner includes the persons referred to in the Planning and Development (Local Planning Schemes) Regulations 2015 Schedule 2 clause 62(2).*

**Part 2 Applicant Details (if different from owner)**

Full Name

Carbone Bros Pty Ltd

Postal Address

PO Box 61, Papps Road, Brunswick Junction, 6224

Phone

9726 1178

Mobile

0419 913 517

Phone A/H

Fax

Email

admin@carbonebros.com.au

Contact person for correspondence

Amando (Fred) Carbone

Signature

Date

9th May 2022

**Part 3 Property Details**

Lot No

4580

Street No

322

Street Name

Panizza Rd

Suburb

Crooked Brook

Post Code

6236

Nearest street intersection

Depiazzi Rd

Plan or Diagram Number

Deposited Plan 205851

Certificate of Title – Vol/Fol

Vol: 1482 Fol: 417

Title encumbrances (e.g. easements, restrictive covenants)

**Part 4 Proposed Development**

Nature of development

☐

Works

☒

Use

☐

Works and Use

Is an exemption from approval claimed for part of the development?

☐

Yes

☒

No

If yes, is the exemption for:

☐

Works

☐

Use

Description of proposed works and/or land use

Gravel Extraction, sand extraction

Description of exemption claimed (if relevant)

N/A

Nature of existing buildings and/or land use

Cleared agricultural land

Approximate cost of proposed development

&lt;\$5000

Estimated time of completion

5 years

Is the development within a designated bushfire prone area?

☒

Yes

☐

No

If yes, please identify and address the bushfire risk (eg by including a BAL assessment(s) or BAL Contour Map and a Bushfire Management Plan with the application). Alternatively, a short statement justifying why SPP 3.7 does not apply should be included with the application.

**Part 5 OFFICE USE ONLY**

Acceptance Officer's initials

Date received

Local Government Reference No

**Part 6 Return form to**

Shire of Dardanup  
Planning Department  
1 Council Drive/PO Box 7016  
EATON WA 6232

Phone: (08) 9724 0300 Fax: (08) 9724 0091  
Email: [records@dardanup.wa.gov.au](mailto:records@dardanup.wa.gov.au)



# [Appendix ORD: 12.2.2A]



## APPLICATION CHECKLIST

APPLICATION CHECKS	TICK	OFFICE USE ONLY		
		INCLUDED	N/A	OFFICER COMMENTS
<b>Plans submitted must contain the following:</b>				
<b>Form 110 signed by landowner and applicant</b>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Form 110 completed - all sections</b>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Site plan showing:</b>				
<ul style="list-style-type: none"> <li>Full lot, including boundary dimensions and adjoining roads</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>		
<ul style="list-style-type: none"> <li>Building envelope (if one applies)</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> <li>Existing and proposed buildings/works/use</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> <li>Setbacks of all buildings from boundaries</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> <li>Driveways and crossovers</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> <li>Car parking bay locations and dimensions</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> <li>Contours and/or spot levels</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> <li>Retaining walls – bottom and top of wall heights (TOW/BOW)</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> <li>Existing and proposed fencing, gates, etc.</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> <li>Existing vegetation to be retained, and species and number to be removed</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> <li>Bin storage and collection</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> <li>Screened clothes drying areas</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Floor plan(s) or proposed buildings(s)</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> <li>Fully dimensioned &amp; showing internal layout</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Elevation plans containing:</b>				
<ul style="list-style-type: none"> <li>Materials, colours &amp; finishes</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> <li>Fully dimensioned plan for each building elevation</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Drainage plan containing:</b>				
<ul style="list-style-type: none"> <li>Method of stormwater disposal</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> <li>Stormwater calculations</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Location and level of soakwells</b>				
<ul style="list-style-type: none"> <li>Pipe sizes</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> <li>Location and size of swale/basin</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> <li>Cross section of swale/basin</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Landscaping Plan</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> <li>Landscaping Plan for landscaping on the Lot, with a list of plant species, size and location of plants, and maintenance arrangements</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> <li>Verge Landscaping Plan</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## [Appendix ORD: 12.2.2A]

APPLICATION CHECKS	TICK	OFFICER ONLY		
		INCLUDED	N/A	OFFICER COMMENTS
<b>Other:</b>				
• Waste management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Staffing numbers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Hours/days of operation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Written justification for setback reduction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Written justification for oversized building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Certificate of title for the Lot	<input type="checkbox"/>	<input type="checkbox"/>		
• Copies of any easements, notifications or restrictions on title	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• BAL assessment, if the Lot is in a Bushfire Prone Area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Form 87 (Neighbours' Consent) if submitted with the proposal:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ signed by all relevant neighbouring landowners (mandatory)	<input type="checkbox"/>	<input type="checkbox"/>		
○ the proposal and all plans signed by all relevant neighbouring landowners (mandatory)	<input type="checkbox"/>	<input type="checkbox"/>		

**Site Plan** = a legible, neatly drawn and scaled plan no bigger than A3 size (Plans larger than A3 size are requested to be provided in electronic .PDF format).

**Development Plans** = professionally drawn plans and elevations of buildings no bigger than A3 printed size (Plans larger than A3 size are requested to be provided in electronic .PDF format).

**Text** = a comprehensive written submission which address issues relevant to the proposal that cannot be described on the plan.



# [Appendix ORD: 12.2.2A]



## Greater Bunbury Region Scheme

### Form 1

## Application for Planning Approval

### Owner/s details

Registered proprietor/s (landowner/s) or the authorised agent's details **must** be provided in this section. If there are more than two landowners please provide all relevant information on a separate page. Signature/s must be provided by all registered proprietors or by an authorised agent. **Alternatively**, a letter of consent, which is signed by all registered proprietors or by the authorised agent, can be provided.

Full name	Tronox Pigment Bunbury Ltd (Formerly Cristal Pigment Bunbury Ltd)		
Company/agency (if applicable)			
ACN/ABN (if applicable)	008 683 627		
Postal address	139 Old Coast Road		
Town/suburb	Australind WA	Postcode	<del>6230</del> 6233
Signature	 		Date 05 / 05 / 2022 09 / 05 / 2022
Print name and position	Christine Williams (Senior Counsel) Scott McDonald (Dir. Finance)		(if signing on behalf of a company or agency)

### Applicant details

Name/company	Carbone Bros. Pty Ltd		
Contact person	Amando (Fred) Carbone		
Postal address	PO Box 61		
Town/suburb	Brunswick Junction	Postcode	6224
Fax		Email	admin@carbonebros.com.au
Applicant signature			Date 09/05/2022
Print name and position	Amando (Fred) Carbone		(if signing on behalf of a company or agency)

### Property details

Certificate of title description of land:	Lot No	4580	Location No	
Plan or Diagram 205851	Vol	1482	Folio	417
Certificate of title description of land:	Lot No		Location No	
Plan or Diagram	Vol		Folio	
Title encumbrances (e.g. easements, restrictive covenants)				
Locality of development (house no., street name, suburb, etc)	322 Panizza Rd, Crooked Brook			
Nearest street intersection	Depiazzi Rd			
Existing building/land use	cleared paddocks			
Description of proposed development and/or use	gravel extraction, sand extraction			
Nature of any existing buildings and/or use	N/A			
Approximate cost of proposed development (excl. gst) \$	<\$5000			
Estimated time of completion	5 years			

Is the development within a designated bushfire prone area? **Y**

If yes, please identify and address the bushfire risk (e.g. by including a BAL assessment(s) or BAL Contour Map and a Bushfire Management Plan with the application). Alternatively a short statement justifying why SPP 3.7 does not apply should be included with the application.

### Office use only

Acceptance Officer's Initials		Date Received	
Local government reference No.		Commission reference No.	

WESTERN



AUSTRALIA

REGISTER NUMBER	
4580/DP205851	
DUPLICATE EDITION	DATE DUPLICATE ISSUED
1	31/7/2012

## RECORD OF CERTIFICATE OF TITLE UNDER THE TRANSFER OF LAND ACT 1893

VOLUME  
1482FOLIO  
417

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

*BGRoberts*  
REGISTRAR OF TITLES



### LAND DESCRIPTION:

LOT 4580 ON DEPOSITED PLAN 205851

### REGISTERED PROPRIETOR: (FIRST SCHEDULE)

MILLENNIUM INORGANIC CHEMICALS LTD OF LOCKED BAG 245, BUNBURY

(T L963970 ) REGISTERED 15/6/2012

### LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS: (SECOND SCHEDULE)

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.  
\* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.  
Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

### STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: 1482-417 (4580/DP205851)  
PREVIOUS TITLE: 1482-417  
PROPERTY STREET ADDRESS: 322 PANIZZA RD, CROOKED BROOK.  
LOCAL GOVERNMENT AUTHORITY: SHIRE OF DARDANUP

NOTE 1: A000001A LAND PARCEL IDENTIFIER OF WELLINGTON LOCATION 4580 (OR THE PART THEREOF) ON SUPERSEDED PAPER CERTIFICATE OF TITLE CHANGED TO LOT 4580 ON DEPOSITED PLAN 205851 ON 12-JUL-02 TO ENABLE ISSUE OF A DIGITAL CERTIFICATE OF TITLE.

NOTE 2: THE ABOVE NOTE MAY NOT BE SHOWN ON THE SUPERSEDED PAPER CERTIFICATE OF TITLE OR ON THE CURRENT EDITION OF DUPLICATE CERTIFICATE OF TITLE.

**APPENDIX 2**  
**WEED MANAGEMENT PLAN**



## LUNDSTROM ENVIRONMENTAL CONSULTANTS PTY LTD

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### WEED MANAGEMENT PLAN

Prepared for Carbone Bros Pty Ltd

Lot 4580 Panizza Rd, Crooked Brook, Shire of Dardanup

#### 1. INTRODUCTION

This Weed Management Plan (WMP) has been prepared in accordance with guidelines published by the Department of Agriculture and Food (DAF) (DAF 2014). This WMP should be read in conjunction with the report entitled *"Extractive Industries Licence Application and Environmental Management Plan Lot 4580 on Deposited Plan 205851, Panizza Rd, Crooked Brook"*, prepared for prepared for Carbone Bros by Lundstrom Environmental Consultants Pty Ltd in August 2022.

##### 1.1 Locality and Ownership

Locality: Lot 4580 on Deposited Plan 205851, Panizza Rd, Crooked Brook, Yarawindah, Shire of Dardanup

Ownership: Millennium Inorganic Chemicals Ltd\*

\* now known as Cristal Pigments Australia Ltd (Cristal). Cristal is a subsidiary of Tronox Inc.

Figure 1 shows the site and its surrounds and indicates the proposed Extractive Industries Licence (EIL) area covered by this application.

##### 1.2 Development Proposal

Carbone Bros Pty Ltd intend to extract approximately 40,000 tonnes/year of gravel and 35,000 tonnes/year of sand from an area of approximately 11ha indicated on Figure 1 in three approximately equal stages. Excavation will proceed to a depth of approximately 2m. The EIL application is for 5 years.

#### 2. RESPONSIBILITIES

Carbone Bros Pty Ltd accepts responsibility for weed management within Zones A and B (as identified in Section 4.1 of this report) and any areas identified within the conditions of approval set by the Shire of Dardanup.

#### 3. CURRENT WEED STATUS OF THE PROPERTY

At present there are no declared weeds on the property.

# [Appendix ORD: 12.2.2A]

## 4. PROPOSED WEED MANAGEMENT ACTIONS

The following is a general description of the actions that will be implemented by Carbone Bros Pty Ltd for weed management:

### 4.1 Weed Management Zones on the Subject Land

For the purpose of this WMP, the subject land has been allocated zones as follows:

Zone A: This is all the land within the quarry and includes the base of the excavation, roadways and stockpiles of topsoil, overburden and all product stockpiles.

Zone B: This is all land that is at natural level which extends 100 meters beyond the perimeter of the quarry and includes any stockpiles or overburden created by the excavation and rehabilitated areas.

### 4.2 Weed Emergence Monitoring

Monitoring of the emergence of weeds in Zones A and B will be undertaken by an experienced and licensed weed management contractor on a six monthly basis i.e. after the first seasonal rains and at the end of spring. In addition, Carbone Bros Pty Ltd personnel on the site will be instructed to report any infestations that may occur on other occasions. Based on the type of weeds that emerge, a control plan will be formulated by the licensed weed management contractor.

### 4.3 Import and Export of Weeds

Carbone Bros Pty Ltd will ensure that all plant and equipment is clean and free of any soil when moving any equipment to or from the site. Carbone Bros Pty Ltd will also ensure that any quarry products imported to the site will be free of weeds.

### 4.4 Weed Control Program

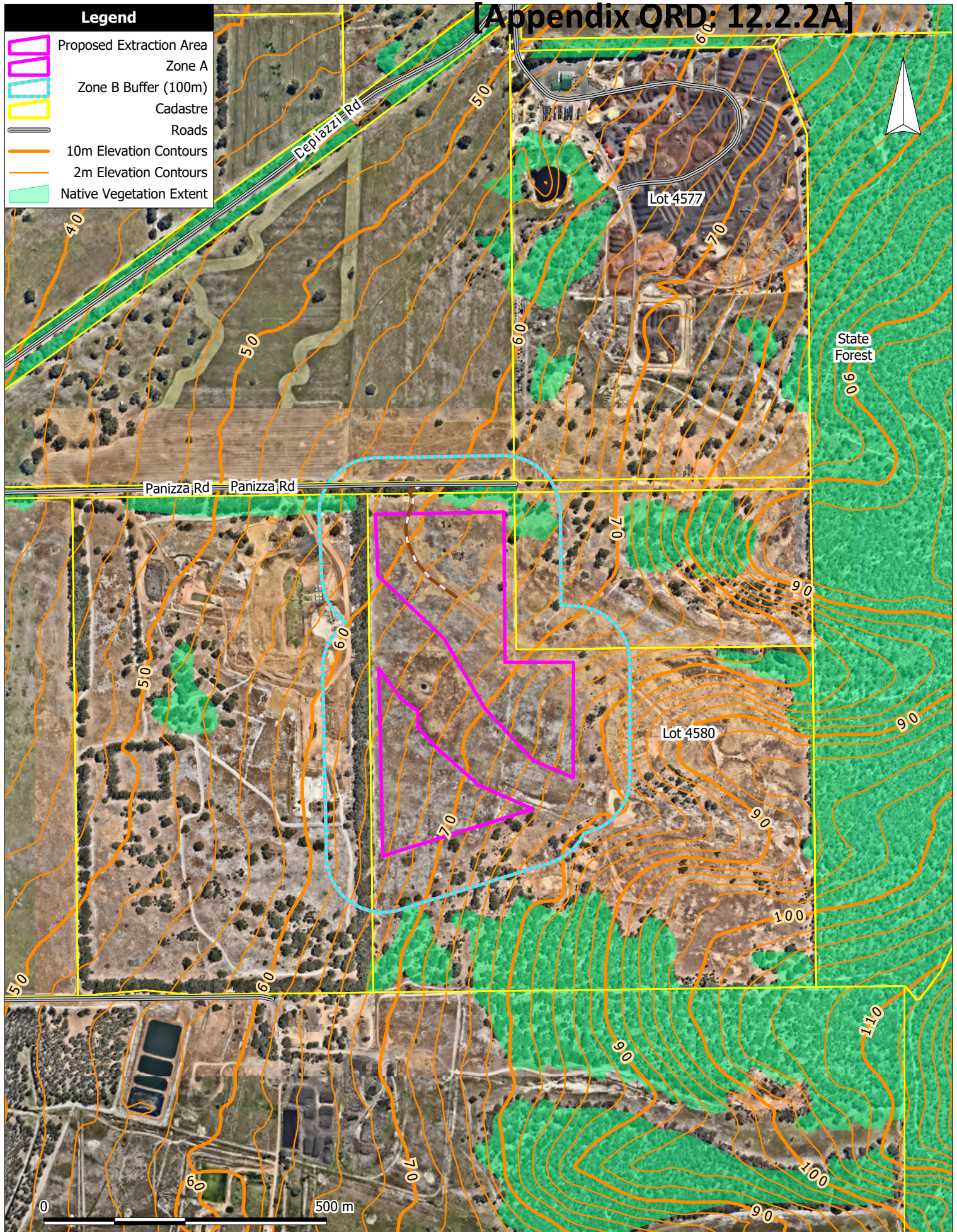
If a weed infestation occurs within Zones A or B, the licensed weed management contractor will apply the appropriate method of control, in accordance with the guidelines published by the DAF, whether chemical or mechanical, at the appropriate time. The weed management contractor will keep a record of all treatments.

## 5. REFERENCES

Department of Agriculture and Food (DAF) (2014). *Department of Agriculture and Food WA guidelines for weed control procedures for extractive industries licence*.

**FIGURES**





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Scale: 1:8400  
 Original Size: A4  
 Air Photo Source: Nearmap Jan 2022  
 Datum: GDA94  
 Projection: Australia MGA94 (50)

Client: Carbone Bros Pty Ltd  
 Project: Gravel Extraction  
 Location: Lot 4580 Panizza Rd  
 Crooked Brook

**Figure 1:**  
**Weed Management**



**APPENDIX 3**  
**WATER MANAGEMENT PLAN**





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### WATER MANAGEMENT PLAN

Prepared for Carbone Bros Pty Ltd  
Lot 4580 Panizza Rd, Crooked Brook, Shire of Dardanup

#### 1. INTRODUCTION

This Water Management Plan (WMP) has been prepared for the purpose of an Extractive Industries Licence (EIL) application and a Development Approval (DA) application for gravel extraction on Lot 4580 Panizza Rd, Crooked Brook, Shire of Dardanup.

An EIL is sought for an area of approximately 11 ha, as shown in Figure 1.

This WMP should be read in conjunction with the report entitled *"Extractive Industries Licence Application and Environmental Management Plan Lot 4580 on Deposited Plan 205851, Panizza Rd, Crooked Brook"*, prepared for Carbone Bros by Lundstrom Environmental Consultants Pty Ltd in August 2022.

##### 1.1 PROPERTY DESCRIPTION, OWNERSHIP AND LOCALITY

Property Description: Lot 4580 on Deposited Plan 205851  
Panizza Rd, Crooked Brook  
Shire of Dardanup

Volume: 1482  
Folio: 417  
Area: 54.5715 ha

Ownership: Millennium Inorganic Chemicals Ltd\*  
\* now known as Cristal Pigments Australia Ltd (Cristal). Cristal is a subsidiary of Tronox Inc.

Latitude: -33.416  
Longitude: 115.790

The property is located approximately 3km east-south-east of Dardanup town site in the Shire of Dardanup.

# [Appendix ORD: 12.2.2A]

## 1.2 HISTORIC AND PRESENT LAND USE

Figure 1 is a recent aerial photograph showing the proposed and existing operations on the property.

Tronox holds a mining lease over the property, but they have agreed to allow Carbone to extract the superficial laterite and overlying sand that occurs at the property. The property currently consists of cleared agricultural land and remnant native vegetation. There are several historical and existing landfills located in the surrounding area.

The Dardanup Landfill Site (closed) and the Banksia Road Putrescible Landfill are located to the south of the site. A composting facility is located on Lot 4577 Depiazzi Road to the north of the site. Crushing and screening of a gravel stockpile also occurred on this property in recent years by B&J Catalano Pty Ltd. A facility for flying model and remote-controlled aircraft, owned by Dardanup Aeromodellers Society, is located to the west of the site. State Forest borders the property to the east.

The area is zoned as “Special Use” in terms of the Shire of Dardanup Town Planning Scheme No 3 with permitted uses being ‘Waste Management Facility’ and ‘Industry - Extractive’.

## 2. THE DEVELOPMENT PROPOSAL

### 2.1 PROPOSED EXTRACTION ACTIVITIES

Carbone Bros Pty Ltd intend to extract both sand and gravel from an area of approximately 11 ha, as shown in Figure 1.

Annual gravel extraction is estimated to be around 40,000 tonnes/year and sand approximately 35,000 tonnes/year, dependent on demand. Extraction will occur in three approximately equal stages. Table 1 below summarises the actions that are to take place on the property over the next 5 years (mid 2022 to mid 2027). A summary of the actions is given below:

- Topsoil and overburden will be removed from the extraction area over the three stages with only the areas targeted for immediate extraction (3 to 4 ha at a time) being opened. Topsoil and over-burden will be stockpiled separately along the edges of the extraction area, with stockpiles being no higher than 2m.
- Extraction activity will result in the lowering of the ground level by approximately 2.0m (approximately 1m of sand and 1m of laterite).
- Crushing and screening of laterite will be undertaken over the three stages.
- Measures to limit noise and dust will be undertaken.
- There will be no blasting.
- Rehabilitation and stormwater management measures will be implemented.
- The area will be returned to pastures, if Tronox is not planning any further mining or development at the site.

**Table 1: Stages of the Extraction Operation**

Stage	Action	2022	2023	2024	2025	2026	2027
1	Strip, crush and stockpile						
1	Load and truck out						
1	Progressive rehabilitation of 4.14ha						
2	Strip, crush and stockpile						
2	Load and truck out						
2	Progressive rehabilitation of 3.24ha						
3	Strip, crush and stockpile						
3	Load and truck out						
3	Progressive rehabilitation of 3.65ha						
1to3	Monitoring and Maintenance						

## 3. EXISTING ENVIRONMENT

### 3.1 TOPOGRAPHY, HYDROLOGY AND WETLANDS

The proposed extraction area has a maximum elevation of 78m AHD in the south-eastern corner and falls towards the northwest to a minimum elevation of approximately 58 m AHD. The land slope is approximately 1 in 28 or 3.7%.

Farm dams currently collect surface water runoff on the property. One is located close to the centre of the proposed extraction area. One is located just upstream of the extraction area as shown on Figure 2.

The site is located within the Leschenault Estuary – Preston River Catchment within the Middle Preston subcatchment.

The property does not fall within a *Rights in Water and Irrigation (RIWI) Act 1914* Surface Water Proclamation Area.

The nearest wetland is a Multiple Use wetland located more than 800m to the east of the property. No other wetlands of conservation significance or lakes exist within 1 000 metres of the proposed extraction area (Landgate 2022).

## 3.2 GEOLOGY AND SOILS

As part of the environmental approvals process for the residue disposal facility, a hydrogeological investigation was conducted by WML Consultants Pty Ltd (WML, 2014). This included the installation of testpits on a 100m grid across the property, which allow detailed information on the surface geology to be collected. The proposed extraction area generally consisted of a shallow topsoil nominally 0.1 m thick, overlying pale grey fine to medium grained sand of the Yoganup Formation to depths of between 0.6 and 1.8 m.

The base of the sand layer was marked by variably cemented laterite, cobble and boulder-sized fragments. The laterite within the proposed extraction area has an average thickness of 1 m but varies from 0.5 to 2.0 m. This is underlain by orange-brown, mottled light grey-brown, clayey, fine to medium grained, very dense and variably iron-cemented sand, forming the upper part of the Leederville Formation, but structurally modified by laterization.

A shallow sand infilled paleochannel was also identified running east west through the site.

## 3.3 GROUNDWATER HYDROLOGY

The permanent water table below the site occurs within the Leederville Formation. The hydrogeological investigation by WML (2014) indicated that groundwater level in this aquifer is more than 25m below the ground surface at the site. This level is consistent with levels recorded in the nearest DWER bore (BY14A) located approximately 2.8km to the southwest of the site.

The hydrogeological investigation conducted by WML Consultants Pty Ltd (WML 2014) identified a perched water table associated with the paleo channel as shown on Figure 2. It was suggested by WML that surface water runoff from the high part of the site enters the superficial sand layer at around the 80m topographic contour then disperses through preferential pathways within this paleo channel. The groundwater flow direction is towards the northwest.

One of the farm dams on the property has been dug into the superficial sand formations within the paleochannel. A search of (NEARMAP) aerial photographs of the site from December 2009 to April 2022 (over 40 images across the seasons) indicates that this farm dam has not been dry. This suggests that the superficial groundwater table within the paleochannel is permanent. The darker shade of green around the farm dam shows the water table is close to the surface at this location in the winter months. In summary, examination of the aerial photography and groundwater level measurements by WML indicate groundwater within the paleochannel occurs close to the surface in the winter months but only within the localised area shown on Figure 2. A cross section illustrating the hydrogeology of the extraction area is attached as Annexure 1.

The property does not fall within a RIWI Groundwater Proclamation Area. The nearest Public Drinking Water Source Area is a groundwater resource located 3km to the east of the property (Landgate 2022).

The proposed excavation depth is approximately 2m and as discussed in Section 4.2, the extraction area has been designed to avoid the perched groundwater associated with the paleochannel. Therefore it is highly unlikely that the excavation will disturb permanent groundwater.

## 3.4 RAINFALL

One of the closest rainfall recording stations is Donnybrook South (Station 109505) and it has a mean annual rainfall of 840.4 mm. The wettest months are June, July and August and the driest months are December, January and February. The station has been recording rainfall since 2005. The highest recorded annual rainfall was 1023.2mm in 2013 and the lowest was 509.8mm in 2010.

Table 2 shows the average monthly and annual rainfall for Donnybrook South.

**Table 2: Mean Rainfall Data (mm) for Donnybrook South for Period (Station 109505) 2005 to 2022 (BoM 2022a)**

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
17.1	14.7	25.9	51.2	117.4	124.5	160.2	141.1	103.4	48.3	32.1	15.9	840.4

Rainfall intensity has been calculated using the Bureau of Meteorology (BoM) Rainfall Intensity-Frequency-Duration (IFD) data system (BoM 2022b), which yields the 2hr 10% Annual Exceedance Probability (AEP) (31.3mm). The DWER recommends that surface water runoff produced within the mined area from this rainfall event should be contained within the pit (DWER 2019). This aspect is discussed later in this document.

## 4. WATER MANAGEMENT

In all extraction operations the potential exists for impacts to be incurred on surrounding water resources, or by stormwater erosion of exposed areas. The planned surface water management actions for this site will be designed such that downstream water bodies will not be further impacted by the proposed extractive activities.

### 4.1 Surface Water Management

Runoff generated within each extraction stage or sub-catchment for the 2hr 10% Annual Exceedance Probability (AEP) rainfall event has been calculated using the Rational Method as detailed in Table 3. Storm-water management infrastructure (detention ponds and contour bunds) will be designed to manage at minimum this runoff.

Runoff from areas outside the defined sub-catchments will be diverted away using diversion (cut-off) bunds. Diversion bunds will also be used in addition to contour bunds to help direct surface water flow towards detention ponds and prevent uncontrolled flow of surface water from mined areas.

# [Appendix ORD: 12.2.2A]

Based on the calculated storm design runoff shown in Table 3, the following measures illustrated on Figure 3<sup>1</sup> will be used to achieve comprehensive onsite management of surface water runoff from the proposed EIL workings:

- Stormwater detention ponds with the capacity to hold at least the 2hr 10% AEP storm event as detailed below in Section 4.1.1.
- As each extraction area is completed, narrow-based contour bunds will be constructed to a grade of between 0.2 and 0.3%. Contour bund design methodology is discussed further in Section 4.1.2 below.
- Diversion (cut-off) bunds will be formed along the eastern and southern boundaries of the extraction area to prevent runoff entering mined areas as shown on Figure 2. Diversion bunds will also be formed along the eastern boundary of Stage 3 to help direct surface water flow towards the Stage 3 detention pond and prevent uncontrolled flow of surface water from the mined area.
- As part of the rehabilitation process, the ground will be ripped along the contour prior to fertilisation and seeding. This leaves a depression and low bund which will attenuate surface water flows and prevent rill erosion during the period that pasture grasses are becoming established. Surface water detention ponds and contour bunds will be retained until vegetation ground cover is sufficient to stabilise the ground surface and prevent erosion.
- Regular monitoring of the erosion control measures will be undertaken, and repairs implemented where necessary throughout the licence period, or longer if necessary.

## 4.1.1 Stormwater Detention Ponds

As each extraction stage is opened, stormwater detention pond(s) will be excavated below the workings (but within the extraction area) with the capacity to hold at least the 2hr 10% AEP storm event. One detention pond will be constructed in each stage. The positions of these detention ponds are shown on Figure 2 and the storage capacities listed in Table 3.

**Table 3: Surface Water Management Areas (Sub-catchments), Runoff Volumes and Detention Pond Dimensions**

Extraction Stage/ Sub-catchment	Total Area (ha)	Extraction Area (ha)	Undisturbed Area (ha)	Design Storm Runoff* (m <sup>3</sup> x 10 <sup>3</sup> )	# Detention Ponds	Detention Pond Storage (m <sup>3</sup> x 10 <sup>3</sup> )	Detention Pond Area (m <sup>2</sup> )
1	4.14	4.14	0.00	1.268	1	1.95	975
2	3.24	3.24	0.00	0.991	1	1.50	750
3	3.65	3.65	0.00	1.118	1	1.80	900
<b>TOTAL</b>	<b>11.02</b>	<b>11.02</b>	<b>0.00</b>	<b>3.377</b>	<b>2</b>	-	-
*Calculated by Rational Method with a 2hr 10% AEP of 31.3mm obtained from the Bureau of Meteorology (BoM) website (BOM 2022b). Runoff coefficients used for Rational Method calculations were 0.8 for disturbed areas and 0.3 for undisturbed areas.							

<sup>1</sup> Contour bund locations shown on Figure 3 are indicative only and detailed layout should be implemented by an experienced surveyor.

## 4.1.2 Contour Bank/Bund Design

Basic design parameters for the contour bunds that will be used for stormwater management on this property have been taken from the Queensland Department of Environment and Resource Management guideline.

Contour bank design is dependent on the following factors:

- Land-use after rehabilitation
- Slope
- Soil erodibility

Assuming Tronox is not planning any further mining or development at the site, the site will be returned to its former land use of pastures post-extraction. The proposed contour bank type in this situation is "narrow-based" i.e. approximately 4m across.

Slopes on average approximately 4% it is recommended that contour banks are spaced approximately 40m apart in this situation, and with a fall within a range of 0.2 and 0.3%.

## 4.3 Groundwater Management

The average depth of the extraction will be approximately 2 metres (approximately 1m of sand and 1m of laterite). Permanent groundwater will not be exposed by the excavations. As shown on Figure 2, the extraction area has been designed to avoid an area of perched groundwater associated with a paleochannel in the middle of the site. Extraction will proceed with caution when approaching the boundaries of the paleochannel to avoid the interception of groundwater. As a precaution the detention ponds will be constructed at 1.5 times the volume of the 2hr 10% AEP storm event to ensue they have the capacity to manage seepage of groundwater, should this be required.

When water is required for dust management, it will be abstracted from the existing farm dams on the property or off-site from the nearest available commercial (scheme) source.

Due to the low scale nature of the operations and limited groundwater, no groundwater contamination is anticipated and there is no risk to any private groundwater supply. No fuel or lubricant storage will occur on the site. Refuelling will take place using a mobile refuelling vehicle which is equipped with a "snap-on snap-off, fast-fill and auto shut-off" facility. Plant will be refuelled each morning, leaving the vehicles almost empty overnight. No major servicing, which could lead to fuel and oil spills, will take place on the site. Minor spills which may occur occasionally will be neutralised by soil processes. Carbone Bros have a Safety Practice document for Hydrocarbon Spill Response outlining their procedures for controlling, recovering, treating and reporting hydrocarbon spills (Annexure 2).

## 5. ACID SULFATE SOILS

A search of the CSIRO's Australian Soil Resource Information System (ASRIS) database identified the proposed extraction area as having an extremely low to low probability of occurrence for acid sulfate soils (CSIRO 2011).



## 6. REFERENCES

Bureau of Meteorology (BoM) (2022a). Rainfall records for Donnybrook South (Station 109505). Website: [www.bom.gov.au](http://www.bom.gov.au)

Bureau of Meteorology (BoM) (2022b). Rainfall frequency information. Website: [www.bom.gov.au](http://www.bom.gov.au)

CSIRO (2011). Atlas of Australian Acid Sulphate Soils. Shapefile downloaded from <http://hdl.handle.net/102.100.100/10531?index=1> May 2022.

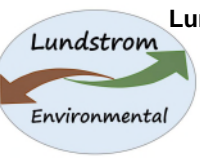
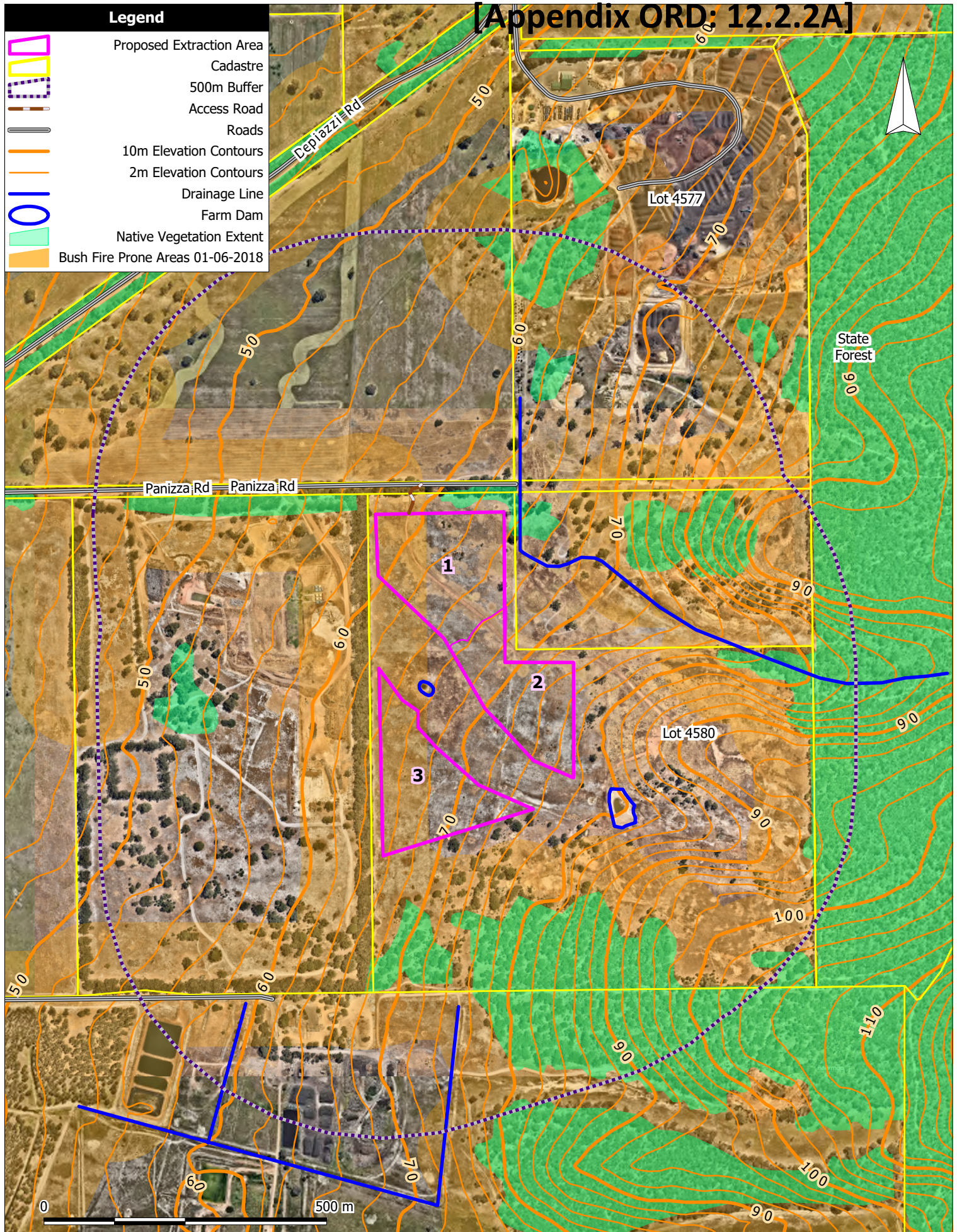
Department of Water and Environment Regulation (DWER) (2019). Water quality protection note no. 15, Basic raw materials extraction. Government of Western Australia.

Landgate (2022). Locate V5. [Online] <https://maps.slip.wa.gov.au/landgate/locate/>. Accessed: March/April 2022.

WML Consultants Pty Ltd (WML, 2014) Hydrogeological Investigation for Proposed Residue Disposal Area, Panizza Road Dardanup. Report prepared for Cristal Pigments Australia Pty Ltd. Draft for client comment dated 29th August 2014.

**FIGURES**





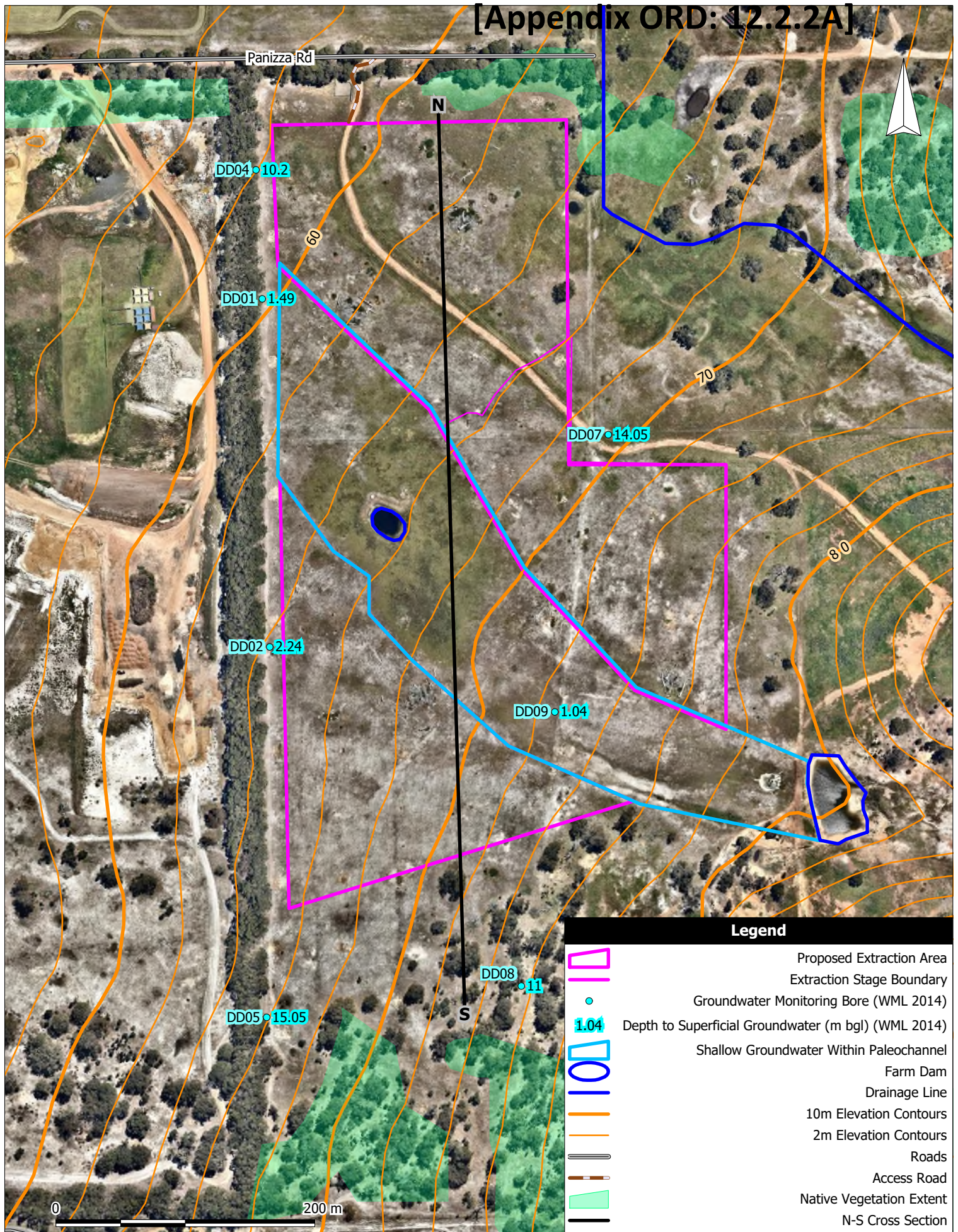
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Scale: 1:8400  
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 Air Photo Source: Nearmap Jan 2022  
 Datum: GDA94  
 Projection: Australia MGA94 (50)

Client: Carbone Bros Pty Ltd  
 Project: Gravel Extraction  
 Location: Lot 4580 Panizza Rd  
 Crooked Brook

**Figure 1:  
 Site and  
 Surrounds**





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Consultants Pty Ltd**

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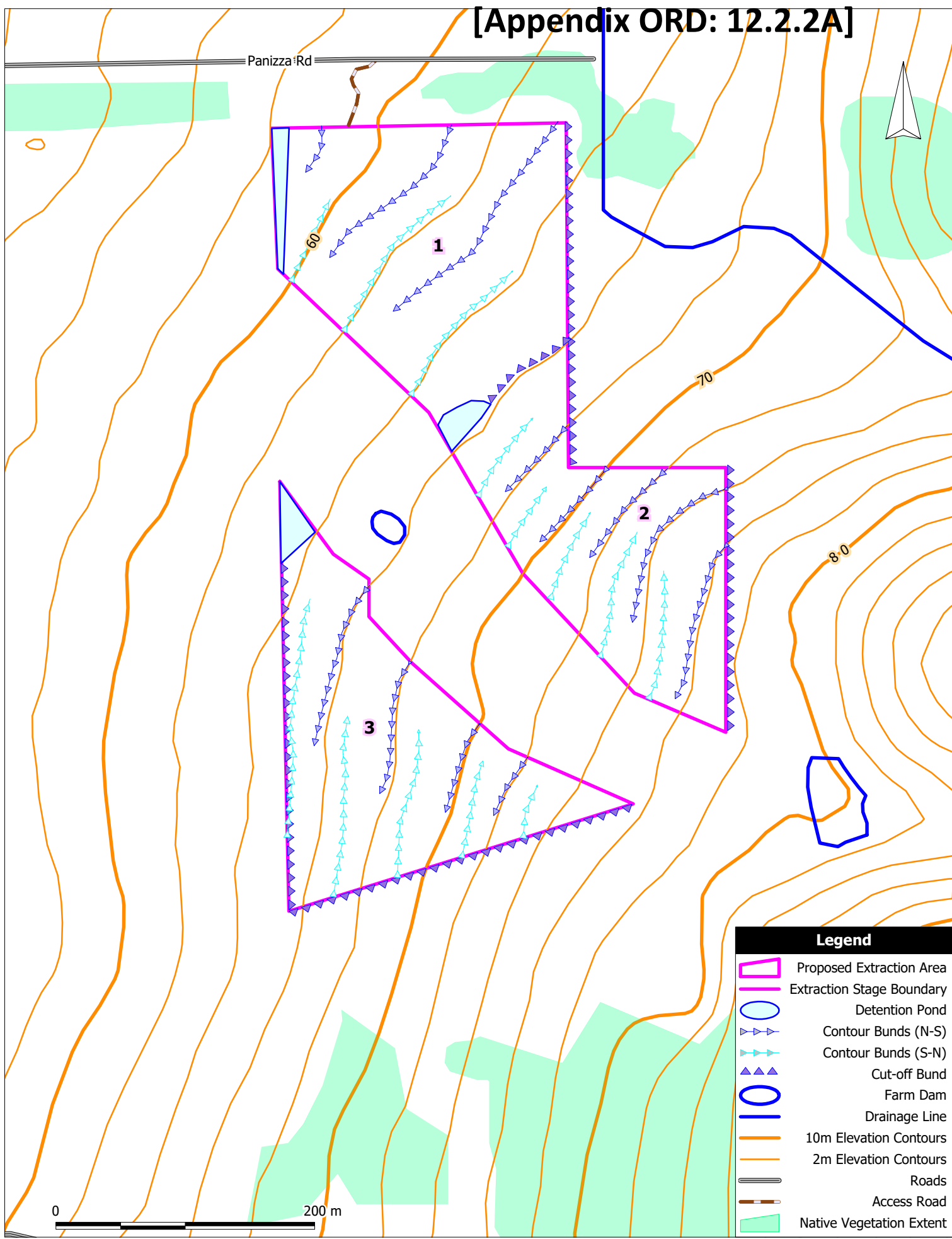
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Projection: Australia MGA94 (50)

Client: Carbone Bros Pty Ltd  
Project: Gravel Extraction  
Location: Lot 4580 Panizza Rd  
Crooked Brook

**Figure 2:  
Groundwater  
Hydrology**



# [Appendix ORD: 12.2.2A]

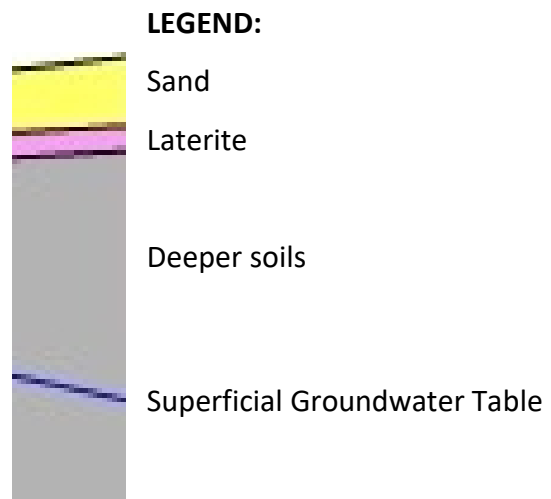
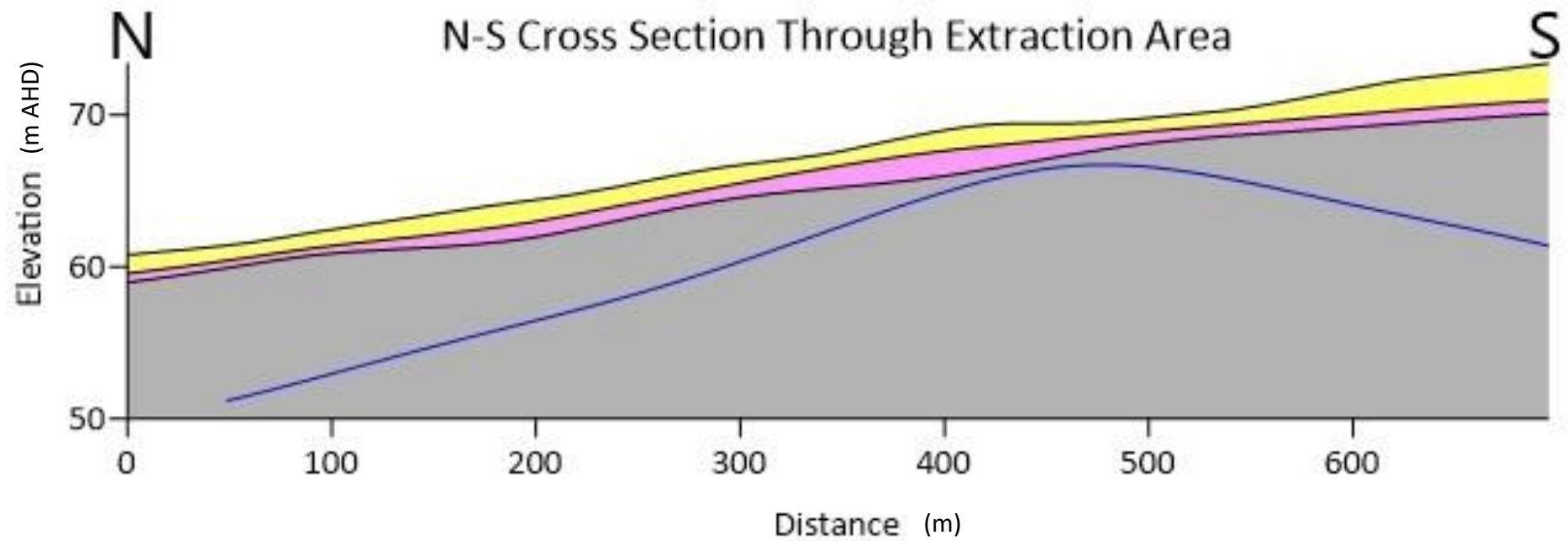


Legend	
	Proposed Extraction Area
	Extraction Stage Boundary
	Detention Pond
	Contour Bunds (N-S)
	Contour Bunds (S-N)
	Cut-off Bund
	Farm Dam
	Drainage Line
	10m Elevation Contours
	2m Elevation Contours
	Roads
	Access Road
	Native Vegetation Extent



**ANNEXURE 1**

**N-S Cross Section Illustrating Hydrogeology of Extraction Area**



**ANNEXURE 2**

**Hydrocarbon Spill Management Plan**

# [Appendix ORD: 12.2.2A]

## CARBONE BROS PTY LTD

### Hydrocarbon Spill Management Plan for Quarry Sites

#### **Purpose:**

The purpose of this document is to describe the measures that Carbone Bros will implement in order to limit the impact of any hydrocarbon spills that may take place on any of their extraction and waste fill sites.

#### **Proposed Measures:**

The following preventative measures will be implemented:

- No fuel will be stored on site and all plant and equipment will be refuelled by a mobile fuel truck, as and when required. Refuelling is done in the morning and plant and equipment is empty during the night.
- All major servicing of plant and equipment will take place at the workshops in Brunswick junction.
- Refuelling trucks are fitted with automatic snap-off fuel nozzles, thus preventing overfilling and spillage.
- Operators/drivers are provided instruction on the need for hydrocarbon pollution prevention when induction courses are given.

The following actions will be taken in the event of a spill occurring:

- Stop the spill source immediately if it is safe to do so.
- Contain the spill and prevent any contact with water bodies and drains.
- Clean up the spill by digging up the contaminated soil and transporting it to a licensed waste disposal site. Replace the excavated material with clean fill.
- If possible a photographic record of the procedure should be kept.
- Report the incident to the Quarry Manager.

**APPENDIX 4**  
**DUST MANAGEMENT PLAN**





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### DUST MANAGEMENT PLAN

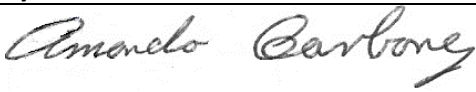
Prepared for Carbone Bros Pty Ltd  
Lot 4580 Panizza Rd, Crooked Brook, Shire of Dardanup

#### Signed by:

Landowner: Tronox Pigment Bunbury Ltd

Signature		
Name and Position	Christine Williams (Senior Council)	Scott McDonald (Dir. Finance)

Proponent: Carbone Bros. Pty Ltd

Signature	
Name and Position	Amando (Fred) Carbone (Director)

## 1. INTRODUCTION

This Dust Management Plan (DMP) has been prepared in accordance with guidelines published by the Department of Environment and Conservation (DEC) (Jan. 2011), now the Department of Water and Environmental Regulation (DWER). This Dust Management Plan should be read in conjunction with the report entitled *"Extractive Industries Licence Application and Environmental Management Plan Lot 4580 on Deposited Plan 205851, Panizza Rd, Crooked Brook"*, prepared for prepared for Carbone Bros by Lundstrom Environmental Consultants Pty Ltd in August 2022.

The objectives of this DMP are as follows:

- To describe the nature of the proposed operation;
- To identify any sources of dust that might arise from these operations;
- To identify the proximity of any sensitive premises in this regard;
- To identify measures that will limit the generation of dust from the operations;
- To identify measures that will limit the impact of dust on sensitive premises.

## 2. SITE BACKGROUND

Locality: Lot 4580 on Deposited Plan 205851, Panizza Rd, Crooked Brook, Shire of Dardanup

Ownership: Millennium Inorganic Chemicals Ltd\*

\* now known as Cristal Pigments Australia Ltd (Cristal). Cristal is a subsidiary of Tronox Inc.

Figure 1 is a recent aerial photograph showing the property and its surrounds. Figure 2 indicates the proposed operations areas covered by this application.

# [Appendix ORD: 12.2.2A]

## 2.1 Land Use

Tronox holds a mining lease over the property, but they have agreed to allow Carbone to extract the superficial laterite and overlying sand that occurs at the property. The property currently consists of cleared agricultural land and remnant native vegetation. (Figure 1). There are several historical and existing landfills located in the surrounding area.

## 2.2 Geology and Soils

As part of the environmental approvals process for the residue disposal facility, a hydrogeological investigation was conducted by WML Consultants Pty Ltd (WML, 2014). This included the installation of testpits on a 100m grid across the property, which allow detailed information on the surface geology to be collected. The proposed extraction area generally consisted of a shallow topsoil nominally 0.1 m thick, overlying pale grey fine to medium grained sand of the Yoganup Formation to depths of between 0.6 and 1.8 m.

The base of the sand layer was marked by variably cemented laterite, cobble and boulder-sized fragments. The laterite within the proposed extraction area has an average thickness of 1 m but varies from 0.5 to 2.0 m. This is underlain by orange-brown, mottled light grey-brown, clayey, fine to medium grained, very dense and variably iron-cemented sand, forming the upper part of the Leederville Formation, but structurally modified by laterization.

## 2.3 Nuisance Potential of materials

The crushed material texture is predominantly gravel with moderate amounts of sand and trace amounts of fines (clays and silts), with grain size distribution (ISO 14688-1) being approximately as follows:

Gravel (>2.0mm):	58%
Sand (0.063<2.0mm):	33%
Fines (Silt & Clay; <0.063mm):	9%

Although there will be some uplift of the finer particle component of this soil during stripping and stockpiling operations, this will be limited due to the low proportion of fines. During strong winds the potential exists for fine particles (including fine sand) to become airborne especially when they are disturbed by excavation activities.

In its in-situ state, the laterite is a cemented pisolitic material and has no loose fines. However, during the crushing operation very fine particles of less than PM50 (particulate matter with diameter 50 micrometers) are produced as fugitive dust and require suppression as is discussed in Section 4 below.

Whilst the analysis presented above does not determine the quantity of PM50 particles, it is estimated that the potential for total suspended particles (TSP) less than PM50 is approximately 7.5%. Mitigation measures are discussed in Section 4 below.

Potentially significant sources of airborne particulates from the site have been assessed as being limited to:

- Dust lift-off from exposed extraction areas or rehabilitated surfaces
- Dust lift-off from stockpiles (topsoil and extracted product)
- Dust lift-off from haul roads and tracks resulting from light vehicle and heavy earthmoving traffic
- Dust generation from crushing and screening processes, loading and transportation of extracted material.

# [Appendix ORD: 12.2.2A]

The majority of airborne particulates from the site are likely to be visible dust.

Mitigation measures for the operations are discussed in Section 4 below.

## 3. PROPOSED WORKS AND POTENTIAL IMPACTS

Carbone Bros Pty Ltd intend to extract approximately 40,000 tonnes/year of gravel and 35,000 tonnes per year of sand from an area of approximately 11ha indicated on Figure 1 in three approximately equal stages. Excavation will proceed to a depth of approximately 2m. The EIL application is for 5 years.

Equipment to be used in these operations includes:

- D8 Bulldozer
- Caterpillar 988 Front End Loader
- Mobile Finlay Crusher
- Mobile Stacker
- 24 tonne Semi-tipper trucks

Extractive operations within the stages will include topsoil removal, ripping, blading, crushing and stockpiling of gravel, truck loading of gravel and rehabilitation of the extraction area.

Stripped topsoil from each stage will be placed in windrows along the edges of the working area to serve as noise, stormwater and visual barriers.

A bulldozer will rip the laterite and then blade it into the crusher sites until a large raw material stockpile has accumulated. It is anticipated that the ripping and blading phase of the operation will be undertaken for approximately one week per each stage.

Once all the raw material has been stockpiled, a crusher, screen and stacker unit will be deployed for a period of approximately eight to ten weeks per year. At the end of this period all material will be processed and ready for use. Trucks, as required, will enter and cart material out of the site over the remainder of the five year licence period.

After extraction, the land surface will on average 1 metre lower than the original height, apart from the batters which will be at a maximum gradient of 1:6.

The first stage of rehabilitation is topsoil replacement and contour ripping. This will be conducted immediately after completion of extraction in each stage.

Rehabilitation will be done in progressive stages over the life of the extraction.

Table 1 provides a description of all activities, their duration, aspect and an assessment of potential for dust impacts.

# [Appendix ORD: 12.2.2A]

**Table 1: Aspects and Impacts of Dust Generating Activities**

Action	Activity Details	Duration	Aspect	Impact
-	Construction of internal driveway / access road	~1 week	Actions may release dust into the atmosphere	Dust may create an amenity issue with nearby residents
Strip crush and stockpile	Topsoil Stripping and stockpiling	Up to 1 week per annum in 3 stages.	Disturbance of grass and soil exposes ground to wind erosion	Dust may create an amenity issue with nearby residents
	Rip and blade laterite to crusher site	Up to 3 weeks per annum in 2 stages.	Actions may release dust into the atmosphere	Fine red dust may create an amenity issue with nearby residents
	Crushing, screening and stockpiling of gravel	Up to 4 weeks per annum in 3 stages.	Crushing and screening actions may release dust into the atmosphere	Fine red dust may create an amenity issue with nearby residents
Load and Truck Out	Loading of trucks from stockpiles	5 years at a maximum of 14 loaded trucks per day.	Loading of gravel may release dust into the atmosphere	Fine red dust may create an amenity issue with nearby residents
	Transport of gravel from site	5 years at a maximum of 14 loaded trucks per day.	Dust could escape from trucks in transit	Amenity, health or traffic safety issue
Progressive Rehabilitation	Rehabilitation of completed stages	Up to 2 weeks per year from mid 2024 onwards	Disturbance of topsoil could release dust into the atmosphere	Dust may create an amenity issue with nearby residents

## 3.1 Potentially Sensitive Receptors

The Environmental Protection Authority (EPA) draft Environmental Assessment Guidelines “Separation distances between Industrial and sensitive land uses” lists the generic buffer for extractive industries grinding and milling works but no blasting as 500 - 1 000m depending on the type of processing. As this operation would be considered to be a “low scale” operation, the minimum generic buffer would be likely to apply.

There are no residential dwellings within 500m of the proposed EIL area.

The nearest resident is located more than 1.3km to the northeast of the proposed extraction area.

## 3.2 Prevailing Winds

The nearest weather station to the property with wind rose data is Donnybrook. Winds are strongest in this area in the morning with prevailing winds from the east occurring between 20-30% of the time during the summer months. Prevailing winds in the afternoon during summer are predominantly from the west to south-west occurring between 10 and 20% of the time. During winter the winds are predominantly in either an easterly or westerly direction in the morning occurring between 10% and 20% of the time. In winter, the winds are strongest in the afternoon with prevailing winds predominantly from the west or north-west, 10 to 30% of the time. Wind roses for both summer and winter months at Donnybrook have been included as Annexure 1 (Bureau of Meteorology, 2017).

# [Appendix ORD: 12.2.2A]

## 3.3 Site Risk Assessment and Classification

Based on the risk assessment conducted (Annexure 2), the classification derived is “negligible risk” (Classification 1). As a precaution, measures for managing dust impacts are discussed in Section 4 below.

## 4. MEASURES PROPOSED FOR MANAGING DUST

This report has identified the potential dust generating activities associated with the proposed development and has also identified the potentially sensitive receptors. The measures that are proposed to manage dust impacts are listed below:

- Activities likely to generate the most dust including construction of access roads, topsoil stripping and crushing and screening activities will be timed to occur in winter.
- A water cart will be on site during periods when the internal access road is being constructed, material is being moved or crushing is being conducted. When dust is caused to occur during these periods, the water cart will be employed to damp down the areas of concern.
- If necessary, loads will be dampened prior to loading/unloading.
- Given the low risk of dust impacts from the site, the site will be monitored visually for visible off-lift of dust. Installation of dust measuring devices are not considered appropriate or necessary for this site.
- The target will be no visible off-lift of dust leaving the property
- If dust can be seen to be carried outside the property, the source of dust will be identified and measures such as adequate wetting down will be implemented to prevent or minimise further dust emissions
- Stockpiles will be located where lift-off from the prevailing wind is minimised. If necessary stockpiles will be treated with sprays or polymer binders.
- Handling of materials will be kept to a minimum.
- Internal roads will be surfaced with gravel. A 20km per hour speed limit will apply to trucks on these internal roads at all times.
- Truck loads will be covered for preventing dust generation in transit.
- Employees and contractors working on site will be provided with information on how to minimise dust emissions.
- No burning of waste will occur.
- A notice will be erected at the front gate that provides emergency contact details for the Operations Manager.
- A complaints investigation and reporting system (see Section 4.1) will be put in place and these will be recorded by the Operations Manager and acted on promptly.

As noted above visual monitoring will be undertaken to confirm dust management measures are effectively maintaining dust emissions at acceptable levels.

### 4.1 Dust Complaints Recording and Investigation System

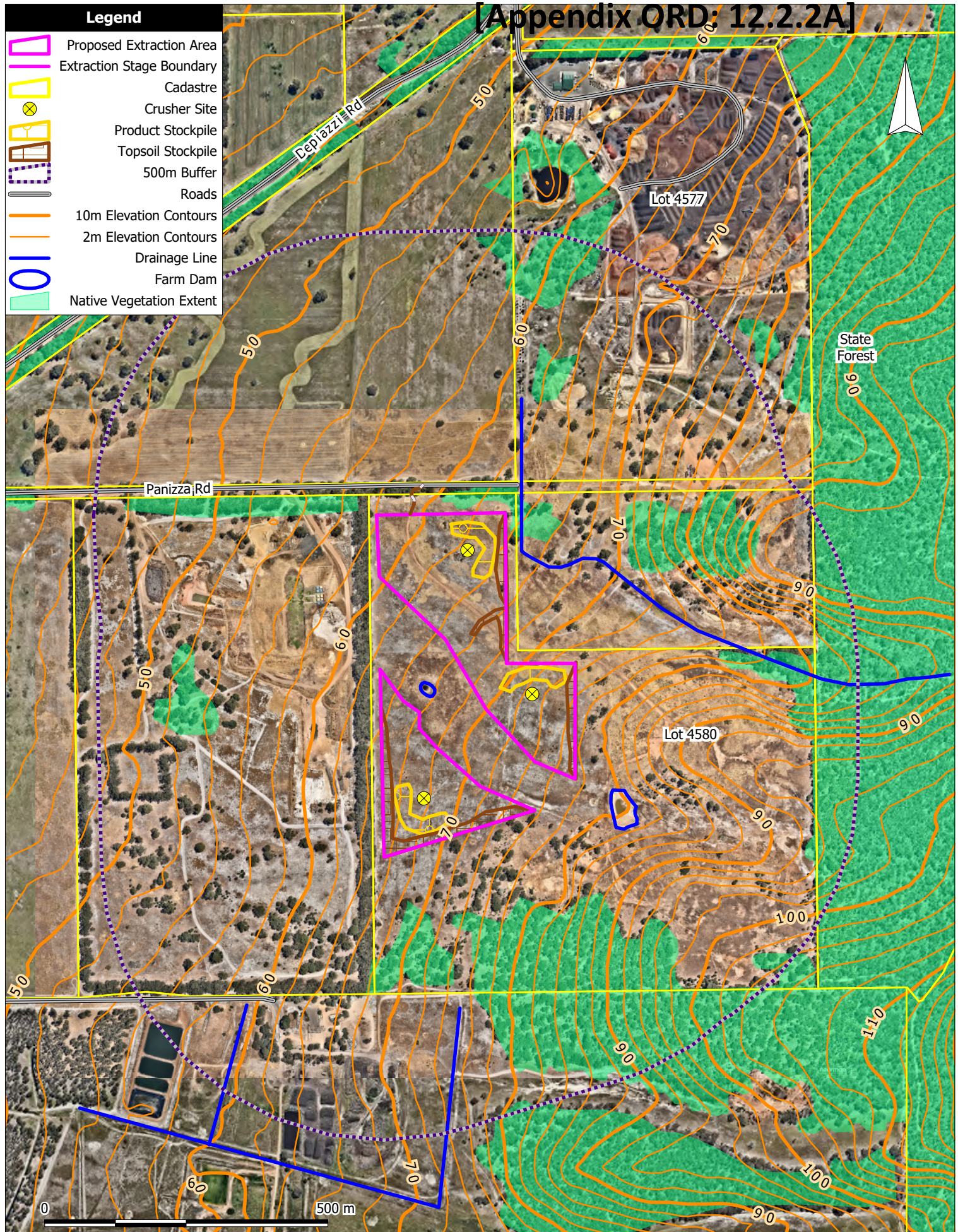
Records of dust complaints will include:

- complainant name, address, contact number
- wind direction and speed
- temperature
- time of day
- site activities at time of complaint
- summary of complaint
- control measures put in place



**FIGURES**





**Lundstrom Environmental  
Consultants Pty Ltd**

Leeming WA 6149  
Mob: 0417934863  
mikelund1@bigpond.com

Scale: 1:8400  
Original Size: A4  
Air Photo Source: Nearmap Jan 2022  
Datum: GDA94  
Projection: Australia MGA94 (50)

Client: Carbone Bros Pty Ltd  
Project: Gravel Extraction  
Location: Lot 4580 Panizza Rd  
Crooked Brook

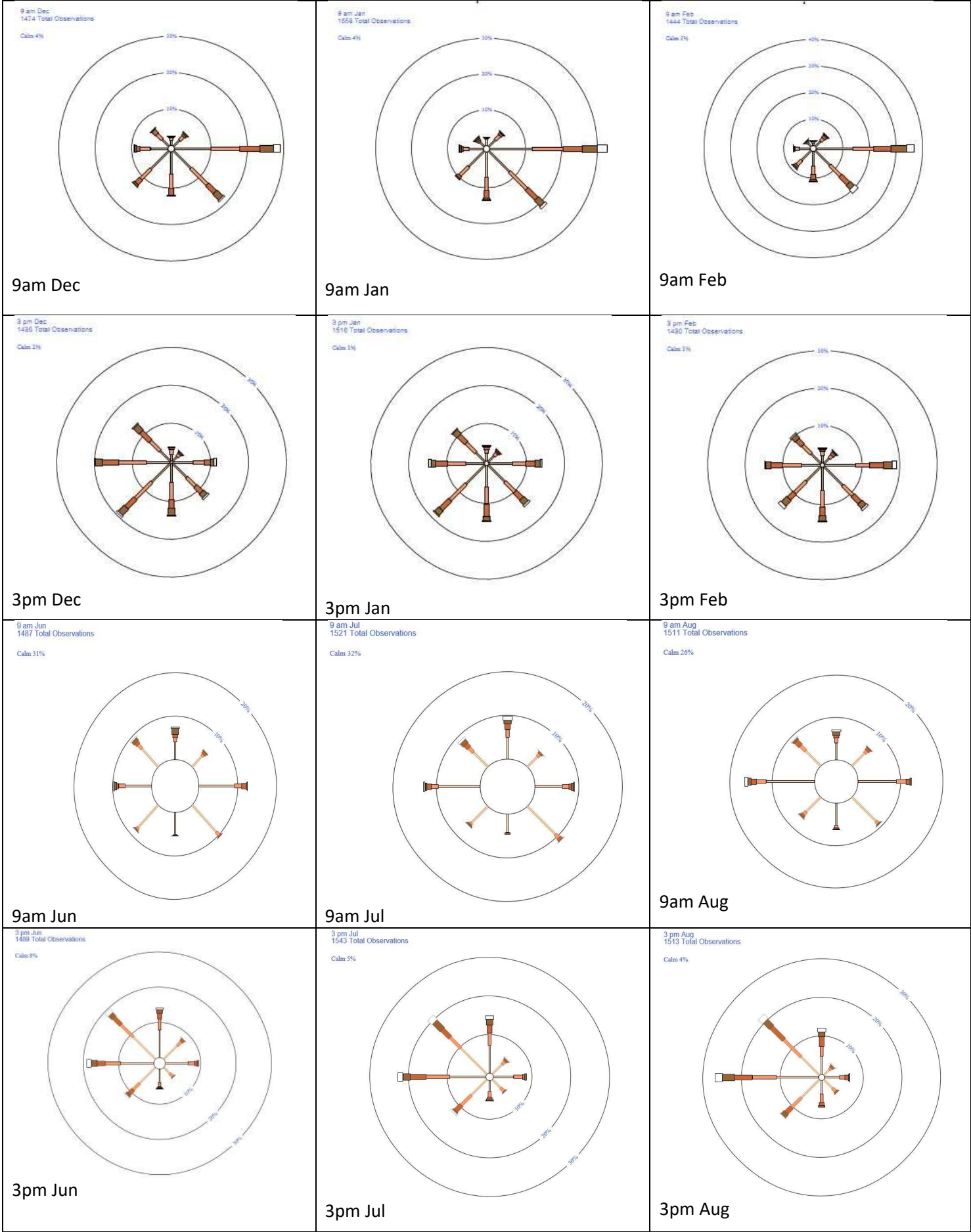
**Figure 1:  
Site and  
Surrounds**



**ANNEXURE 1**

**Wind Roses for Donnybrook**

[Appendix ORD: 12.2.2A]



**ANNEXURE 2**

**Site Classification Assessment Chart**

## Appendix 1: Site risk assessment/classification for activities generating uncontaminated dust

### Sheet 1: Site classification assessment chart

#### Part A. Nature of site

Item	Score options				Allocated score
1. Nuisance potential of soil, when disturbed	Very low.....1	Low.....2	Medium.....4	High.....6	4
2. Topography and protection provided by undisturbed vegetation	Sheltered and screened.....1	Medium screening....6	Little screening.....12	Exposed and wind prone.....18	6
3. Area of site disturbed by the works	Less than 1ha.....1	Between 1 and 5ha..3	Between 5 and 10ha.....6	More than 10ha.....9	6
4. Type of work being done	roads or shallow trenches.....1	roads, drains and medium depth sewers.....3	Roads, drains, sewers and partial earthworks.....6	Bulk earthworks and deep trenches.....9	9
<b>TOTAL score for Part A</b>					<b>25</b>

#### Part B. Proximity of site to other land uses

Item	Score options				Allocated score
1. Distance of other land uses from site	More than 1km.....1	Between 1km and 500m.....6	Between 100m and 500m.....12	Less than 100m.....18	1
2. Effect of prevailing wind direction (at time of construction) on other land uses	Not affected.....1	Isolated land uses affected by one wind direction.....6	Dense land uses affected by one wind direction.....12	Dense/sensitive land uses highly affected by prevailing winds.....18	6
<b>TOTAL score for Part B</b>					<b>7</b>

**SITE CLASSIFICATION SCORE (A X B) = 175**



### Sheet 3: Notes relating to 'site assessment classification chart'

1. The site assessment chart is used to differentiate between Classifications 1, 2, 3 and 4, as defined within these guidelines. Classifications 2 and 3 are subject to Note 4, below.
2. Sites may be divided into two or more classifications depending mainly on the proximity of existing land uses.
3. In assessing the relevant score level, the 'effect of prevailing winds' must be carefully considered. While houses, commercial areas, market gardens, schools and factories have high sensitivity ratings, roads, parks and recreational areas have lower sensitivity ratings.
4. Construction during dry period (1 October – 31 March).
  - (a) Where other land uses are within 100 metres of the site:
    - (i) sites assessed as Class 3 will automatically become Class 4, and
    - (ii) sites assessed as Class 2 will automatically become Class 3.
  - (b) Where other land uses are situated between 100 metres and 500 metres from the site, an on-site re-evaluation of Class 3 sites shall be conducted by the engineer for the developer, the local government or the DEC to determine the extent of additional Class 4 requirements considered necessary (if any).

## Sheet 4: Dust management and monitoring requirements for each site classification score

Based on the total score obtained from the 'SITE CLASSIFICATION ASSESSMENT CHART' and notwithstanding any allowance for special site conditions during the dry period, (refer to Note 4, Appendix 1) the following site classification will apply:

Site classification 1 — under 199;

Site classification 2 — 200 to 399;

Site classification 3 — 400 to 799, and

Site classification 4 — over 800.

**Note:**

- Unique sites may need special assessment.
- It is essential that any contracts for construction work on site include the relevant contingency arrangements appropriate for the site classification.

- **Classification 1 (score under 199, considered negligible risk)**

Provisions:

- None required.

Contingency arrangements:

- None required.

- **Classification 2 (score between 200 and 399, considered low risk)**

Provisions:

- The developer shall supply a contingency plan to the local government, which shall detail the activities to be undertaken should dust impacts occur.

Contingency arrangements:

- Include an allowance for water-cart operation, wind fencing and surface stabilisation during the construction period for the purposes of dust suppression.
- All areas of disturbed land should be stabilised to ensure that the disturbed area exposed at any time is kept to a practical minimum.

Monitoring requirements:

- Complaints management system in place (complaints recorded and acted on promptly).
- Notice to be erected at the site, providing contact details of the person to be contacted and works.

- **Classification 3 (score between 400 and 799, considered medium risk)**

Provisions:

- Appropriate wind fencing of a length specified in the air quality management programme needs to be stored on site or available within one hour of being required by the engineer for the developer/local government/DEC.
- All areas of disturbed land should be stabilised to ensure that the disturbed area exposed at any time is kept to a practical minimum to prevent exceedence of dust standards (see Section 4.4.2).
- The engineer for the developer shall maintain close control of works with dust creating potential (for example, allowable length of open trenching).
- After all siteworks are completed, and before the contractor has vacated the site, the developer should ensure that the entire site is stable. The developer then retains responsibility for site stability until change of ownership/control takes place. After the change of ownership/control has taken place, the new owner or controlling party will inherit responsibility for site stabilisation.

Contingency arrangements:

- Suitable water-carts in good working condition and of not less than 10,000 litres capacity per 7.5 hectares of disturbed site, or other suitable alternatives, shall be available to commence watering on the site within 18 hours of being required to do so by the engineer for the developer/local government/DEC.
- Surface stabilisation equipment shall be available to commence operation on site within 48 hours of being required to do so by the engineer for the developer/local government/DEC and with sufficient capacity to cover the disturbed site area within a further 48 hours.
- Wind fencing shall be erected within 18 hours of the contractor being required to do so by the engineer for the developer/local government/DEC. Dust generating works on the site shall cease in the interim.
- If dust-related complaints are generated due to activities on the site, the developer may be required by the local government or an authorised DEC officer to distribute advisory notices to adjoining land occupiers within 48 hours. A notice form is provided in Sheet 5 of Appendix 1.
- If dust-related complaints are generated due to material which has been excavated for trenching, the developer shall ensure this material is stabilised within 48 hours of being requested to do so by the engineer for the developer, local government or an authorised DEC officer.
- Include an allowance for water-cart operation, wind fencing and surface stabilisation during the construction period for the purposes of dust and wind-borne material suppression.
- Include an allowance for surface stabilisation for the purposes of dust and wind-borne material suppression to be maintained after the construction period and until change of ownership/control takes place.

Monitoring requirements

- Site dust management system in place.
- On-site dust monitoring against short term criteria.
- Off-site (compliance) dust monitoring at site boundary (if close to sensitive receptors) or at sensitive receptors. See Section 4 and Appendix 4.
- Complaints management system in place (complaints recorded and acted on promptly).
- Exceedences to be reported to the relevant authority – DEC, Local Government or DOH.
- Notice to be erected at the site, providing contact details of the person to be contacted regarding the works.

### **Classification 4 (score over 800, considered high risk)**

#### Provisions:

- Advisory notices shall be issued to adjoining land occupiers, the local government and the DEC at least 48 hours before site works commence. The notices shall include the name of the developer, engineer for the developer, contractor/s, contract period, contact telephone numbers of the site engineer and local government environmental health officer as detailed in Sheet 5 of Appendix 1.
- Fencing to the extent and in locations agreed to by the developer and local government shall be erected before any part of the site surface is disturbed.

**Note: This provision does not necessarily mean that the total site boundary is to be fenced. The fence is to be installed to an extent which will protect adjacent land uses and in most cases should be erected on the edge of the area which will be disturbed rather than on the site boundary.**

- An amount of wind fencing of a length specified in the air quality management programme needs to be stored on site or available within one hour of being required by the engineer for the developer/local government/DEC.
- The nominated wind fencing is to remain in position until the disturbed surface is stable.
- Surface stabilisation is to be applied to the disturbed area of each section of the site upon completion of the works in that section.
- The engineer for the developer shall maintain strict control of works with dust-creating potential. Material which has been excavated for trenching shall be stabilised if the trench is to be left exposed for longer than 72 hours.
- After all siteworks are completed, and before the contractor has vacated the site, the developer should ensure that the entire site is stable. The developer then retains responsibility for site stability until change of ownership/control takes place. After the change of ownership/control has taken place, the new owner or controlling party will inherit responsibility for site stabilisation.

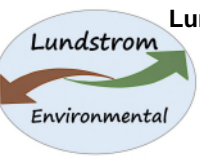
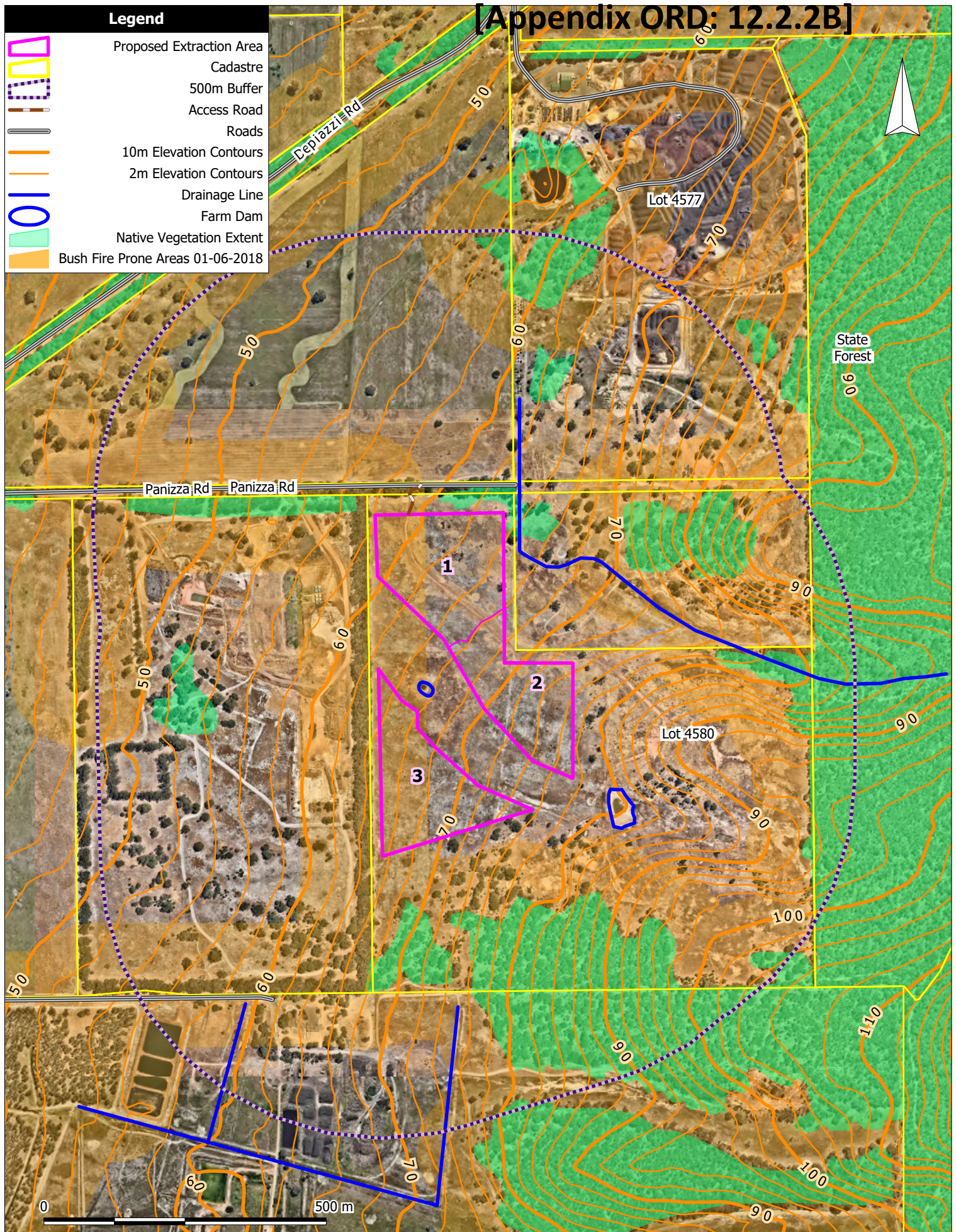
#### Contingency arrangements:

- Suitable water-carts in good working condition and of not less than 10,000 litres capacity per 5 hectares of disturbed site, or an appropriate alternative, shall be available to commence immediate watering on the site.
- Surface stabilisation equipment shall be available to commence operation on site within 48 hours of being required to do so by the engineer for the developer/local government/DEC and with sufficient capacity to cover the disturbed site area within a further 48 hours.
- Additional wind fencing shall be erected within 18 hours of the contractor being required to do so by the engineer for the developer/local government/DEC. Dust generating works on the site shall cease in the interim.
- Include an allowance for water-cart operation, wind fencing and surface stabilisation during the construction period for the purposes of dust and wind-borne material suppression.
- Include an allowance for surface stabilisation for the purposes of dust and wind-borne material suppression to be maintained after the construction period and until change of ownership/control takes place.

#### Monitoring requirements

As for Classification 3.





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 mikelund1@bigpond.com

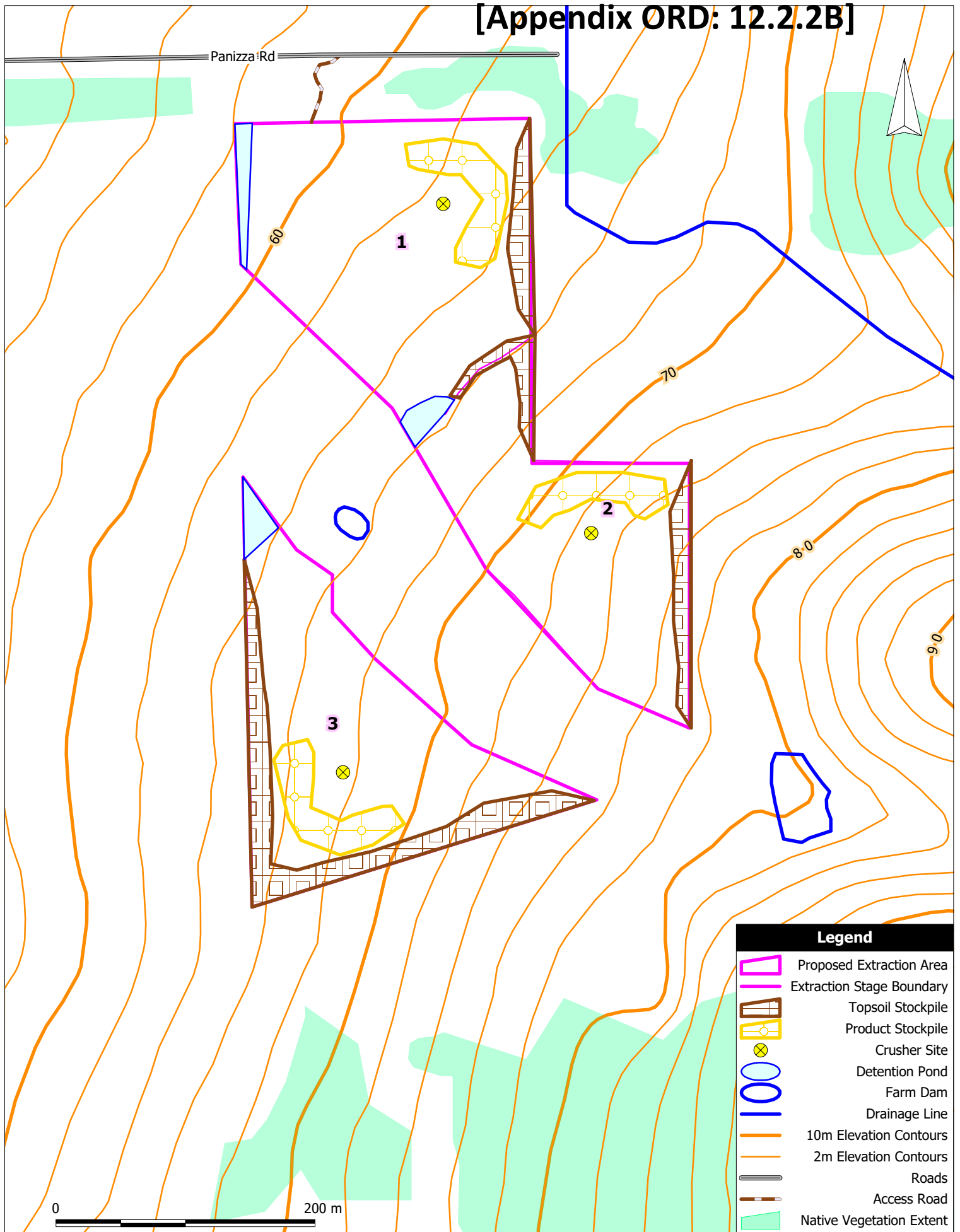
Scale: 1:8400  
 Original Size: A4  
 Air Photo Source: Nearmap Jan 2022  
 Datum: GDA94  
 Projection: Australia MGA94 (50)

Client: Carbone Bros Pty Ltd  
 Project: Gravel Extraction  
 Location: Lot 4580 Panizza Rd  
 Crooked Brook

**Figure 2:  
 Site and  
 Surrounds**



# [Appendix ORD: 12.2.2B]



**Lundstrom Environmental Consultants Pty Ltd**

Leeming WA 6149  
Mob: 0417934863  
mikelund1@bigpond.com

Scale: 1:3700  
Original Size: A4  
Air Photo Source: Nearmap Jan 2022  
Datum: GDA94  
Projection: Australia MGA94 (50)

Client: Carbone Bros Pty Ltd  
Project: Gravel Extraction  
Location: Lot 4580 Panizza Rd  
Crooked Brook

**Figure 3:  
Proposed  
Operations**



# [Appendix ORD: 12.2.2C]

**From:** ambrett@westnet.com.au  
**Sent:** Thursday, 21 July 2022 8:17 AM  
**To:** Submissions Planning  
**Subject:** EXTRACTIVE INDUSTRY (GRAVEL) - LOT 4580 (322) PANIZZA ROAD, CROOKED BROOK

**Importance:** High

**⚠ CAUTION:** This email originated from outside the Shire of Dardanup. Do NOT click links or open attachments unless you recognize the sender and know the content is safe. Do NOT enter any username or passwords and report any suspicious content.

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To whom it may concern,

I am writing to express my strong concern with this application. My concerns are as follows:

- Ground water travels north westerly and there is the potential for our dairy water supply to be jeopardised! Which would have major affects our business.
- The lack of definite rehabilitation plan.

It's my understanding that the block is already zoned for special use for waste disposal.

**It's up to the Dardanup Shire to limit just what can happen in the fufure.**

Kind regards  
Angela Brett

## [Appendix ORD: 12.2.2C]

**From:** bramys7@bigpond.com  
**Sent:** Monday, 18 July 2022 11:42 AM  
**To:** Submissions Planning  
**Subject:** Application for Development Approval and Licence. Lot 4580 Panizza Road.

**⚠ CAUTION:** This email originated from outside the Shire of Dardanup. Do NOT click links or open attachments unless you recognize the sender and know the content is safe. Do NOT enter any username or passwords and report any suspicious content.

Good morning, I would like to voice our objections to this application. As we are travelling I don't have access to Submission Form.

The application for an extraction license will bring more problems for rural residents and the residents of Dardanup.

1. The increase once again of more trucks on local roads.
2. The increase of industry to a rural area.
3. The huge increase of Dust, airborne pollution to our whole community. The strong easterlies that we endure will cover rooftops and school grounds. We gather our Water from these rooftops, something that the Environmental company did not mention or consider. This is our drinking water, all rural properties in the area gather their water this way.
4. The Noise, from a crushing plant carried on the wind will not be low, nor a bulldozer working.
5. The end amount of 200,000 tonnes will leave a massive void.
6. What is planned next for this void? This area can hardly be rehabilitated with a huge hole that doesn't match the surrounding area.
7. The weather in winter has to be considered, with trucks carrying wet product along our local roads. It will be messy. Especially over the bums in front of the LOL school.

We are not in favor of this Application being approved.

Andrew, Valerie Brandstater

188 Ferguson Road

Dardanup. 6236

## **EXTRACTIVE INDUSTRY (GRAVEL) – LOT 4580 (322) PANIZZA ROAD, CROOKED BROOK**

I wish to object to the above application as proposed for the following reasons.

1. It does not have any proposed traffic management plans beyond the use of access from Panizza Rd east. This would allow heavy truck usage of Panizza Rd west & the southern section of Banksia Roads which both have unsuitable exits for truck usage to Crooked Brook Road. It will also add to the traffic onto Ferguson Road which has a highly dangerous entry/exit point from DePiazzi Road and is being promoted as a high class tourist destination.
2. By allowing the use of Panizza Rd East the council will be approving the introduction of a high risk hazard on an entry point to an approved recreation area that the Shire have leased to the Dardanup Aeromodelling Club. This facility is used on Wednesdays & Saturday mornings.
3. Historically the property has been used for a small local gravel extraction pit by previous owners. Waste wood, including some that contained chemical residues, from local sawmills and a timber treatment plant was then carted & burnt on the property. No soil sampling has been carried out by the proponent to ensure that contamination does not exist & potentially be spread.
4. Dust management plans need to be in line with the plans on Lot 2 so there is no contradiction. It is noted that the wind indications are using data from the Donnybrook wind rose which would be totally irrelevant to the site.
5. The rehabilitation plan commencement should not be contingent on what the owner "might" do in the future. The rehab must be made to commence on the completion of the extraction of a section unless an approved development plan & EPA/ DWER license approvals are in place for the disturbed area.

David Birch

268 Banksia Road

Crooked Brook

0458341206



Chief Executive Officer  
Shire Of Dardanup  
PO Box 7016 Dardanup WA  
[submissions@dardanup.wa.gov.au](mailto:submissions@dardanup.wa.gov.au)

## **Lot 4580 Panizza Road – Application to Extract gravel**

The Dardanup Environmental Action Group Inc. has an active interest in the protection of the Dardanup community, the environment, and the significant local underground water resources. Our concern extends to potential environmental hazards across adjoining shires, particularly when there are potential impacts upon the Dardanup Shire.

Prior to Council considering this Application for Gravel extraction, it is imperative that Dardanup Council put in place a Local Development Plan for Lot 4580, as was done for Lot 2 Banksia Rd, with stipulations on what they will allow in the future at this site. Specifically, it should be made clear to the Applicant what waste management uses will be permitted and that radioactive waste and mining waste will not be a permitted use due to the potential environmental hazards, proximity to the Dardanup Township, risk to valuable water resources, ongoing issues with and cumulative impact of waste to the amenity of residents in the area.

A Local Development Plan, put in place prior to the site becoming degraded through gravel extraction, should also address rehabilitation of the site, ongoing monitoring and groundwater concerns, in addition to traffic, noise, emissions, soil testing and hours of operation for permitted activities.

Regarding the current Application by Tronox for Lot 4580 Panizza Rd above, we are concerned with the application as we see that it as an incremental step towards Lot 4580 becoming the next repository for highly mobile technically enhanced radioactive waste from their Kemerton Pigment Refinery. We believe the Lot was specifically purchased with this end in mind, but Cleanaway provided a more attractive interim option.

This scenario has played out in Dardanup previously. In 1999, Minister Kiereth overturned objections to the creation of a 'small' waste facility at Banksia Rd reasoning that it would fill degraded voids from gravel removal. This 'small' facility is now a significant issue for Dardanup and ultimately led to Council adopting a LDP to provide clear guidelines to manage ongoing issues.

The Special use Zone for Lot 4580 was put in place prior to the community awareness of the highly contaminating and longevity of the Tronox waste in the environment and ongoing contamination issues with sites such as Dalyallup, Australind, Capel and Leschenault. We have enclosed a letter which was sent to the Minister for Health outlining the reasons for our concerns with the Tronox waste stream going to Banksia Rd.

In conclusion, we urge Council to defer this Application until a Local Development Plan has been developed for this Special Use Zone.

Heather Elliott-Smith  
Chairperson  
Dardanup Environmental Action Group

# [Appendix ORD: 12.2.2C]

19<sup>th</sup> July 2022

The Chief Executive Officer

Dardanup Shire Council

PO Box 7016

EATON WA 6232

Via [submissions@dardanup.wa.gov.au](mailto:submissions@dardanup.wa.gov.au)

[councillors@dardanup.wa.gov.au](mailto:councillors@dardanup.wa.gov.au)

## **RE: Application for Development Approval and Licence - Gravel Extraction Lot 4580 Panizza Road**

Thank you for the opportunity to comment on the above application by Carbone Bros Pty Ltd.

As you can no doubt appreciate, our main concern relates to the potential future use of the depressions left after gravel extraction. Despite much community opposition, a successful SAT challenge against the Shire regarding the use of voids after gravel extraction, resulted in Lot 2 Banksia Rd becoming one of the largest waste disposal sites in WA.

In addition, Millennium Inorganic Chemicals Ltd purchased Lot 4580 for the purpose of disposing of titanium tailings after the closure of the Dalyellup disposal site. We are concerned that the Special Use zoning for waste disposal will facilitate the future storage of tailings after the Cleanaway storage cells are full. Previous hydrological investigations resulted in the finding that Lot 4580 is **not** suitable for this purpose without the use of poly liners. Liners which have been estimated to have a lifespan of anywhere between just 10 and 100 years!

In the interest of clarity for all stakeholders regarding the future use of Lot 4580, we suggest that a Local Development Plan specifying future use options and conditions be created before any development approvals are agreed to.

Our principal concerns regarding gravel extraction operations are: -

- Noise from crushing operations if carried out during strong easterly winds
- Extra traffic at the Depiazzi Rd - Ferguson Road intersection which is already a dangerous spot.
- Dust generated on site and on Panizza Road during times of high easterly winds. Do the farm dams contain enough water for dust suppression during the latter part of summer?
- Lack of secure Rehabilitation Plan – the specified rehabilitation plan could be abandoned if Tronox states there are plans for further mining or other development. This could leave the site un-rehabilitated if such plans are not approved or completed.

Yours sincerely,



Jenny Trigwell

IL & J Trigwell

[jennytrigwell@bigpond.com](mailto:jennytrigwell@bigpond.com)

# [Appendix ORD: 12.2.2C]

**From:** Jill Cross <jill.cross@bigpond.com>  
**Sent:** Thursday, 21 July 2022 10:27 AM  
**To:** Submissions Planning  
**Subject:** Submission - Lot 4580 Panizza Rd

**⚠ CAUTION:** This email originated from outside the Shire of Dardanup.  
Do NOT click links or open attachments unless you recognize the sender and know the content is safe. Do NOT enter any username or passwords and report any suspicious content.

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Dear Andre,

this proposal should only go ahead once the Shire has considered the traffic hazard at the intersection of Depiazzi and Ferguson Rd and taken action to ensure the safety of those using Ferguson Rd.

This proposal will result in another 14 trucks using this intersection. The intersection is on a blind corner with trucks currently entering Ferguson Rd from Depiazzi rd using this as a slip lane when it clearly isn't. These slow moving trucks are forcing their way onto Ferguson Rd which lacks visibility to the east. There is also limited visibility for trucks entering Depiazzi rd from Ferguson Rd.

It should also be a condition of this proposal that trucks do not use Dowdells Line, the gravel section of Banksia Rd or the western end of Panizza rd.

Regards Jill Cross





Department of **Biodiversity,  
Conservation and Attractions**

## [Appendix ORD: 12.2.2D]



Your ref: DAP-F0297063  
Our ref: 48999 2015/002856  
Enquiries: Tracy Teede  
Phone: 9725 4300  
Email: [swlanduseplanning@dbca.wa.gov.au](mailto:swlanduseplanning@dbca.wa.gov.au)

Chief Executive Officer  
Shire of Dardanup  
PO Box 7016  
EATON WA 6232  
  
Attention: Gareth Webber

### **EXTRACTIVE INDUSTRY (GRAVEL) – LOT 4580 (322) PANIZZA ROAD CROOKED BROOK**

I refer to your letter dated 24 June 2022 forwarding an extractive industry application for the above property for the Department of Biodiversity, Conservation and Attractions' (DBCA) Parks and Wildlife Service comment.

Parks and Wildlife Service's South West Region provides the following.

#### **Advice to Shire**

Lot 4580 is subject to the Shire of Dardanup's Town Planning Scheme No 3 Amendment 190. Lot 4580 was rezoned as a 'Special Use 1' area and is subject to development conditions.

DBCA has no objections to the proposed extractive industry proposal, provided the development complies with the 'Special Use 1' area conditions relating to vegetation protection, revegetation and buffers to bushland, required under the scheme amendment.

Thank you for the opportunity to comment on this application. Please contact Tracy Teede at the Parks and Wildlife Service South West Region office on 9725 4300 if you have any queries regarding this advice.

Yours sincerely

Aminya Ennis  
Acting Regional Manager  
Parks and Wildlife Service

15 August 2022

**South West Region**  
PO Box 1693, Bunbury, Western Australia 6230  
Phone: (08) 9725 4300 Email: [bunbury@dbca.wa.gov.au](mailto:bunbury@dbca.wa.gov.au)  
[dbca.wa.gov.au](http://dbca.wa.gov.au)



Government of Western Australia  
Department of Mines, Industry Regulation and Safety  
Resource and Environmental Regulation

Your ref DAP-F0297063  
Our ref A0111/202201  
Enquiries Joshua Guiliamse — 9222 3135  
Joshua.Guiliamse@dmirs.wa.gov.au

Chief Executive Officer  
Shire of Dardanup  
Sent by Email — submissions@dardanup.wa.gov.au

Dear Sir/Madam

## **APPLICATION FOR DEVELOPMENT APPROVAL EXTRACTIVE INDUSTRY (GRAVEL) - LOT 4580 (322) PANIZZA ROAD, CROOKED BROOK**

Thank you for your letter dated 24 June 2022 inviting comment on the above proposed development approval for an extractive industry, Lot 4580 Panizza Road, Crooked Brook.

The Department of Mines, Industry Regulation and Safety (DMIRS) has assessed this proposal with respect to mineral and petroleum resources, geothermal energy, and basic raw materials and makes the following comments.

A continuing supply of low-cost basic raw materials is an important part of maintaining the lifestyle and infrastructure that all Western Australians enjoy. Currently there is a shortage of gravel supply in the south west, and it is important for all levels of government to address this issue.

The gravel resource in the proposal area is over a Strategic Mineral Resource Protection Area for titanium-zircon mineralization. Any removal of sand or gravel containing potentially economic grades of this type of mineralization may be illegal without authorization under the *Mining Act 1978*. Whilst available information indicates that there are no economic grades in this location, advice should be sought from DMIRS should the company have any doubt about the presence of mineralization during extraction.

Yours sincerely

---

Joshua Guiliamse  
Senior Geologist — Land Use Planning  
Minerals and Petroleum Resources Directorate

# [Appendix ORD: 12.2.2D]

**From:** June Liaw <June.Liaw@dplh.wa.gov.au>  
**Sent:** Friday, 1 July 2022 1:29 PM  
**To:** Kathleen Hoult  
**Cc:** Gareth Webber  
**Subject:** RE: Extractive Industry Development Application - Lot 4580 Panizza Rd Crooked Brook

**⚠ CAUTION:** This email originated from outside the Shire of Dardanup.  
Do NOT click links or open attachments unless you recognize the sender and know the content is safe. Do NOT enter any username or passwords and report any suspicious content.

Hi Kathleen,

Thank you for the opportunity to comment.

As you would be aware, the site is zoned Rural under the Greater Bunbury Region Scheme (GBRS) and located within the Strategic Minerals and Basic Raw Materials Resource Policy under the GBRS. The subject site abuts a State Forest.

The Greater Bunbury Regional Scheme (GBRS), Resolution 2014/03 and Delegation 2014/01 outline the circumstances where a GBRS application will be required and whether the decision is delegated to the local government. As the subject land is abutting State Forest, a GBRS application is required.

The proposal can be contemplated under the planning framework and the Department of Planning, Lands and Heritage has no relevant comments to make in this instance.

Thank you for the opportunity to comment, and please do not hesitate to contact me if you have any further queries. Thank you.

Kind regards,  
June.

**June Liaw** | Planning Officer | Land Use Planning  
140 William Street, Perth WA 6000  
6551 9298 |  
[www.dplh.wa.gov.au](http://www.dplh.wa.gov.au)



The Department is responsible for planning and managing land and heritage for all Western Australians – now and into the future

*The Department acknowledges the Aboriginal peoples of Western Australia as the traditional custodians of this land and we pay our respects to their Elders, past and present.*

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Department of  
**Primary Industries and  
Regional Development**

**Your reference:** Lot 4580 (322)  
Panizza Road, Crooked Brook  
**Our reference:** LUP 1446  
**Enquiries:** Grant Stainer

Gareth Webber  
Planning Officer  
Shire of Dardanup  
PO Box 7016  
Eaton WA 6232  
submissions@dardanup.wa.gov.au

Date: 2 September 2022

Dear Mr Webber

**Application for development approval – Extractive industry (gravel and sand) –  
Lot 4580 (322) Panizza Road, Crooked Brook**

Thank you for inviting the Department of Primary Industries and Regional Development (DPIRD) to comment on the above proposal.

DPIRD does not object to the proposal, subject to the following comments.

**Groundwater management**

Groundwater is an important resource that needs to be protected.

The proposal states that there is perched groundwater in the middle of the property. This is likely to be the superficial aquifer rather than a seasonal perched layer, due to the dams being full (gaining surface water from the groundwater in this case), although there is not definitive evidence to support the exact nature of the groundwater there.

There needs to be a transect of groundwater piezometers installed to gather information on the depth of groundwater in each relevant aquifer with regular measurements across the seasons.

The installation of the piezometers will also allow a detailed description and diagram of the geology and aquifers to be developed and provided.

## [Appendix ORD: 12.2.2D]

This information should then be used to ensure that the groundwater is not at any time intercepted or exposed to the air. The groundwater should be monitored to ensure there are no impacts of salinity.

### **Rehabilitation planning**

There needs to be more consideration to the rehabilitation plan to ensure that the land is returned to the same or better condition than prior to excavation, so that the proposed end use of grazing pasture can be successful.

The proposed extraction of the sand gives rise to concerns about how the proponent will be able to achieve the re-establishment of pastures, as removal would leave no suitable available substrate for the pastures to grow on.

There should be enough sand retained on site to achieve a uniform minimum of 500 mm of sand cover plus 150 mm of retained topsoil on top of that.

### **Staged progress**

It is recommended that the extraction only be permitted to progress in a staged manner, with just one stage of the operation open at a time.

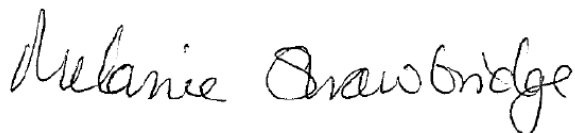
Once successful rehabilitation has been demonstrated for the first stage, the second stage can then commence, and so forth.

The proposal must at all times be compliant with the Department of Water and Environmental Regulation's (DWER) [Water Quality Protection Guidelines](#) for Basic Raw Materials Extraction.

Carefully crafted conditions will need to be applied to any approval of this proposal to ensure that the above concerns are addressed.

For more information, please contact Grant Stainer on 90813 113 or [grantley.stainer@dpird.wa.gov.au](mailto:grantley.stainer@dpird.wa.gov.au)

Yours sincerely



Dr Melanie Strawbridge  
**Director Agriculture Resource Management Assessment  
Sustainability and Biosecurity**



# [Appendix ORD: 12.2.2D]



Government of Western Australia  
Department of Water and Environmental Regulation

31 August 2022

Our Reference: PA051118, DWERTV10782~1

Your Reference: DAP-F0297063

To: Shire of Dardanup

From: Brendan Kelly, Department of Water and Environmental Regulation

Attention: Gareth Webber

Re: Extractive Industry (Gravel) – Lot 4580 Panizza Road, Crooked Brook.

Dear Gareth,

Further to our previous communications regarding the above proposal.

- **Background**

A Development Application (DA) for Extractive Industry (EI) at Lot 4580 Panizza Road, Crooked Brook was initially referred to the Department of Water and Environmental Regulation (Department) by the Shire of Dardanup (Shire) in June 2022. The DA was supported by the following documentation:

*‘Extractive Industries Licence Application and Environmental Management Plan, Lot 4580 on Deposited Plan 205851 Panizza Road, Lundstrom Environmental Consultants, May 2022’* (now described as EMP.v.1).

EMP.v.1 included Appendix 3:

*‘Water Management Plan, prepared for Carbone Bros Pty Ltd Lot 4580 Panizza Rd, Crooked Brook, Shire of Dardanup’* (now described as WMP.v.1).

Following assessment of the above documentation, the Department identified that access to the gravel resource, as described in EMP.v.1 and WMP.v.1, would potentially expose groundwater in sufficient volumes to create the need for a more detailed water management proposal. Consequently, the proponent’s consultant Lundstrom Environmental Consultants (Lundstrom) advised the Department that it had reviewed the proposal and changed the footprint of the EI to avoid the “palaeo channel” that was most likely to bring about water management issues.

## [Appendix ORD: 12.2.2D]

- **Current Situation**

The Shire has subsequently received new documentation from the applicant, which has amended the extraction footprint, namely:

*‘Extractive Industries Licence Application and Environmental Management Plan, Lot 4580 on Deposited Plan 205851 Panizza Road, Lundstrom Environmental Consultants, May 2022’ (EMP.v.2),*

Which includes a new Appendix 3:

*‘Water Management Plan, prepared for Carbone Bros Pty Ltd Lot 4580 Panizza Rd, Crooked Brook, Shire of Dardanup’ (WMP.v.2).*

It is most noteworthy that apart from the new EI footprint - stages 1, 2 & 3 - it is now proposed to extract sand and gravel, approximately 110,000 cubic metres (m3) of gravel and approximately the same volume of sand.

In an email (Department to Shire, 25 August 2022) the Department advised that the removal of basic raw materials (BRM) from productive farmland has the potential to degrade the land. In this case, rehabilitation of the site (to pasture) will depend heavily on there being an appropriate growth matrix to ensure success. Sufficient topsoil and overburden must be retained on the site to be used during rehabilitation, which will likely require large volumes of recovered sand, potentially reducing saleable product.

At this stage (notionally) there may need to be (at minimum) 0.5 metres of sand plus 150mm of topsoil replaced to ensure post-extraction agricultural (pasture) viability. Consequently, the Department strongly recommended that this proposal be referred to the Department of Primary Industries and Regional Development (DPIRD) for input as to the requirements for rehabilitation to pasture.

- **Advice**

The Department has identified the proposal as having the potential for impact on environmental and water resource values and management. Essential to managing the risks from EI activities is appropriate water management, i.e. protection of groundwater resources and stormwater management; and rehabilitation measures. Key issues and recommendations are provided below and these matters should be addressed.

- 1. Issue: Water Management**

Advice: Adherence to the ‘Water Management Plan’ (WMP.v.2), with details of the methods that will be used to protect groundwater and manage stormwater and off-site sedimentation,

## [Appendix ORD: 12.2.2D]

shall be made a condition of any extractive industry licence, to the satisfaction of the Shire of Dardanup.

### **2. Issue: Site Rehabilitation**

Advice: A formal 'Rehabilitation Plan' that meets agreed rehabilitation criteria, is to be prepared and approved, consistent with WQPN 15 'Extractive Industries' and the 'Guidelines for Preparing Mine Closure Plans', covering the intended staging and final landform, to the satisfaction of the Shire of Dardanup.

### **3. Issue: Crushing and Screening**

Advice: The proposed operations may be categorised as Prescribed Premises under the 'Environmental Protection Regulations 1987'. The applicant is to refer to the Industry Regulation Guide to Licensing available at <http://www.der.wa.gov.au/our-work/licences-and-works-approvals> and contact DWER at [info@dwer.wa.gov.au](mailto:info@dwer.wa.gov.au) or 63647000.

### **4. Issue: Water Supply**

Advice: The proponent is to quantify their water requirements for all aspects of the proposed extraction and provide evidence of a secure water source, to the satisfaction of the Shire of Dardanup.

### **5. Chemical Tanks/Serviceing**

Advice: Management of all activities involving hazardous chemicals (including plant refuelling and/or servicing) shall be in accordance with DWER's WQPN 56 – 'Toxic and Hazardous Substance Storage and Use' (Dec 2018).

More detail pertaining to the above issues are provided in Attachment 1.

#### **Attachment 1 - Department of Water and Environmental Regulation detailed comments.**

<b>Item No.</b>	<b>Reviewer comment/advice</b>
General	<ul style="list-style-type: none"><li>a) The proposed extraction is to be implemented in accordance with the Department's Water Quality Protection Note (WQPN) no. 15 'Basic raw materials extraction' where appropriate to the site situation, to ensure environmental risks are appropriately mitigated.</li><li>b) Extraction must be undertaken in accordance with a staging plan, as approved by the Local Government. Commencement of any subsequent extraction stage shall be subject to the previous extraction site having substantially commenced rehabilitation, to the satisfaction of the Shire of Dardanup.</li></ul>

# [Appendix ORD: 12.2.2D]

1.	<p><b>Issue:</b> Water Management</p> <p><b>Advice:</b> Adherence to the 'Water Management Plan' (WMP.v.2), with details of the methods that will be used to protect groundwater and manage stormwater and off-site sedimentation, shall be made a condition of any extractive industry licence, to the satisfaction of the Shire of Dardanup.</p> <p><b>Discussion:</b> No interference with groundwater should be permitted. No dewatering works are to be undertaken without Departmental consultation. The Local Government is to be notified within 24 hours if the water table is intercepted.</p> <p>Advice Note: Stormwater management methodologies shall cover the proposed extraction area and haulage routes within the property boundary, with the provision taking into account, but not limited to, the following details:</p> <ul style="list-style-type: none"> <li>○ compliance with the 'Rights in Water and Irrigation Act 1914'</li> <li>○ compliance with the 'Environmental Protection Act 1986' clearing requirements</li> <li>○ sediment and erosion control</li> <li>○ groundwater protection</li> <li>○ waterway/wetland impacts</li> <li>○ management of road infrastructure (e.g. crossings)</li> </ul>
2.	<p><b>Issue:</b> Site Rehabilitation</p> <p><b>Advice:</b> A formal 'Rehabilitation Plan' that meets agreed rehabilitation criteria, is to be prepared and approved, consistent with WQPN 15 'Extractive Industries' and the 'Guidelines for Preparing Mine Closure Plans', covering the intended staging and final landform, to the satisfaction of the Shire of Dardanup.</p> <p><b>Discussion:</b> A pit closure plan / rehabilitation plan must consider the timing of the project and (in this case) will need a staged closure plan, with rehabilitation occurring as areas are closed off, rather than waiting for the entire operation to cease. The plan shall:</p> <ul style="list-style-type: none"> <li>– consider zoning and future use of the land and appropriate finished ground levels as predetermined,</li> <li>– specify details of the final landform and finished depth to groundwater levels, appropriate for the future land use,</li> <li>– consider recontouring, stability and erosion risks,</li> <li>– discuss proper removal of infrastructure (such as roads and ramps),</li> <li>– addresses public and animal safety,</li> <li>– outlines revegetation plans, in this case pasture.</li> </ul>
3.	<p><b>Issue:</b> Crushing and Screening</p> <p><b>Advice:</b> The proposed operations may be categorised as Prescribed Premises under the 'Environmental Protection Regulations 1987'. The applicant is to refer</p>

## [Appendix ORD: 12.2.2D]

	<p>to the Industry Regulation Guide to Licensing available at <a href="http://www.der.wa.gov.au/our-work/licences-and-works-approvals">http://www.der.wa.gov.au/our-work/licences-and-works-approvals</a> and contact DWER at <a href="mailto:info@dwer.wa.gov.au">info@dwer.wa.gov.au</a> or 6364 7000.</p> <p><b>Discussion:</b> Based on the information provided it has been determined that the proposed operations may be categorised as Prescribed Premises as per Schedule 1 of the 'Environmental Protection Regulations 1987' (the EP Regulations), i.e.</p> <ul style="list-style-type: none"> <li>○ Category 70 - Screening, etc. of material: premises on which material extracted from the ground is screened, washed, crushed, ground, milled, sized or separated, more than 5000 but less than 50,000 tonnes per year</li> </ul> <p>Activities such as crushing and screening during extractive industry operations, may cause the premises to become prescribed for the purposes of Part V Division 3 of the Environmental Protection Act (EP Act). This will occur if the proposed crushing and screening equipment has a design capacity (when operated 24/7 or at a capacity limited by a planning approval) that meets or exceeds the specified production or design capacity of the relevant category under Schedule 1 of the Regulations.</p> <p>The applicant is therefore advised that they may meet the requirement for Prescribed Premises and as such require a works approval to construct/install the equipment (mobile or otherwise) and a licence or registration to operate. It should be noted that planning approvals may influence the Department's determination of production or design capacity, where an approval has the effect of restricting capacity (such as constraining hours of operation).</p> <p>The purpose of a works approval is to allow the Department to assess the environmental acceptability of a proposal's potential to cause emissions and discharges during construction and operation. Note that any works approval or licence issued under Part V of the EP Act will only regulate emissions associated with the crushing and screening operation (such as dust, noise and contaminated stormwater). It does not extend to the environmental impacts of extracting the material from the ground or transport off-site.</p> <p>The Department has no record of this premises and has not received any applications relating to this proposal. The applicant is therefore advised to refer to the information and Industry Regulation Guide to Licensing available at <a href="http://www.der.wa.gov.au/our-work/licences-and-works-approvals">http://www.der.wa.gov.au/our-work/licences-and-works-approvals</a> and / or if they have queries relating to works approvals and licences to contact DWER at <a href="mailto:info@dwer.wa.gov.au">info@dwer.wa.gov.au</a> or 6364 7000</p>
4.	<b>Issue:</b> Water Supply



## [Appendix ORD: 12.2.2D]

	<p><b>Advice:</b> The proponent is to quantify their water requirements for all aspects of the proposed extraction and provide evidence of a secure water source, to the satisfaction of the Shire of Dardanup.</p> <p><b>Discussion:</b> The proponent will need to include an allowance for water-cart operations, wind fencing and surface stabilisation during the EI operations period for the purposes of dust suppression.</p>
5.	<p><b>Issue:</b> Chemical Tanks/Serviceing</p> <p><b>Advice:</b> Management of all activities involving hazardous chemicals (including plant refuelling and/or servicing) shall be in accordance with the Department's WQPN 56 – 'Toxic and Hazardous Substance Storage and Use'.</p> <p><b>Discussion:</b> Best practise management of refuelling and servicing and chemical should apply with spill prevention kits readily accessible at all times, and operators adequately trained and aware of the risks.</p>

In the event there are modifications to the proposal that may have implications on aspects of environment and/or water management, the Department should be notified to enable the implications to be assessed.

Should you require any further information on the comments please contact Brendan Kelly on 97264194.

**Brendan Kelly**  
**Senior Natural Resource Management Officer**  
**Department of Water & Environmental Regulation,**  
**Planning Advice, South West Region**  
**Telephone: 08 97264194 | Mobile: 0407219515**  
**Email: [brendan.kelly@dwer.wa.gov.au](mailto:brendan.kelly@dwer.wa.gov.au)**

# [Appendix ORD: 12.2.2D]

**From:** NAUDE Daniel (RCPM) <Daniel.Naude@mainroads.wa.gov.au>  
**Sent:** Friday, 9 September 2022 1:53 PM  
**To:** Gareth Webber  
**Subject:** RE: Referral - Amended Extractive Industry Development Application - Lot 4580 Panizza Rd Crooked Brook

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Do NOT click links or open attachments unless you recognize the sender and know the content is safe. Do NOT enter any username or passwords and report any suspicious content.

Dear Gareth,

I refer to the Shire's request for comments regarding the above proposal and advise that Main Roads has no objection to the proposed development.

Regards,

**Daniel Naude**  
ROAD CORRIDOR PLANNING MANAGER  
Metropolitan and Southern Regions / South West  
p: +61 9724 5724 | m: +61 4189 31078  
w: [www.mainroads.wa.gov.au](http://www.mainroads.wa.gov.au)



**mainroads**  
WESTERN AUSTRALIA

*We're working for  
Western Australia.*



# [Appendix ORD: 12.2.2D]

**From:** Charles Sabato <[Charles.Sabato@watercorporation.com.au](mailto:Charles.Sabato@watercorporation.com.au)>  
**Sent:** Thursday, 30 June 2022 8:16 AM  
**To:** Kathleen Hoult <[Kathleen.Hoult@dardanup.wa.gov.au](mailto:Kathleen.Hoult@dardanup.wa.gov.au)>  
**Subject:** Development Application - Lot 4580 Panizza Rd Crooked Brook

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Thank you for your letter dated June 24, 2022 regarding the above development application. The Corporation offers the following comments.

## Dardanup Wastewater Treatment Plant Odour Buffer – Offsite Impacts

The Dardanup Wastewater Treatment Plant is located in close proximity to the subject area (see plan). Under normal operating conditions there will be minimal odour emanating from the wastewater treatment plant, however, during maintenance and abnormal operating or weather conditions, an increased level of odour may occur that will be of nuisance to persons within the odour buffer area. The enclosed plan shows the location of the wastewater treatment plant and the odour buffer (large circle) around it. Only compatible land use should be developed within the buffer.

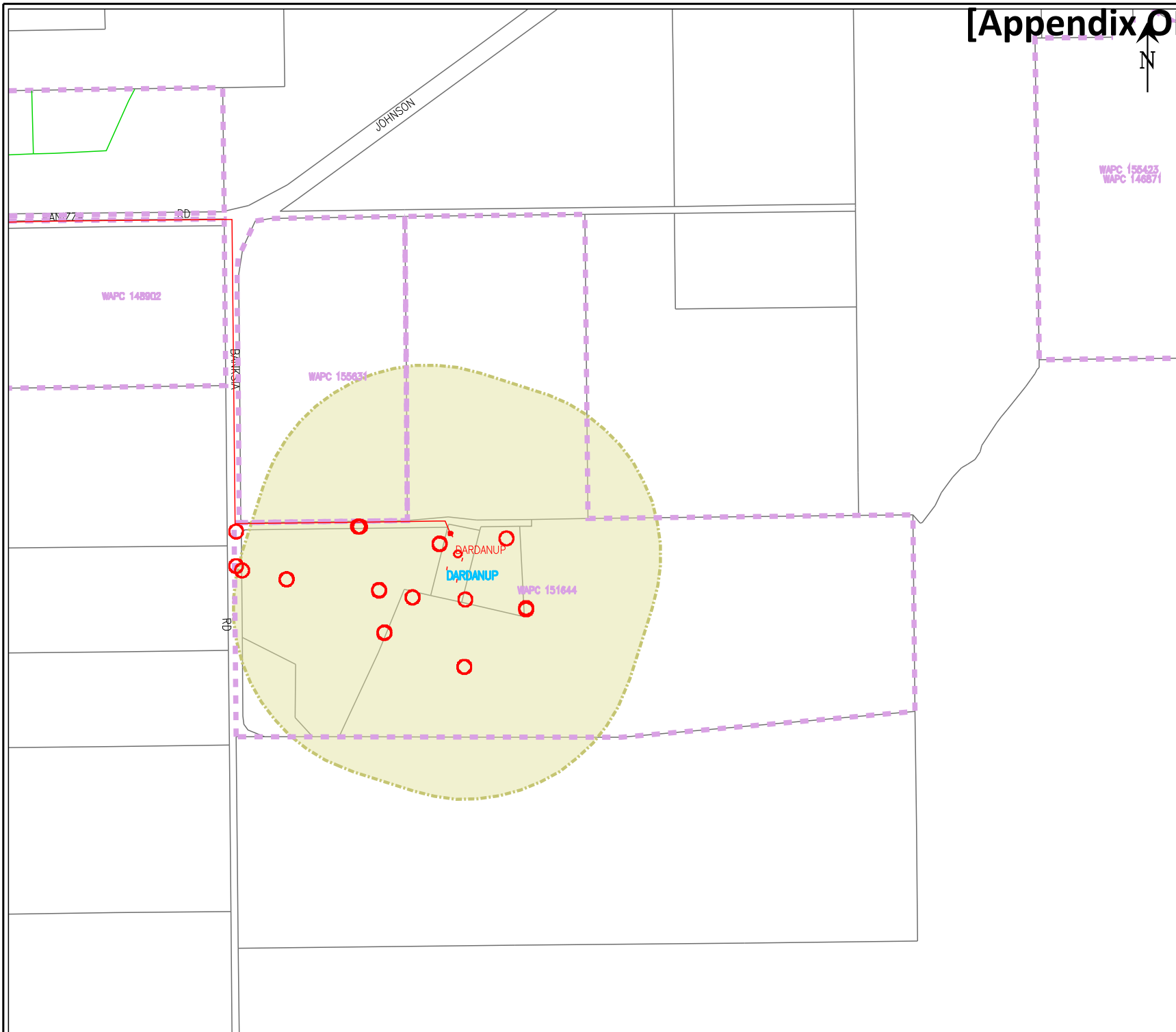
Kind Regards,

**Chas Sabato**  
Senior Planner - Land Planning  
Development Services  
*Available Monday, Tuesday & Thursday*

E [Charles.Sabato@watercorporation.com.au](mailto:Charles.Sabato@watercorporation.com.au)  
T (08) 9420 2105

.....

# [Appendix ORD: 12.2.2D]



- Legend
- Road Casement.Lodged Location - S- surveyed
  - Parcel Edge.Lodged Location - S- surveyed
  - Development Proposal Polygon.Coverage
  - Development Proposal Annotation.Annotation
  - Abc Def Street Name Small Size.Name Text
  - Abc Def Street Name Small Size.Type Text
  - Abc Def Sewer Gravity Manhole.\*\*\*\*\*Symbol\*\*\*\*\* - 2
  - Sewer Gravity Pipe.-----CENTRELINE----- - 1
  - Sewer Pressure Main.-----CENTRELINE----- - 1
  - Abc Def Sewer Treatment Plant.Name Text
  - Sewer Treatment Plant.Symbol
  - Sewer Observation Bore.Symbol
  - Drain Open Channel.Centreline
  - Buffer Area.Coverage - 1
  - Abc Def Buffer Area.Name Text

Print Date: 27/06/2022 09:42:50

Scale 1:15000

0m 200m 400m 600m 800m



Projection: MGA Zone 50 (m)

*The Water Corporation has taken due care in the preparation of data comprised on this map but accepts no responsibility for any inaccuracy of facility, cadastral or other information provided nor inappropriate use of this information. The user is reminded that under no circumstances can the information herewith displayed be copied, altered, modified or otherwise published in any form including the Internet without express permission of the Water Corporation. Prior to carrying out any physical activities in proximity to facilities displayed on this map the Water Corporation should be contacted on 13 13 95. Any inaccuracies found with information contained on this map should be advised to Asset Registration on (08) 9420 2069 or Email [asset.registration@watercorporation.com.au](mailto:asset.registration@watercorporation.com.au)*

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# [Appendix ORD: 12.2.2E]

RISK ASSESSMENT TOOL								
<b>OVERALL RISK EVENT:</b>		Application for Development Approval – Extractive Industry						
<b>RISK THEME PROFILE:</b>		3 - Failure to Fulfil Compliance Requirements (Statutory, Regulatory)						
<b>RISK ASSESSMENT CONTEXT:</b>		Operational						
CONSEQUENCE CATEGORY	RISK EVENT	PRIOR TO TREATMENT OR CONTROL			RISK ACTION PLAN (Treatment or controls proposed)	AFTER TREATMENT OR CONTROL		
		CONSEQUENCE	LIKELIHOOD	INHERENT RISK RATING		CONSEQUENCE	LIKELIHOOD	RESIDUAL RISK RATING
HEALTH	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.
FINANCIAL IMPACT	Should Council refuse the application, and the proponent seek a review of that decision, there is likely to be a financial impact through the State Administrative Tribunal process.	Minor (2)	Unlikely (2)	Low (1 - 4)	Not required.	Not required.	Not required.	Not required.
SERVICE INTERRUPTION	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.
LEGAL AND COMPLIANCE	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.
REPUTATIONAL	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.
ENVIRONMENT	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.





# Amendment 205 to Shire of Dardanup Town Planning Scheme No. 3

**Lot 2 Harold Douglas Drive and Lot 185 Venn Road**

**Dardanup West**

**PREPARED FOR DARDANUP PARK PTY LTD**

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### DOCUMENT CONTROL

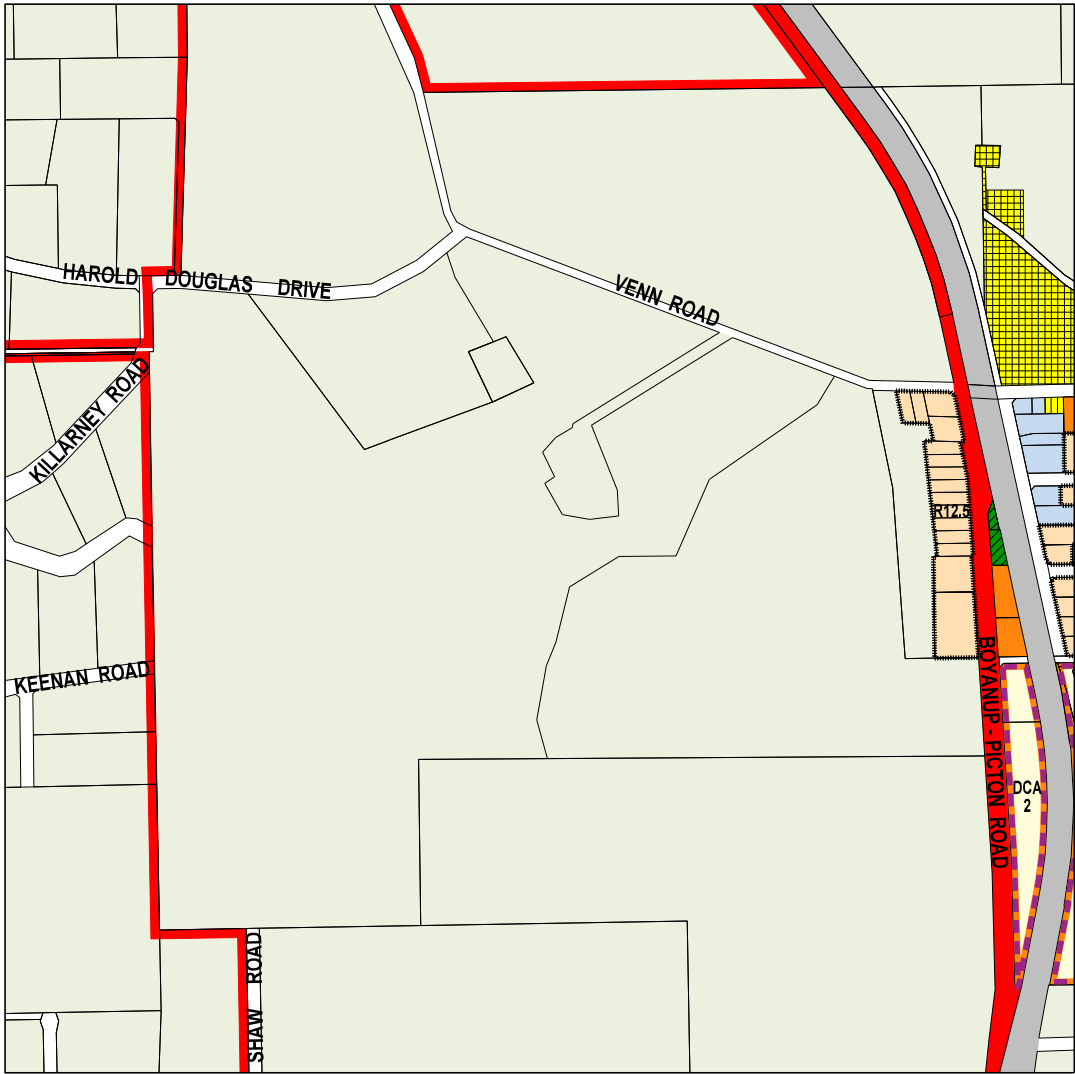
ISSUE	DATE	ISSUE DETAILS	APPROVED
Draft	20 January 2022	Draft for Client review	LG
Rev 0	27 January 2022	Lodged for approval	LG
Rev 1	23 March 2022	Revisions requested by LGA	LG

### COMMERCIAL IN CONFIDENCE

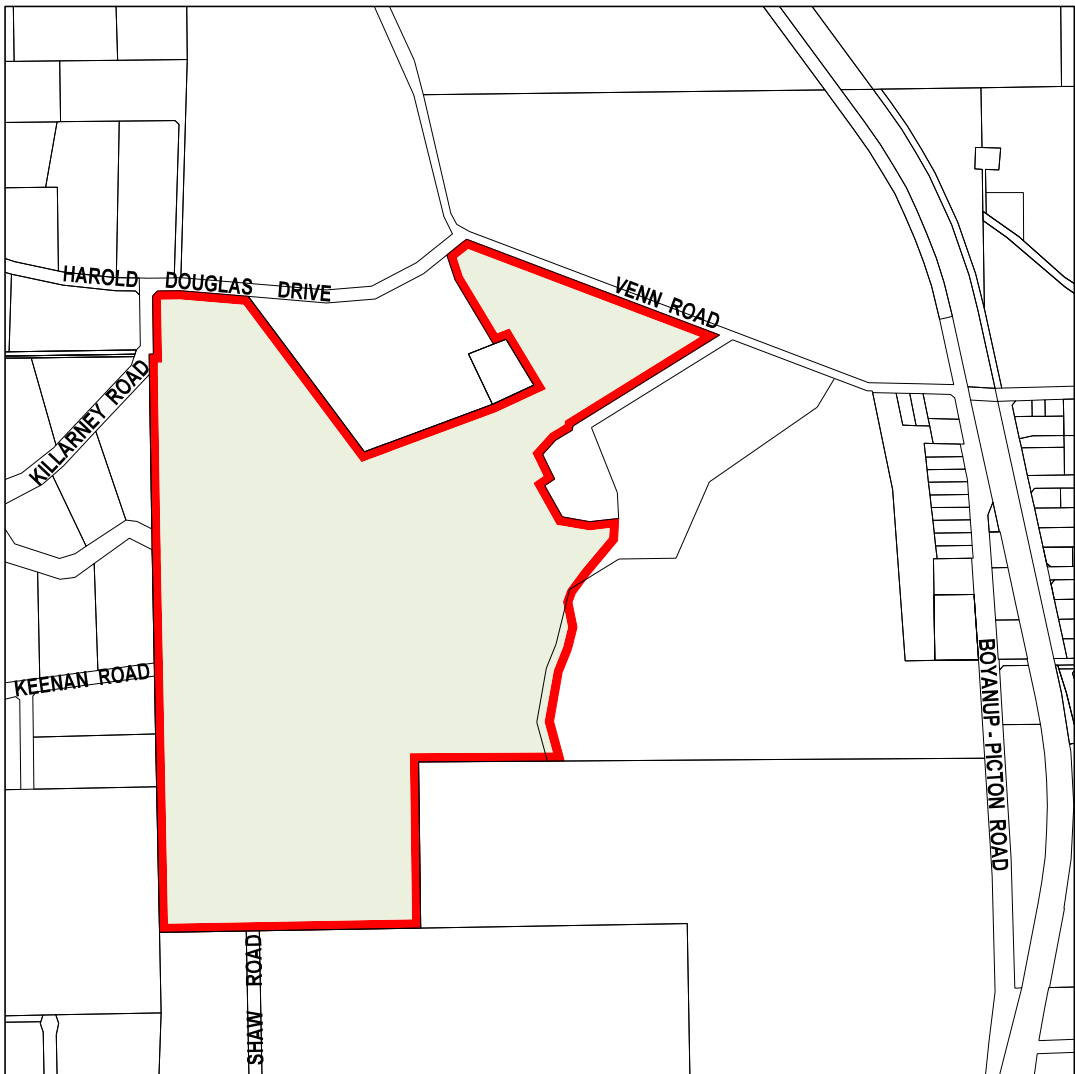
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# SCHEME AMENDMENT MAP

## SHIRE OF DARDANUP LOCAL PLANNING SCHEME No.3 AMENDMENT No. 205



EXISTING ZONING



PROPOSED ZONING

**LEGEND**

**REGION SCHEME ZONES (GBRS)**

- PRIMARY REGIONAL ROADS
- RAILWAY

**LOCAL SCHEME RESERVES**

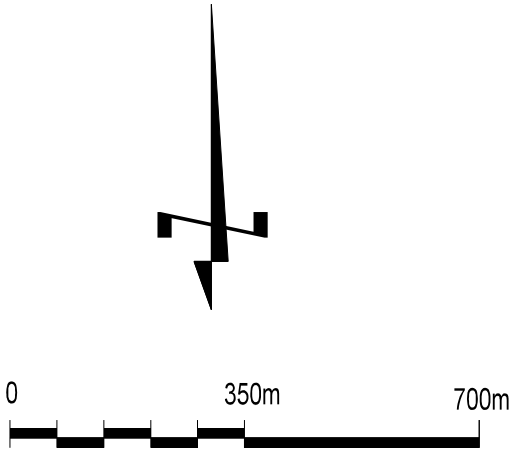
- RECREATION

**LOCAL SCHEME ZONES**

- BUSINESS - COMMERCIAL
- DEVELOPMENT
- GENERAL FARMING
- RESIDENTIAL
- OTHER COMMUNITY
- PUBLIC UTILITIES
- SCHOOL
- SMALL HOLDING

**OTHER CATEGORIES**

- R12.5 RCODES
- DCA2 DEVELOPMENT CONTRIBUTION AREA



# [Appendix ORD: 12.2.3A]

*Planning and Development Act 2005*

## RESOLUTION TO AMEND TOWN PLANNING SCHEME

### SHIRE OF DARDANUP TOWN PLANNING SCHEME No. 3

#### AMENDMENT No. 205

RESOLVED that the local government pursuant to Section 72 of the *Planning and Development Act 2005*, amend the above Local Planning Scheme by:

1. Rezoning portion Lot 2 Harold Douglas Drive and portion Lot 185 Venn Road Dardanup West from 'General Farming' to 'Small Holding';
2. Amending Appendix VIII – Additional requirements – Small Holding Zones by inserting the following:

AREA	ADDITIONAL REQUIREMENTS AND MODIFICATIONS TO THE PROVISIONS OF THE SCHEME TEXT
<b>AREA 19 DARDANUP PARK</b>  Portion Lot 2 Harold Douglas Drive and portion Lot 185 Venn Road Dardanup West shown on the Scheme maps.	<b>1. Subdivision and Development Criteria</b>  a) The local government will require the preparation of a local development plan and subdivision shall be generally be in accordance with the local development plan. b) No dwelling, outbuilding, on-site effluent disposal system or other incidental building shall be constructed in the Building Exclusion Zone as shown on the local development plan. c) Despite clause 3.14.1 r), no tree or shrub within 30 metres of the edge of the proposed drain reserve (Gavin's Gully) shall be removed. d) Sewage is to be discharged via an on-site effluent disposal system which meets the requirements of the <i>Government Sewerage Policy</i> . e) Despite clause 3.14.1 c), each dwelling shall be provided with a minimum 135,000 litre potable water storage tank in addition to any requirements of an approved bushfire management plan. f) At the subdivision stage, suitable arrangements are to be made with the local government for the provision of two (2) fully operational 50,000 litre water tanks for fire-fighting purposes to be located on Reserve 43955, Harold Douglas Drive. As an alternative the local government may accept an equivalent contribution towards strategic bushfire management measures in the Small Holding area of Dardanup West. g) At the subdivision stage, the local government may request that the WAPC impose a condition requiring that satisfactory arrangements be made for the upgrading and/or construction of the local road network (including intersections) to the Shire's standard.

## [Appendix ORD: 12.2.3A]

	<p>2. Land Use Controls</p> <p>a) Stocking rates shall not exceed Department of Primary Industries and Regional Development stocking rate guidelines.</p> <p>b) Despite clause 3.14.1 i), the keeping of horses in accordance with subclause a), is limited to personal use with a maximum of 3 horses.</p>
--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

3. Updating the Scheme Maps accordingly.

The Amendment is a Standard Amendment under the provisions of the *Planning and Development (Local Planning Schemes) Regulations 2015*, for the following reasons:

1. The amendment is consistent with a local planning strategy that has been endorsed by the Western Australian Planning Commission.
2. The amendment is consistent with the Greater Bunbury Region Scheme that applies to the area.
3. The amendment is consistent with the Dardanup Small Holdings Structure Plan applicable to the site that has been endorsed by the Western Australian Planning Commission.
4. The amendment will have minimal impact on land in the Scheme area that is not the subject of the amendment.
5. The amendment will have no significant environmental, social, economic or governance impacts on land in the Scheme area not subject to the amendment proposal.

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 2022

.....  
CHIEF EXECUTIVE OFFICER





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Appendix 1: Preliminary Geotechnical Investigation (WML, December 2021)
Appendix 2: Environmental Assessment Report (Accendo Australia, November 2021)
Appendix 3: Drainage Report (Oversby Consulting, January 2022)
Appendix 4: District / Local Water Management Strategy (Oversby Consulting, January 2022)
Appendix 5: Site and Soil Evaluation (WML, December 2021)
Appendix 6: Bushfire Management Plan (Lush Fire & Planning, January 2022)
Appendix 7: Transport Impact Assessment (Cardno, December 2021)
Appendix 8: Engineering Servicing Report (WML, November 2021)



## 1. Introduction and purpose

*Across Planning* acts for Dardanup Park Pty Ltd, owners of Lot 2 Harold Douglas Drive and Lot 185 Venn Road Dardanup West, known as Dardanup Park. Current Certificates of Title can be found at *Attachment 1* and *Attachment 2*.

This report has been prepared in support of a formal request to the Council of the Shire of Dardanup, pursuant to Section 75 of the *Planning and Development Act 2005*, to initiate an amendment to Town Planning Scheme No. 3 ('TPS3') to:

- rezone portion Lot 2 Harold Douglas Drive and portion Lot 185 Venn Road Dardanup West (totaling 53ha) from 'General Farming' to 'Small Holding';
- amend Schedule VIII to include Area 19 – Dardanup Park and insert additional requirements and modifications to the provisions of the Scheme Text;
- update the Scheme Maps accordingly (refer *Scheme Amendment Map*).

The purpose of the Scheme Amendment is to facilitate progressive subdivision and development of the western portion of the subject land for Small Holdings purposes, while retaining the balance eastern portion for irrigated agriculture consistent with its General Farming zoning.

This report provides background information and addresses matters relevant to the proposed Scheme Amendment.

## 2. Project team

The following multi-disciplinary project team has been engaged by the proponent:

DISCIPLINE	CONSULTANT
Town planning and design	Across Planning
Environmental assessment	Accendo Australia
Geotechnical investigation	WML
Site and soil evaluation	WML
Local water management strategy and drainage	Oversby Consulting
Bushfire management planning	Lush Fire & Planning
Transport impact assessment	Cardno
Engineering servicing	WML



## 3. Pre-lodgement consultation

Pre-lodgement consultation regarding the proposed Scheme Amendment and associated Concept Plan has been undertaken with representatives of:

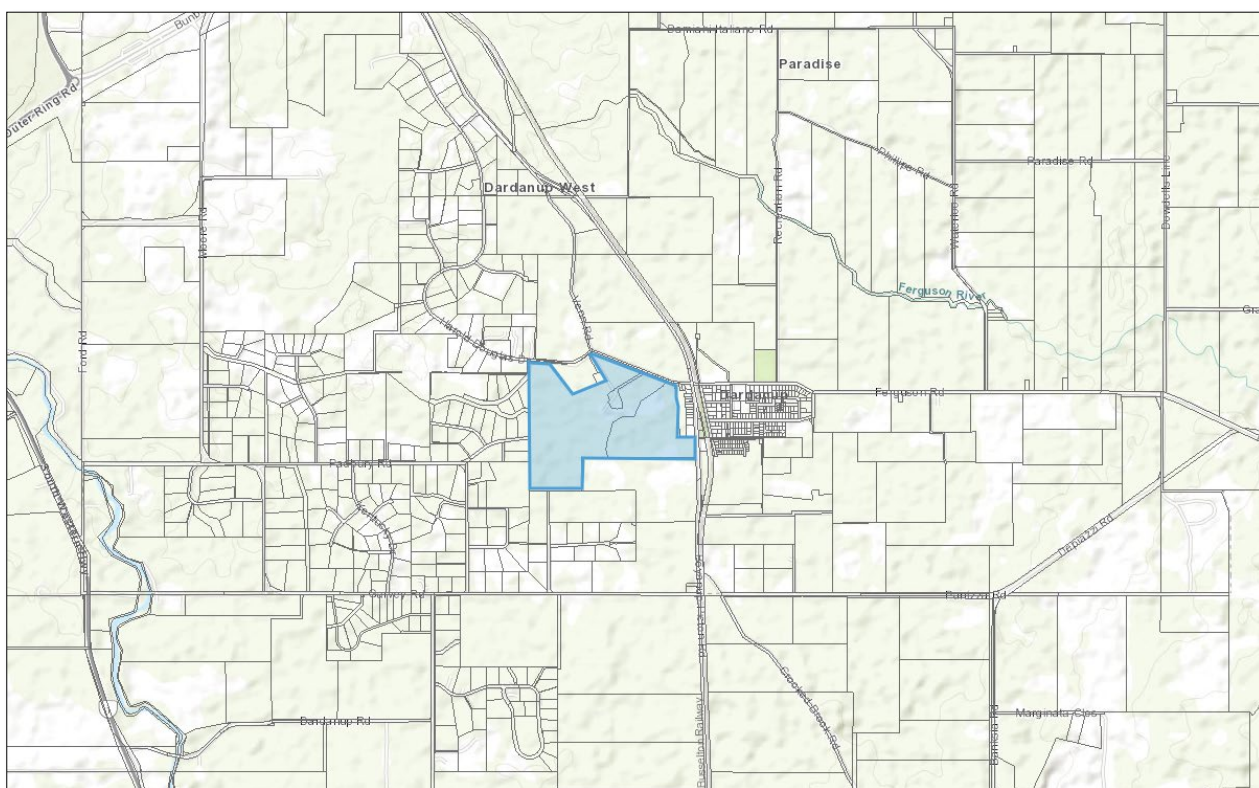
- Shire of Dardanup
- Department of Planning Lands and Heritage ('DPLH')
- Main Roads Western Australia ('MRWA')
- Department of Primary Industries and Regional Development ('DPIRD')

## 4. Description of site

### 4.1. Location

Dardanup Park is located some 15 kilometres south east of Bunbury in the Shire of Dardanup immediately west of Dardanup townsite (refer *Figure 2: Location plan*).

*Figure 2: Location plan*





### 4.2. Area and land use

Dardanup Park comprises Lot 2 Harold Douglas Drive (58.83ha) and Lot 185 Venn Road (24.23ha). The portion proposed to be rezoned (predominantly Lot 2) totals **53 ha**.

The eastern portion of Lot 2 adjoining Venn Road is partially intersected by Lot 3 which is a battle-axe lot containing an historic homestead. The proposed rezoning involves the majority of Lot 2, excluding the portion located between Lot 3 and the Dardanup townsite, which is intended to be amalgamated with Lot 185 for continued farming. A narrow strip of Lot 185 along portion of Gavin's Gully is included in the proposed rezoning. The land subject to the proposed rezoning is shown with the blue dashed border in *Figure 3: Aerial photograph*.

*Figure 3: Aerial photograph*



The north-eastern portion of the subject land is presently used for irrigated grazing. The majority of Lot 2 is also grazed, but predominantly non-irrigated. An agricultural drain (Gavin's Gully) runs through the rezoning area (refer *Figure 4: Aerial photograph*). Most of Lot 2 and Lot 185 has been cleared of native vegetation, with some remnant vegetation along Gavin's Gully, scattered paddock trees, limited clumps of remnant vegetation towards the western boundary of Lot 2, and some shelter belts of introduced trees along fence lines.



Lot 2 contains an existing farmhouse dwelling and two sheds, with former stockyards and older sheds having been demolished.

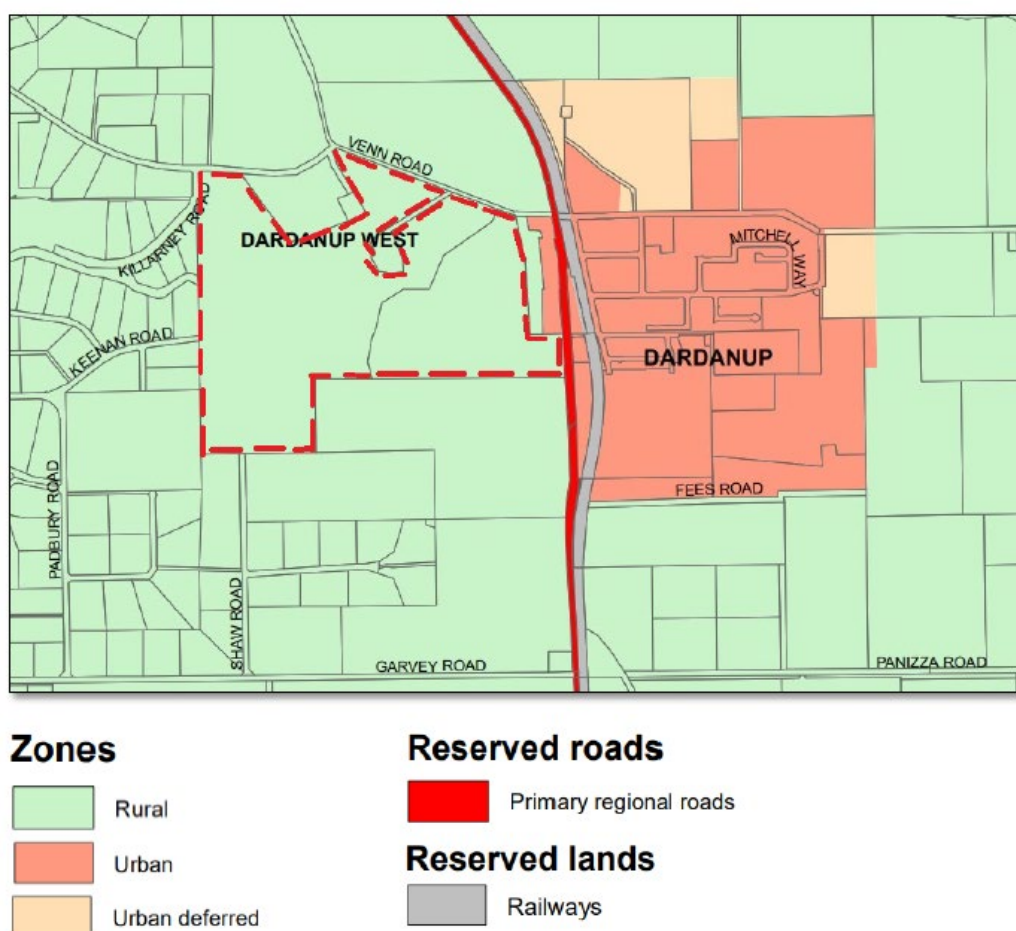
Adjoining land uses include general farming to the north, east (including Lot 185) and south; and existing small holding estates to the west.

## 5. Statutory planning framework

### 5.1. Greater Bunbury Region Scheme

Lot 2 Harold Douglas Drive and Lot 185 Venn Road (shown with red dashed line) are zoned 'Rural' under the Greater Bunbury Region Scheme (GBRS) (refer: *Figure 4: Greater Bunbury Region Scheme map(extract)*). In common with existing Small Holding areas, the proposed Small Holding rezoning for portion of the subject land is compatible with the 'Rural' zoning under the GBRS.

*Figure 4: Greater Bunbury Region Scheme map (extract)*

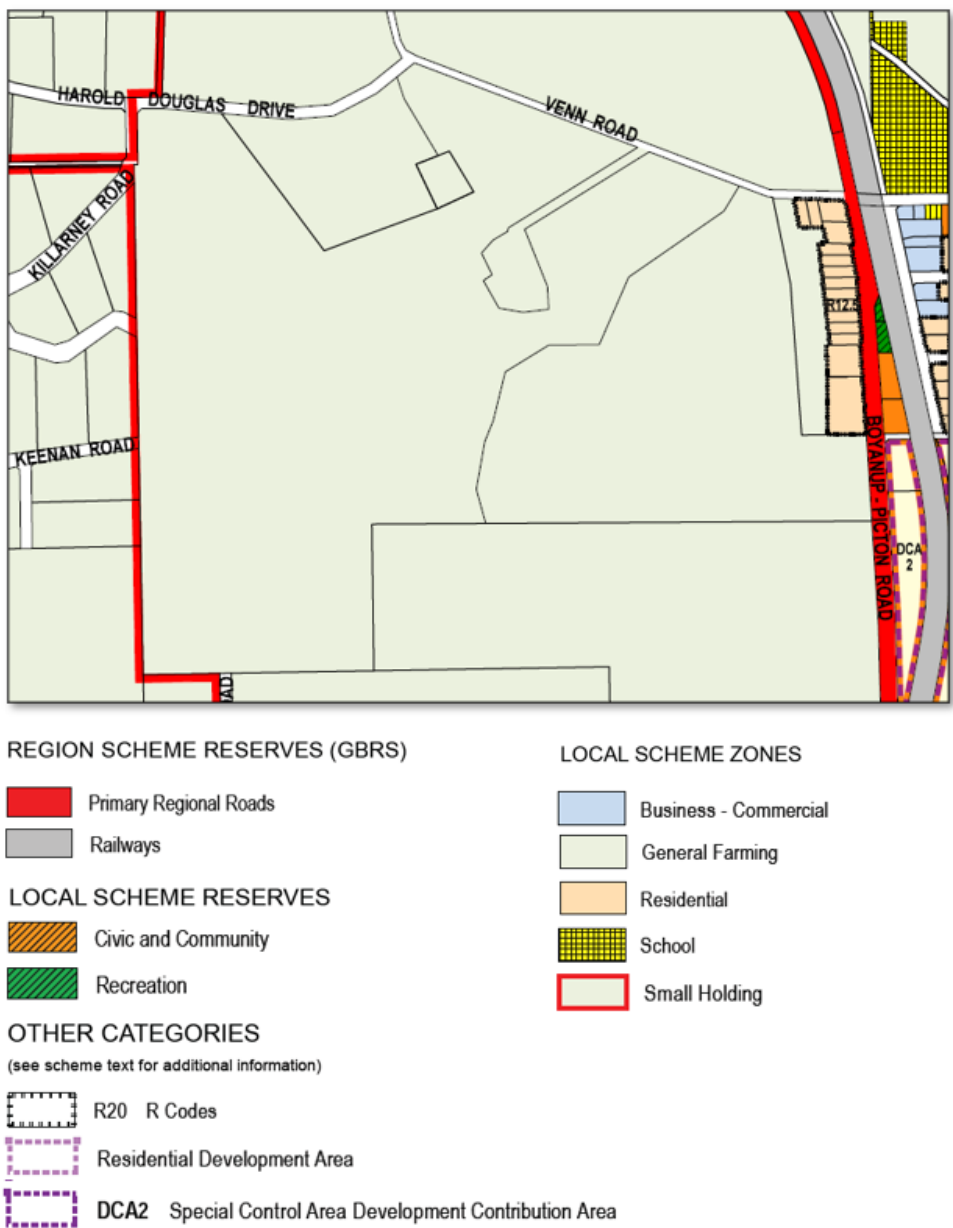




5.2. Shire of Dardanup Town Planning Scheme No. 3

Under the Shire of Dardanup Town Planning Scheme No. 3 (TPS3), which is the existing District Planning Scheme, the subject land is zoned ‘General Farming’ (refer *Figure 5: Town Planning Scheme No. 3 scheme map (extract)*). Adjoining land to the west is zoned ‘Small Holding’, as are some areas to the north and south.

Figure 5: Town Planning Scheme No. 3 scheme map (extract)







In proposing to rezone portion of the subject land to 'Small Holding Zone', it is noted that existing Clause 3.14 (Small Holding Zones) of TPS3 states:

3.14.1 *The following provisions shall apply within Small Holding Zones:*

- a) *So far as is practicable, the rural character of the area shall be maintained and native trees shall be retained.*
- b) *Residential development shall in the case of a separate lot of less than 2ha, be limited to a single house only. For a separate lot of 2ha or larger, Council may approve not more than two grouped dwellings.*
- c) *No dwelling shall be constructed unless it is connected to the water mains but the Council may relax this requirement if it is satisfied that there is a supply of potable water available on the site either in the form of a rain water storage tank of not less than 92,000 litres or a bore from which an adequate quantity of potable water can be obtained.*
- d) *No dwelling shall be constructed within 20 metres of the front lot boundary provided that where it can be established to the satisfaction of the Council that due to the topography the shape of the lot or the existing vegetation, this requirement is unreasonable or undesirable the Council may at its discretion vary the requirement, provided such variation does not permit a setback of less than 10 metres.*
- e) *No building shall be constructed within this zone of materials the colour or texture of which, in the opinion of Council, is undesirable for the locality.*
- f) *Commercial pig farming, commercial poultry farming and feed lot farming shall not be permitted. The keeping of more than one pig for domestic or hobby purposes on a lot within a Small Holding Zone shall not be permitted without the special approval of Council.*
- g) *After the initial subdivision of the land within the Small Holding Zone, the Council will not recommend further subdivision of the lots created.*
- h) *No person shall display or permit to be displayed a sign hoarding or billboard other than one not exceeding 0.2m<sup>2</sup> in area advertising the activity conducted on the site.*
- i) *Where lots below 8,000 square metres in area are to be used for the keeping of a horse or horses, then that use shall be limited to the keeping of horses for the personal use and enjoyment of the lot owner.*
- j) *If there exists a building envelope for a lot, no person shall construct a dwelling outside the building envelope. Council may approve the location of outbuildings outside the building envelope provided that no loss of trees will result and Council is satisfied that the specific proposal is consistent with the general objectives of the special rural area and a reduction in amenity will not result.*
- k) *The erection of second hand buildings or the use of used building materials for external walls and roofs shall not be permitted without the special approval of the Council.*
- l) *No person shall allow derelict outbuildings, car bodies, machinery, boats, caravans or*



- other accumulations of rubbish to remain on a lot.*
- m) The use of asbestos, metal sheeting, barbed wire or wooden pickets as boundary fencing materials will not be permitted.*
  - n) The position of the crossover between the road and the lot and the driveway to the house shall require the approval of the Council.*
  - o) The entry gate on the road frontage of the lot shall be of a standard approved by the Council.*
  - p) No person shall keep any mature male goat on any lot unless specific approval has been granted by the Council, with or without conditions.*
  - q) Where, in the opinion of Council, excessive livestock number of a lot are causing environmental damage or nuisance, it may take appropriate action to eliminate or reduce the effects and recover the costs of such action from the registered proprietor of the lot.*
  - r) A person shall not without the prior approval of Council damage, fell or remove a tree; except –*
    - (i) a tree that is dead or is diseased and likely to die;*
    - (ii) for the purpose of clearing of a fire break;*
    - (iii) a tree contained within a building envelope or other approved location for a building which in the opinion of the Council would unreasonably obstruct or interfere with the erection of a dwelling, house or on outbuilding.*
  - s) Council may permit an amendment to the position or size of a building envelope if it is shown to the satisfaction of Council at the time of application for planning approval that a proposed relocation is desirable or necessary and having regard to the criteria set out in clause 7.6.2 and shall not exceed 10% of any lot area.*

*3.14.2 The additional requirements and modifications to the provisions contained in the preceding clause and to the Zoning and Development Tables are specified in Appendix VIII and apply to the areas set against those requirements and modification in that Appendix.*

### Additional Requirements

Further to the above-listed provisions, it is proposed that additional requirements will apply to the portion of the subject land intended to be rezoned to 'Small Holding Zone' and be specified in Appendix VIII, as follows:





AREA	ADDITIONAL REQUIREMENTS AND MODIFICATIONS TO THE PROVISIONS OF THE SCHEME TEXT
<p><b>AREA 19</b> <b>DARDANUP PARK</b></p> <p>Portion Lot 2 Harold Douglas Drive and portion Lot 185 Venn Road Dardanup West shown on the Scheme maps.</p>	<p><b>1. Subdivision and Development Criteria</b></p> <ul style="list-style-type: none"> <li>a) The local government will require the preparation of a local development plan and subdivision shall be generally be in accordance with the local development plan.</li> <li>b) No dwelling, outbuilding, on-site effluent disposal system or other incidental building shall be constructed in the Building Exclusion Zone as shown on the local development plan.</li> <li>c) Despite clause 3.14.1 r), no tree or shrub within 30 metres of the edge of the proposed drain reserve (Gavin's Gully) shall be removed.</li> <li>d) Sewage is to be discharged via an on-site effluent disposal system which meets the requirements of the <i>Government Sewerage Policy</i>.</li> <li>e) Despite clause 3.14.1 c), each dwelling shall be provided with a minimum 135,000 litre potable water storage tank in addition to any requirements of an approved bushfire management plan.</li> <li>f) At the subdivision stage, suitable arrangements are to be made with the local government for the provision of two (2) fully operational 50,000 litre water tanks for fire-fighting purposes to be located on Reserve 43955, Harold Douglas Drive. As an alternative the local government may accept an equivalent contribution towards strategic bushfire management measures in the Small Holding area of Dardanup West.</li> <li>g) At the subdivision stage, the local government may request that the WAPC impose a condition requiring that satisfactory arrangements be made for the upgrading and/or construction of the local road network (including intersections) to the Shire's standard.</li> </ul> <p><b>2. Land Use Controls</b></p> <ul style="list-style-type: none"> <li>a) Stocking rates shall not exceed Department of Primary Industries and Regional Development stocking rate guidelines.</li> <li>b) Despite clause 3.14.1 i), the keeping of horses in accordance with subclause a), is limited to personal use with a maximum of 3 horses.</li> </ul>



## 6. Strategic planning framework

### 6.1. Bunbury-Geographe Sub-regional Strategy

The *Bunbury-Geographe Sub-regional Strategy* prepared by the DPLH in conjunction with other State Government departments and agencies and the local governments was endorsed by the WAPC and published in January 2022.

Under the settlement hierarchy in the draft strategy, Dardanup is classified as a 'Town'. Relevant strategic directions include:

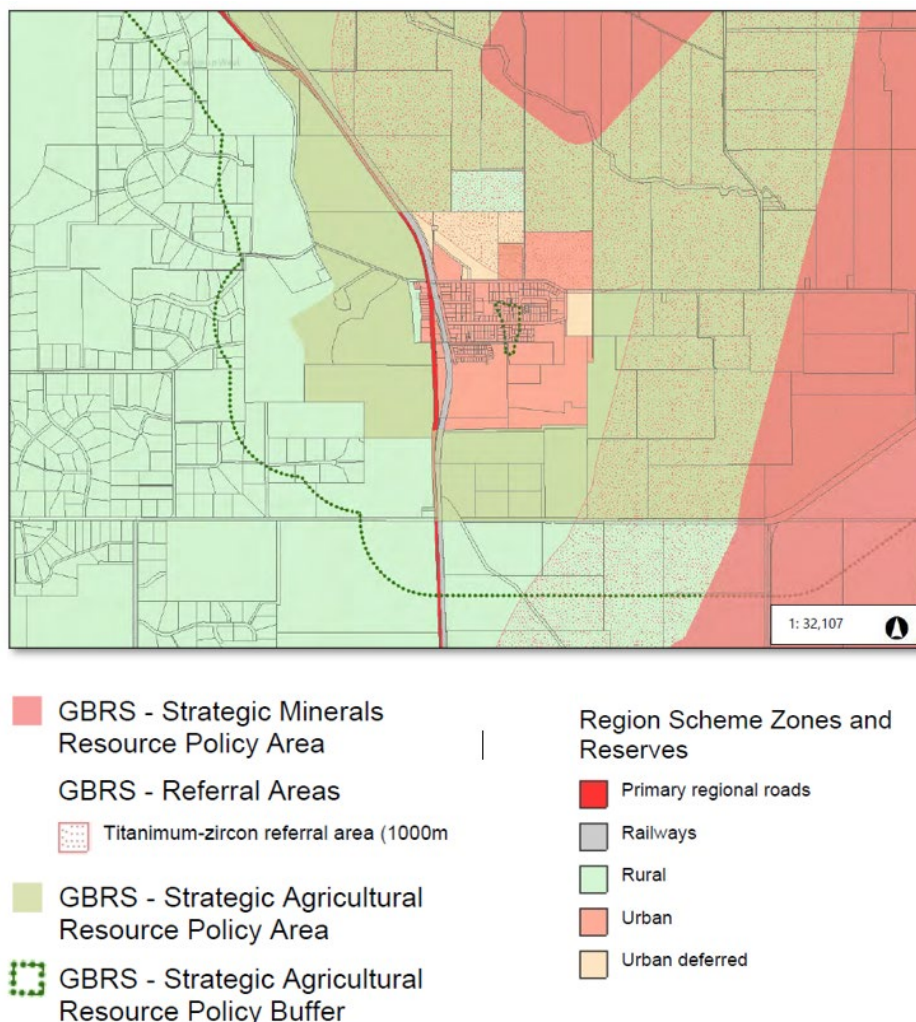
- Support the growth of Major Towns and Towns to reinforce their ongoing roles in the settlement network.
- Provide for the designation of new rural living areas in locations contiguous with a number of settlements, including Dardanup. Proposals for new rural living areas are to address the planning requirements for rural living precincts contained in *State Planning Policy 2.5: Rural Planning*. New rural living areas are to be designated in a local planning strategy and/or a local planning scheme.

### 6.2. GBRS – Strategic Minerals and Basic Raw Materials Policy

The GBRS has a strategic minerals and basic raw materials (BRM) policy to protect access to these resources by encroachment of incompatible uses and development. Along with strategic agricultural resources, these resources are identified in *Figure 6: GBRS – Strategic Minerals, Basic Raw Materials and Agricultural Resource Areas*.

There are no strategic minerals or strategic BRM on or in the vicinity of the subject land. *Figure 6* shows a Titanium-Zircon (mineral sands) deposit north-east of Dardanup townsite, however the subject land is outside the 1000m referral area.

Figure 6: GBRS – Strategic Minerals, Basic Raw Materials and Agricultural Resource Areas



## 6.3. GBRS – Priority Agricultural Land Policy

Priority agricultural land and an associated buffer policy are identified in *Figure 6: GBRS – Strategic Minerals, Basic Raw Materials and Agricultural Resource Areas*. The eastern portion of the subject land, reflecting its inclusion in an irrigation district, is identified as Strategic Agricultural Resource Policy Area. The associated buffer includes the western portion of the subject land.

The impact of this policy on the proposed scheme amendment was discussed with DPIRD officers in July 2021 during pre-consultation. DPIRD officers acknowledged the subject land is located within an existing endorsed Small Holding structure plan area and that subdivision and use of the land for small holdings is “inevitable”.

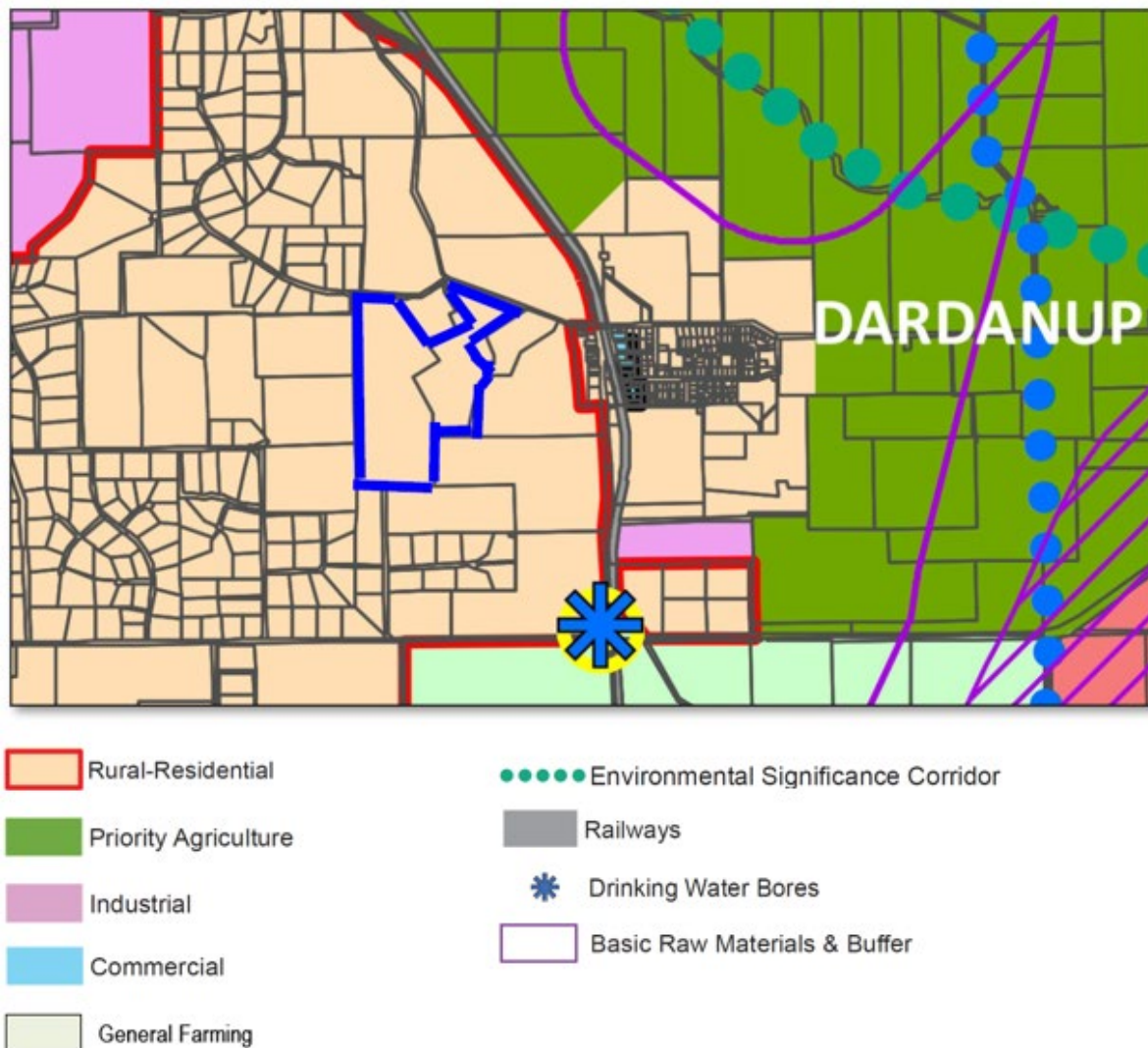


The subject land has an existing irrigation water entitlement. With the majority of the irrigated portion of the subject land to remain zoned 'General Farming' and used for irrigated grazing, there will be limited impact on the agricultural productivity. DPIRD noted that the proposal will not cause an issue for other property owners because the subject land is at the end of the irrigation line. DPIRD also noted that most of Lot 2 is not regarded as Priority Agriculture.

### 6.4. Shire of Dardanup Local Planning Strategy

The adopted Local Planning Strategy identifies the Dardanup West area (including the whole of Dardanup Park) as 'Rural Residential' (refer *Figure 7: Local Planning Strategy (extract)*). The "Small Holding" zone is compatible with this.

*Figure 7: Local Planning Strategy (extract)*





### 6.5. District Structure Plan

The Dardanup Small Holdings Structure Plan was endorsed by the WAPC on 7 August 2007 (refer *Figure 8: Dardanup Small Holdings Structure Plan*). This district-level structure plan provides the over-arching guide to progressive subdivision and development of this portion of the Dardanup West area for Small Holding purposes.

The majority of the Small Holding potential in the area is located north of Garvey Road, in which approximately 50% of the potential Small Holding lots have already been created.

The proposed rezoning represents an important step in consolidating the Dardanup West Small Holdings area and, in particular, improving connection of the overall structure plan area to the Dardanup Townsite, while maintaining an area of irrigated agriculture immediately adjacent the townsite pending future investigation for Small Holding or urban development.

It is noted that the structure plan provides (indicatively) for a north-south bridle trail through the proposed Small Holding area and an east-west extension of Keenan Road linking to Venn Road and the Dardanup townsite.

### 6.6. Government Sewerage Policy

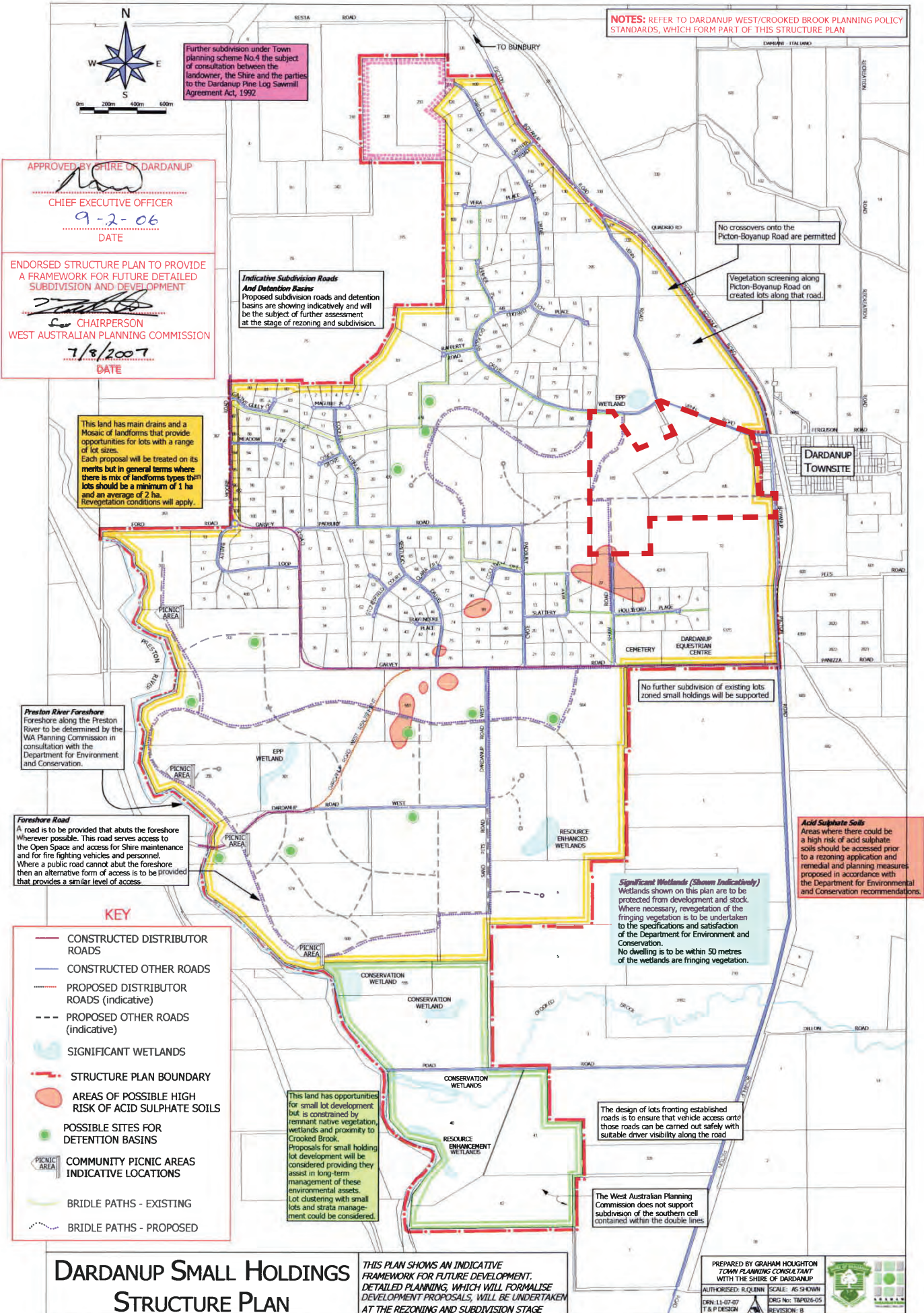
The *Government Sewerage Policy* (2019) is a whole-of-government policy endorsed by the Health Department of WA and the WAPC. In instances where reticulated sewerage cannot be provided, it adopts a best practice approach to the provision of on-site sewage treatment and disposal, in accordance with *Australian/New Zealand Standard 1547 On-site domestic wastewater management*.

Under the GSP, on-site sewage disposal may be considered where the responsible authority is satisfied that:

- each lot is capable of accommodating on-site sewage disposal without endangering public health or the environment; and
- the minimum site requirements for on-site sewage disposal outlined in Section 5.2 and Schedule 2 can be met.

As outlined in the following sections, and detailed in the relevant technical appendices (geotechnical assessment, site and soil evaluation, district/local water management strategy and drainage report) the proposed subdivision and development enabled by Amendment 205 conforms to the GSP.







### 6.7. SPP 5.4 Road and Rail Noise

State Planning Policy 5.4 Road and Rail Noise (SPP 5.4) is a higher order planning policy applying throughout Western Australia where a noise-sensitive land use is proposed within the policy's 'trigger distance' of specified transport routes or when new or major upgrades of road and rail are proposed.

*Schedule 2. Primary freight roads and rail routes (South-West region)* of SPP 5.4 identifies the Boyanup-Picton Road as a 'State freight road'. Under Table 1 of the policy, the trigger distance is 300m measured from the road carriageway edge. The southern portion of Lot 185 Venn Road adjoins the Boyanup-Picton Road and therefore technically triggers the policy provisions. However, Lot 185 and the eastern-most portion Lot 2 Harold Douglas Drive are to be retained as a balance of title (29.78ha) for continued farming operation. Importantly, this balance of title is not proposed to be rezoned to 'Small Holding', but instead will remain 'General Farming'.

Lot 185 does not presently contain a dwelling or other sensitive land use and there is no proposal for any noise-sensitive land use. The nearest proposed dwelling will be Lot 1003 that is approximately 400m from the Boyanup-Picton Road, meaning the trigger under SPP5.4 does not apply.

Schedule 2 also identifies the Dean Mill-Picton Railway Line. For the same reason as above, the trigger under SPP5.4 does not apply.

## 7. Environmental attributes, impacts and management

### 7.1. Geology

The 1:50,000 scale Geological Map 'Bunbury-Burekup' indicates that the site is underlain by three geological units: Bassendean Sand (Qpb), Guildford Formation (Qpa) and Bassendean Sand over Guildford Formation (Qpb/Qpa).

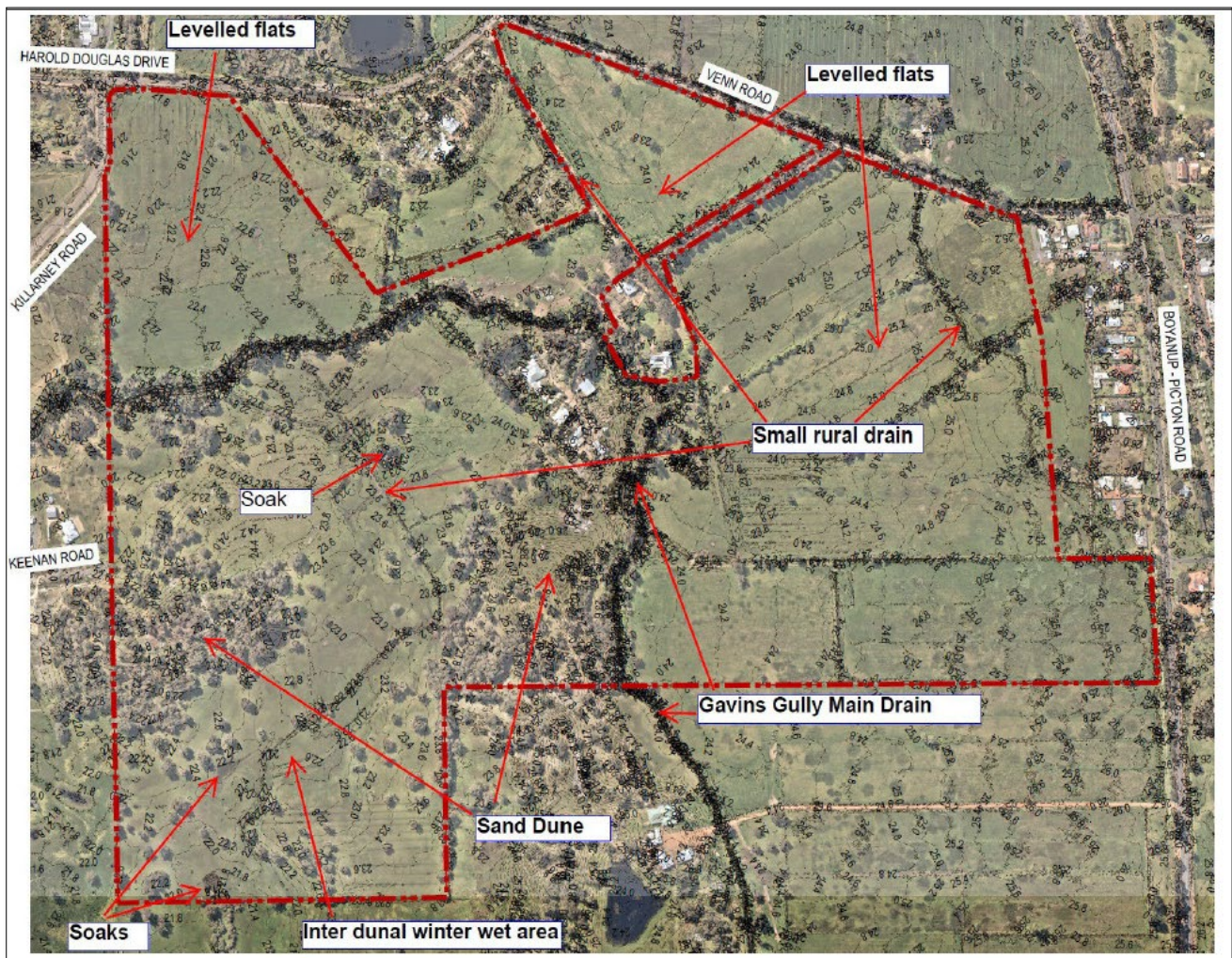
Bassendean Sand is present as low rounded dunes on the east of the proposed small holding area and in an isolated area on the west (near proposed Lots 1017 and 1018). Guildford Formation is present as mainly alluvial sandy clay in the north and centre of the subject land. Thin Bassendean Sand over Guildford Formation occupies much of the southern area of the subject land.

### 7.2. Topography, landform and soils

The topography of the subject land is gently sloping to undulating, ranging from 26m AHD in the east to 22m on portion of the western boundary, with a sand dune in the centre and a second small dune near the western boundary. Gavin's Gully runs through the subject land (refer *Figure 9: Landform*).



Figure 9: Landform



The site can be broken down into three zones based on the geology of the existing soils:

### Zone 1: Bassendean Sand

This zone comprises low dunes of SAND (SP), generally fine to medium-grained, pale grey, grey and pale yellow mottled grey, but also yellow and yellow-orange, generally loose to medium dense, moist to wet and typically encountered to the test pit termination depths of between 1.6 m and 2.1 m below ground surface.

### Zone 2: Guildford Formation

This zone comprises mainly Alluvium represented by the variable type of soils, including Sandy CLAY (CL, CI, CH), Clayey SAND (SC), SAND (SP) and CLAY (CI, CH).



### Zone 3: Shallow Bassendean Sand over Guilford Formation

There were 25 test pits examined during the *Preliminary Geotechnical Investigation* (WML, November 2021) *Appendix 1*. During the test pit investigations, Zone 3 was observed only in one test pit at the southern end of the subject land.

Soils encountered in the test pits were typically loose to medium dense or soft to very stiff. Organic clay was identified in one of the test pits within the northern portion of the site, to a depth of 0.9 m below the ground surface.

The site investigation indicated that the Bassendean Sand area to the west of the site is larger than indicated on geological maps, present across much of proposed lots 1019, 1020, 1030, 1031 & 1032.

More detail on the geology arising from the results of test pit analysis can be found in *Appendix 1*.

### 7.3. Geotechnical

Based on the results of the WML geotechnical investigation, a preliminary site classification of “Class P” is considered appropriate for the site due to the high groundwater table and loose/soft/organic deposits within the shallow depths, which lower the bearing capacity of the subgrade.

However, the site classification can be improved to “Class A” or “Class S” following selective earthworks. Those earthworks would include removal of unsuitable organic/soft clay soils (where required), proof compacting the exposed subgrade and placement of clean sand fill material) to the required design lot levels. It is considered that rising the site levels by at least 1.2 m would provide sufficient separation from the groundwater and improve the site classification to “Class A” or “Class S”. At least 1.5 m of clean granular fill material is required within this area (Dardanup) to achieve “Class A”.

Assuming that the recommended remedial earthworks included in the Geotechnical Report are completed, pad and strip footings may be designed for an allowable bearing pressure of 100 kPa. This recommendation is for pad footing widths between 0.5 m and 1.5 m and strip footings between 0.5 m and 1 m wide. Elastic settlements of up to about 20 mm are expected.

Any pavements supported on the existing subgrade should be designed using a CBR value of 4%. Should granular fill material be placed on site as part of the site classification improvement works, the design CBR can be reviewed. Drainage measures should be adopted to ensure that the subgrade and pavements do not become saturated in service. Adequate subsoil drainage will be utilized.

Further information can be found in the *Preliminary Geotechnical Investigation* (WML, November 2021) *Appendix 1*.



### 7.4. Acid sulfate soils

As identified in the *Environmental Assessment Report* (Accendo Australia, November 2021 *Appendix 2*), Acid Sulfate Soils (ASS) is the name commonly given to naturally occurring soils and sediment containing iron sulphide (iron pyrite) materials. In their natural state, ASS are generally present in waterlogged and/or anoxic conditions and do not present any risk to the environment. ASS can pose issues when oxidised, producing sulphuric acid, which can present a range of risks for the surrounding environment, infrastructure and human health.

The Department of Water and Environmental Regulation (DWER) provides broad-scale mapping indicating areas of potential ASS risk (DWER 2019). A review of the DWER mapping by Accendo indicates that the majority of the subject site is classified as having a 'moderate to low risk' of ASS occurring within 3 m of the natural soil. A small portion to the southwest of the subject site is classified as 'high to moderate risk' of ASS.

Laboratory test results for the WML geotechnical investigation indicated that Potential ASS (PASS) or ASS might be present at the site.

WML advise that according to the "Identification and Investigation of Acid Sulfate Soils and Acidic Landscapes" guideline prepared by DWER in June 2015, Bassendean Sands, whilst perhaps not fitting the traditional description of ASS, nonetheless have some acid generating potential and can release a significant amount of acidity and/or iron when disturbed. These soils have many of the same properties as ASS and should be investigated and managed as ASS would be. WML recommend that detailed ASS investigation, including chromium reducible sulphur testing, is performed within the areas where soil disturbance is likely.

Further information can be found in the *Preliminary Geotechnical Investigation* (WML, November 2021) *Appendix 1*.

### 7.5. Potential contamination

There are no known contaminated sites on the subject land. The adjoining Reserve 19178 (Lot 53 on Plan 149816) situated at the southern end of Sheep Dip Road may have some contamination arising from its previous use for sheep dipping. The reserve (with an area of 5222m<sup>2</sup>) is vested in the Shire. In the event contamination is identified on the reserve, it is unlikely to impact the subject land given the direction of groundwater movement is away from the proposed lots. At the subdivision stage, it is proposed that Sheep Dip Road be closed and amalgamated with the subject land for inclusion in proposed Lot 1001. Access to the reserve is proposed to be replaced via the extension of Keenan Road adjoining the southern boundary of the reserve. This also has the advantage of creating additional separation between proposed Lot 1005 and the reserve.





### 7.6. Surface water and drainage

A Drainage Report has been prepared by Oversby Consulting (refer: *Drainage Report, Oversby Consulting, January 2022 Appendix 3*).

Oversby reports that the generally gentle slopes of the subject site are intersected by a small perennial creekline (Gavin's Gully) which is a degraded natural waterway and tributary of the Preston River. The Preston River is located approximately 3 km to the southwest of the subject site and the Ferguson River is located approximately 1.6 km to the northeast of the subject site.

There is little surface run-off from the sandy portions of the site, except for the low sandy areas where groundwater rises close to the surface. The heavier soils on the flats will tend to run after moderate rainfall, noting that the pasture assists with capturing and slowing flow.

According to Oversby, there is no known flood modelling of the waterway, which is registered as a Water Corporation Main Drain. Portion of the waterway has been cleaned out and deepened to accommodate the Water Corporation's management rate of 8.5m<sup>3</sup>/s/1000ha. It is noted that at the point where the water turns westward, the size of the channel width increases greatly, although it does maintain some characteristics of a natural waterway including a slightly meandering nature and isolated trees. Just downstream of the subject land, the waterway has been channelised into a typical drain.

Anecdotal evidence is that the waterway rarely floods outside of the main channel. The broad, flat nature of the surrounding plain means that any flood waters are likely to spread sideways in a shallow flow. The sand dune along the eastern boundary also effectively protects the eastern portion of the proposed development from flooding out of the waterway.

The pre-development subject land has been divided into 8 sub-catchments. These catchments reflect where water generally flows towards. Generally, there are:

- 2 catchments (1 and 2) that flow north to Harold Douglas Drive/Venn Road, where they enter existing roadside drains.
- 5 catchments contribute flows to Gavin's Gully (3-7), with Catchment 6 flowing into catchment 5 before discharging into the gully.
- 1 catchment (8) that currently flows completely southward, to discharge into neighbouring farmland and the un-made Shaw Road reserve.



It is also noted that Catchment 6 likely historically flowed southward too. A small rural drain, currently partially blocked, diverts this flow into Catchment 5. It is likely however that from time to time, as the drain becomes even more blocked, that the flow turns south again. For this reason, an analysis was undertaken of the likely total flow south under these conditions.

The proposed bridge crossing (extension of Keenan Road) is to be designed to not impede flows down Gavin's Gully. Suitable bank protection is also to be undertaken to protect the bridge and surrounding banks. Details are to be determined at the subdivision stage in consultation with the Shire and Water Corporation.

### 7.7. Stormwater management

Oversby has undertaken the pre-development and post-development modelling using storms modelled for 15m to 48hr events and for 20% AEP and 1% AEP.

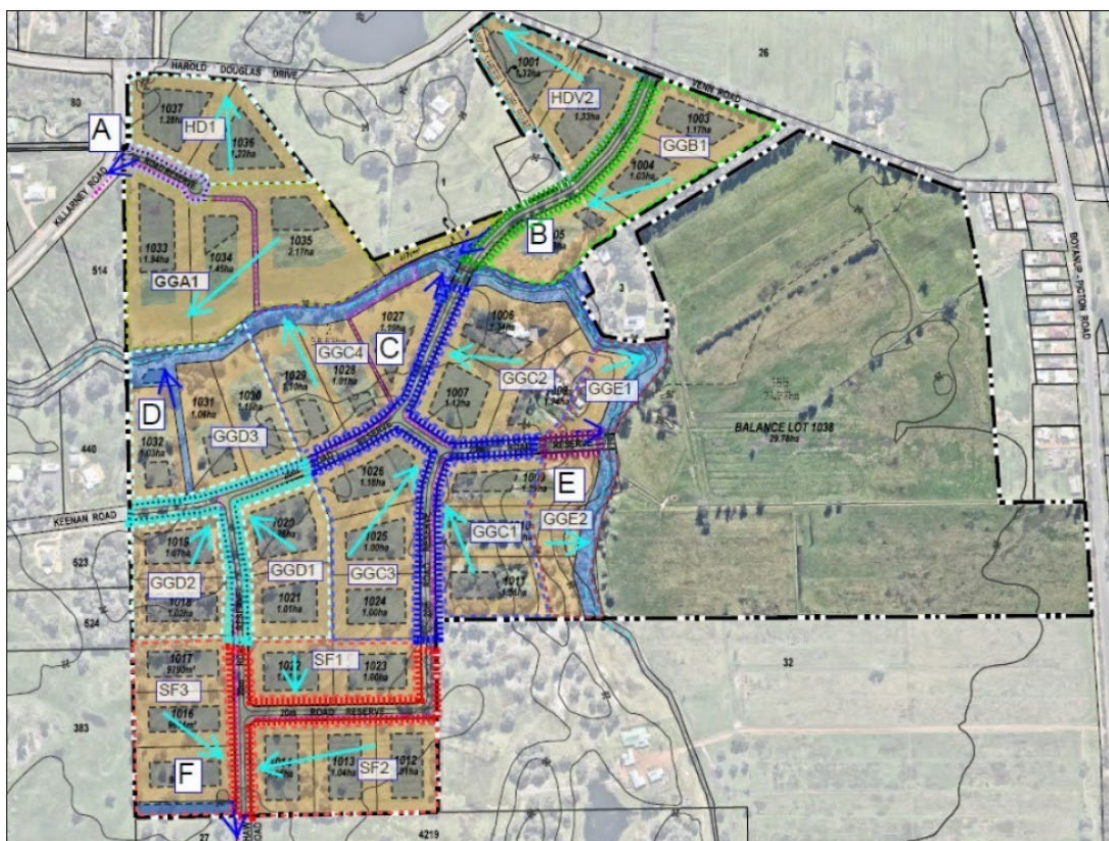
The post-development scenario is designed to achieve a water sensitive design outcome for the 1EY, 20% AEP and 1% AEP, while also controlling groundwater rise along the road system via roadside swale drains.

Post-development modelling (8 catchments and 33 sub-catchments) was split into road and lot sub-catchments, where possible grouped to replicate the existing pre-development catchments to allow comparisons (refer *Figure 10: Post-development surface water catchments*).

Oversby notes that there is a lower peak outflow post-development for all major catchments. This is predominantly due to the large volume of storage within the road reserve swale network, so as to accommodate the Water Corporation's run-off rate for Gavin's Gully. This storage significantly slows the rate of outflow compared to the pre-development scenario where there is no significant storage. The new road network also creates barriers to the current overland sheet flow, which also contributes to a reduced overall flow rate during larger events.



Figure 10: Post-development surface water catchments



According to Oversby, the final discharge pipes could be increased to allow more flow off the site, however the swales are likely to remain similar in size, due to the need to control groundwater. The decreased overall flow rate also assists with helping manage flows into Gavin's Gully and provides some conservative management until such time as there is more detailed modelling of the entire system. The reduced flow to the south also assists with not causing undue issues for the currently undeveloped areas. Flows could potentially be increased back to pre-development flows once Shaw Road is constructed and there is a designated swale to take any generated flows.

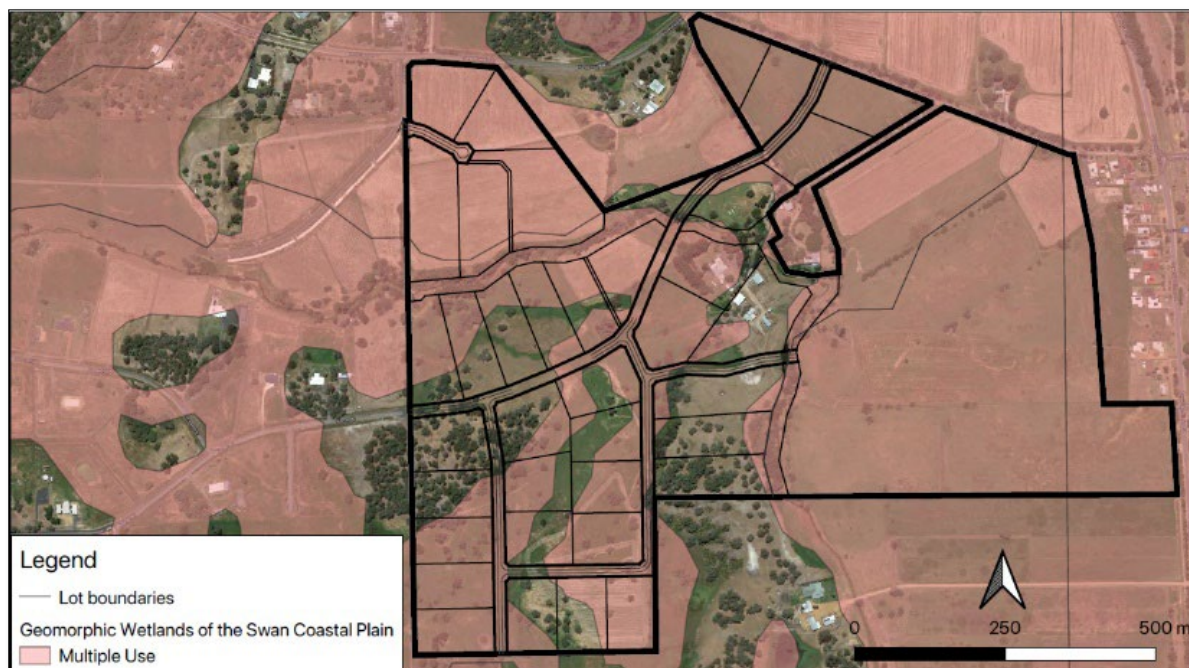
## 7.8. Wetlands

As identified by Accendo, three Multiple Use (MU) wetlands (UFI 14,329, 15,221 and 1,757) are located throughout the subject site. MU wetlands are assessed as possessing few remaining ecological attributes and functions. While such wetlands can still contribute to regional or landscape ecosystem management, including hydrological function, they are considered to have low intrinsic ecological value. Typically, they have minimal or no native vegetation remaining (less than 10%). Accordingly, there is no legislative requirement to protect or retain them and as such MU wetlands do not usually preclude development.



*Figure 11: Geomorphic wetlands* shows that the three wetlands on the subject land are part of widespread MU geomorphic wetlands on the Swan Coastal Plain.

*Figure 11: Geomorphic wetlands*



There are three main focuses for the management of water dependent ecosystems (WDE) as part of the subject land's development for small holdings. These are:

- to treat water prior to discharge into the onsite waterway and downstream ecosystems
- creation of new WDE habitat within the stormwater basins
- rehabilitation of Gavin's Gully.

A search of the Ramsar Convention on Wetlands (1971) database by Accendo revealed that the subject site does not contain, and is not in proximity to, any wetlands of international significance.

## 7.9. Groundwater

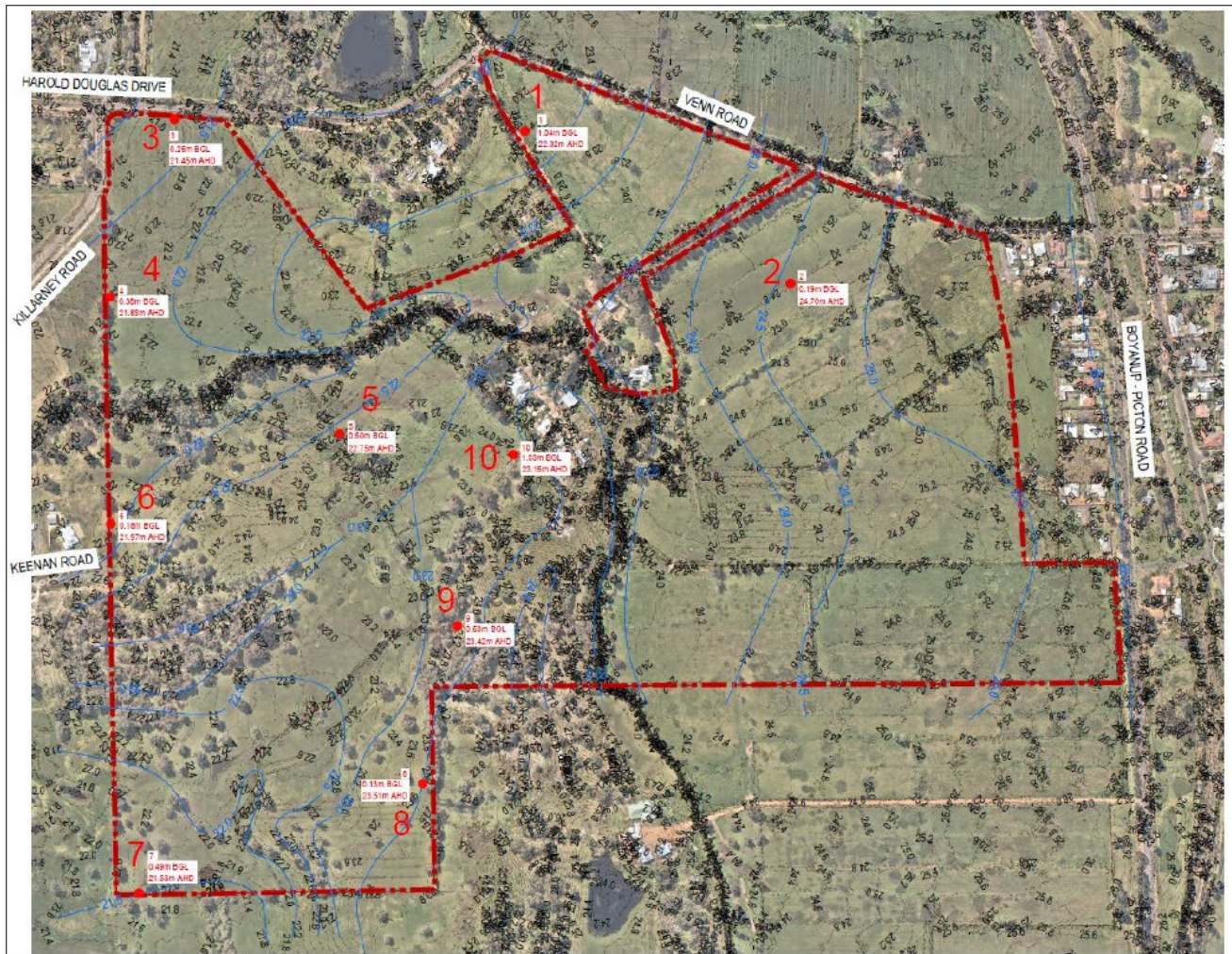
A District / Local Water Management Strategy has been prepared by Oversby (refer: *District Local Water Management Strategy Oversby Consulting, January 2022 Appendix 4*).

Groundwater levels were monitored by Oversby using 10 bores monitored between June 2021 and October 2021. All bores are within the superficial aquifer, with bores being drilled to approximately 3.5 meters (refer: *Figure 12: Groundwater bore locations*).





Figure 12: Groundwater bore locations



There is a general trend of a decreasing groundwater contours from east to west, however the presence of the sand dunes and Gavin's Gully provide localised influences. The two main sand dune areas in the middle of the site and on the western boundary cause some minor mounding of groundwater, with the water then seeping out around the base. Gavin's Gully provides a localised draw down, as it is incised 1.5m+ into the surrounding ground, it also allows the other local rural drains to discharge any surface flow and rising groundwater into the drain.

In the southwest corner, due to the land sloping away to the south west, the groundwater contours are also drawn in a south west direction.

Highest groundwater levels recorded during monitoring June – October 2021 are shown in *Table 1: Highest groundwater recorded.*





*Table 1: Highest groundwater recorded*

Monitoring Well	Shallowest depth to groundwater from surface (mbgl)	Surface level at bore (mAHD)	Groundwater level (mAHD)
1	1.04	22.32	21.28
2	0.19	24.07	23.88
3	0.25	21.45	21.2
4	0.38	21.83	21.45
5	0.5	22.75	22.25
6	0.18	21.97	21.79
7	0.49	21.55	21.06
8	0.13	23.51	23.38
9	0.63	23.42	22.79
10	1.33	23.15	21.82

Further data was also collected by WML in September 2021 as part of the geotechnical analysis that helps provide information between the monitoring bores.

Generally, the groundwater is around 1m or less from the surface on the flat heavier soils, with this extending to greater than 3m under the sand dunes. There are some localised areas where groundwater is at the surface.

According to Oversby, Bore 1 was located in dense clay. As such the surface water was only able to infiltrate at a very slow rate. While the surface of the land was waterlogged, this surface water continually flowed off the surface and into nearby rural drains, rather than infiltrating into the superficial groundwater layer. For the other more permeable clayey soils however, the rainfall was able to infiltrate and this led to shallow groundwater readings.

The focus of groundwater management for the subject land is to maintain groundwater as close as possible to existing levels, while maintaining separation from infrastructure. Maintaining suitable separation between buildings and the road pavement from the maximum groundwater level will be achieved through two main methods.

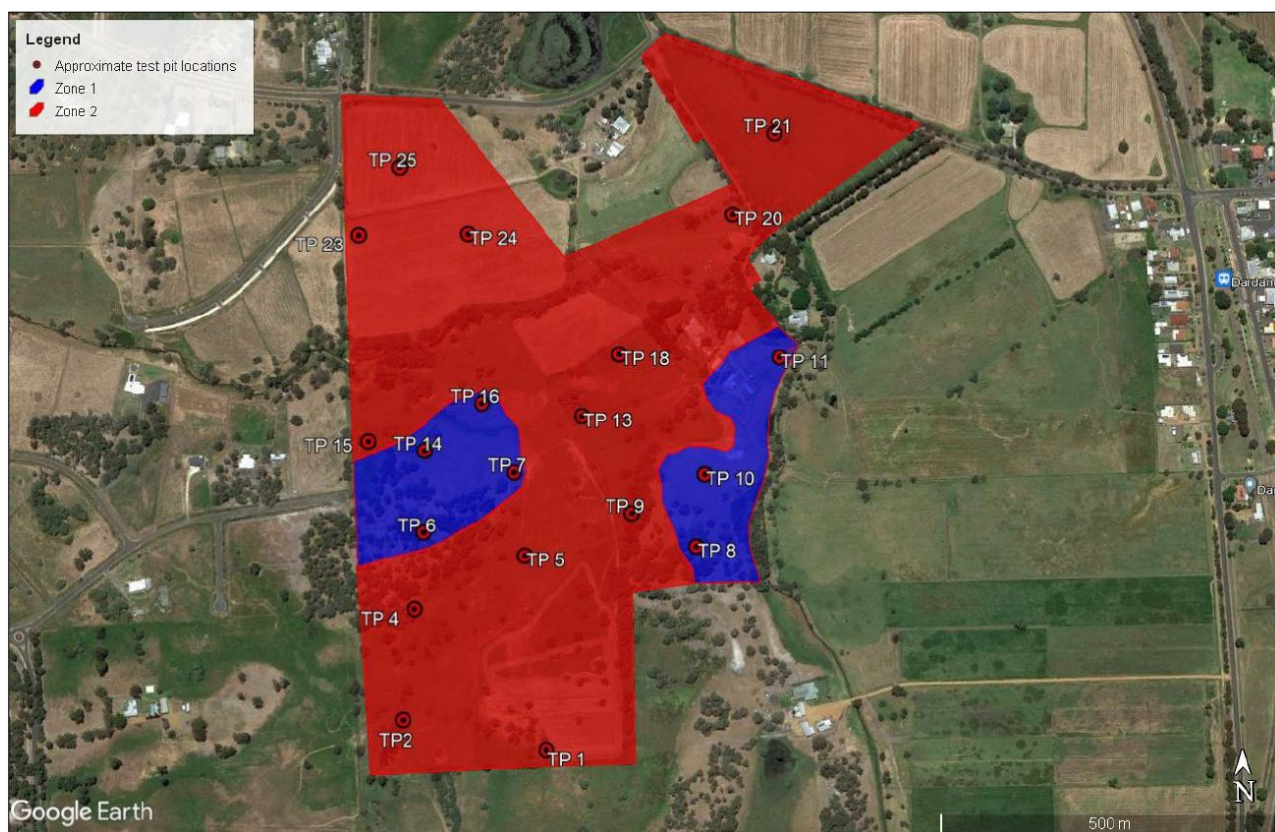
The first method involves using porous, clean fill/insitu soils for roads and lots over the areas of the site that exhibit groundwater close to or at the surface of the site.

The roadside swales will also control the groundwater, with any groundwater intercepted being allowed to run along the base of the swale before exiting through systems discharge points.

### 7.10. Site and soil evaluation

A site and soil evaluation was carried out by WML (refer: *Site and Soil Evaluation, WML, December 2021 Appendix 5*), including 25 test pits as shown in *Figure 13: Geotechnical test locations and zones*.

*Figure 13: Geotechnical test locations and zones*



WML found that the site can be broken into two areas based on local topography, vegetation, soil characteristics and groundwater, denoted Zones 1 and 2. Zone 1 (blue) is free-draining shallow sand dunes and has groundwater not located within 1.5 m of the existing ground surface. Zone 2 (red) is poorly draining and often waterlogged clay to sand with clay.

WML identified a number of key features in relation to the effluent management of the subject land, including the following:

- The whole of the site is within a Government Sewerage Policy 2019 (GSP 2019) sewage sensitive area (estuary catchments on the Swan and Scott Coastal Plains).
- A large portion of the site is seasonally waterlogged throughout the winter months and into spring.



- A small tributary of the Preston River (Gavin's Gully Drain) runs through the northern half of the site and along the border of Lot 2 and Lot 185.
- The site is not within or near a floodplain area.
- No public drinking water sources are located within 100 m of the site.

Based on the soils encountered during the investigation, WML regards the overall capability of the soil in Zone 2 to suitably manage effluent is satisfactory. However, WML considers that the soils of Zone 1 require the implementation of certain mitigation measures to become suitable for effluent management.

The following summary mitigation measures are recommended to ensure that the risk of environmental contamination is reduced as far as practicable in accordance with the GSP19:

1. The phosphorus retention ability of the clean sands (Bassendean Sands) in Zone 1 is low. Blending with an imported loam/clay should be allowed in the design to avoid nutrient overloading of the soils. The resulting clay content of the mixed soil should be approximately 10-20% and achieve a PRI greater than 30. The addition of the clay should not adversely affect the effective drainage of the soils.
2. Due to the elevated and often surface-level groundwater encountered within Zone 2, imported fill will be required to provide a minimum 1.5 m vertical separation from groundwater and ponding surface water across this zone. The imported fill should have a clay content of approximately 10-20% and achieve a PRI greater than 30.

WML found that specific mitigation measures are needed to allow for the suitable on-site disposal of effluent and to ensure that the risk of environmental contamination is reduced as far as practicable in accordance with GSP19 and AS 1547. These are summarized as follows:

1. All lots are located within the sewage sensitive area associated with the Swan Coastal Plain catchment.
2. A minimum vertical separation distance of 1.5 m is required for all land application areas.
3. In Zone 1, the Category 1 free draining sands have a limited nutrient retention ability and therefore require amelioration using imported fill to create an effective Category 2 soil. The in-situ sands should be mixed with a loam/clay to achieve a blend with a 10-20% clay content and achieve a minimum PRI of greater than 30 for a depth to at least 0.5 m below the effluent distribution point. The blending or mixing of the soils should not adversely affect the effective drainage of the soils.



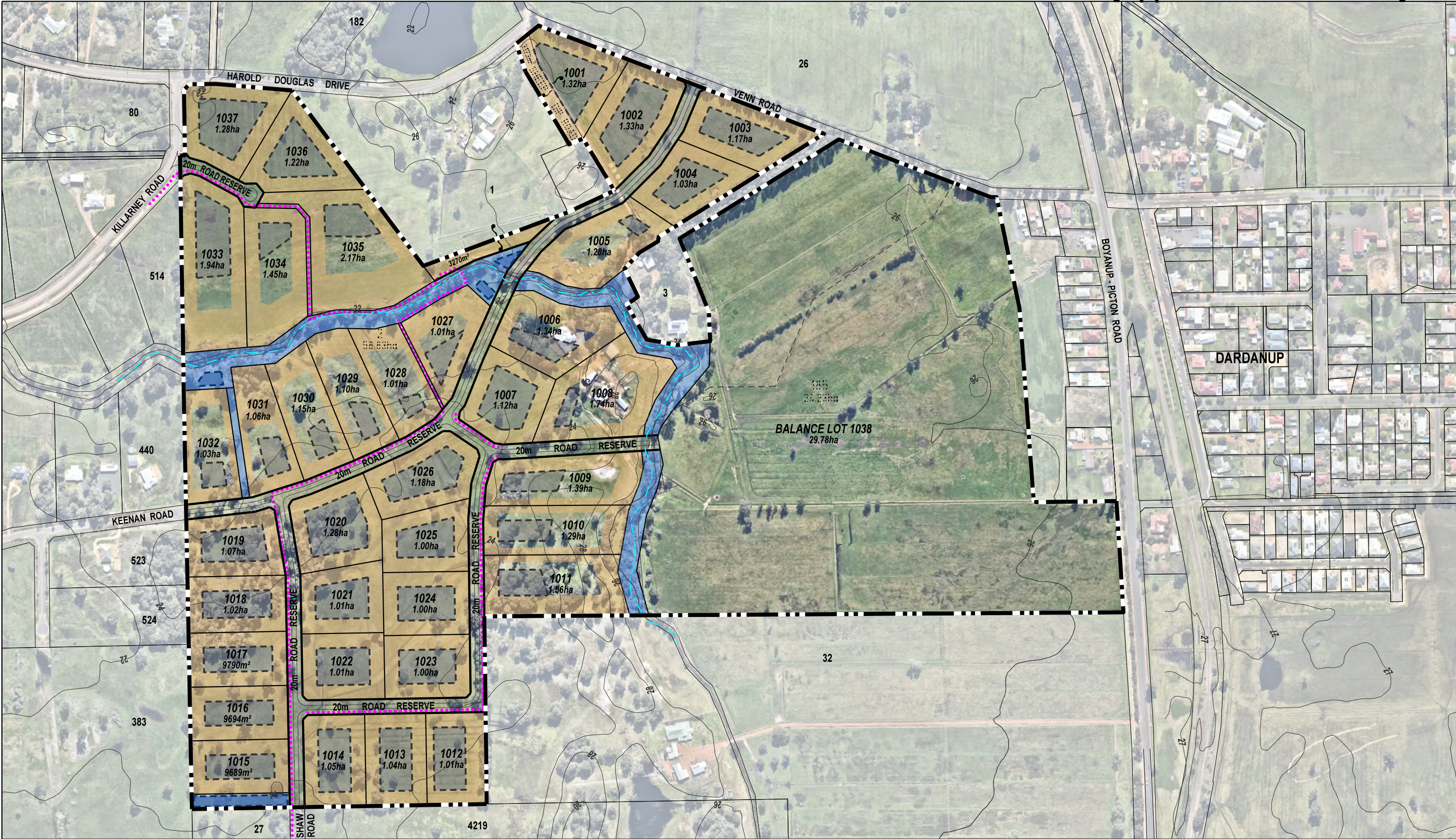
4. Due to shallow groundwater and poorly draining subsoils resulting in shallow ponding water, the residential lots within Zone 2 require elevation of the land application areas to achieve this minimum separation.
5. At the September 2021 site investigation, portions of Zone 2 were noted to have shallow groundwater/perched water encountered between 0.25 m and 1.0 m below existing ground levels. Therefore, to achieve the required minimum vertical separation 1.5 m, the application areas of the lots within this zone need to be elevated with a sandy loam which has an approximate clay content between 10-20% and achieves a minimum PRI of greater than 30. This soil should be able to be classified a Category 2 soil in accordance with AS 1547.
6. To reduce the risk of environmental contamination, treatment of the generated wastewater to a secondary level using a Department of Health approved Secondary Treatment System (STS) is recommended for all lots of the subject land.
7. Application of the effluent should be undertaken using sub-surface application systems.
8. For a typical 6-person residential household, a land application area of 180m<sup>2</sup> is required based on the in-situ Category 2 soil (based on Section 2 of Schedule 2 of the GSP19).
9. Separation of effluent land applications areas using setback distances in accordance with GSP19 and AS/NZ 1547:2012, including:
  - 100m from a waterway/watercourse (measure from the edge of the wetland vegetation)
  - 20m from property boundaries.

As shown in the subdivision concept plan (refer *Figure 14: Concept plan*) the vast majority of the proposed land application areas achieve a 100m setback from Gavin's Gully. However, for proposed Lots 1006 and 1027, the separation distance is at least 50m. Of these, Lot 1006 has an existing dwelling, which will be retained. WML recommend that for these two lots high levels of nutrient management and reduced irrigation rates be applied.

Overall, WML concludes that sustainable on-site sewage management and disposal systems can be installed to meet the needs of the proposed small holding subdivision.

Further information can be found in the *Site and Soil Evaluation* (WML, December 2021 *Appendix 5*).





This plan has been prepared for planning purposes. Areas, contours and dimensions shown are subject to survey.

## CONCEPT PLAN

Lot 2 Harold Douglas Drive and Lot 185 Venn Road,  
DARDANUP WEST

Figure 14

### LEGEND

- SUBJECT SITE**
- PROPOSED BOUNDARY**
- EXISTING BOUNDARY**
- PROPOSED DRAIN RESERVE**
- LAND APPLICATION AREA (Secondary treated effluent)**
- BUILDING EXCLUSION ZONE**
- PROPOSED SUMP**
- BRIDLE TRAIL**
- 1.0m CONTOURS**
- EXISTING DRAIN**

Plan No. 21008-1-02b

DATE	20.1.2022
CO-ORDINATES	MGA 50
AERIAL	5.8.2021
REVISION	A

50m 0 50 100 150 200  
1: 2500 @ A1 or 1: 5000 @ A3  
ALL DISTANCES ARE IN METRES



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### 7.11. Flora and vegetation

An environmental assessment report (EAR) has been prepared to ensure that environmental values and impacts associated with the scheme amendment and proposed small holdings development can be managed in accordance with legislative and policy requirements (refer: *Environmental Assessment Report*, Accendo Australia, November 2021 *Appendix 2*).

Regional vegetation has been mapped by Mattiske and Havel (1998) at a scale of 1:250,000 based on major geomorphic units on the Swan Coastal Plain. The subject site includes one vegetation complex as defined by Mattiske and Havel (1998), being:

Dardanup Complex: Mosaic of vegetation types from adjacent complexes, which includes the Southern River Complex and Guildford Complex. The Dardanup Complex is made up of a woodland with majority of *Eucalyptus marginata* (Jarrah), *Corymbia calophylla* (Marri) and *Eucalyptus wandoo* (Wandoo) species.

Based on site observations and analysis of aerial photography, the subject site is largely comprised of open grassland and a mosaic of scattered trees (refer to Plates 2-3). Native vegetation consists of the following species:

- Marri (*Corymbia calophylla*)
- Jarrah (*Eucalyptus marginata*)
- Peppermint (*Agonis flexuosa*)
- Flooded gum (*Eucalyptus rudis*)
- Paperbark (*Melaleuca spp.*).

Given the limited species diversity, absence of mid and understorey species and high degree of weed invasion, Accendo determined that the subject site is in a 'Completely Degraded' condition. Accordingly, the vegetation is not representative of the mapped associations (extent of pre-European vegetation remaining in the Swan Coastal Plain IBRA region), therefore the proposed scheme amendment and subdivision will not impact these vegetation associations.

A search undertaken of the DBCA's Threatened Ecological Communities (TEC) database and the EPBC Act Matters of National Environmental Significance database indicated there are two TEC's within 2 km of the subject site. These are the Banksia Woodlands of the Swan Coastal Plain ecological community which is mapped as 'likely to occur within the area' and the Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain ecological community which is mapped as 'may occur within the area'.



Having considered the relevant criteria (including occurrence, dominant tree canopy species, and patch condition), Accendo assessed that the vegetation within the subject site is considered to be in a 'Completely Degraded' condition and that Tuarts are absent. Similarly, Banksia are absent. Accordingly, there are no TEC present within the subject site.

There are no Environmentally Sensitive Areas identified within 2km of the subject site.

Accendo undertook a search of known rare and Priority flora within or in proximity to the subject site using the following databases:

- DBCA's *Threatened (Declared Rare) Flora database*
- DBCA's *Declared Rare and Priority Flora List*
- EPBC Act *Matters of National Environmental Significance database*.

In accordance with the DBCA's *Declared Rare and Priority Flora List*, two Threatened species, one Priority 2 species, two Priority 3 species and three Priority 4 species have been recorded within 5 km of the subject site. The EPBC Act *Matters of National Environmental Significance* database search identified an additional three 'Critically Endangered' and seven 'Endangered' flora species.

A summary of the species and their likelihood of occurring within the subject site based on preferred soil types is provided within Table 4 of the *Environmental Assessment Report* (Accendo Australia, November 2021 *Appendix 2*).

Accendo concluded that, in consideration of the habitat requirements for the identified conservation significant species and the historical and ongoing anthropogenic disturbances, it is considered very unlikely for any flora species of conservation significance to occur within the subject site.

## 7.12. Fauna

A search of the DBCA's Threatened Fauna database (NatureMap) was undertaken by Accendo to establish whether species declared as 'Rare or likely to become extinct' (Schedule 1), 'Birds protected under an international agreement' (Schedule 3) and 'Other specially protected fauna' (Schedule 4) as listed under the *Biodiversity Conservation Act 2016* have been recorded in proximity to the subject site.

The NatureMap Report identified five threatened species, one Priority 3 species and one fauna species protected under international agreement within a 5 km radius of the subject site. These are listed in Table 5 of Table 4 of the *Environmental Assessment Report* (Accendo Australia, November 2021 *Appendix 2*). A search of the EPBC Act *Matters of National Environmental Significance* database identified an additional six species of conservation significance.



While migratory bird species may infrequently visit the subject site, they will not rely on it for their persistence in consideration of its degraded condition.

Of the abovementioned conservation significant species, based on preferred habitat types, five species have the potential to occur within the subject site. To determine the possible presence of these species, a level 1 fauna assessment was undertaken over the subject site (refer to Appendix A of the Accendo report).

The fauna assessment (Harewood 2021) identified fauna habitats ranging from completely degraded (cleared pasture) to degraded, largely a consequence of historical clearing and ongoing livestock grazing. Given the degree of disturbance, the original fauna assemblage within the subject site is likely to be depauperate in many aspects, in particular with respect to ground dwelling species which rely on dense native understory (mid-storey and ground cover) vegetation, which is entirely absent (Harewood 2021).

Forty common fauna species (mainly common bird species) were observed or secondary evidence of their presence recorded during the field survey. Following is a summary of the Harewood findings relating to species of conservation significance that have potential to occur in the subject site:

1. **Western Ringtail Possum (WRP)** – the only evidence of WRP was a small number of old scats found under a tree along Gavin's Gully (refer *Figure 15: Fauna assessment and key habitat*). At a superficial level, some of the contiguous remnant vegetation present within the subject site represents potential WRP habitat given the presence of preferential foraging species such as peppermint. The fact that the species appears to be absent (or at best present in very low numbers) does however suggest that the vegetation may have a low nutrient value (Harewood 2021).

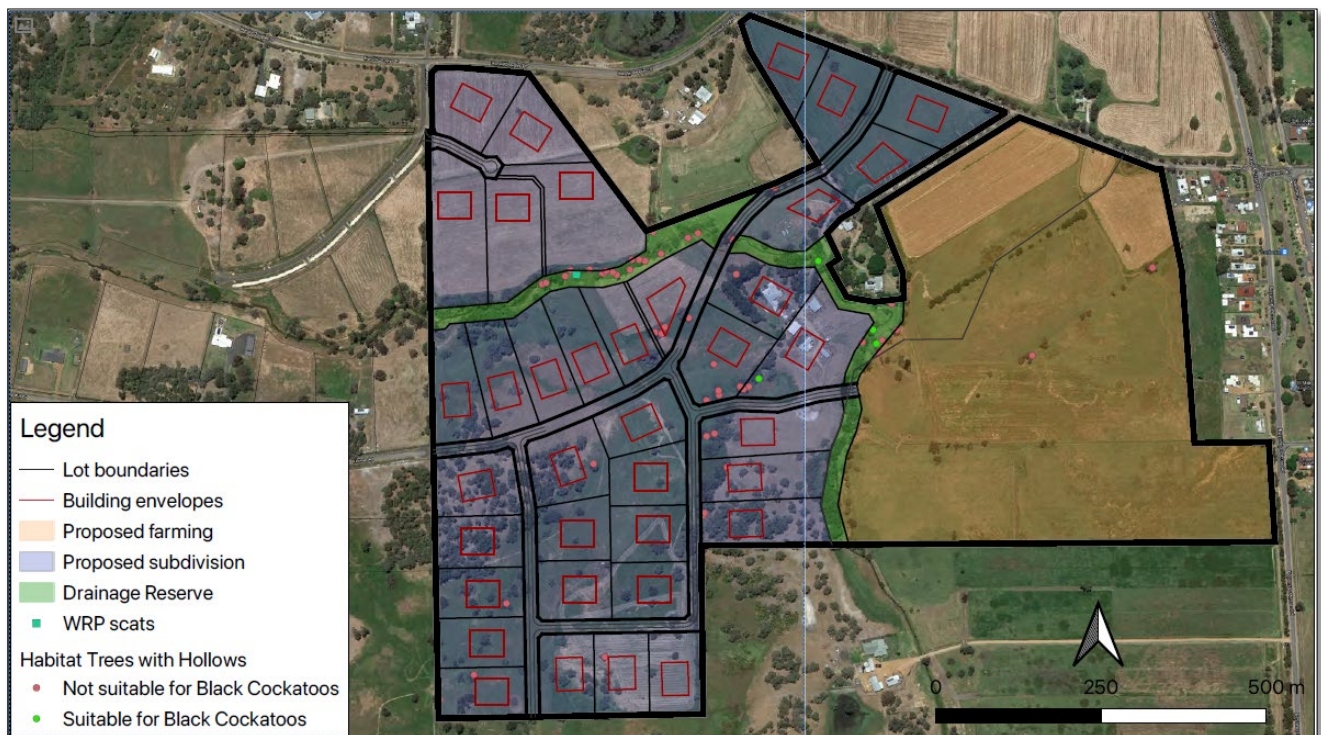
Foliage nutrient levels are a major factor in explaining variation in abundance in WRPs and is also a key factor influencing fecundity. Nitrogen and to a lesser extent phosphorus levels are the most important determinant of browse quality and habitat suitability for WRPs. Accordingly, it appears that WRPs are avoiding the subject site due to inadequate nutrient content of the vegetation to maintain a viable breeding population. Any individuals that are recorded are likely to be transient individuals moving into the area from better quality habitat in adjoining areas (Harewood 2021).

Based on the findings of the targeted WRP survey (Harewood 2021), the subject site does not contain a persistent population of WRPs or provide habitat critical for the survival of the species.



2. **Black Cockatoos** – During the targeted black cockatoo habitat survey, a total of 204 trees within the subject site with a Diameter at Breast Height (DBH) of >50cm were identified (Harewood 2021). Most of these trees (149) appeared to not contain hollows of any size. Fifty one (51) trees contained apparent or obvious hollows, all of which were assessed as being unlikely to be suitable for black cockatoos to currently use for nesting purposes, due to the hollows apparent small size, unsuitable orientation and/or low height above ground level. Four trees (4) appear to contain at least one hollow considered potentially suitable for black cockatoos to use for nesting purposes, but this was not confirmed in any instance and no actual signs of use were noted (Harewood 2021) (refer *Figure 15: Fauna assessment and key habitat*).

*Figure 15: Fauna assessment and key habitat*



No evidence of black cockatoos foraging within the subject site was observed during the field survey (Harewood 2021). Furthermore, no evidence of black cockatoos roosting within trees located within the subject site was observed during the survey period (Harewood 2021).

The proposal will result in the clearing of approximately 1.64 ha. Some of this vegetation constitutes potential black cockatoo habitat (although no evidence of actual use of this habitat was recorded). Based on available mapping, there is approximately 13,000 ha of remnant native vegetation within 12 km of the subject site (DPIRD 2021). Much of this is likely to contain "potential" breeding and foraging habitat as defined by DAWE.





Accordingly, the subject site only contains 0.01% of potential black cockatoo habitat within the local area, which based on survey results, is not preferential foraging or breeding habitat for the species. Accordingly, the subject site is unlikely to contain habitat critical to the survival of black cockatoos.

### 7.13. Environmental management

A number of environmental management actions proposed by Accendo are also addressed in the geotechnical, drainage and water management, and site and soil evaluation strategies discussed above (and are not repeated here).

The subject site's historical use for agriculture and grazing has resulted in vegetation in a 'Completely Degraded' condition, with no native understorey. Vegetation clearing will be restricted to the road reserves and building envelopes, with a total area of 1.64 ha. As discussed above, no flora or vegetation of conservation significance is likely to occur within the subject site. Consequently, it is anticipated that the proposed development will have minimal impact on native vegetation at a regional or local scale.

Vegetation located along the Gavin's Gully watercourse will be retained within a drainage reserve. The remnant vegetation proposed to be retained will be protected and enhanced as part of future development, to improve the biodiversity values of the area (which is largely trees over paddock grasses) and improve ecological linkages across the landscape.

The management objective for fauna within the subject site is principally focused around maximising retention of existing vegetation values within the proposed lots and drainage reserve, and ensuring development works are undertaken in a manner that minimises harm to native fauna.

Particularly, the four trees identified to contain at least one hollow considered potentially suitable for black cockatoos to use for nesting purposes will be retained within the drainage reserve and within a proposed lot – namely outside of the building envelope (refer to *Figure 15*). In addition, vegetation identified in the location of the WRP scats will be retained within the drainage reserve.

Further to revegetation within portions of the drainage reserve, strategic re-planting using endemic species (e.g. *Agonis flexuosa*) will be undertaken throughout the proposed subdivision. Some areas of remnant vegetation will be modified or removed as part of the proposed development and fauna may be disturbed during this process.

The summary of environmental management measures recommended by Accendo is shown in *Table 2: Summary of environmental management measures*. These will be implemented in the detailed design, subdivision and construction stages.

Table 2: Summary of environmental management measures

Aspect	Objective	Management Measure	Timing
Acid Sulfate Soils	Prevent disturbance of ASS material.	<ul style="list-style-type: none"> <li>If determined necessary, undertake preliminary ASS investigation to determine the presence, extent and management requirements for any ASS present within the site, followed by the preparation of an ASSDMP, if required. The requirement for ASS investigation/management will be confirmed in accordance with any subdivision conditions and/or as part of future development once detailed design has progressed.</li> </ul>	Prior to subdivision
Site contamination	To prevent adverse health related and/or environmental impacts to construction personnel from contamination.	<ul style="list-style-type: none"> <li>If any suspected contaminated material is encountered during project implementation, works should cease in the area and the site Project Manager be contacted for advice.</li> </ul>	During construction
Wetlands	To maintain the integrity and ecological functions of the mapped MU wetlands.	<ul style="list-style-type: none"> <li>The proposed subdivision will be strategically designed to maintain existing hydrological functions, thereby complying with the management objectives associated with MU wetlands. The proposed integrated water management strategies will be documented in the LWMS.</li> </ul>	Prior to subdivision
Hydrology	To maintain the quantity and quality of water so that existing and potential environmental values, including ecosystem function, are protected.	<p>The LWMS will detail the integrated water management strategies to facilitate future urban water management planning. The LWMS will achieve integrated water management through the following design objectives:</p> <ul style="list-style-type: none"> <li>Effectively manage the risk to property damage and environmental degradation from water contamination, flooding and waterlogging.</li> <li>Maintain and if possible improve water quality (surface and groundwater) within the development in relation to predevelopment water quality.</li> <li>Implement best management practices in regards to stormwater management.</li> <li>Maintain existing local drainage patterns and minimise disruption and pollution from potential contaminants such as sediment and hydrocarbons from reaching natural drainage systems.</li> </ul>	Prior to subdivision

## [Appendix ORD: 12.2.3A]

Aspect	Objective	Management Measure	Timing
		<ul style="list-style-type: none"> <li>• Ensure adequate culverts are installed to maintain existing surface water flows.</li> <li>• Construction in the vicinity of water bodies/courses should, if possible, be scheduled within the drier months of the year to avoid/minimise turbidity from erosion.</li> </ul>	
Vegetation and Flora	To maintain the abundance, species diversity, geographic distribution and productivity of flora and fauna at species and ecosystem levels through the avoidance or management of adverse impacts and improvement in knowledge.	<ul style="list-style-type: none"> <li>• Vegetation located along the watercourse will be retained within a drainage reserve and enhanced as part of the future development to improve the biodiversity values of the area (which is largely trees over paddock grasses).</li> <li>• Vegetation clearing management measures include: <ul style="list-style-type: none"> <li>○ Clearing operations should be conducted in accordance with the dieback/weed hygiene requirements.</li> <li>○ Clearing should be kept to the minimum within the clearing envelope whilst having regard to bushfire management requirements.</li> <li>○ The limits of clearing should be clearly marked on site and relevant plans to inform site personnel to contain all activities in the clearing envelope.</li> <li>○ Trees to be removed should be felled in a manner that ensures they fall within the approved clearing envelope.</li> <li>○ The remainder of cleared vegetation should be salvaged, chipped on site for in situ site rehabilitation and/or soil stabilisation (note: consider the dieback and weed status of the material and its location of dispersal).</li> <li>○ Existing cleared areas should be utilised for locating site access, site offices and any temporary laydown areas (but not adjacent to waterways or drainage lines).</li> </ul> </li> </ul>	Subdivision design  Construction
Fauna	To maintain the abundance, diversity, geographic distribution and productivity of native fauna at the species and ecosystem levels through the avoidance or management of adverse impacts and improvement in knowledge.	<ul style="list-style-type: none"> <li>• Retain the four trees identified to contain at least one hollow considered potentially suitable for black cockatoos to use for nesting purposes.</li> <li>• Undertaken revegetation within the drainage reserve and strategic re-planting using endemic species (e.g. <i>Agonis flexuosa</i>) throughout the proposed subdivision.</li> <li>• Retain vegetation identified in the location of the WRP scats within the drainage reserve.</li> <li>• Management measures to minimise the impact to fauna and habitat during construction will include:</li> </ul>	Subdivision design  Construction

## [Appendix ORD: 12.2.3A]

Aspect	Objective	Management Measure	Timing
		<ul style="list-style-type: none"><li>○ Provide map and GPS co-ordinates of trees to be retained to the contractor to ensure no unapproved clearing is undertaken;</li><li>○ Clearly mark trees identified for retention with flagging tape and numbered tags;</li><li>○ Undertaking preclearing inspections of trees/vegetation proposed for removal/modification by suitably qualified and licensed fauna spotter;</li><li>○ Use a suitably qualified and licensed fauna spotter during demolition and clearing works to avoid impacts to fauna wherever possible and to rescue trans-locatable fauna that are disturbed during clearing works to assist them to disperse safely or capture them for later translocation as appropriate;</li><li>○ Contact the DBCA Wildcare Helpline 24 hour emergency hotline if sick or injured animals are encountered.</li></ul>	





### 7.14. Indigenous heritage

An online search for relevant Aboriginal heritage information was undertaken using the DPLH Aboriginal Heritage Inquiry System (AHIS) that incorporates both the heritage site register and the heritage survey database (DPLH 2021). The Aboriginal Heritage Site Register is maintained pursuant to Section 38 of the Aboriginal Heritage Act 1972 and contains information on over 22,000 listed Aboriginal sites throughout Western Australia.

Results of the AHIS database search did not reveal the presence of any Aboriginal sites within the subject land.

### 7.15. European heritage

There are no registered European heritage sites within the subject land.

Adjoining Lot 3 (formerly Lot 188) Venn Road is Heritage Place No. 3014 that has a State Heritage Listing on the Register of the National Estate, is listed on the Shire of Dardanup Municipal Inventory and is classified by the National Trust. This property contains a two-storey brick dwelling constructed in 1852-1854 plus outbuildings, large garden and mature trees including a large Oak tree. The heritage listing states: “*High level of protection appropriate: provide maximum encouragement to the owner under the Town planning Scheme to conserve the significance of the place*”.

The proposed scheme amendment excludes Lot 3. Nonetheless, the concept plan acknowledges and respects the heritage place by formalizing the drain reserve that adjoins the site and providing substantial building exclusion areas on adjoining lots (proposed lots 1005, 1006 and 1008). There is also no impact on the avenue of trees that line the heritage site’s driveway access off Venn Road.

## 8. Bushfire management

A Bushfire Management Plan has been prepared for the proposed rezoning and small holding subdivision of the subject land (refer: *Bushfire Management Plan*, Lush Fire & Planning, January 2022 *Appendix 6*). The plan demonstrates that the proposed subdivision will comply with State Planning Policy SPP3.7 Planning in Bushfire Prone Areas; and the associated Guidelines for Planning in Bushfire Prone Areas (Version 1.4 December 2021).

In doing so, it documents how the hazard level will be reduced and maintained for the life of the development and defines the responsibilities of relevant stakeholders.



The majority of the subject land is designated Bush Fire Prone, which triggers:

- The application of Australian Standard AS3959 Construction of Buildings in Bushfire Prone Areas under the Building Code of Australia;
- The provisions of the *Planning and Development (Local Planning Schemes) Regulations 2015*; and
- The application of State Planning Policy SPP3.7 Planning in Bushfire Prone Areas.

The Shire's 2021 - 2022 Fire Prevention Order states that land within the Rural Small Holdings zone is required to have:

- *A firebreak installed immediately inside and along all property boundaries, 2 metres in width and 4 metres in height. The firebreak may only deviate from a boundary up to 6 metres, to avoid established trees and /or other natural features that would make it impractical to be installed on the boundary.*
- *A 20 metre Asset Protection Zone (as defined) must be slashed to a height that does not exceed 100 millimetres surrounding dwellings, sheds and all haystacks.*
- *All flammable material/vegetation (dead trees and branches) must be removed from the 20 metre Asset Protection Zone.*
- *Where slashing is not possible, material/vegetation must be burnt back or sprayed with a suitable herbicide to prevent growth throughout the entire restricted and prohibited burning periods.*
- *Burn piles can be kept and are approved under the following conditions:*
  - *A burn pile is to be no closer than 20 metres from any structure.*
  - *All fire wood piles must be stored away from a dwelling during the restricted and prohibited burning periods.*

*Non-Irrigated land in the General Farming zone is required to have:*

- *A vehicle access track, 4 metre in width and 4 metre in height that must include a 2 metre wide firebreak (as defined), must be installed immediately inside and along the lot boundary where it adjoins a road and/or rail reserve. The firebreak may only deviate from the boundary, up to 6 metres, to avoid established trees/or other natural features, that would make it impractical to install a firebreak at that location.*



The Order also requires that where the property has an approved Bushfire Management Plan, compliance must be achieved in accordance with the conditions stipulated in the Bushfire Management Plan, in addition to the requirement of the Fire Prevention Order.

The bushfire assessment in the Bushfire Management Plan focusses on the proposed rural residential subdivision within the subject land. It notes that the proposed subdivision concept plan will create thirty - seven (37) lots ranging in size from 9,689sqm to 2.1 hectares. Keenan Road will be extended through the middle of the property connecting to Venn Road. Gavin's Gully will be created as a drainage reserve with a minimum width of 20m. The subdivision concept plan also shows proposed building exclusion areas which reflect:

- Town Planning Scheme No 3 boundary setbacks of 20m from the front and 10m from the side;
- A 30m setback from the Gavin's Gully reserve; and
- Sufficient area for a maximum BAL-29 rating setbacks permitted under SPP3.7 Planning in Bushfire Prone Areas.

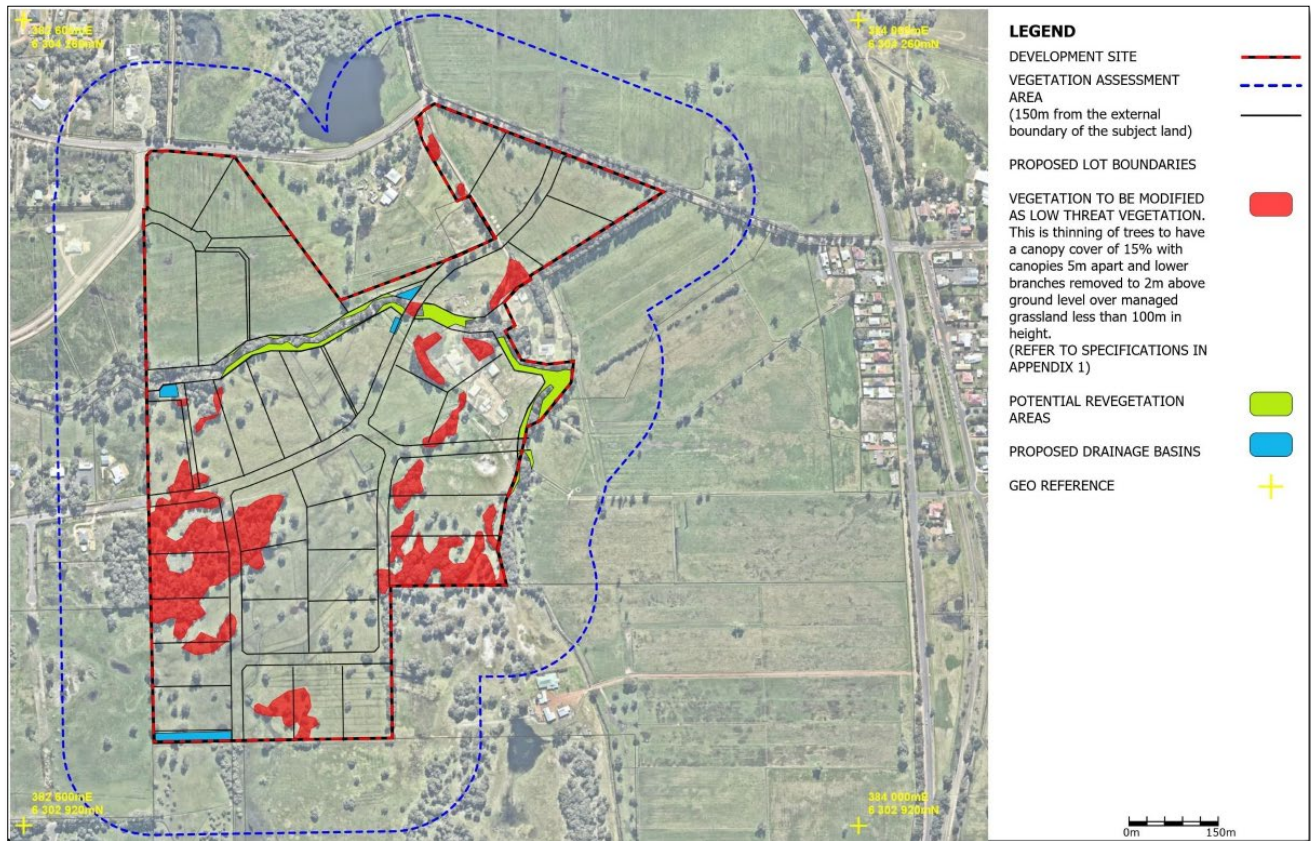
The key bushfire management issues for the proposed development are:

- Provision of appropriate separation distances from permanent bushfire hazards surrounding the site to ensure a BAL rating of BAL-29 or less can be achieved;
- Ensuring that vegetation within hazard separation distance is maintained as low threat vegetation;
- Provision of appropriate vehicular access to ensure that the development of the site, including any staging, has egress in two different directions;
- Provision of appropriate water supply and associated infrastructure; and
- Construction of dwellings in accordance with AS3959 construction standards.

Construction of the proposed small holding subdivision and subsequent dwellings will require a substantial portion of the woodland type vegetation in the southern portion of the development site to be modified as 'Low Threat vegetation'. This is not intended to be wholesale clearing. In order to retain the "rural character of the area and native trees" as prescribed by LPS3, the 'red' areas shown in *Figure 16: Clearing and revegetation* will be cleared in accordance with the specifications for asset protection zones as contained in Schedule 1 of the Bushfire Management Plan. This includes reducing the overall tree canopy for each lot to a density of 15% with a 5m separation between tree canopies and a maintained grassland understorey of less than 100mm in height.



Figure 16: Clearing and revegetation



A Bushfire Attack Level (BAL) Contour Map is a plan of the subject lot/s illustrating the potential radiant heat impacts and associated indicative BAL ratings in reference to any classified vegetation remaining within 100 metres of the assessment area after the development is completed.

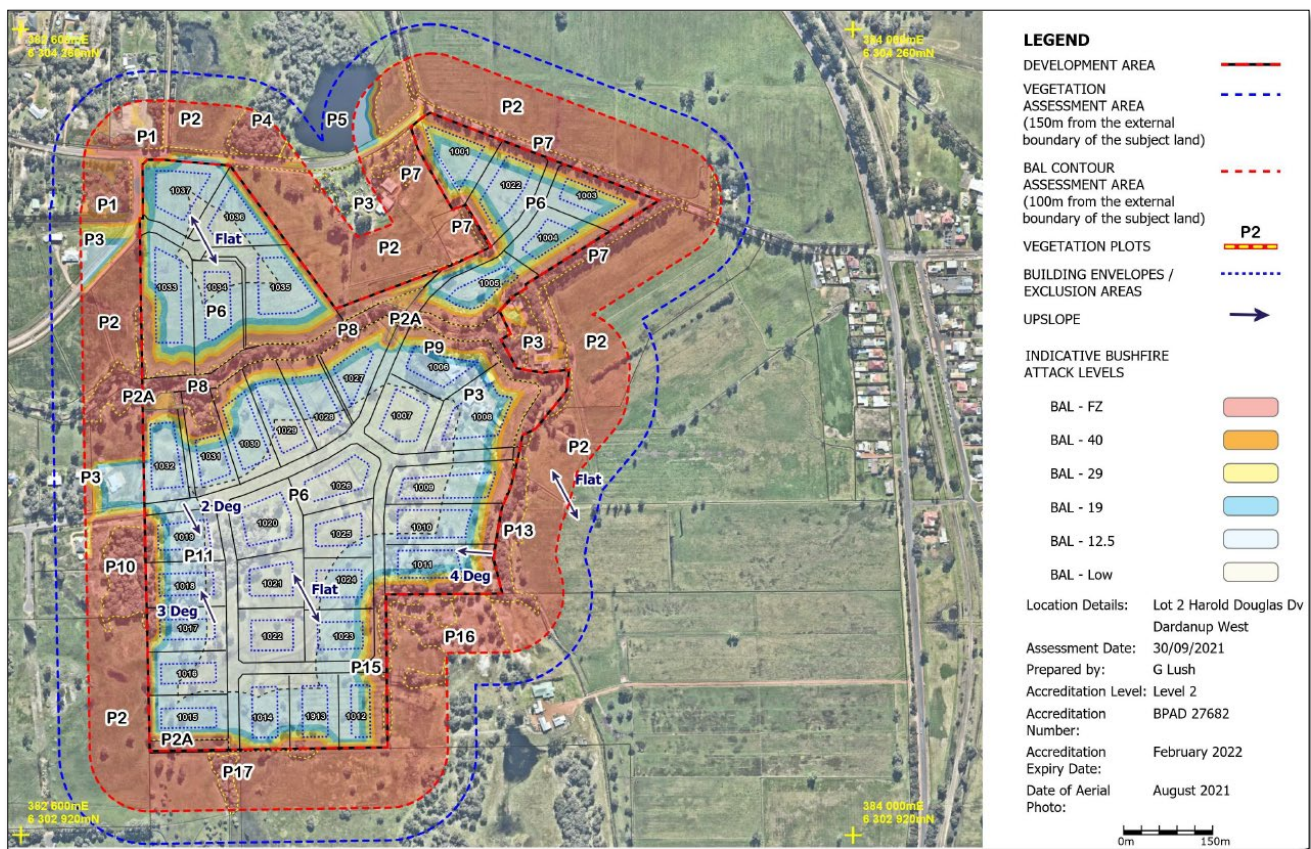
A BAL Contour Map has been prepared for the proposed subdivision, which shows that all building envelopes will have a BAL-29 or lower rating (refer *Figure 17: BAL contour map*).

Vegetation located along the watercourse will be retained within a drainage reserve. The remnant vegetation proposed to be retained will be protected and enhanced as part of future development, to improve the biodiversity values of the area (which is largely trees over paddock grasses) and to improve ecological linkages across the landscape.





Figure 17: BAL contour map



The Bushfire Management Plan considers that the proposed subdivision complies with the objectives of State Planning Policy 3.7 as:

1. It avoids any increase in the threat of bushfire to people, property and infrastructure. The land is considered suitable for land use intensification as the bushfire hazard levels are moderate and low. The proposed subdivision design does not increase the bushfire threat as it provides for the management of vegetation hazards, suitable road access and appropriate separation distances with the proposed development sites having a BAL-29 rating or lower.
2. It reduces vulnerability to bushfire through the identification and consideration of bushfire risks in the design of the development and the decision-making process. The bushfire hazard and risks have been identified and assessed in this report. It documents how the hazard level will be reduced and maintained for the life of the development and defines the responsibilities of relevant stakeholders.
3. The design of the subdivision and the development takes into account bushfire protection requirements and includes specific bushfire protection measures. The proposed management/mitigation measures to be implemented in accordance with the Bushfire



Management Plan demonstrate that the acceptable solutions within each element of the Bushfire Protection Criteria as contained in the Guidelines for Planning in bushfire Prone Areas (Version 1.4 December 2021) have been met.

4. It achieves an appropriate balance between bushfire risk management measures and biodiversity, conservation values, and environmental protection. The modification of remnant vegetation for the development is in accordance with the approved structure plan and the Shire's Fire Prevention Notice.

## 9. Transport impact assessment

### 9.1. Movement networks

A Transport Impact Assessment (TIA) has been undertaken by Cardno in accordance with the WAPC Transport Impact Assessment Guidelines for Developments: Volume 3 – Subdivisions 2016 (refer: *Transport Impact Assessment*, Cardno, January 2022 *Appendix 7*).

Under the Main Roads Functional Hierarchy, the existing roads are classified as:

- Boyanup-Picton Road                      Primary Distributor
- Venn Road                                      Access Road
- Harold Douglas Drive                      Access Road

Intersection traffic surveys were commissioned by Cardno in November 2021 for the AM and PM peak hours for the following intersections:

- Boyanup-Picton Road / Venn Road (north)
- Harold Douglas Drive / Venn Road
- Boyanup-Picton Road / Ferguson Road (and Venn Road west).

Traffic volumes were comparatively low, especially those exiting and entering Venn Road and Harold Douglas Drive.

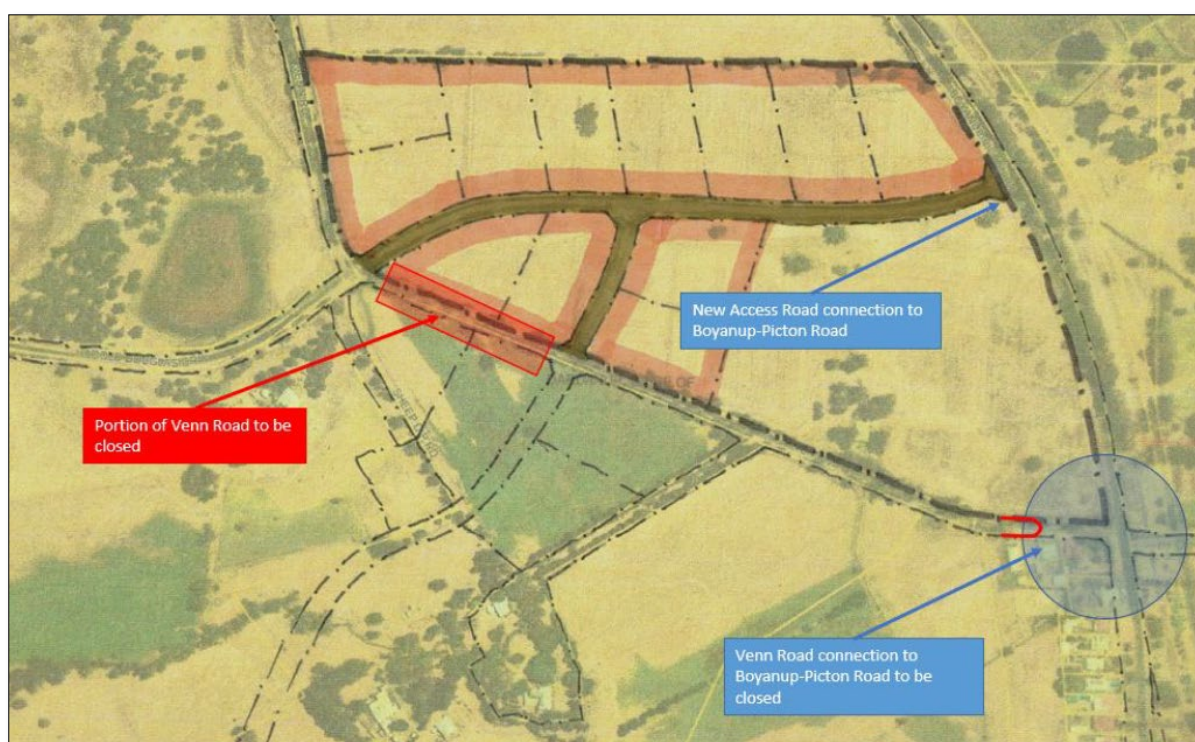
A crash assessment for the surrounding road network (5-year period 1 January 2016 to 31 December 2020) was completed using the Main Roads WA Reporting Centre. During that time, there were a total of six crashes, none of which took place at the above intersections or on Venn Road or Harold Douglas Drive. Due to the low traffic generation by the proposed development and the low crash rates in the area, Cardno considered it unlikely that the proposed development will have any material impact on the traffic safety of the surrounding road network.



The TIA noted that in the short-term, the primary access to the subject land is proposed via the existing Boyanup-Picton Road / Venn Road intersection.

In the medium-to-long-term, the TIA noted the potential for Harold Douglas Drive to be extended eastward through Lot 26 (north-east of the subject land) to a new intersection with the Boyanup-Picton Road (refer *Figure 18: Potential medium-to-long-term access arrangement*). This extension will allow the existing Venn Road (east) connection to Boyanup-Picton Road to be closed for vehicular through-traffic (although local vehicular access, pedestrian and cycling connectivity could still be maintained, subject to further design investigations), thus removing the 4-way intersection of Boyanup-Picton Road / Venn Road/ Ferguson Road.

*Figure 18: Potential medium-to-long-term access arrangement*



It is understood that, while both the Shire of Dardanup and Main Roads WA have expressed in-principle support of this extension, it is likely to be landowner/developer-driven (i.e. at the discretion of the owner of Lot 26).

Upon development of the wider Small Holdings Structure Plan area, it is also proposed that Keenan Road be extended to Boyanup-Picton Road. While a section of the Keenan Road extension is included as part this development application, this does not include the full extension and proposed new connection to Boyanup-Picton Road.





The TIA calculated the estimated trip generation resulting from the proposed scheme amendment and subdivision. This is expected to generate a total of 28 trips during the AM peak and 37 trips during the PM peak hour. In accordance with the WAPC Transport Impact Assessment Guidelines, developments that are expected to generate less than 100 trips during either of the peak hours are considered to have a negligible impact on the surrounding road network.

In investigating the potential impacts of the proposed scheme amendment and subsequent subdivision, Cardno examined five scenarios:

- Scenario 1: 2021 Existing conditions
- Scenario 2: 2031 – Build-out of subject land with Harold Douglas Drive extension; new intersection with Boyanup-Picton Road; Boyanup-Picton Road / Venn Road (north) retained
- Scenario 3: generally similar to Scenario 2, with the exception that Boyanup-Picton Road / Venn Road (north) is assumed to have been closed
- Scenario 4: 2031 – Build-out of subject land and assumes the only access to the Boyanup-Picton Road will be provided via the existing Boyanup-Road / Ferguson Road / Venn Road (east) intersection
- Scenario 5(a): 2046 – Build-out of Small Holding Structure Plan area, with the exception of Lot 26 Venn Road; excludes the Harold Douglas Drive extension but includes the Keenan Road extension to the Boyanup-Picton Road
- Scenario 5(b): 2046 – Build-out of Small Holding Structure Plan area including Lot 26 Venn Road and the Harold Douglas Drive extension; includes the Keenan Road extension to the Boyanup-Picton Road; includes closure of both Venn Road connections to Boyanup-Picton Road.

The scenarios took into account additional traffic generated by the ‘build out’ of the Dardanup Small Holdings Area. Based on an estimation of potential additional small holding lot yield (for the area north of Garvey Road) provided by *Across Planning* and the Shire of Dardanup, it was assumed that there will be an additional 261 lots (inclusive of the 37 lots in the concept plan).

The TIA adopted the same trip generation rates for the balance of the potential additional lots in the small holding area and undertook a SIDRA analysis of the above-mentioned intersections to assess the potential impact of site-generated traffic on the surrounding road network.

The SIDRA analysis indicates that the traffic generated by the proposed small holding sub-division can be accommodated by the existing intersections and road network (Scenario 3 and Scenario 4). While the Harold Douglas Drive (Scenario 2) and Keenan Road (Scenario 5a) extensions would improve access to the wider Small Holdings structure plan areas, these extensions are not considered critical to accommodate the traffic generated by the proposed small holding sub-division.



Under Scenario 5b, where both the Harold Douglas Drive and Keenan Road extensions to Boyanup-Picton Road are assumed to have been constructed, the remaining sections of Venn Road could remain in their existing forms (i.e. no need to upgrade Venn Road) as the traffic volumes would not exceed the threshold of 150 PCUs per day.

If both the Harold Douglas Drive and Keenan Road extensions to Boyanup-Picton Road are constructed, this would enable the closure of the existing Venn Road connections to Boyanup-Picton Road. While subject to further design investigations, the Venn Road (east) connection could potentially still be retained for local vehicular access, as well as for pedestrian and cycling connectivity purposes.

The TIA concluded that the proposed small holding subdivision can be adequately serviced by the existing Venn Road (east) and the Venn Road / Boyanup-Picton Road intersection. Overall traffic management in the Dardanup Small Holdings area would benefit from the Harold Douglas Drive and/or Keenan Road extensions to Boyanup-Picton Road. The proposed sub-division would also benefit from such extension(s), but is not dependent on them.

## 10. Servicing and infrastructure

A servicing report has been prepared by WML – refer *Engineering Servicing Report* (WML, November 2021) *Appendix 8*.

The servicing report concluded that the structure plan area is capable of being serviced by the essential infrastructure required for small holding development. Some minor headworks extensions will likely be required for power. No logistical reasons have been identified as to why the subject land cannot be serviced with the required services.

### 10.1. Effluent disposal

There is no sewerage service within the vicinity of the subject land. Given this, and the small holding lot sizes proposed (minimum 1ha), the site and soil evaluation and D/LWMS have confirmed suitability for on-site effluent disposal via individual Aerobic Treatment Units (ATU) for each proposed lot.

### 10.2. Potable water

The subject land is not located within a Water Corporation (or other licensed provider) potable water supply area. Consequently, all lots will be required to have water tanks (minimum 120,000 litre capacity) for potable water.





### 10.3. Power

Western Power's Network Capacity Mapping tool indicates that the area has sufficient power available to meet the needs of the proposed development. The nearest three-phase network is on the Boyanup-Picton Road approximately 600m east. Two existing properties excluded from the subdivision will need alternative power arrangements since the power lines cross parts of the subject land.

Should the pace of the development exceed the rate at which Western Power is required to carry out any network upgrades, Western Power may request the subdivider to fund the necessary upgrades. This can be determined at the subdivision stage.

### 10.4. Telecommunications

Based on the DBYD and NBN rollout map, the subject land is currently serviced by NBN fixed wireless. The nearest NBN physical connection is approximately 10km to the west. Given this, NBN will require an application to be submitted for a detailed assessment, including confirmation of backhaul charges.

Should NBN choose to service the subdivision with fibre, then a quote will be provided. This may require installation of a pit and pipe network unless an exemption is granted by the Department of Infrastructure, Transport, Regional Development and Communications, under the *Telecommunication Act*. This will be addressed at the subdivision stage.



### 11. Scheme amendment proposal

Amendment 205 to LPS3 proposes to:

1. Rezone portion Lot 2 Harold Douglas Drive and portion Lot 185 Venn Road Dardanup West from 'General Farming' to 'Small Holding';
2. Amend Appendix VIII to include Area 19 – Dardanup Park and insert additional requirements and modifications to the provisions of the Scheme Text, as follows:

AREA	ADDITIONAL REQUIREMENTS AND MODIFICATIONS TO THE PROVISIONS OF THE SCHEME TEXT
<b>AREA 19 DARDANUP PARK</b>  Portion Lot 2 Harold Douglas Drive and portion Lot 185 Venn Road Dardanup West shown on the Scheme maps.	<b>1. Subdivision and Development Criteria</b>  h) The local government will require the preparation of a local development plan and subdivision shall be generally be in accordance with the local development plan. i) No dwelling, outbuilding, on-site effluent disposal system or other incidental building shall be constructed in the Building Exclusion Zone as shown on the local development plan. j) Despite clause 3.14.1 r), no tree or shrub within 30 metres of the edge of the proposed drain reserve (Gavin's Gully) shall be removed. k) Sewage is to be discharged via an on-site effluent disposal system which meets the requirements of the <i>Government Sewerage Policy</i> . l) Despite clause 3.14.1 c), each dwelling shall be provided with a minimum 135,000 litre potable water storage tank in addition to any requirements of an approved bushfire management plan. m) At the subdivision stage, suitable arrangements are to be made with the local government for the provision of two (2) fully operational 50,000 litre water tanks for fire-fighting purposes to be located on Reserve 43955, Harold Douglas Drive. As an alternative the local government may accept an equivalent contribution towards strategic bushfire management measures in the Small Holding area of Dardanup West. n) At the subdivision stage, the local government may request that the WAPC impose a condition requiring that satisfactory arrangements be made for the upgrading and/or construction of the local road network (including intersections) to the Shire's standard.



	<p>2. Land Use Controls</p> <p>c) Stocking rates shall not exceed Department of Primary Industries and Regional Development stocking rate guidelines.</p> <p>d) Despite clause 3.14.1 i), the keeping of horses in accordance with subclause a), is limited to personal use with a maximum of 3 horses.</p>
--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

3. Update the Scheme Maps as shown in the Scheme Amendment Map (refer *Figure 19: Scheme Amendment Map* – overleaf).

## 12. Conclusion

The proposed scheme amendment is consistent with the State and local policy framework, including the Shire’s Local Planning Strategy and the Dardanup Small Holdings Structure Plan. The proposed Small Holding use is capable of sustainable development and will improve connection of Dardanup West to the Dardanup townsite.

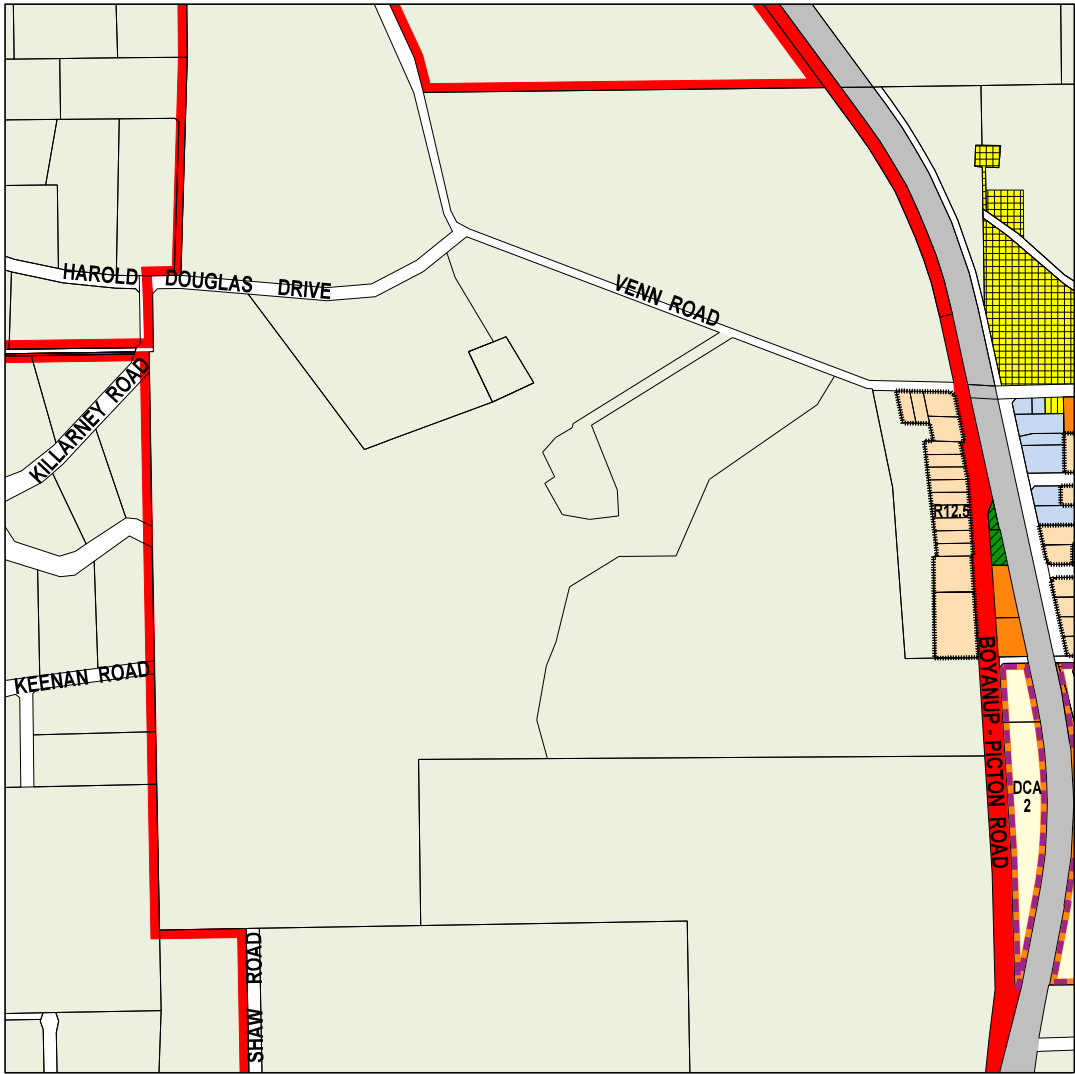
The proposed amendment recognizes the importance of the key environmental and landscape attributes of the subject site. None of the identified key environmental features present as being a significant constraint to the proposed development. The environmental outcomes of the proposed development include:

- Providing an improvement in groundwater and surface water quality through the proposed rural small holdings and implementation of water sensitive urban design and best stormwater drainage management practices;
- Retaining existing black cockatoo and WRP habitat within the proposed drainage reserve, road verges and lots; and
- Improving ecological linkages across the landscape through the revegetation of Gavin’s Gully reserve and strategic re-planting of endemic species throughout the subdivision.

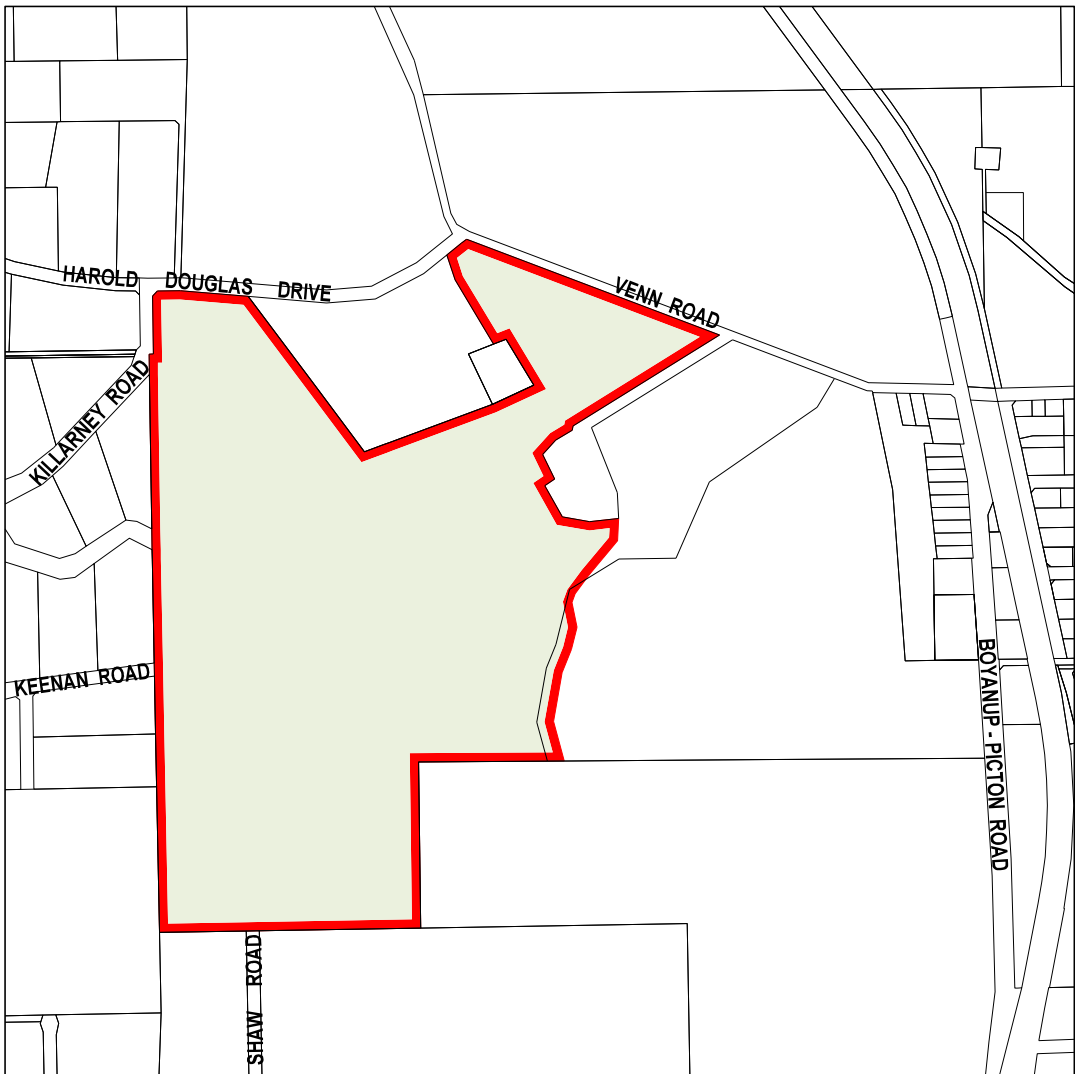
The proposed bushfire management plan conforms to the required policy and guidelines and the subject land is capable of being serviced with the essential infrastructure required for Small Holding development. Approval of Amendment 205 is respectfully sought.

# SCHEME AMENDMENT MAP

## SHIRE OF DARDANUP LOCAL PLANNING SCHEME No.3 AMENDMENT No. 205



EXISTING ZONING



PROPOSED ZONING

### LEGEND

#### REGION SCHEME ZONES (GBRS)

- PRIMARY REGIONAL ROADS
- RAILWAY

#### LOCAL SCHEME RESERVES

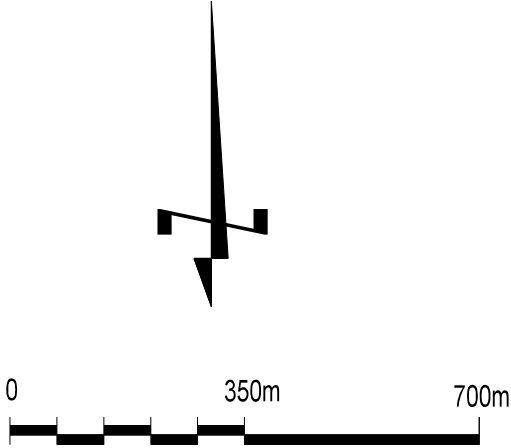
- RECREATION

#### LOCAL SCHEME ZONES

- BUSINESS - COMMERCIAL
- DEVELOPMENT
- GENERAL FARMING
- RESIDENTIAL
- OTHER COMMUNITY
- PUBLIC UTILITIES
- SCHOOL
- SMALL HOLDING

#### OTHER CATEGORIES

- R12.5 RCODES
- DCA2 DEVELOPMENT CONTRIBUTION AREA





# [Appendix ORD: 12.2.3A]

## COUNCIL INITIATION

This Standard Amendment was adopted by resolution of the Council of the Shire of Dardanup at the Ordinary Meeting of the Council held on the \_\_\_\_ day of \_\_\_\_\_, 2022.

.....  
SHIRE PRESIDENT

.....  
CHIEF EXECUTIVE OFFICER

## COUNCIL RESOLUTION TO ADVERTISE

By resolution of the Council of the Shire of Dardanup at the Ordinary Meeting of the Council held on the \_\_\_\_ day of \_\_\_\_\_, 2022, proceed to advertise this Amendment.

.....  
SHIRE PRESIDENT

.....  
CHIEF EXECUTIVE OFFICER

## COUNCIL RECOMMENDATION

This Amendment is recommended for \_\_\_\_\_ by resolution of the Council of the Shire of Dardanup at the Ordinary Meeting of the Council held on the \_\_\_\_ day of \_\_\_\_\_, 2022 and the Common Seal of the Shire of Dardanup was hereunto affixed by the authority of a resolution of the Council in the presence of:

.....  
SHIRE PRESIDENT

.....  
CHIEF EXECUTIVE OFFICER

## WAPC ENDORSEMENT (r 63)

..... Date: .....  
Delegated under S.16 of the *Planning and Development Act 2005*

## APPROVAL GRANTED

..... Date: .....  
MINISTER FOR PLANNING



## Attachments

1. Certificate of Title Lot 2 on Deposited Plan 410287
2. Certificate of Title Lot 185 on Deposited Plan 37202



## Appendices

1. Preliminary Geotechnical Investigation (WML, November 2021)
2. Environmental Assessment Report (Accendo Australia, November 2021)
3. Drainage Report (Oversby Consulting, January 2022)
4. District / Local Water Management Strategy (Oversby Consulting, January 2022)
5. Site and Soil Evaluation (WML, December 2021)
6. Bushfire Management Plan (Lush Fire & Planning, January 2022)
7. Transport Impact Assessment (Cardno, January 2022)
8. Engineering Servicing Report (WML, November 2021)

Note: The technical appendices may be lodged separately from the scheme amendment report due to file sizes.



**Item 12.2.3**

**e-Appendix 12.2.3B  
Technical Appendices**

**Only available digitally**

Mr Andre Schonfeldt  
Chief Executive Officer  
Shire of Dardanup  
PO Box 7016  
**EATON WA 6232**

Our Ref: CMS 18204  
Enquiries: Maddison Howard, 6364 6424  
Email: [Maddison.Howardi@dwer.wa.gov.au](mailto:Maddison.Howardi@dwer.wa.gov.au)

Dear Mr Schonfeldt

**DECISION UNDER SECTION 48A(1)(a)**  
***Environmental Protection Act 1986***

<b>SCHEME</b>	<b>Shire of Dardanup Town Planning Scheme 3 Amendment 205</b>
<b>LOCATION</b>	<b>Lot 2 Harold Douglas Drive &amp; part Lot 185 Venn Road, Dardanup West</b>
<b>RESPONSIBLE AUTHORITY</b>	<b>Shire of Dardanup</b>
<b>DECISION</b>	<b>Referral Examined, Preliminary Investigations and Inquiries Conducted. Scheme Amendment Not to be Assessed Under Part IV of the EP Act. Advice Given. (Not Appealable)</b>

Thank you for referring the above scheme to the Environmental Protection Authority (EPA).

After consideration of the information provided by you, the EPA considers that the proposed scheme should not be assessed under Part IV Division 3 of the *Environmental Protection Act 1986* (EP Act) but nevertheless provides the attached advice and recommendations. I have also attached a copy of the Chair's determination of the scheme.

Please note the following:

- For the purposes of Part IV of the EP Act, the scheme is defined as an assessed scheme. In relation to the implementation of the scheme, please note the requirements of Part IV Division 4 of the EP Act.
- There is no appeal right in respect of the EPA's decision to not assess the scheme.



A copy of the Chair's determination, this letter and the attached advice and recommendations will be made available to the public via the EPA website.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Shaun Meredith', is displayed on a light blue background.

**Dr Shaun Meredith**  
**Delegate of the Environmental Protection Authority**  
Executive Director  
EPA Services

3 June 2022

Encl. Chair's Determination  
Scheme Advice and Recommendations

## ADVICE UNDER SECTION 48A(1)(a) ENVIRONMENTAL PROTECTION ACT 1986

### Shire of Dardanup Town Planning Scheme 3 Amendment 205

**Location:** Lot 2 Harold Douglas Drive & part Lot 185 Venn Road, Dardanup West

**Determination:** Scheme Not Assessed – Advice Given (not appealable)

**Determination Published:** 7 June 2022

#### Summary

Amendment 205 proposes to rezone Lot 2 Harold Douglas Drive and a portion of Lot 185 Venn Road, Dardanup West from 'General Farming' to 'Small Holding', and to introduce additional requirements for 'Area 19 Dardanup Park' to Appendix VIII in the scheme text.

The proposed rezoning is to facilitate future subdivision and development of the amendment site, consistent with the *Shire of Dardanup Local Planning Strategy* and the approved *Dardanup Small Holdings Structure Plan*.

The Environmental Protection Authority (EPA) has considered the scheme amendment in accordance with the requirements of the EP Act. The EPA considers that the scheme amendment is unlikely to have a significant effect on the environment and does not warrant formal assessment under Part IV of the EP Act. The EPA has based its decision on the documentation provided by the Shire of Dardanup for this amendment. Having considered this matter, the following advice is provided.

#### Environmental Factors

Having regard to the EPA (2021) *Statement of Environmental Principles, Factors, Objectives and Aims of EIA* the EPA has identified the following preliminary environmental factors relevant to this scheme amendment:

- Flora and Vegetation.
- Terrestrial Fauna.
- Inland Waters.

#### Advice and Recommendations regarding the Environmental Factors

##### Flora and Vegetation and Terrestrial Fauna

The amendment area is largely cleared farmland, containing some areas of scattered remnant vegetation. The remnant vegetation constitutes medium woodland; *Eucalyptus rudis* and *Melaleuca raphiophylla*. The Environmental Assessment Report (Accendo Australia 2021) classified the condition of the vegetation as 'completely degraded' due to an absence of mid and understorey species and high weed prevalence.

The native vegetation provides habitat for threatened black cockatoo species, including four trees with hollows potentially suitable for nesting (Harewood 2021). The amendment area may also contain habitat for the Western Ringtail Possum (Critically Endangered under the *Biodiversity Conservation Act 2016* (BC Act) and *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)).

## [Appendix ORD: 12.2.3C]

It is noted that approximately 1.64 hectares (ha) of vegetation is proposed to be cleared and/or modified to provide for the future subdivision and development. It is also noted that many of the habitat trees will be retained within the proposed drainage reserve and that most of the proposed building envelopes will be located in cleared areas.

To mitigate potential clearing for building envelopes and/or modification of vegetation associated with bushfire management requirements, the EPA recommends concept planning is amended to provide larger lot sizes in areas where remnant trees are concentrated. In particular, it may not be suitable to site lots as small as 1 ha in the southwest portion of the amendment area, where remnant trees are most numerous.

The EPA also notes that Carter's Freshwater Mussel (Vulnerable under the *Biodiversity Conservation Act 2016* and *Environment Protection and Biodiversity Conservation Act 1999*) has been recorded in the vicinity of the proposed amendment area. The EPA supports the establishment of a drainage reserve and the proposed provisions to retain and revegetate the foreshore area to improve biodiversity values and provide an ecological linkage. The proposed drainage reserve and enhancement of the vegetation around Gavin's Gully may assist in improving the condition of potential aquatic habitat and water quality discharging to the gully.

### **Inland Waters**

Three Multiple Use Wetlands (Palusplain) cover large portions of the proposed amendment area (UFI 15221, 1757 and 14329) and Gavin's Gully runs through the amendment area and discharges to the Preston River. The amendment area is located within the Leschenault Estuary-Preston River catchment, which is considered a sewerage sensitive area.

The EPA notes that a large portion of the amendment area is seasonally waterlogged, and that the area has a high groundwater table and is largely mapped as a moderate to low acid sulfate soil disturbance risk area. It is also noted that there are no reticulated wastewater services within the amendment area, and potential future development proposes on-site sewage disposal with use of secondary waste treatment systems.

Future development associated with the amendment has the potential to impact hydrology, groundwater and surface water quality, disturb acidic soils, and facilitate inappropriate discharge of waste to waterways.

The EPA notes that the proposed scheme provisions require future development to be consistent with the *Government Sewerage Policy* (2019) (GSP) and a local development plan. The EPA supports these provisions and further recommends:

- In accordance with the requirements of the GSP, as part of future development, the Shire should consider whether on-site sewage disposal can be accommodated without endangering public health or the environment. It is noted that groundwater levels are less than 0.5 metres from the surface at many locations within the amendment area, indicating a reduced capability for the land to absorb wastewater discharge and an increased risk of human contact with effluent. The Shire should consult the Department of Health and the Department of Water and Environmental Regulation (DWER) regarding the proposed disposal of sewage on-site, and any associated risks to human health and the environment. Further management measures through future planning processes are likely to be required to ensure future development of the amendment area meets the GSP.
- Consultation with the Water Corporation regarding the suitability of proposed water management associated with future development, and potential impacts to the Gavin's Gully drainage line.

## [Appendix ORD: 12.2.3C]

- Revision of the 'Additional Requirements and Modifications to the Provisions of Scheme Text' table relating to 'Area 19 Dardanup Park', within Appendix VIII. Noting that the future lot sizes within the amendment area are proposed to be approximately 1 ha, the Land Use Controls' clauses conflict as the proposed lots are unlikely to meet the requirements of the Department of Primary Industries and Regional Development (2000) *Stocking Rate Guidelines for Rural Small Holdings*. Further, the high groundwater level and soil types within the amendment area may not be capable of supporting any number of horses on future lots. It is recommended that the removal or modification of Clause 2(b) is considered.

The EPA notes planning for West Dardanup is to be guided by the *Dardanup Small Holdings Structure Plan*. The EPA recommends this is supported by an overarching water management plan for the entire structure plan area.

### **Conclusion**

The EPA concludes the scheme amendment can be managed to meet the EPA's environmental objectives for the above factors through existing and proposed scheme provisions and future planning processes. The EPA recommends its advice is implemented to further mitigate potential impacts to the above factors.



## Environmental Protection Authority

### S48A Referrals

**Title:** Shire of Dardanup Town Planning Scheme 3 Amendment 205

**Location:** Lot 2 Harold Douglas Drive & part Lot 185 Venn Road, Dardanup West

**Description:** Amendment 205 proposes to rezone Lot 2 Harold Douglas Drive and part Lot 185 Venn Road, Dardanup West to facilitate subdivision and development. The amendment also proposes to introduce additional requirements for 'Area 19 Dardanup Park' to Appendix VIII in the scheme text.

**Ref ID:** CMS18204

**Date Received:** 11/05/2022

**Date Sufficient Information Received:** 11/05/2022

**Responsible Authority:** Shire of Dardanup PO Box 7016, Eaton WA 6232

**Contact:** Melanie Young

**Preliminary Environmental Factors:** Flora and Vegetation; Terrestrial Fauna; Inland Waters


**Potential Significant Effects:** Clearing of native vegetation that may provide habitat for threatened species of black cockatoo. Potential impacts to water quality in a sewerage sensitive area.

**Management:** The amendment area is mostly cleared with some scattered mature trees. A drainage line runs through the amendment area and discharges to the Preston River. Potential impacts can be managed through existing scheme provisions and future planning processes. EPA advice is also provided regarding further mitigation of environmental impacts.

**Determination:** **Referral Examined, Preliminary Investigations and Inquiries Conducted. Scheme Amendment Not to be Assessed Under Part IV of EP Act. Advice Given. (Not Appealable)**

The Environmental Protection Authority (EPA) has carried out some investigations and inquiries before deciding not to assess this scheme. In deciding not to formally assess schemes, the EPA has determined that no further assessment is required by the EPA.

This Determination is not appealable.

**Chair's Initials:** 

**Date:** 2 June 2022



# [Appendix ORD: 12.2.3D]

## SCHEDULE OF SUBMISSIONS – Shire of Dardanup Town Planning Scheme No. 3, Amendment No. 205.

No.	Submitter	Summary of Submission	Recommendation / Comment
1.	Water Corporation	The subject land is outside of our water and wastewater scheme boundaries, as such we will not be able to provide services. In line with the proponents Engineering Service report, consideration will need to be given to self-supply of water and on-site treatment and disposal of effluent.	<b>Note submission.</b>
2.	Department of Health (DoH)	<p><u>Water Supply and Wastewater Disposal</u></p> <p>The proposed lots are in a low-lying area within significant parts of the lot being inundated or have areas of land with either perched water, high ground water tables including areas where these are at the surface or winter creeks and drains. The proposed land is also captured under the Government Sewerage Policy (GSP). This Policy limits effluent disposal areas where land becomes inundated or where locations of high-water tables reach the surface, even if fill is proposed, these areas should not be used as areas for effluent disposal.</p> <p>Although the proposed lots are a minimum size of 1 ha to meet with the GSP requirements, there is little detail of where these wet areas are in relation to the proposed building envelopes and proposed effluent disposal areas.</p> <p>DoH does not support the proposal until the following is provided:</p> <ol style="list-style-type: none"> <li>1. Locations to indicate areas of perched water, water tables that reach ground level, creeks, drains and proposed drainage reserve areas along with the location of the building envelopes.</li> <li>2. The permeability findings do not represent most of the site as only three test pits were used that mainly consist of sandy type soils. There are many parts of the natural land that contain clay content with a variety of plasticity content, therefore, the sizing of each site-specific disposal area will need to reflect this.</li> </ol>	<p><b>Note submission.</b></p> <p><b>Advise the applicant that the Shire's support for the Amendment is in no way to be construed as any indication that the Shire will recommend approval of the subdivision as proposed in the Concept Plan.</b></p> <p>The comments provided are directly related to the subdivision Concept Plan that accompanied the Amendment report.</p> <p>The applicant (see submission No. 13) has acknowledged that the Concept Plan submitted with the Amendment was indicative only and will not be endorsed. The Concept Plan is both premature and overly detailed at this scheme amendment (rezoning) stage.</p> <p>It is important to note that the Amendment is proposing only the rezoning of the land to 'Small Holding' which will facilitate future rural residential lots that may range in size from 1 ha to 4 ha.</p>

# [Appendix ORD: 12.2.3D]

## SCHEDULE OF SUBMISSIONS – Shire of Dardanup Town Planning Scheme No. 3, Amendment No. 205.

No.	Submitter	Summary of Submission	Recommendation / Comment
2. Cont.	DoH	3. Address all of the GSP requirements including fill required to meet the minimum height of 1.5m to winter water tables, to the underside of the disposal areas and to secondary treatment systems.	The issues raised will all need to be appropriately addressed with further detail at the subdivision stage, which may then necessitate changes to the subdivision design.
		<u>Medical Entomology</u> The subject land is in a region that regularly experiences significant problems with nuisance and disease carrying mosquitoes. Prior to development, DoH recommends a Mosquito Management Plan be developed and approved.  In addition, due to the high-risk nature of the proposed development, the DoH requires the following wording to be placed on all land title documents:  <i>This lot is located near extensive mosquito breeding habitat and can experience substantial numbers of nuisance mosquitoes after certain environmental conditions. The mosquito species in the region are known vectors of Ross River Virus and other mosquito-borne diseases and the region is subject to annual outbreaks of these diseases.</i>	<b>Note submission.</b>  The issue raised will be appropriately addressed with further detail at the subdivision stage.
		<u>Agricultural Activities</u> Please refer to DoH's <i>Guidelines for the Separation of Agricultural and Residential Land Use</i> in regard to the important issue of avoiding conflict and potential adverse health effects and nuisance impacts from chemical use, dust and other rural pursuits.	<b>Note submission.</b>
		<u>Land Use Planning for Natural Hazards</u> A document <i>Land Use Planning for Natural Hazards</i> can also guide the use of land to effectively reduce risk and enhance sustainability for areas prone to hazards such as flooding (including storm surge), fire, landslide, earthquake, strong wind and erosion.	<b>Note submission.</b>

# [Appendix ORD: 12.2.3D]

## SCHEDULE OF SUBMISSIONS – Shire of Dardanup Town Planning Scheme No. 3, Amendment No. 205.

No.	Submitter	Summary of Submission	Recommendation / Comment
3.	Department of Fire and Emergency Services (DFES)	At the scheme amendment stage, consideration should be given to the intensification of land use and how this relates to identified bushfire hazards at this location. DFES is not satisfied that the BMP has adequately considered how compliance with the bushfire protection criteria can be achieved at subsequent planning stages.	<p><b>Dismiss submission.</b></p> <p>It is important to note that the Amendment is proposing only the rezoning of the land to 'Small Holding'. The Bushfire Management Plan contains more detail than is necessary for a strategic planning proposal as referenced in Appendix 5 of the <i>Guidelines for Planning in Bushfire Prone Areas</i> and also noting that the Bushfire Protection Criteria now designate which provisions apply to the different planning stages.</p> <p>The issues raised will all need to be appropriately addressed with further detail at the subdivision stage, which may then necessitate changes to the subdivision design.</p>
		<p><u>Vehicular Access</u></p> <p>There are two dead-ends and 1 cul-de-sac designed into the subdivision plan. All public roads should be through roads unless it can be demonstrated that no alternatives exist due to site constraints. DFES suggests the subdivision plan be modified to ensure through access thereby avoiding need for a dead-end roads.</p> <p>The BMP states that perimeter roads are not required given the constraints of the existing structure plans in the area. However, there are lots abutting an extreme hazard (Gavin's Gully) and neighbouring pockets of Forest vegetation. A Fire Service Access Route has also not been considered which could provide access to the rear of lots where there is a remaining bushfire hazard.</p>	<p><b>Note submission.</b></p> <p>The two 'dead end' roads are located in accordance with the Dardanup West Structure Plan so as to connect to roads proposed on the adjoining land. The cul-de-sac extending from Killarney Road services only 5 lots and is only 110 m. There is no design alternative for this road given the proximity of the intersection of Killarney Road and Harold Douglas Drive.</p>

# [Appendix ORD: 12.2.3D]

## SCHEDULE OF SUBMISSIONS – Shire of Dardanup Town Planning Scheme No. 3, Amendment No. 205.

No.	Submitter	Summary of Submission	Recommendation / Comment
3. Cont.	DFES	In bushfire prone areas, lots with battle-axe access legs should be avoided. DFES suggests the subdivision plan be modified to ensure through access thereby avoiding need for battle-axe lots.	With the exception of the linear vegetation along Gavin's Gully the adjoining vegetation is predominantly grassland. A fire service access route is not considered necessary for such a relatively narrow linear vegetation hazard.  There is a single battle axe leg being 50 m in length and it is located on cleared land.
		<u>Water</u> The BMP states that 2 strategic tanks will be installed in the wider location, one in the Dardanup townsite and the other approximately 1.8 km away on Harold Douglas Drive. It is unclear if the amount of water proposed at these locations are sufficient to cater for the existing and proposed subdivision.	<b>Note submission.</b>  The BMP report acknowledges that 2 50,000L water tanks are required. The options for the location of these are: <ul style="list-style-type: none"><li>• within the subject land;</li><li>• R43955 Harold Douglas Drive;</li><li>• Dardanup Central Volunteer Bush Fire Brigade; or</li><li>• the West Dardanup Bush Fire Brigade in Garvey Road.</li></ul> Which site is most suitable will be addressed at the subdivision stage.
4.	Department of Primary Industries and Regional Development (DPIRD)	No objection to the overall proposal, but has concerns about key aspects of it and offers the following comments: <ul style="list-style-type: none"><li>• The amendment area includes a portion of Priority Agricultural Land and falls inside the buffer of Priority Agricultural Land identified in the Greater Bunbury Region Scheme Priority Agricultural Land Policy.</li></ul>	<b>Note submission.</b>

## SCHEDULE OF SUBMISSIONS – Shire of Dardanup Town Planning Scheme No. 3, Amendment No. 205.

No.	Submitter	Summary of Submission	Recommendation / Comment
4. Cont.	DPIRD	<ul style="list-style-type: none"> <li>DPIRD does not support the introduction of sensitive land uses, such as rural smallholdings, on or adjacent to, priority agricultural land, unless this land use change has been previously identified in an endorsed land use strategy or plan.</li> <li>This land was identified as a future rural living area in the Dardanup Small Holdings Structure Plan, and in the Shire's Local Planning Strategy.</li> <li>The amendment will retain 29.78 ha of irrigated pasture land, while developing lower capability grazing land for small holdings. Ongoing use of the irrigated land for grazing and hay production is largely compatible for the proposed subdivision plan included in the amendment report.</li> </ul>	
		<p><u>Stocking Rates</u></p> <p>The text of the amendment lists land use controls relating to the keeping of livestock. If stocking rates are exceeded, a management plan would need to involve stabling and/or agisting horses off the lots to keep ground cover above 50% throughout the year.</p> <p>The draft subdivision plan shows lot sizes from 1 – 2 ha and most will have less than 1 ha of cleared land suitable for grazing. This lot configuration is not suited to keeping large livestock such as horses. Larger lots are required if the subdivision is to be sold to horse owners.</p>	<p><b>Note submission.</b></p> <p>It is important to note that the Amendment is proposing only the rezoning of the land to 'Small Holding' which will facilitate future rural residential lots that may range in size from 1 ha to 4 ha.</p> <p>The applicant (see submission No. 13) has acknowledged that the Concept Plan submitted with the Amendment was indicative only and will not be endorsed. The Concept Plan is both premature and overly detailed at this scheme amendment (rezoning) stage.</p>



# [Appendix ORD: 12.2.3D]

## SCHEDULE OF SUBMISSIONS – Shire of Dardanup Town Planning Scheme No. 3, Amendment No. 205.

No.	Submitter	Summary of Submission	Recommendation / Comment
4. Cont.	DPIRD		<p>The issues raised will all need to be appropriately addressed with further detail at the subdivision stage, which may then necessitate changes to the subdivision design.</p> <p>The land is also close to the Dardanup Equestrian Centre on Garvey Road which includes access via a planned network of bridle trails throughout the Rural Living area. Consistent with the Dardanup Small Holdings Structure Plan, the concept plan proposes bridle trails that will make an important contribution to completing the trail network.</p>
		<p><u>Land Required for Treated Effluent Disposal</u>            The Site and Soil Evaluation states that 180 m<sup>2</sup> is needed for subsurface disposal of treated effluent. In order to operate effectively to remove nutrients, the disposal area must be grassed and mowed to remove nutrients. As livestock grazing would interfere with the operation of the disposal system, including through introducing additional nutrients in their urine and manure, the disposal areas should be fenced to prevent access by livestock.</p>	<p><b>Note submission.</b></p> <p>The issue raised will be appropriately addressed with further detail at the subdivision stage.</p>
		<p><u>Clearing of Native Vegetation</u>            The proposal states that there will be clearing of native vegetation, including some potential black cockatoo habitat. Any proposed clearing must have the relevant permits from the Department of Water and Environmental Regulation.</p>	<p><b>Note submission.</b></p>
		<p><u>Groundwater</u>            The groundwater is in very close proximity to the surface, and care will need to be taken to avoid intercepting it or exposing it to air during and earthwork or construction activities.</p>	<p><b>Note submission.</b></p>

# [Appendix ORD: 12.2.3D]

## SCHEDULE OF SUBMISSIONS – Shire of Dardanup Town Planning Scheme No. 3, Amendment No. 205.

No.	Submitter	Summary of Submission	Recommendation / Comment
5.	Department of Biodiversity Conservation and Attractions (DBCA)	<p><u>Fauna</u></p> <p>The <i>Environmental Assessment Report</i> found evidence of Western Ringtail Possums (WRP) and trees that were considered suitable black cockatoo habitat.</p> <p>The amendment document refers to the retention of existing black cockatoo and WRP habitat within the proposed drainage reserve, road verges and lots, which DBCA supports.</p> <p>The 4 trees identified for retention in the <i>Environmental Assessment Report</i> should be depicted as “retained trees” within all reports, to minimize the risk of accidental clearing.</p> <p>A section 40 ministerial authorisation to take or disturb threatened fauna under the <i>Biodiversity Conservation Act 2016</i> should be obtained by a qualified fauna spotter, prior to clearing occurring, with a post clearing report being forwarded to DBCA.</p> <p>DBCA supports revegetation with local endemic species within Gavin’s Gully reserve, to enhance the fauna corridor.</p>	<p><b>Note submission.</b></p> <p>The issues raised will be appropriately addressed with further detail at the subdivision stage.</p>
		<p><u>Lot Layout and Building Exclusion Zones</u></p> <p>The <i>Geotechnical Investigation</i> refers to the use of fill material to a height to 1.5 m within the proposed lots and the stripping of all vegetation and topsoil from the site. Vegetation clearing should not be undertaken within building exclusion zones.</p> <p>DBCA recommends that buffers to retained trees be established. Adoption of the building envelope layout depicted within the <i>Geotechnical Investigation</i> would maximise the protection and retention of fauna habitat trees.</p>	<p><b>Note submission.</b></p> <p>The issues raised will all need to be appropriately addressed with further detail at the subdivision stage, which may then necessitate changes to the subdivision design.</p>

# [Appendix ORD: 12.2.3D]

## SCHEDULE OF SUBMISSIONS – Shire of Dardanup Town Planning Scheme No. 3, Amendment No. 205.

No.	Submitter	Summary of Submission	Recommendation / Comment
6.	Department of Water and Environmental Regulation (DWER)	<p><u>Structure Plan Layout</u></p> <p>DWER does not support the structure plan layout, and it should be reviewed to achieve a separation of 100 m between land application areas and the waterway (Gavin's Gully) for all proposed new lots and any required amendments as a result of further consideration of seasonal inundation risks.</p> <p>In addition, there are details in the Local Water Management Strategy and the Site and Soil Evaluation that indicates a large portion of the site is seasonally inundated. More information is required to prove up areas subject to inundation including the extent of inundation risk, identification of lots in trapped lows and cross lot drainage requirements. This additional work may also result in the need for the lot configuration to be reassessed.</p>	<p><b>Note submission.</b></p> <p><b>Advise the applicant that the Shire's support for the Amendment is in no way to be construed as any indication that the Shire will recommend approval of the subdivision as proposed in the Concept Plan.</b></p> <p>The comments provided are directly related to the subdivision Concept Plan that accompanied the Amendment report.</p> <p>The applicant (see submission No. 13) has acknowledged that the Concept Plan submitted with the Amendment was indicative only and will not be endorsed. The Concept Plan is both premature and overly detailed at this scheme amendment (rezoning) stage.</p> <p>It is important to note that the Amendment is proposing only the rezoning of the land to 'Small Holding' which will facilitate future rural residential lots that may range in size from 1 ha to 4 ha.</p> <p>The issues raised will all need to be appropriately addressed with further detail at the subdivision stage, which may then necessitate changes to the subdivision design.</p>

## SCHEDULE OF SUBMISSIONS – Shire of Dardanup Town Planning Scheme No. 3, Amendment No. 205.

No.	Submitter	Summary of Submission	Recommendation / Comment
6. Cont.	DWER	<p><u>Site and Soil Evaluation Report (SSE)</u></p> <p>The site is on the palusplain and in an area known to be seasonally wet and with very low separation to groundwater. This results in a high level of hydraulic connectivity between surface water, groundwater and the drainage and waterways systems that will result in more efficient mobilisation of contaminants into the environment and potential human contact with effluent.</p> <p>Based on the above risks greater consideration is required for the following:</p> <ul style="list-style-type: none"> <li>• The extent of seasonal inundation.</li> <li>• The extent of the 10% AEP inundation areas from Gavin's Gully.</li> <li>• More spatially extensive testing of permeability.</li> <li>• PRI testing for all soil types.</li> <li>• Separation of 100 m from Gavin's Gully for all propose land application areas.</li> <li>• Being in a sewage sensitive area all systems are required to be secondary treatment systems with nutrient removal.</li> </ul>	The issues raised will all need to be appropriately addressed with further detail at the subdivision stage, which may then necessitate changes to the subdivision design.
		<p><u>Local Water Management Strategy (LWMS)</u></p> <ul style="list-style-type: none"> <li>• Greater consideration of seasonally inundated areas, trapped lows and required local drainage (if any).</li> <li>• Confirmation that Water Corporation's requirements are being met.</li> <li>• Ensuring consistency between bush fire planning and waterway management.</li> </ul> <p>In addition to the above consideration of whether the assumed catchment top of water levels for the 1% AEP and 10% AEP events for Gavin's Gully are acceptable.</p>	The issues raised will all need to be appropriately addressed with further detail at the subdivision stage, which may then necessitate changes to the subdivision design.

# [Appendix ORD: 12.2.3D]

## SCHEDULE OF SUBMISSIONS – Shire of Dardanup Town Planning Scheme No. 3, Amendment No. 205.

No.	Submitter	Summary of Submission	Recommendation / Comment
6. Cont.	DWER	<p><u>Bushfire Management Plan</u></p> <p>The LWMS states that the on-site waterways are to be rehabilitated with native vegetation planting and weed control. No reference has been made of this in the bushfire management plan. Therefore more detail is required of the proposed planting and, based on this, confirmation is then required that there is no conflict with the current bushfire management plan.</p>	The issues raised will all need to be appropriately addressed with further detail at the subdivision stage, which may then necessitate changes to the subdivision design.
7.	Aqwest	No comments	<b>Note submission.</b>
8.	D Barrett-Lennard Lot 15 (No. 44) Slattery Way, Dardanup West	<p>Object.</p> <p>Please provide a comment why the proposed will bring a positive change to the community.</p>	<p><b>Note submission.</b></p> <p>The rezoning is consistent with the approved structure plan for West Dardanup, similar to the previous rezoning and subdivision that provided for the creation of other Small Holding properties (including the submitter's property).</p> <p>The rezoning will lead to the creation of an improved road network, a reserve for Gavin's Gully and added bridle trail connections.</p>
9.	J Trigwell Lot 110 (No. 9) Rosevale Close, Dardanup and Lot 24 (No. 21) Charlotte Street, Dardanup	<p>Support.</p> <p>The corner where Harold Douglas Drive and current alignment of Sheep Dip Road intersects with Venn Road really needs upgrading.</p>	<p><b>Note submission.</b></p> <p>The amendment is specifically proposing a condition that <i>at the subdivision stage, the local government may request that the WAPC impose a condition requiring that satisfactory arrangements be made for the upgrading and/or construction of the local road network (including intersections) to the Shire's standard.</i></p>



# [Appendix ORD: 12.2.3D]

## SCHEDULE OF SUBMISSIONS – Shire of Dardanup Town Planning Scheme No. 3, Amendment No. 205.

No.	Submitter	Summary of Submission	Recommendation / Comment
10.	D R Coulson Lot 27 (No. 49) Shaw Road, Dardanup	I would like further clarification concerning the drainage from the proposed subdivision and construction of Shaw Road that runs along the side of my property.	<p><b>Note submission.</b></p> <p>Shire officers and the applicant met on-site with the submitter where it was explained that post-development volumes would match pre-development volumes using the proposed swales and a proposed sump immediately north of Lot 27, with the majority of catchment flows directed northward away from Lot 27.</p>
11.	N Dobias Lot 438 (No. 29) Keenan Road, Dardanup West	As this new development will have a road that will be quicker for people to drive on to get to Dardanup West area instead of going to Garvey Road, we will have a lot of traffic going outside our house. I am worried about the speed of people driving. I am hoping that there will be multiple roundabouts and/or slow points put in to discourage those types of drivers. Perhaps even bridlepaths on the side of the road to rise horses safely on. But my main priority is to prevent the speeding.	<p><b>Note submission.</b></p> <p>The endorsed structure plan for Dardanup West provides for the extension of Keenan Road.</p> <p>The amendment is specifically proposing a condition that <i>at the subdivision stage, the local government may request that the WAPC impose a condition requiring that satisfactory arrangements be made for the upgrading and/or construction of the local road network (including intersections) to the Shire's standard.</i> This upgrading will consider any works required for traffic safety.</p> <p>As shown in the concept plan new bridle paths consistent with the intent of the Dardanup West structure plan (including along portion of Keenan Road) will be provided.</p>

# [Appendix ORD: 12.2.3D]

## SCHEDULE OF SUBMISSIONS – Shire of Dardanup Town Planning Scheme No. 3, Amendment No. 205.

No.	Submitter	Summary of Submission	Recommendation / Comment
12.	D & R J Baskott Lot 30 (No. 4) Shire Place, Dardanup	Support.	Note submission.
13.	Across Planning (late submission)	<p>It is evident that a number of submissions from government agencies contain comments directed at the preliminary 'Concept Plan' which, along with intentions for the overall land use and transport connections, also showed a preliminary subdivision design.</p> <p>Whilst the lot layout with building exclusion zones etc. are ultimately the level of detail required at the subdivision application stage, it has become evident that this is both premature and overly detailed at this scheme amendment (rezoning) stage.</p> <p>No agencies object outright to the proposed rezoning and the proposed land uses. The majority of queries and specific comments were directed at the preliminary subdivision 'Concept Plan' which is more appropriately dealt with at the subdivision stage.</p> <p>The applicant acknowledges that the 'Concept Plan' initially submitted with the Amendment document was indicative only, is not a formal part of the Amendment and will not be endorsed.</p> <p>The applicant acknowledges that the eventual small holdings lot layout will be determined at the subdivision approval stage and recommends that the preliminary subdivision 'Concept Plan' (Figure 14) be replaced with a new Concept Plan that demonstrates:</p> <ul style="list-style-type: none"> <li>the creation of a new small holding area;</li> <li>establishing road connections consistent with the Dardanup Small Holdings Structure Plan; and</li> <li>the extension of the Gavin's Gully drainage and conservation reserve.</li> </ul>	<p><b>Uphold submission.</b></p> <p><b>Advise the applicant that the Shire's support for the Amendment is in no way to be construed as any indication that the Shire will recommend approval of the subdivision as proposed in the Concept Plan.</b></p> <p>It is important to note that the Amendment is proposing only the rezoning of the land to 'Small Holding' which will facilitate future rural residential lots that may range in size from 1 ha to 4 ha.</p> <p>The issues raised will all need to be appropriately addressed with further detail at the subdivision stage, which may then necessitate changes to the subdivision design.</p>

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02 August 2022

Chief Executive Officer  
Shire Of Dardanup  
PO Box 7016  
EATON WA 6232

Attention of: Melanie Young

**Re: Amd 205 – Lot 2 Harold Douglas Dr & Lot 185 Venn Rd, Dardanup**

Thank you for your letter dated 7 July 2022. We offer the following comments regarding this proposal.

**Water and Wastewater**

The subject land is outside of our water and wastewater scheme boundaries, as such we will not be able to provide services. In line with the proponents Engineering Servicing Report, consideration will need to be given to self-supply of water and on-site treatment and disposal of effluent.

Should you have any queries or require further clarification on any of the above issues, please do not hesitate to contact the Enquiries Officer.

Daniel Lawrence  
Senior Planner  
Development Services



Government of **Western Australia**  
Department of **Health**

Your Ref:  
Our Ref: F-AA-14495 D-AA-22/347663  
Contact: Melanie Hogg 9222 2000

Andre Schonfeldt  
Chief Executive Officer  
Shire of Dardanup  
1 Council Drive  
EATON WA 6232

Attention: Melanie Young – Senior Planning Officer

Via email: [submissions@dardanup.wa.gov.au](mailto:submissions@dardanup.wa.gov.au)

Dear Mr Schonfeldt

**RE: AMENDMENT 205 TO SHIRE OF DARDANUP TOWN PLANNING SCHEME  
NO.3 LOT 2 HAROLD DOUGLAS DRIVE AND PORTION OF LOT 185 VENN ROAD,  
DARDANUP WEST**

Thank you for your letter of 30 June 2022, requesting comments from the Department of Health (DOH) on the above proposal.

The DOH provides the following comment:

**1. *Water Supply and Wastewater Disposal***

The proposed 37 lots are in a low-lying area with significant parts of the lot being inundated or have areas of land with either perched water, high ground water tables including areas where these are at the surface or winter creeks and drains. The proposed land is also captured under the Government Sewerage Policy (GSP). This Policy limits effluent disposal areas where land becomes inundated or where locations of high-water tables reach the surface, even if fill is proposed, these areas should not be used as areas for effluent disposal.

The Geotechnical Report by WML Consultants Pty Ltd (September 2021), made the statement “At the time of the investigation fieldwork, approximately half of the site was inaccessible or difficult to access with the 4WD vehicle due to water ponding at the surface”. Although the proposed lots are a minimum size of 1 ha to meet with the Policy requirements, there is little detail of where these wet areas are in relation to the proposed building envelopes and more importantly proposed effluent disposal areas.

Therefore, with the above in mind, the Department of Health does not support the proposal until the following are provided and demonstrated based on the submitted documentation:

1. Locations on a plan, to scale, with measurements to indicate areas of perched water, water tables that reach ground level, creeks, drains and proposed drainage reserve areas along with the location of the building envelopes;
2. The permeability findings do not represent most of the site as only three test pits were used, being TP 6, TP8 and TP16 that mainly consist of sandy type soils. There are many parts of the natural land that contain clay content with a variety of plasticity content, therefore, the sizing of each site-specific disposal area will need to reflect this;
3. To address all of the Government Sewage Policy requirements including fill required to meet the minimum height of 1.5m to winter water tables (below ground surface) to the underside of the disposal areas (building envelopes) and secondary treatment systems (STS);

## **2. Medical Entomology**

The subject land is in a region that regularly experiences significant problems with nuisance and disease carrying mosquitoes. These mosquitoes can disperse several kilometres from breeding sites and are known carriers of Ross River (RRV) and Barmah Forest (BFV) viruses. Human cases of RRV and BFV diseases occur annually in this general locality.

The subject land is also within 3km of mosquito dispersal distance from various mosquito breeding along various river and creek systems in the surrounding environment. Mosquitoes will disperse from these sites to the subject land under favourable environmental conditions. There may also be seasonal freshwater mosquito breeding habitat within proximity to the subject land. Additionally, there is the potential for mosquitoes to breed in on-site infrastructure and constructed water bodies if they are poorly designed.

The above disease risks, as well as the lifestyle impacts of nuisance mosquitoes, will inevitably result in demands for the application of chemicals to control larval and/or adult mosquitoes. Environmental agencies may not automatically approve the use of such measures in and around environmentally significant wetlands. Therefore, it will be important that in-principle approval for effective mosquito control measures in and around these wetlands is obtained from the relevant environmental agencies before planning decisions are finalised.

Prior to development, the DOH recommends a Mosquito Management Plan (MMP) be developed and approved by both the DOH and the Shire of Dardanup to ensure the risk to the community of exposure to nuisance and/or disease carrying mosquitoes is considered. This MMP is to be approved by the Shire of Dardanup and DOH prior to any subdivision.

The Department has provided guides and templates for the development of suitable MMP's to assist land developers meet these requirements. Please see: [Mosquito management \(health.wa.gov.au\)](https://www.health.wa.gov.au/management) for additional support.



In addition, due to the high-risk nature of the proposed development, the DOH requires the following wording to be placed on all land title documents:

*"This lot is located near extensive mosquito breeding habitat and can experience substantial numbers of nuisance mosquitoes after certain environmental conditions. The mosquito species in the region are known vectors of Ross River Virus and other mosquito-borne diseases and the region is subject to annual outbreaks of these diseases."*

### **3. Agricultural Activities**

I refer you to the DOH's *Guidelines for the Separation of Agricultural and Residential Land Use* in regard to the important issue of avoiding conflict and potential adverse health effects and nuisance impacts from chemical use, dust and other rural pursuits. A copy is attached, or it may be accessed from the Department of Health's website: [http://ww2.health.wa.gov.au/Articles/F\\_1/Guidelines-for-separation-of-agricultural-and-residential-land-uses](http://ww2.health.wa.gov.au/Articles/F_1/Guidelines-for-separation-of-agricultural-and-residential-land-uses)

### **4. Land Use Planning for Natural Hazards**

A document '*Land Use Planning for Natural Hazards* can also guide the use of land to effectively reduce risk and enhance sustainability for areas prone to hazards such as flooding (including storm surge), fire, landslide, earthquake, strong wind and erosion. Available for download from: <https://knowledge.aidr.org.au/resources/land-use-planning-for-natural-hazards-handbook/>

Should you have any queries or require further information please contact Melanie Hogg on 9222 2000 or [eh.eSubmissions@health.wa.gov.au](mailto:eh.eSubmissions@health.wa.gov.au)

Yours sincerely



Dr Michael Lindsay  
**EXECUTIVE DIRECTOR**  
**ENVIRONMENTAL HEALTH DIRECTORATE**

11 August 2022



Our Ref: D25028  
Your Ref: Amd205

Melanie Young  
Shire of Dardanup  
[submissions@dardanup.wa.gov.au](mailto:submissions@dardanup.wa.gov.au)

Dear Ms Young

## RE: AMENDMENT 205 TOWN PLANNING SCHEME NO. 3 - LOT 2 HAROLD DOUGLAS DRIVE & PORTION OF LOT 185 VENN ROAD DARDANUP WEST

I refer to your email dated 30 June 2022 regarding the submission of a Bushfire Management Plan (BMP) (Revision A), prepared by Lushfire & Planning and dated 15 January 2022, for the above proposal.

This advice relates only to *State Planning Policy 3.7 Planning in Bushfire Prone Areas* (SPP 3.7) and the *Guidelines for Planning in Bushfire Prone Areas* (Guidelines). It is the responsibility of the proponent to ensure the proposal complies with all other relevant planning policies and building regulations where necessary. This advice does not exempt the applicant/proponent from obtaining necessary approvals that may apply to the proposal including planning, building, health or any other approvals required by a relevant authority under other written laws.

### General Comments

High level consideration of bushfire risk is one of the most effective means of preventing inappropriate development in bushfire prone areas. A BHL assessment provides a 'broad brush' means of determining the potential intensity of a bushfire for an area. It is a pre-development tool used to inform decision making at subsequent planning stages (structure planning, subdivision and development).

DFES urges the Shire to ensure that further consideration is given to the bushfire protection at subsequent planning stages to reduce the vulnerability of dwellings and residents from the impact of a bushfire, and to ensure continued compliance with SPP 3.7 and the Guidelines.

### Assessment

#### 1. Policy Measure 6.3 c) Compliance with the Bushfire Protection Criteria

Element	Assessment	Action
<b>Vehicular Access</b>	<b>A3.3 – not demonstrated</b> There are two dead-ends and 1 cul-de-sac designed into the future subdivision plan. All public roads should be through roads unless it can be demonstrated that no alternatives exist due to site constraints. DFES suggests the subdivision plan be modified to ensure through access thereby avoiding need for a dead-end roads.	Modification to the BMP is required. Please redesign subdivision or provide substantiated evidence of a performance principle -based solution.

## [Appendix ORD: 12.2.3E]

	<b>A3.4a and A3.4b – insufficient information</b> The BMP states that perimeter roads are not required given the constraints of the existing structure plans in the area. However, there are lots abutting an extreme hazard (Gavin's Gully) and neighbouring pockets of Forest vegetation. A Fire Service Access Route has also not been considered which could provide access to the rear of lots where there is a remaining bushfire hazard.	Insufficient information. Decision to be satisfied that there are sufficient constraints which prevent the inclusion of perimeter roads.
	<b>A3.5 – not demonstrated</b> In bushfire prone areas, lots with battle-axe access legs should be avoided because they do not provide two-way access and egress for residents and may be easily blocked by falling trees or debris during a bushfire event. DFES suggests the subdivision plan be modified to ensure through access thereby avoiding need for battle-axe lots.	Modification to the BMP is required. Please redesign subdivision or provide substantiated evidence of a performance principle -based solution.
<b>Water</b>	<b>A 4.2 – insufficient information</b> The BMP states that 2 strategic tanks will be installed in the wider location, one in the Dardanup townsite and the other approximately 1.8 kilometres away on Harold Douglas Drive. It is unclear if the amount of water proposed at these locations are sufficient to cater for the existing and proposed subdivision.	Insufficient information. Decision to be satisfied that there is sufficient water dedicated for firefighting purposes to cater for the future subdivision.

### **Recommendation – not supported modifications required**

At the scheme amendment stage, consideration should be given to the intensification of land use and how this relates to identified bushfire hazards at this location. DFES is not satisfied that the BMP has adequately considered how compliance with the bushfire protection criteria can be achieved at subsequent planning stages.

If you require further information, please contact me on telephone number 9395 9703.

Yours sincerely



**Sasha De Brito**  
**A/DIRECTOR LAND USE PLANNING**

8 August 2022

Cc [melanie.young@dardanup.wa.gov.au](mailto:melanie.young@dardanup.wa.gov.au)



Department of  
Primary Industries and  
Regional Development

**Your reference:** Amd205  
**Our reference:** LUP 1443  
**Enquiries:** Heather Percy

Attention: Melanie Young

Chief Executive Officer  
Shire of Dardanup

[submissions@dardanup.wa.gov.au](mailto:submissions@dardanup.wa.gov.au)

Date: 2 September 2022

Dear Ms Young

**Amendment 205 to Shire of Dardanup Town Planning Scheme No.3  
Lot 2 Harold Douglas Drive and portion of Lot 185 Venn Road, Dardanup West**

Thank you for inviting the Department of Primary Industries and Regional Development (DPIRD) to comment on the above scheme amendment.

DPIRD does not object to the overall proposal, but holds serious concerns about key aspects of it, and offers the following comments:

- The amendment area includes a portion of Priority Agricultural Land and falls inside the buffer of Priority Agricultural Land identified in the [Greater Bunbury Region Scheme Priority Agricultural Land Policy](#).
- DPIRD does not support the introduction of sensitive land uses, such as rural smallholdings, on or adjacent to, priority agricultural land, unless this land use change has been previously identified in an endorsed land use strategy or plan.
- This land was identified as a future rural living area in the Dardanup Small Holdings Structure Plan, endorsed in 2007 by the WAPC, and in the Shire's Local Planning Strategy (2015) as part of the Dardanup West/Crooked Brook Rural Living area.
- The proposed amendment will retain 29.78 hectares (ha) irrigated pasture land under broadacre agriculture, while developing lower capability grazing land for small holdings. Ongoing use of the irrigated land for grazing and hay production is largely compatible for the proposed subdivision plan included in the amendment report.

The text of the amendment lists two land use controls relating to the keeping of livestock:

- a) Stocking rates shall not exceed Department of Primary Industries and Regional Development stocking rate guidelines.*
- b) Despite clause 3.14.1 i), the keeping of horses in accordance with*

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PO Box 483 Northam WA 6401  
Telephone +61 (0)8 9690 2000 [landuse.planning@dpird.wa.gov.au](mailto:landuse.planning@dpird.wa.gov.au)  
**[dpird.wa.gov.au](http://dpird.wa.gov.au)**  
ABN: 18 951 343 745

## [Appendix ORD: 12.2.3E]

*subclause a), is limited to personal use with a maximum of 3 horses.*

DPIRD's stocking rate recommendations for the proposed amendment area are provided in Attachment 1.

The sandy soils on the rises (Bassendean B1, B1b, B2 phases) have a base stocking rate of 2 DSE/ha and require 5 ha of grazing land to support a single horse. Ground cover must be maintained above 50% to prevent land degradation, which is likely to be difficult on these sandy soils over summer and autumn.

The low lying areas (Bassendean B6a, Pinjarra P1 and P3 phases) have a higher base stocking rate of 6 DSE/ha requiring 1.7 ha of cleared pasture land for a single horse. Its main limitation is poor drainage which means the pasture is waterlogged in winter. Livestock need to be removed when the land is waterlogged for animal health reasons and to prevent the soil surface being trampled and compacted.

If stocking rates are exceeded, a management plan would need to involve stabling and/or agisting horses off the lots to keep ground cover above 50% throughout the year. Irrigating lifestyle properties will not be an option once the land has been subdivided.

The draft subdivision plan in the scheme amendment shows lot sizes from 1-2 ha. Most will have less than 1 ha of cleared land for suitable for grazing. This lot configuration is not suited to keeping large livestock such as horses. Larger lots are required if the subdivision is to be sold to horse owners.

### **Land requirements for three (3) horses**

The purpose of land use control b) is to limit the number of horses per lot to three. This is equivalent to 30 DSE, which far exceeds DPIRD's recommended stocking rates. The reason for this land use control is not explained in the amendment report and is inconsistent with DPIRD's recommended stocking rates.

To sustainably keep three horses on the sandy soils on the rises (Bassendean B1, B1b, B2 phases) without causing land degradation, would require **15 ha** of cleared open pasture land or 7.5 ha if the horses are stabled for 12 hours a day.

To support three horses on low lying areas (Bassendean B6a, Pinjarra P1 and P3 phases) without causing land degradation, would require **5 ha** of cleared open pasture land or 2.5 ha if the horses are stabled for 12 hours a day. Horses would need to be removed from waterlogged paddocks during wet winter and spring periods.

### **Land required for treated effluent disposal**

The soils and landform information in the Site and Soil Evaluation (SSE) report differs from DPIRD's regional scale mapping, although the description of the land types is consistent. The sandy soils on the rises occur in Zone 1 and low lying and waterlogged areas in in Zone 2.

The SSE states that 180 square metres of land is needed for subsurface disposal of treated effluent. In order to operate effectively to remove nutrients, the disposal area must be grassed and mowed to remove nutrients. As livestock grazing would interfere with the operation of the disposal system, including through introducing additional



## [Appendix ORD: 12.2.3E]

nutrients in their urine and manure, the disposal areas should be fenced to prevent access by livestock.

### **Clearing of native vegetation**

The proposal states that there will be clearing of approximately 1.64 ha of native vegetation, including some potential black cockatoo habitat.

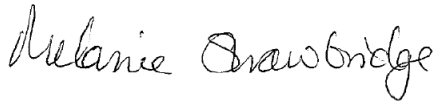
Any proposed clearing must have the relevant permits from the Department of Water and Environmental Regulation (DWER), and as such, this application should be referred to DWER.

### **Groundwater**

The groundwater is in very close proximity to the surface, and care will need to be taken to avoid intercepting it or exposing it to air during and earthwork or construction activities.

For more information, please contact Ms Heather Percy on 9780 6262 or [heather.percy@dpird.wa.gov.au](mailto:heather.percy@dpird.wa.gov.au)

Yours sincerely,



Dr Melanie Strawbridge  
**Director Agriculture Resource Management Assessment  
Sustainability and Biosecurity**

Attachment 1: Stocking rate recommendations for the proposed amendment area

### Attachment 1: Stocking rate recommendations for the proposed amendment area

DPIRD's recommendation on stocking rates are based on the 2000 Stocking rate guidelines for rural small holdings: Swan Coastal Plain and Darling Scarp and surrounds, Western Australia<sup>1</sup>

The recommended stocking rates are based on DPIRD's land capability assessment for grazing (> 600 mm) and define stocking rate units in terms of soils, landforms, productivity and land degradation hazards.

Stocking rates are the numbers of stock, e.g. sheep, cattle, horses, emus or any other type of animal, that can consistently be kept on a piece of pasture all year round with minor additional feed and without causing environmental degradation.

Environmental degradation could include wind and water erosion, tree decline, increasing levels of nutrients in groundwater and waterways, the spread of weeds into adjoining bushland and soil structure decline.

Stocking rates are shown as Dry Sheep Equivalents (DSE) which are the number of adult sheep (wethers) that can be sustained on each hectare all year round.

Stocking rates are largely based on the amount of pasture that each particular type of animal will consume, but are also influenced by feeding patterns, animal weight, foot structure and activity. For example, alpacas have soft pads and are gentler/less destructive on soil structure than hard hooved stock such as sheep and cattle. Horses are much more active than cattle and trampling of pastures may reduce stocking rates slightly.

The area of pasture being assessed must not include vegetated land or sensitive environmental areas such as wetlands or drainage lines. The area must not include land occupied by the residence, lawn and gardens and infrastructure such as sheds, riding arenas, driveways and tracks.

Table 1 lists the soil-landscape map units, stocking rates and the area of cleared grazing land required to support a single horse (equivalent to 10 DSE).

---

<sup>1</sup> van Gool, D, Angell, K & Stephens, L 2000, 'Stocking rate guidelines for rural small holdings, Swan Coastal Plain and Darling Scarp and surrounds, Western Australia', Miscellaneous publication 2/00, Department of Agriculture and Food, Western Australia, Perth.

## [Appendix ORD: 12.2.3E]

Table 1: Recommended stocking rate soil-landscapes on Lot 2 Harold Douglas Drive and portion of Lot 185 Venn Road, Dardanup West (AMD 205)

Soil landscape phase	Description	Area of map unit hectares (%) in AMD 205	Stocking rate unit	Base stocking rate DSE/ha	Area of cleared grazing land per horse (10 DSE)
<b>Bassendean B1 Phase</b>	Extremely low to very low relief dunes, undulating sandplain and discrete sand rises with deep bleached grey sands sometimes with a pale yellow B horizon or a weak iron organic hardpan at depths generally greater than 2 m	9.8 (11.8%)	Rapidly drained pale sands (SR3)	2	5 ha
<b>Bassendean B1a Phase</b>	Extremely low to very low relief dunes, undulating sandplain and discrete sand rises with deep bleached grey sands with an intensely coloured yellow B horizon occurring within 1 m of the surface; marri and jarrah dominant	5.2 (6.7%)	Rapidly drained pale sands (SR3)	2	5 ha
<b>Bassendean B2 Phase</b>	Flat to very gently undulating sandplain with well to moderately well, drained deep bleached grey sands with a pale yellow B horizon or a weak iron-organic hardpan 1- 2 m	22.5 (27.0%)	Rapidly drained pale sands (SR3)	2	5 ha
<b>Bassendean B6 Phase</b>	Sandplain and broad extremely low rises with imperfectly drained deep or very deep grey siliceous sands	0.3 (0.3%)	Pale sand flats (SR4)	6	1.7 ha
<b>Pinjarra P1b Phase:</b>	Flat to very gently undulating plain with deep acidic mottled yellow duplex (or 'effective duplex') soils. Moderately deep pale sand to loamy sand over clay: imperfectly drained and moderately susceptible to salinity in limited areas	0.5 (1.0%)	Pale sand flats (SR4)	6	1.7 ha
<b>Pinjarra P3 Phase</b>	Flat to very gently undulating plain with deep, imperfect to poorly drained acidic gradational yellow or grey-brown earths and mottled yellow duplex soils, with loam to clay loam surface horizons	13.8 (53.1%)	Semi wet soils (SR5) Clay flats (SR6)	6	1.7 ha



Department of **Biodiversity,  
Conservation and Attractions**



Your ref: AMD205  
Our ref: 49040 2018/002778  
Enquiries: Tracy Teede  
Phone: 9725 4300  
Email: [swlanduseplanning@dbca.wa.gov.au](mailto:swlanduseplanning@dbca.wa.gov.au)

Chief Executive Officer  
Shire of Dardanup  
PO Box 7016  
EATON WA 6232  
  
Attention: Melanie Young

**AMENDMENT 205 TO SHIRE OF DARDANUP TOWN PLANNING SCHEME 3 –  
LOT 2 HAROLD DOUGLAS DRIVE AND PORTION OF LOT 185 VENN ROAD  
DARDANUP WEST**

I refer to your letter dated 30 June 2022 forwarding a draft scheme amendment for the above location for the Department of Biodiversity, Conservation and Attractions' (DBCA) Parks and Wildlife Service comment.

Parks and Wildlife Service's South West Region provides the following.

**Advice to Shire**

Fauna

The *Environmental Assessment Report* (Accendo Australia, November 2021) (Environmental Report) found evidence of Western Ringtail Possums (WRP) and trees that were considered suitable black cockatoo habitat, within Lots 2 and 185. WRP and black cockatoos are listed as threatened species under Western Australia's *Biodiversity Conservation Act 2016* (BC Act) and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). WRP are listed as critically endangered under both the BC Act and the EPBC Act.

Scheme Amendment document Section 11 (Scheme Amendment proposal) refers to the retention of existing black cockatoo and WRP habitat within the proposed drainage reserve, road verges and lots, which DBCA supports. The four trees identified for retention in the *Environmental Assessment Report* Table i should be depicted as "retained trees" within all reports, to minimize the risk of accidental clearing.

The Scheme Amendment document Section 7.12 (Fauna) page 34 refers to the clearing of approximately 1.64 ha of native vegetation that provides suitable habitat for threatened fauna. A section 40 ministerial authorisation to take or disturb threatened fauna under the BC Act should be obtained by a qualified fauna spotter, prior to clearing occurring, with a post clearing report being forwarded to DBCA. The proponent should seek further advice from DBCA's Species and Communities section at [speciesandcommunities@dbca.wa.gov.au](mailto:speciesandcommunities@dbca.wa.gov.au)

Scheme Amendment Section 7.12 (Fauna) Table 2 "Fauna" refers to management measures to minimize development impacts to threatened fauna. DBCA recommends that Table 2 is amended to include a reference to the requirement for section 40 ministerial authorisations under the BC Act.

## [Appendix ORD: 12.2.3E]

Scheme Amendment document (Across Planning March 2022) section 7.13 (Environmental Management) and Figure 16 refer to revegetation within Gavin's Gully reserve. The Environmental Report Figure 4 (Possum Observations) found WRP within native vegetation associated with Gavin's Gully. DBCA supports revegetation with local endemic species within Gavin's Gully reserve, to enhance the fauna corridor.

### Lot Layout and Building Exclusion Zones

The *Geotechnical Investigation* (WML, November 2021) Section 1 refers to the use of fill material to a height to 1.5 metres within proposed lots. The *Bushfire Management Plan* (Lushfire and Planning, January 2022 Version A) (BMP) Figure 7 depicts building exclusion zones.

*Geotechnical Investigation* Section 10.1.1 refers to the stripping of all vegetation and topsoil from the site. Vegetation clearing should not be undertaken within building exclusion zones.

DBCA recommends that buffers to retained trees be established as per the "Protection of Trees on Development Sites" Australian Standard AS 4970-2009. This standard refers to no disturbance under the extent of the tree crown.

The *Geotechnical Investigation* plans depict a different building envelope layout and associated building exclusion zone to that depicted within the BMP. Adoption of the building envelope layout depicted within the *Geotechnical Investigation* would maximise the protection and retention of fauna habitat trees.

Thank you for the opportunity to comment on this application. Please contact Tracy Teede at the Parks and Wildlife Service South West Region office on 9725 4300 if you have any queries regarding this advice.

Yours sincerely



Aminya Ennis  
Acting Regional Manager  
Parks and Wildlife Service

15 September 2022



7 September 2022

Our Reference: PA051220 & 051221, DWERT7196~1 & DWERT7196~2

Your reference: Scheme Amendment 205

To: Shire of Dardanup

From: Department of Water and Environmental Regulation

**RE: Amendment 205 to Shire of Dardanup Town Planning Scheme No. 3, Lot 2 Harold Douglas Drive and Lot 185 Venn Road, Dardanup West**

Thank you for providing the Amendment No. 205 and associated supporting studies, which included a Local Water Management Strategy and Site and Soil Evaluation Report, for the Department of Water and Environmental Regulation (Department) to consider.

The Department has identified that the proposal will impact on environment and/or water resource values and/or management. Key issues and recommendations are provided below, and these matters must be addressed to the satisfaction of the Department:

- **Issue:** Structure plan layout  
**Advice:** The Department does not support the structure plan layout, and it should be reviewed to achieve a separation of 100m between land application areas and the waterway (Gavin's Gully) for all proposed new lots and any required amendments as a result of further consideration of seasonal inundation risks
- **Issue:** Site and soil evaluation report (S&SE)  
**Advice:** The S&SE is not supported by the Department in its current form, and it must be updated to the satisfaction of the Department, DoH and the Shire
- **Issue:** Local water management strategy (LWMS)  
**Advice:** The LWMS is not supported by the Department in its current form, and it must be updated to the satisfaction of the Department and the Shire

More detail pertaining to the above issues are provided in table below.

In the event there are modifications to the proposal that may have implications on aspects of environment and/or water management, the Department should be notified to enable the implications to be assessed.

Should you require any further information on the comments please contact the undersigned.

Yours sincerely,

Item No.	Reviewer comment/advice
1	<b>Issue:</b> Structure plan layout  <b>Advice:</b> The Department does not support the structure plan layout, and it should be reviewed to achieve a separation of 100m between land application areas and the waterway (Gavin's Gully) for all proposed new lots and any required amendments as a result of further consideration of seasonal inundation risks

## [Appendix ORD: 12.2.3E]

	<p><b>Discussion:</b></p> <p>The Department does not support on-site domestic waterways system being located within 100m of the waterway, and therefore reference to the system for lot 1027 being at least 50m is not supported for the reasons detailed under item 2. It is acknowledged that Lot 1006 is an existing system, and therefore this is not being disputed.</p> <p>In addition, there are details in the LWMS and S&amp;SE that indicate large portion of the site is seasonally inundated, this is highlighted in the comments on the LWMS and more information is required to prove up areas subject to inundation. Including the extent of inundation risk, identification of lots in trapped lows, and cross lot drainage requirements. This additional work may also result in the need for the lot configuration to reassessed.</p>
2	<p><b>Issue:</b> Site and soil evaluation report (S&amp;SE)</p> <p><b>Advice:</b> The S&amp;SE is not supported by the Department in its current form, and it must be updated to the satisfaction of the Department, DoH and the Shire</p> <p><b>Discussion:</b></p> <p>Due to the scale of the eventually unsewered areas as defined in the local planning strategy, the risk of cumulative impacts is enhanced. This is increased due to being on the palusplain and an area known to be seasonally wet and with very low separations to groundwater. Resulting in a high level of hydraulic connectivity between surface water, groundwater and the drainage and waterways systems that will result in more efficient mobilisation of contaminants into the environment and potential human contact with effluent.</p> <p>Based on the above risks the following requires greater consideration, as detailed in comments provided on the LWMS:</p> <ul style="list-style-type: none"> <li>• The extent of seasonal inundation.</li> <li>• The extent of the 10% AEP inundation areas from Gavin's Gully.</li> <li>• More spatially extensive testing of permeability.</li> <li>• PRI testing for all soil types.</li> <li>• Separation of 100m from Gavin's Gully for all propose land application areas.</li> <li>• Being in a sewage sensitive area all systems are required to be secondary treatment systems <u>with nutrient removal</u> (meeting the requirements of Table 2.2 in Section 2 of AS 1546.3:2017 On-site domestic wastewater treatment units, Part 3: Secondary treatment systems).</li> </ul>
3	<p><b>Issue:</b> Local water management strategy</p> <p><b>Advice:</b> The LWMS is not supported by the Department in its current form, and it must be updated to the satisfaction of the Department and the Shire</p> <p><b>Discussion:</b></p>

## [Appendix ORD: 12.2.3E]

	<p>The Department has assessed the Version V2 of the <i>Local Water Management Strategy for Dardanup Park, Lot 2 Harold Douglas Dr and Lot 185 Venn Rd, Dardanup West (Oversby Consulting, 2022)</i>, and provides the attached comments.</p> <p>Key comments relate to, noting also comments on the S&amp;SE and Bushfire Management Plan:</p> <ul style="list-style-type: none"><li>• Greater consideration of seasonally inundated areas, trapped lows and required local drainage (if any).</li><li>• Confirmation that Water Corporation's requirements are being met.</li><li>• Ensuring consistency between bush fire planning and waterway management.</li></ul> <p>In addition to the above comment's consideration of whether the assumed catchment top water levels for the 1% AEP and 10% AEP events for Gavin's Gully are acceptable. It is noted that the proposal is guided by the Rural Living Structure Plans Dardanup West/Crooked Brook, for which the 2005 Hydrological Review does not provide sufficient detail to guide water planning. Ideally an updated and contemporary water management report should be developed to guide water planning for the entire area that is defined in the Local Planning Strategy as being proposed for development.</p> <p>Importantly due to timeframes the Department has not consulted with the Shire in assessing the LWMS and input should be sought from the Manager Assets and Development Engineer (copied in).</p>
4	<p><b>Issue:</b> Bushfire Management Plan</p> <p><b>File note:</b></p> <p>The LWMS states that the on site waterways are to be rehabilitated with native vegetation planting and weed control. No reference has been made of this in the bushfire management plan. Therefore, more detail is required of the proposed planting and based on this confirmation is then required that there is no conflict with the current bushfire management plan.</p>

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Krish Seewraj

Planning Advice Program Manager  
South West Region

### Department of Water and Environmental Regulation

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PO Box 7016  
EATON WA 6232

Email: [reception@dardanup.wa.gov.au](mailto:reception@dardanup.wa.gov.au)

28 July 2022

Dear Sir/Madam,

**RE: AMENDMENT #205 SHIRE OF DARDANUP TOWN PLANNING SCHEME NO 3 – LOT 12 HAROLD DOUGLAS DRIVE & PORTION LOT 185 VENN ROAD, DARDANUP WEST**

With regards to the abovementioned amendment, Aqwest wish to advise the following condition(s) will apply:

- Please be advised that Aqwest has no comments in relation to the above matter.

Yours faithfully

Adam Gornall  
**ASSET DELIVERY COORDINATOR**

**From:** Denholm Barrett-Lennard <[denholmbl@gmail.com](mailto:denholmbl@gmail.com)>

**Sent:** Saturday, 16 July 2022 8:47 AM

**To:** Melanie Young <[Melanie.Young@dardanup.wa.gov.au](mailto:Melanie.Young@dardanup.wa.gov.au)>

**Subject:** Re: Town Planning Scheme Amendment 205

**⚠ CAUTION:** This email originated from outside the Shire of Dardanup.  
Do NOT click links or open attachments unless you recognize the sender and know the content is safe. Do NOT enter any username or passwords and report any suspicious content.

---

Hi Melanie,

Can you please provide a comment why the proposed will bring a positive change to the community?

Regards  
Denholm.



# PLANNING PROPOSAL

(OFFICE USE ONLY)

PROPOSED

RESPONSIBLE OFFICER

FILE REFERENCE

(SUBMITTER TO COMPLETE)

SUBMITTER  
(full name required)

Jennifer Trigwell

POSTAL ADDRESS

PO Box 33 DARDANUP WA 6236

PROPERTY ADDRESS

9 ROSEVALE CLOSE AND RICHARLOTTEST DARDANUP

PHONE NUMBER

0428315083

EMAIL ADDRESS

jennytrigwell@bigpond.com

• EITHER A POSTAL ADDRESS OF EMAIL ADDRESS MUST BE INCLUDED.

Your comment (tick one box only)

Support

☒

Object

☐

Comment Only

☐

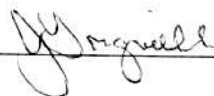
Comments:

THE CORNER WHERE HAROLD DOUGLAS DRIVE AND  
CURRENT ALIGNMENT OF SHEEPDIP ROAD INTERSECTS  
WITH JENN ROAD REALLY NEEDS UPGRADING.

*If necessary add additional pages to your submission.*

Please be aware that your name and address details may be included in a Council report which is available to the public. Please also note that submissions may be subject to applications for access under the Freedom of Information Act 1992.

Signature of Submitter: \_\_\_\_\_



Date: 19 July 2022.

Post to:

Chief Executive Officer  
Shire of Dardanup  
PO Box 7016  
EATON WA 6232

Deliver to:

Eaton Office – Front Counter  
1 Council Drive  
EATON WA 6232

Email to:

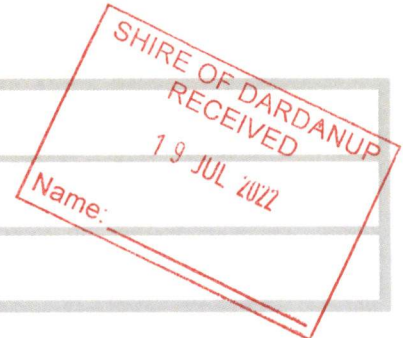
records@dardanup.wa.gov.au

## SUBMISSION FORM

## PLANNING PROPOSAL

(OFFICE USE ONLY)

PROPOSED	
RESPONSIBLE OFFICER	
FILE REFERENCE	



(SUBMITTER TO COMPLETE)

SUBMITTER (full name required)	DAVID ROGER COULSON
POSTAL ADDRESS	PO Box 195 DARDANUP 6236
PROPERTY ADDRESS	49, SHAW RD, DARDANUP, (LOT 27).
PHONE NUMBER	0427251769
EMAIL ADDRESS	coulson11@bigpond.com.

• EITHER A POSTAL ADDRESS OF EMAIL ADDRESS MUST BE INCLUDED.

Your comment (tick one box only)

Support ☐ Object ☐ Comment Only ☒

Comments:

I WOULD LIKE FURTHER CLARIFICATION  
CONCERNING THE DRAINAGE FROM THE PROPOSED  
SUBDIVISION AND CONSTRUCTION OF SHAW RD.  
THAT RUNS ALONG SIDE MY PROPERTY (LOT 27)

If necessary add additional pages to your submission.

Please be aware that your name and address details may be included in a Council report which is available to the public. Please also note that submissions may be subject to applications for access under the Freedom of Information Act 1992.

Signature of Submitter: D. R. CoulsonDate: 15/7/22

## Post to:

Chief Executive Officer  
Shire of Dardanup  
PO Box 7016  
EATON WA 6232

## Deliver to:

Eaton Office – Front Counter  
1 Council Drive  
EATON WA 6232

## Email to:

records@dardanup.wa.gov.au



15<sup>TH</sup> JULY 2022

[Appendix ORD: 12.2.3E]

CHIEF EXECUTIVE OFFICER,  
SHIRE OF DARDANUP.

FOLLOWING TELEPHONE DISCUSSION WITH SENIOR PLANNING OFFICER MELANIE YOUNG, I WOULD LIKE TO GET SOME CLARITY ON THE DRAINAGE FROM THE NEW PROPOSED DARDANUP PARK DEVELOPMENT AND THE COMPLETION OF SHAW ROAD, WHICH RUNS ALONGSIDE MY PROPERTY (49, SHAW ROAD - LOT 27). I WOULD LIKE TO REQUEST A MEETING TO DISCUSS MY CONCERNS,

D. R. Coulson      DAVID R. COULSON  
MOB. 0427251769  
49 SHAW ROAD      PO Box 195.  
DARDANUP



## SUBMISSION FORM

# PLANNING PROPOSAL

(OFFICE USE ONLY)

PROPOSED	Amendment 205 to LPS3
RESPONSIBLE OFFICER	Melanie Young
FILE REFERENCE	

(SUBMITTER TO COMPLETE)

SUBMITTER (full name required)	Natalya Dobias
POSTAL ADDRESS	29 Keenan Road, Dardanup West
PROPERTY ADDRESS	Same as above
PHONE NUMBER	0406235694
EMAIL ADDRESS	tdobias@hotmail.com

• EITHER A POSTAL ADDRESS OF EMAIL ADDRESS MUST BE INCLUDED.

Your comment (tick one box only)

Support

☐

Object

☐

Comment Only

☒**Comments:**

As this new development will have a road that will be quicker for people to drive on to get to Dardanup West area instead of going to Garvey road, we will have a lot of traffic going outside our house. We live on Keenan which I know is where the new road will connect to. I am worried about the speed of people driving as we already get people driving way to fast and hooning around this area. I am hoping that there will be multiple roundabouts and/or slow points put in to discourage those types of drivers. There are a lot of kids on this road and they are always outside and people ride down the road on their horses and it would be dangerous if this is not taken into consideration when the roads are being planned, rather than trying to fix the problem after. Perhaps even bridlepaths on the side of the road to ride horses safely on. But my main priority is to prevent the speeding!

If necessary add additional pages to your submission.

Please be aware that your name and address details may be included in a Council report which is available to the public. Please also note that submissions may be subject to applications for access under the Freedom of Information Act 1992.

Signature of Submitter:

*Natalya Dobias*

Date: 26/7/22

**Post to:**

Chief Executive Officer  
Shire of Dardanup  
PO Box 7016  
EATON WA 6232

**Deliver to:**

Eaton Office – Front Counter  
1 Council Drive  
EATON WA 6232

**Email to:**

records@dardanup.wa.gov.au

## SUBMISSION FORM

## PLANNING PROPOSAL

(OFFICE USE ONLY)

PROPOSED		SHIRE OF DARDANUP RECEIVED 08 AUG 2022 Name: _____
RESPONSIBLE OFFICER		
FILE REFERENCE		

(SUBMITTER TO COMPLETE)

SUBMITTER (full name required)	D + R J Baskott
POSTAL ADDRESS	1 Shire Place Dardanup.
PROPERTY ADDRESS	
PHONE NUMBER	08 97 280639
EMAIL ADDRESS	—

• EITHER A POSTAL ADDRESS OF EMAIL ADDRESS MUST BE INCLUDED.

Your comment (tick one box only)

Support ☒ Object ☐ Comment Only ☐

Comments:

Re Amendment 205 to LPS3

If necessary add additional pages to your submission.

Please be aware that your name and address details may be included in a Council report which is available to the public. Please also note that submissions may be subject to applications for access under the Freedom of Information Act 1992.

Signature of Submitter:

R. J. Baskott (Don Baskott)

Date: 26/7/2022

## Post to:

Chief Executive Officer  
Shire of Dardanup  
PO Box 7016  
EATON WA 6232

## Deliver to:

Eaton Office – Front Counter  
1 Council Drive  
EATON WA 6232

## Email to:

records@dardanup.wa.gov.au





ACROSS PLANNING

PO Box 151  
AUSTRALIND WA 6233

AP Ref: 21008  
28 October 2022

Chief Executive Officer  
Shire of Dardanup  
PO Box 7016  
EATON WA 6232

Attention: Murray Connell and Melanie Young

**Re: Amendment No. 205 to Local Planning Scheme No. 3 - Lot 2 Harold Douglas Drive and portion Lot 185 Venn Road Dardanup West**

Dear Sir,

*Across Planning* acts for Dardanup Park Pty Ltd, owner of the above properties.

Reference is made to Amendment No. 205 (A205) as advertised and the applicant responses to the Schedule of Submissions (Version 3). Thank you for the opportunity to comment on submissions and also for the meeting held with officers of the Shire and the Department of Water and Environmental Regulation (DWER) on 24 October 2022.

As discussed at the DWER meeting, it is evident that a number of submissions from State Government departments and agencies contain comments directed at a preliminary subdivision 'Concept Plan' (Plan No. 21008-1-02b) which, along with intentions for the overall land use and transport connections, also showed a preliminary subdivision design.

Whilst the lot layout with building exclusion zones, land application areas for secondary treated effluent, proposed drainage sumps etc are ultimately the level of detail required at the subdivision application stage, it has become evident that this is both premature and overly detailed at the scheme amendment (rezoning) stage.

Shire and DWER officers have correctly pointed out that the requirement at the scheme amendment phase is for the applicant to demonstrate that the land is suitable for development and use consistent with the proposed zoning and scheme provisions.

*Land Use. People. Place.*

☎ 0438 971 207 ✉ [larry@acrossplanning.com.au](mailto:larry@acrossplanning.com.au)



### Late submission

Accordingly, we respectfully ask that this letter be treated as a 'late submission'.

In determining whether A205 should proceed to final approval, can Council please take into account the following:

1. As evident in the Schedule of Submissions, no agencies object outright to the proposed rezoning and the proposed land uses. The majority of queries and specific comments were directed at the preliminary subdivision 'Concept Plan' which is more appropriately dealt with at the subdivision stage.
2. The Department of Health and DWER have raised queries regarding some parts of the subject land being subject to seasonal perching of stormwater, which may impact onsite effluent disposal. Any soil containing a high percentage of clay materials has been assumed as impermeable for effluent disposal. Therefore, for those areas where clay was encountered below topsoil during the Site and Soil Evaluation (WML Consultants), a minimum vertical separation of 1.5m was assumed. This will be achieved by the application of up to 1.5m of suitable fill to Land Application Areas for Secondary Treated Effluent in order to meet the requirements of the Government Sewerage Policy 2019.
3. Plans are to be provided with the relevant water management strategy that outline the seasonally inundated areas and possible trapped lows and how earthworks and drainage will be undertaken to reduce any inundation risk, especially in relation to building zones and Land Application Areas.
4. As there is presently no regional drainage flood model for Gavin's Gully, all proposed buildings will be located outside the likely floodway area and a conservative finished floor level can be applied and confirmed at subdivision.
5. In response to a request from DBCA, the four trees identified in the Accendo fauna survey as suitable for black cockatoos have been shown in the revised Concept Plan (refer 11 below) to avoid accidental clearing.



6. In response to DPIRD's comments regarding the keeping of horses, it is noted that there is some inconsistency with the existing provisions in LPS 3. Nonetheless, in the event that lot sizes below 2ha are proposed, the applicant suggests that the maximum number of horses be limited to 1 horse per lot. Accordingly, it is recommended that for Area 19 Dardanup Park in Appendix VIII, under Land Use Controls:
  - (a) be deleted
  - (b) be revised to read: *"Despite clause 3.14.1 i), the keeping of horses is limited to personal use and for lots less than 2ha in area the maximum is 1 horse."*
7. Overall, the consultants responsible for the Geotechnical, Site and Soil Evaluation, and Servicing assessments (WML); LWMS (Oversby Consulting); Environmental Management Plan (Accendo Australia); Bushfire Management Plan (Lush Fire and Planning) and the Transport Impact Statement (Cardno) consider the identified part of the subject land as both capable and suitable for rezoning to "Small Holding".
8. The applicant acknowledges that the preliminary subdivision 'Concept Plan' (Plan No. 21008-1-02b) initially submitted with the A205 document was indicative only, is not a formal part of A205 and will not be endorsed.
9. The applicant acknowledges that the eventual small holdings lot layout will be determined at the subdivision approval stage.
10. Accordingly, the applicant recommends that the preliminary subdivision 'Concept Plan' (Figure 14) be replaced with a new Concept Plan (see **attached**) that demonstrates:
  - creation of a new small holding area using the portion of the landholdings least suitable for agriculture and adjacent existing small holding subdivisions
  - consolidating the eastern portion of the landholdings best suited to agriculture
  - establishing important road connections consistent with implementing the Dardanup Small Holdings Structure Plan
  - significant extension of the Gavin's Gully drainage and conservation reserve.
11. More detailed applicant comments are provided in the Schedule of Submissions (Version 3).

## [Appendix ORD: 12.2.3E]



ACROSS PLANNING

Should you have any queries please do not hesitate to contact the undersigned.

Kind regards,

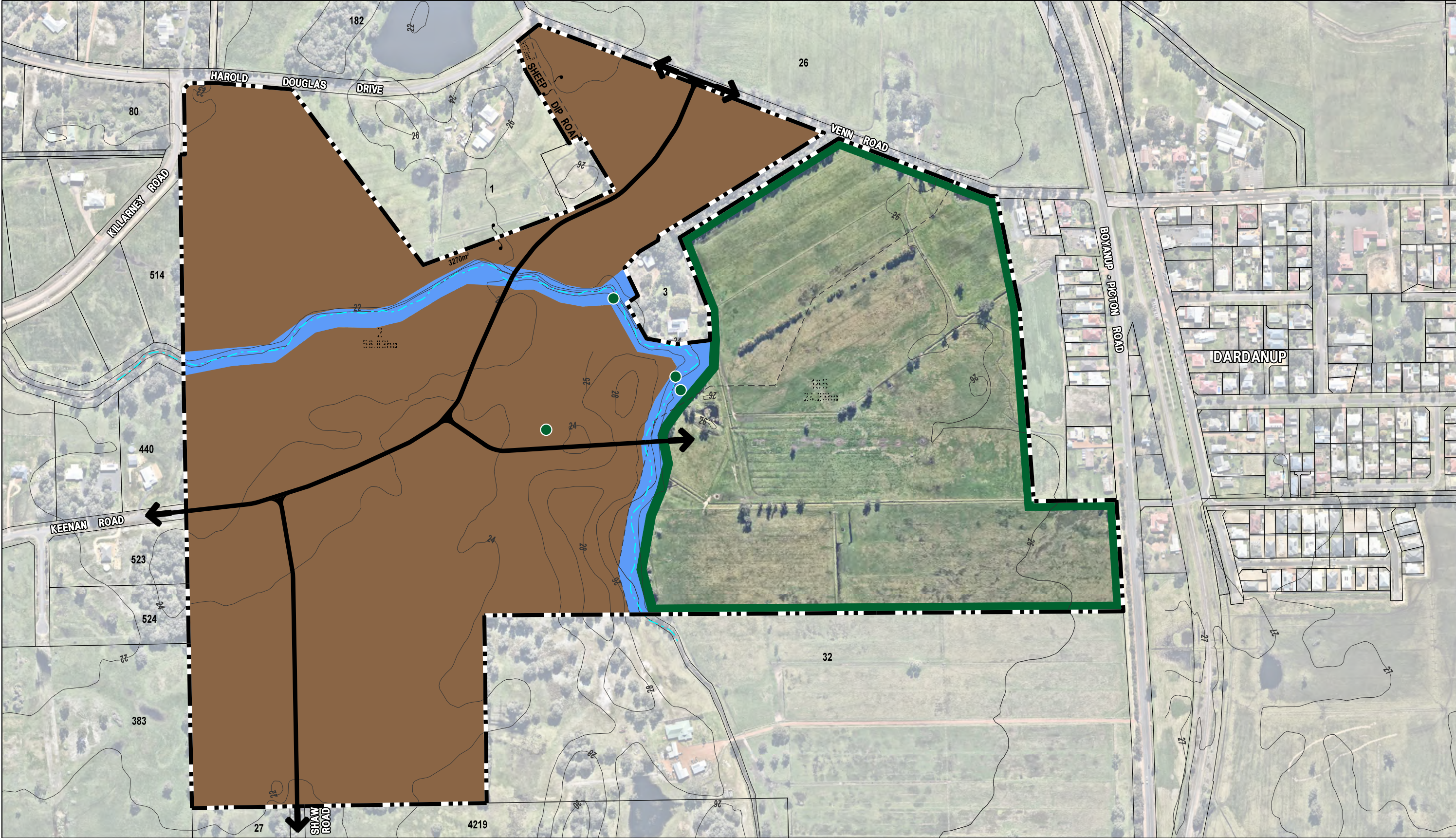
Larry Guise

Director / Principal Planner | Fellow | RPIA

*ACROSS PLANNING*

Attach.





This plan has been prepared for planning purposes. Areas, contours and dimensions shown are subject to survey.

CONCEPT PLAN

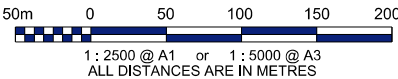
Lot 2 Harold Douglas Drive and Lot 185 Venn Road,  
DARDANUP WEST

LEGEND

- SUBJECT SITE
- EXISTING BOUNDARY
- SMALL HOLDINGS (LOTS SUBJECT TO DETAILED DESIGN)
- GENERAL FARMING
- PROPOSED DRAIN RESERVE
- RETAINED TREES (SUITABLE FOR BLACK COCKATOOS)
- ROAD CONNECTIONS
- 1.0m CONTOURS
- EXISTING DRAIN

Plan No. 21008-1-03a

DATE	31.10.2022
CO-ORDINATES	MGA 50
AERIAL	5.8.2021
REVISION	A



ACROSS PLANNING

✉ PO Box 151 Australind WA 6233  
☎ +61 438 971 207  
✉ larry@acrossplanning.com.au



# [Appendix ORD: 12.2.3F]

RISK ASSESSMENT TOOL								
<b>OVERALL RISK EVENT:</b>		Approval of Town Planning Scheme Amendment No. 205 - 'Small Holding' Rezoning Lot 2 Harold Douglas Drive and portion of Lot 185 Venn Road, Dardanup West						
<b>RISK THEME PROFILE:</b>		3 - Failure to Fulfil Compliance Requirements (Statutory, Regulatory)						
<b>RISK ASSESSMENT CONTEXT:</b>		Strategic						
CONSEQUENCE CATEGORY	RISK EVENT	PRIOR TO TREATMENT OR CONTROL			RISK ACTION PLAN (Treatment or controls proposed)	AFTER TREATMENT OR CONTROL		
		CONSEQUENCE	LIKELIHOOD	INHERENT RISK RATING		CONSEQUENCE	LIKELIHOOD	RESIDUAL RISK RATING
HEALTH	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.
FINANCIAL IMPACT	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.
SERVICE INTERRUPTION	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.
LEGAL AND COMPLIANCE	Failing to pass resolution in accordance with the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i> .	Minor (2)	Rare (1)	Low (1 - 4)	Not required.	Not required.	Not required.	Not required.
REPUTATIONAL	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.
ENVIRONMENT	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.

# [Appendix ORD: 12.2.4A]


RISK ASSESSMENT TOOL								
<b>OVERALL RISK EVENT:</b> Wells Reserve Change Room and Cricket Nets – Project Update <b>RISK THEME PROFILE:</b> 10 - Management of Facilities, Venues and Events <b>RISK ASSESSMENT CONTEXT:</b>								
CONSEQUENCE CATEGORY	RISK EVENT	PRIOR TO TREATMENT OR CONTROL			RISK ACTION PLAN (Treatment or controls proposed)	AFTER TREATMENT OR CONTROL		
		CONSEQUENCE	LIKELIHOOD	INHERENT RISK RATING		CONSEQUENCE	LIKELIHOOD	RESIDUAL RISK RATING
HEALTH	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.
FINANCIAL IMPACT	There is a risk that the project exceeds the allocated budget allowance	Moderate (3)	Possible (3)	Moderate (5 - 11)	Not required.	Not required.	Not required.	Not required.
SERVICE INTERRUPTION	Risk that the construction of the new change rooms will impact how clubs can operate on the reserve while construction is occurring.	Moderate (3)	Possible (3)	Moderate (5 - 11)	Not required.	Not required.	Not required.	Not required.
LEGAL AND COMPLIANCE	Risk of Non Compliance to LGA Regulations and Council Policy	Moderate (3)	Possible (3)	Moderate (5 - 11)	Not required.	Not required.	Not required.	Not required.
REPUTATIONAL	Risk to the Shires reputation if the construction runs over time and budget	Moderate (3)	Possible (3)	Moderate (5 - 11)	Not required.	Not required.	Not required.	Not required.
ENVIRONMENT	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.






GENERAL NOTES:

- VERTICAL DATUM : AUSTRALIAN HEIGHT DATUM (AHD)
- HORIZONTAL DATUM : GDA94 (Mga Zone 50)
- 1. DO NOT SCALE FROM THE DRAWINGS. ANY DISCREPANCIES ARE TO BE REFEREED TO THE PROJECT SUPERVISOR FOR A DECISION PRIOR TO COMMENCEMENT OF ANY WORK.
- 2. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS.
- 3. WORKMANSHIP AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RELEVANT S.A.A. CODES AND THE LOCAL STATUTORY AUTHORITIES REGULATIONS INCLUDING ALL AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- 4. SURVEY/CONTOURS FROM SITE SURVEY BY BCE SURVEYING
- 5. SERVICES, SUCH AS SEWER, WATER, GAS, COMMUNICATIONS, ELECTRICITY AND DRAINAGE SERVICES, MAY BE ENCOUNTERED DURING CONSTRUCTION OF THE WORKS. SERVICES INFORMATION SHOWN ON DRAWINGS IS INDICATIVE ONLY AND MAY NOT BE COMPLETE. BEFORE EXCAVATION COMMENCES THE LOCATION OF ALL SUCH SERVICES SHALL BE OBTAINED FROM THE RELEVANT AUTHORITIES BY THE CONTRACTOR.
- 6. THE CONTRACTOR SHALL CO-ORDINATE THE LOCATION OF ALL EXISTING AND PROPOSED SERVICES PRIOR TO COMMENCEMENT OF WORK. ANY CONFLICTS ARE TO BE REPORTED TO THE PROJECT SUPERVISOR IMMEDIATELY.
- 7. THE CONTRACTOR SHALL PROVIDE A SAFE WORKING ENVIRONMENT FOR THE DURATION OF THE WORKS. THE CONTRACTOR SHALL HAVE IN PLACE PROJECT SAFETY AND RISK MANAGEMENT SYSTEMS WHICH COMPLY WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT AND WORK SAFE WA REQUIREMENTS.
- 8. THE CONTRACTOR SHALL LIMIT ACCESS TO THE WORKS TO THE SITEWORKS BOUNDARY. EXISTING VEGETATION ETC. OUTSIDE OF THE BOUNDARY TO BE PROTECTED.
- 9. ALL TREES SHALL REMAIN UNDISTURBED UNLESS SPECIFICALLY NOTED ON THE PLANS OR ADVISED BY THE SHIRE. THE CONTRACTOR SHALL FENCE OFF ALL TREES TO BE PROTECTED, FOR ACCEPTANCE BY THE PROJECT SUPERVISOR, PRIOR TO COMMENCEMENT OF ANY WORK.
- 10. THE CONTRACTOR SHALL REMOVE FROM SITE ALL RUBBISH (INCLUDED BUT NOT LIMITED TO: CAR BODIES, DRUMS, ETC.) WITHIN THE SITEWORKS BOUNDARY TO AN APPROVED DISPOSAL SITE.
- 12. THE CONTRACTOR IS TO ENSURE THE STABILITY OF ALL STRUCTURES DURING ALL PHASES OF CONSTRUCTION.
- 13. THE CONTRACTOR IS TO PROVIDE DUST MANAGEMENT TO THE SATISFACTION OF THE LOCAL AUTHORITY.
- 14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL OVERBURDEN AND EXCESS BUILDING MATERIALS.



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YOU DIG**  
www.1100.com.au

LAYOUT PLAN  
SCALE 1:200

AMENDMENT DESCRIPTION	BY	DATE	APPROVED	DESIGNED B.B.	DRAWN DATE 04.11.2022	SURVEYED	DRAWING TITLE	INFRASTRUCTURE		<div><div><div>Administration Centre Eaton P.O Box 7017- 1 Council Drive Eaton Western Australia 6232 ABN: 57 305 629 653</div><div>Telephone 08 9724 0000 Facsimile 08 9724 0091 Online www.dardanup.wa.gov.au</div></div></div>
A PRELIMINARY	B.B.	04.11.2022		DRAWN B.B.	AUTHORISED	TARDIS RECORD NUMBER	PROPOSED SEALED CARPARK LOT 55 FERGUSON ROAD, DARDANUP			
				THIS DRAWING IS AND SHALL REMAIN THE SOLE PROPERTY OF 'THE SHIRE OF DARDANUP'. THE DRAWING MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS COMMISSIONED, AND MAY NOT BE LENT, SHOWN, COPIED OR OTHERWISE DUPLICATED WITHOUT THE WRITTEN AUTHORISATION OF THE OWNER.			LAYOUT PLAN	DRAWING NO. 2022 - SK1		
								SHEET NO.		
								SHEET SIZE A1		

DATUM. AHD  
GRID SYSTEM GDA94

SHEET SIZE A1





POLICY NO:-

**Exec CP020 – CIVIC FUNCTIONS****GOVERNANCE INFORMATION**

<b>Procedure Link:</b>	PR034	<b>Administrative Policy Link:</b>	NA
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**ADMINISTRATION INFORMATION**

<b>History:</b>		<b>EXEC43</b>	OCM	13/08/14	Res: 251/14	<b>Synopsis:</b>	Policy created.
<b>Version:</b>	1	<b>CP0020</b>	OCM	25/01/17	Res: 02/17	<b>Synopsis:</b>	New Council Policy Document endorsed
<b>Version:</b>	2		SCM	26/07/18	Res: 251-18	<b>Synopsis:</b>	Reviewed and Adopted by Council
<b>Version</b>	3	Exec CP020	OCM	30/09/20	Res: 270-20	<b>Synopsis</b>	Reviewed and Adopted by Council
<b>Version</b>	4	Exec CP020	OCM	28/09/22	Res: 243-22	<b>Synopsis</b>	Reviewed and Adopted by Council

**1. RESPONSIBLE DIRECTORATE**

Executive

**2. PURPOSE OR OBJECTIVE**

To specify the basis upon which the Council may hold Civic Functions

The aim of this policy is to give guidance for the Shire President

*Local government 2.8 S1(c)                      Role of Shire President or President*

*(1)                      The Shire President or president —*

*(c)                      carries out civic and ceremonial duties on behalf of the local government;*

The intent of this policy is to specify when Council will hold civic functions and how they should be conducted.

A Civic Function may take the form of a civic function, civic welcome, an official opening of facilities or civic event.

In certain circumstances the Shire President on behalf of Council may wish to recognise outstanding community service or other significant achievements by an individual or group by holding a Civic Function. Elected members may request that the Shire President consider hosting a civic function that aligns with this policy, or submit a request to Council to host a function.

Civic functions may be conducted for:

- Exceptional achievement in sport, the arts, charitable endeavours and community service.
- Commemorative events that celebrate significant occasions of importance to the local community.
- Official Delegations recognising overseas or interstate delegations.
- Community Acknowledgement – exceptional voluntary service by groups and individuals, over and above Civic Recognition Awards.
- Commemorative – events that happen that impact on the local community.
- Celebratory – exceptional achievement in sports, the arts, fund-raising, community participation or signing of significant agreements/accords with State/Federal Governments etc.
- Opening of Council facilities.
- The Council shall determine whether a Civic Function is to be held for any other purpose not currently covered by this policy.

**3. REFERENCE DOCUMENTS**

Local Government Act 1995 S 2.8(1)(c)

**4. POLICY**

Requests for civic functions must be made in writing to the Shire President of the day. The Shire President will then either approve or decline the request based on the criteria above, and the available budget.

An elected member may submit a request for a civic function to Council.

# [Appendix ORD: 12.2.5B]

RISK ASSESSMENT TOOL								
<b>OVERALL RISK EVENT:</b> Australia Day WA Citizen of the Year Awards 2023 <b>RISK THEME PROFILE:</b> 10 - Management of Facilities, Venues and Events <b>RISK ASSESSMENT CONTEXT:</b> Operational								
CONSEQUENCE CATEGORY	RISK EVENT	PRIOR TO TREATMENT OR CONTROL			RISK ACTION PLAN (Treatment or controls proposed)	AFTER TREATMENT OR CONTROL		
		CONSEQUENCE	LIKELIHOOD	INHERENT RISK RATING		CONSEQUENCE	LIKELIHOOD	RESIDUAL RISK RATING
HEALTH	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.
FINANCIAL IMPACT	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.
SERVICE INTERRUPTION	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.
LEGAL AND COMPLIANCE	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required	Not required.	Not required.	Not required.
REPUTATIONAL	Council's reputation could be impacted dependant on their decision to not provide a suitable financial contribution to celebrate Dardanup's centenary celebration event.	Moderate (3)	Likely (4)	Moderate (5 - 11)	Not required.	Not required.	Not required.	Not required.
ENVIRONMENT	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.



**RISK ASSESSMENT TOOL**

**OVERALL RISK EVENT:** Unbudgeted Expenditure - DFES Funded BFB Vehicle Appliance for Waterloo Bushfire Brigade.

**RISK THEME PROFILE:**

3 - Failure to Fulfil Compliance Requirements (Statutory, Regulatory)

**RISK ASSESSMENT CONTEXT:** Operational

CONSEQUENCE CATEGORY	RISK EVENT	PRIOR TO TREATMENT OR CONTROL			RISK ACTION PLAN (Treatment or controls proposed)	AFTER TREATMENT OR CONTROL		
		CONSEQUENCE	LIKELIHOOD	INHERENT RISK RATING		CONSEQUENCE	LIKELIHOOD	RESIDUAL RISK RATING
HEALTH	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.
FINANCIAL IMPACT	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.
SERVICE INTERRUPTION	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.
LEGAL AND COMPLIANCE	Failure to seek Council approval for unbudgeted expenditure in accordance with the Local Govt Act 1995.	Minor (2)	Possible (3)	Moderate (5 - 11)	Not required.	Not required.	Not required.	Not required.
REPUTATIONAL	Failure to seek Council approval for unbudgeted expenditure could be seen in a negative light by the community.	Minor (2)	Possible (3)	Moderate (5 - 11)	Not required.	Not required.	Not required.	Not required.
ENVIRONMENT	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.



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**MITIGATION ACTIVITY FUND (MAF)  
GRANTS PROGRAM  
2022/23 Round 2**

**GRANT AGREEMENT  
Shire of Dardanup**

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November 2022

THIS GRANT AGREEMENT is made on [insert date and year].

**BETWEEN:**

The State of Western Australia acting through its Department of Fire and Emergency Services  
("DFES")

and

Shire of Dardanup A.B.N: 57 305 829 653  
("Organisation")

**RECITALS**

The Organisation has applied to DFES for financial assistance to undertake the Approved Purpose and DFES has agreed to provide a grant subject to the terms and conditions of this Agreement.

**THE PARTIES AGREE as follows:**

**1. DEFINITIONS AND INTERPRETATION**

In this Agreement, unless the context otherwise requires:

**Agreement** means this Grant Agreement, including its recitals and any schedules or annexures.

**Acquittal** occurs when DFES has advised the Organisation that the reports and financial information provided by the Organisation in accordance with clause 3.6 are satisfactory.

**Approved Purpose** means the purpose or purposes set out in item 1 of Schedule 1.

**Audit** means the verification and certification the Grant has been spent in accordance with this agreement by either an independent registered company auditor (as defined by the Corporations Act 2001) or the Office of the Auditor General for Western Australia.

**Auditor** means an accountant in public practice, who is a certified public practitioner (or equivalent) and is a member of either Chartered Accountants Australia and New Zealand (CAANZ), CPA Australia or the Institute of Public Accountants (IPA).

**Auditor General** means the Auditor General for the State of Western Australia.

# [Appendix ORD: 12.2.7A]

**Business Day** means a day other than a Saturday, Sunday or public holiday in Western Australia.

**Grant** means the amount or amounts specified in Item 7(a) of Schedule 1.

**Party** means each of DFES or the Organisation as the context requires and **Parties** means both of them.

**Project** means the initiative or activities to be undertaken using the Grant.

## 2. PAYMENT OF GRANT

Subject to the terms and conditions of this Agreement, DFES will pay to the Organisation the Grant in accordance with Item 7(b) of Schedule 1.

## 3 OBLIGATIONS OF ORGANISATION

### 3.1 Use of Grant

The Organisation will use the Grant solely for the Approved Purpose.

### 3.2 No Changes

The Organisation will not make any changes to the Approved Purpose without the prior written consent of DFES.

### 3.3 No Endorsement

The Organisation agrees that nothing in this Agreement constitutes an endorsement by DFES of any goods or services provided by the Organisation.

### 3.4 Acknowledgement of Grantor

The Organisation will acknowledge DFES in the manner set out in item 6 of Schedule 1.

### 3.5 Request for Information

The Organisation is to provide DFES with any documents or information relating to this Agreement or the Project within ten (10) business days of receiving such a request from DFES.

## **3.6 Accounts and Reporting**

- (a) The Organisation is to provide progress reports, evaluation reports and financial statements as specified in Schedule 1, or such additional information as requested by DFES.
- (b) The Organisation is to keep proper financial records in accordance with generally accepted accounting principles and practices.
- (c) All reporting of financial information is to be certified by the Chairperson, CEO or equivalent of the Organisation.

## **3.7 Special Conditions of Grant**

The Organisation agrees to comply with the special conditions (if any) specified in Item 4 of Schedule 1.

## **3.8 General Undertaking of Organisation**

The Organisation must:

- (a) at all times duly perform and observe its obligations under this Agreement and promptly inform DFES of any occurrence which might materially adversely affect its ability to do so;
- (b) undertake its responsibilities under this Agreement with integrity, good faith and probity in accordance with good corporate governance practices;
- (c) not, nor attempt to, sell, transfer, assign, mortgage, charge or otherwise dispose of or deal with any of its rights, entitlements and powers or obligations under this Agreement;
- (d) comply with all State and Commonwealth laws, rules, regulations and by-laws;
- (e) cooperate fully with DFES in the administration of this Agreement; and
- (f) upon reasonable notice, provide DFES or its agents, with access at any reasonable time and from time to time to the Organisation's premises, financial records, other documents, equipment and other property for the purpose of audit and inspection by DFES in order to verify compliance by the Organisation with this Agreement.

## **4. REPAYMENT AND RETENTION OF GRANT**

The Organisation must repay to DFES any amounts that DFES has paid which are not used in accordance with this Agreement unless there has been written agreement otherwise between the parties.



## 5. LIMITATION OF LIABILITY

DFES does not accept any responsibility or liability for the success or otherwise of the Approved Purpose and is not liable for any losses which may be suffered by the Organisation in undertaking the Approved Purpose.

## 6. ***FREEDOM OF INFORMATION ACT 1992 AND FINANCIAL MANAGEMENT ACT 2006***

- (a) The Organisation acknowledges and agrees that this Agreement and information regarding it is subject to the *Freedom of Information Act 1992* and that DFES may publicly disclose information in relation to this Agreement, including its terms and the details of the Organisation.
- (b) The parties acknowledge and agree that, despite any provision of this Agreement to the contrary, the powers and responsibilities of the Auditor General under the *Financial Management Act 2006* are not limited or affected by this Agreement.
- (c) The Organisation must allow the Auditor General, or an authorised representative, to have access to and examine the Organisation's records and information concerning this Agreement.

## 7. NOTICES

Any notice or other communication that may or must be given under this Agreement:

- (a) must be in writing;
- (b) must be given by an authorised officer of the Party giving notice;
- (c) may be:
  - (i) hand delivered or sent by prepaid post to the address of the Party receiving the notice as set out in item 5 of Schedule 1; or
  - (ii) sent by email to the email address of the Party receiving the notice as set out in item 5 of Schedule 1;
- (d) subject to paragraph (e), is taken to be received:
  - (i) in the case of hand delivery, on the date of delivery;
  - (ii) in the case of post, on the third Business Day after posting; and
  - (iii) in the case of email, on the date of transmission; and
- (e) if received after 5.00 pm or on a day other than a Business Day, is taken to be received on the next Business Day.

## **8. DEFAULT AND TERMINATION**

### **8.1 Event of Default by the Organisation**

An Event of Default occurs if:

- (a) the Organisation breaches any of its obligations under this Agreement which continues without remedy for ten (10) business days after notice in writing has been served on the Organisation by DFES;
- (b) the Organisation becomes insolvent or is deemed to be insolvent under the *Corporations Act 2001* (Cth); or
- (c) if DFES has reasonable grounds to believe that the Organisation is unwilling or unable to comply with its obligations under this Agreement.

### **8.2 Effect of Event of Default**

If an Event of Default occurs, DFES may either:

- (a) terminate the Agreement by providing a further ten (10) business days notice in writing to the Organisation of the Event of Default; or
- (b) suspend payment of the Grant amount until the Event of Default is remedied.

### **8.3 Recommencement of Grant Payment**

DFES may, in its absolute discretion, recommence payment of the Grant amount if and when the Organisation has rectified the Event of Default.

### **8.4 Acquittal**

Unless earlier terminated, this Agreement will terminate at the time of Acquittal.

## **9. RELATIONSHIP**

The Parties agree that nothing in this Agreement may be construed to make either of them a partner, agent, employee or joint venturer of the other.

## **10. WAIVER**

- (a) No right under this Agreement shall be deemed to be waived except by notice in writing signed by both Parties.
- (b) A waiver by either Party will not prejudice that Party's rights in relation to any further breach of this Agreement by the other Party.
- (c) Any failure to enforce this Agreement, or any forbearance, delay or indulgence granted by one Party to the other Party, will not be construed as a waiver of any rights.

## 11. ENTIRE AGREEMENT

This Agreement constitutes the entire agreement between the Parties and supersedes all communications, negotiations, arrangements and agreements, whether oral or written, between the Parties with respect to the subject matter of this Agreement.

## 12. VARIATION

Any variations, including changes to financial, timeframes or treatment details must be requested and approved in writing, prior to the delivery of the treatment. Where the variation has not been approved, the Department of Fire and Emergency Services may withhold final payment, with the cost to be the responsibility of the Organisation.

## 13. DISPUTE RESOLUTION

Before resorting to external dispute resolution mechanisms, the Parties shall in good faith attempt to settle by negotiation any dispute in relation to this Agreement, and where practical, each Party shall refer the matter to personnel who have authority to intervene and facilitate some form of resolution.

**Executed by the Parties hereto:**

**For and on behalf of DFES:**

\_\_\_\_\_  
Signature of Authorised Person

**Murray Carter**  
Print full name of Authorised Person

Dated \_\_\_\_\_

**Executive Director – Rural Fire Division**  
Department of Fire and Emergency  
Services \_\_\_\_\_  
Position of Authorised Person

**For and on behalf of the Organisation:**

\_ Click or tap here to enter text \_  
Signature of Authorised Person

Click or tap here to enter text.  
Print full name of Authorised Person

Click or tap here to enter text.  
Dated

Click or tap here to enter text.  
Position of Authorised Person

## SCHEDULE 1

### **DEFINITION OF PROJECT OR SERVICE TO BE FUNDED**

#### **1. APPROVED PURPOSE OF THE GRANT**

This grant is provided as part of the Department of Fire and Emergency Services' Mitigation Activity Fund (MAF) Grants Program to support building the fire management capacity and overall resilience of communities.

Funds are to be used for on-ground works to mitigate extreme, very high and high risks on land that is State owned and managed by the Local Government (the land must not be managed by another State Department).

#### **2. PROJECT DEFINITION AND/OR ANTICIPATED ACTIVITIES**

This Organisation will use the Grant solely to undertake the treatment activities detailed in appendix 1, as outlined in the MAF Grant Application submitted by the Organisation.

#### **3. AGREEMENT TERM**

Unless earlier terminated, this Agreement will terminate at the time of Acquittal.

In this context, Acquittal means that DFES has advised the Organisation that the reports and financial information provided by the Organisation in accordance with clause 3.6 are satisfactory.

All physical works are to be completed by 17 November 2023.

#### **4. SPECIAL CONDITIONS OF THE GRANT**

- a) Payment of this funding is subject to the acquittal of previous MAF grant funding.
- b) The Organisation will ensure that all personnel performing works in relation to this agreement are appropriately qualified and equipped to perform the work.
- c) Adequate insurance will be maintained for the duration of this project, with proof to be provided to DFES if requested.
- d) All required permits are the responsibility of the Organisation (including, but not limited to clearing permits, heritage surveys and environmental surveys). Allocation of funding does not negate the need for adherence to statutory requirements.
- e) Funding is for use on State Land managed by Local Government only. If any portion of the treatment crosses another tenure/interest, express

## [Appendix ORD: 12.2.7A]

permission from the owner/holder of that other interest, must first be obtained by the Local Government.

### 5. NOTICE ADDRESSES

- (a) Department of Fire and Emergency Services  
Rural Fire Division  
20 Stockton Bend  
Cockburn Central WA 6164  
Email: MAFGP@dfes.wa.gov.au
- (b) Shire of Dardanup  
PO Box 7016 EATON WA 6232  
records@dardanup.wa.gov.au  
08 9724 0000

### 6. ACKNOWLEDGEMENT OF GRANTOR

Acknowledgment of the contribution from Department of Fire and Emergency Services must appear on all material relating to the project, in the form approved by Department of Fire and Emergency Services prior to release of such material.

### 7. GRANT AMOUNT AND METHOD OF PAYMENT

- (a) DFES will pay **\$195,370.00** (exclusive of GST) in two instalments.
- (b) Payment of the Grant under this Agreement will be by way of instalment:
  - i. Instalment 1 comprising 50% of the amount shown in Item 7(a) of this schedule after the Parties have executed the Agreement.
  - ii. Instalment 2 comprising the residual, as indicated by the Final Financial Report, certified in accordance with this agreement, up to a maximum of 50% of the amount shown in Item 7(a) of this schedule, after Acquittal.
- (c) The Grant will be expended to undertake the treatments specifically outlined in appendix 1, providing they did not commence prior to the date of execution of this Agreement.
- (d) Any unexpended funds held by the Organisation will be returned to DFES within 30 days acquittal.
- (e) The Organisation must keep adequate financial accounts and records to enable identification of the grant, payments and receipts.

### 8. FINAL FINANCIAL STATEMENT

The Final Acquittal Declaration is to be certified by the Chairman, CEO or equivalent of the Organisation.



## **9. PROGRESS REPORTS**

The Organisation will provide a Progress Report (generated from the Bushfire Risk Management System (BRMS) and advise the status of each treatment activity detailed in Appendix 1. This will be requested by DFES midway through the funding round and shall be submitted by the Organisation with 30 days of receiving such request.

## **10. FINAL REPORT**

A final report is to be returned to DFES upon funding round completion comprising of the following documents:

- (a) Final Acquittal report (generated from the BRMS), which will include an expenditure statement detailing actual expenditure,
- (b) Evidence of all expenditure (e.g. invoices, screen shots of internal financial system showing transactions),
- (c) Signed financial acquittal declaration.

**Appendix 1  
MITIGATION ACTIVITY FUND (MAF)  
GRANTS PROGRAM  
GRANT AGREEMENT 2022/23 ROUND 2**

<b>Treatment ID</b>	<b>Treatment Type</b>	<b>Treatment Objective</b>	<b>Primary Asset Number</b>	<b>Primary Asset Name</b>	<b>Total</b>
4753	Mechanical Works	Conduct mechanical works to produce an hazard separation zone by slashing elevated vegetation. . Asset ID - DARDDP165	DARDDP0165	Castlereagh Vista (17-33), Millbridge	\$3,620.00
7238	Mechanical Works	Create an Asset Protection Zone by parkland clearing / mulching vegetation to reduce elevated fuels to a compacted state across 90% of planned area. Using hand crews due to the limited access for machines. Asset ID - DARDDP537	DARDDP0537	Gardincourt Drive (42), Henty	\$16,600.00
7239	Mechanical Works	Create an Asset Protection Zone by parkland clearing / mulching vegetation to reduce elevated fuels to a compacted state across 90% of planned area. Using hand crews due to the limited access for machines. Asset ID - DARDDP538	DARDDP0538	Gardincourt Drive (49), Henty	\$7,650.00
7240	Mechanical Works	Create an Asset Protection Zone by parkland clearing / mulching vegetation to reduce elevated fuels to a compacted state across 90% of planned area. Using hand crews due to the limited access for machines. Asset ID - DARDDP445	DARDDP0445	BFB - Ferguson, Henty	\$16,700.00
7241	Mechanical Works	Create an Asset Protection Zone by parkland clearing / mulching vegetation to reduce elevated fuels to a compacted state across 90% of planned area. Using hand crews due to the limited access for machines. Asset ID - DARDDP540	DARDDP0540	The Dress Circle (39), Henty	\$21,500.00

## [Appendix ORD: 12.2.7A]

Treatment ID	Treatment Type	Treatment Objective	Primary Asset Number	Primary Asset Name	Total
8333	Mechanical Works	Create an Asset Protection Zone for Houses & Agriculture Infrastructure along Warburton Road by using mechanical means to compact elevated fuels across 80% of the treatment area. This will help with residents to evacuate during a bushfire as this is their only emergency access. Asset ID - DARDDP374	DARDDP0374	Warburton Road (2), Crooked Brook	\$39,100.00
18970	Mechanical Works	Create an Asset Protection Zone by parkland clearing / mulching vegetation to reduce elevated fuels to a compacted state across 90% of planned area. Using hand crews due to the limited access for machines. Asset ID - DARDDP0157	DARDDP0157	Alice Court (3-6), Millbridge	\$18,400.00
18971	Mechanical Works	Create an Asset Protection Zone by parkland clearing / mulching vegetation to reduce elevated fuels to a compacted state across 90% of planned area. Using hand crews due to the limited access for machines. Asset ID - DARDDP0160	DARDDP0160	Hunter Circle (1-3), Millbridge	\$12,625.00
18972	Mechanical Works	Create an Asset Protection Zone by parkland clearing / mulching vegetation to reduce elevated fuels to a compacted state across 90% of planned area. Using hand crews due to the limited access for machines. Asset ID - DARDDP0162	DARDDP0162	Castlereagh Vista (2-18), Millbridge	\$31,325.00
19010	Mechanical Works	Install mineral earth fire access track using lime stone to create 2nd ingress - egress for sounding residents. Asset ID - DARDDP0542	DARDDP0542	Fire Access Way, Travencore Place	\$18,000.00
19012	Mechanical Works	Create an Asset Protection Zone by parkland clearing / mulching vegetation to reduce elevated fuels to a compacted state across 90% of planned area. Using hand crews due to the limited access for machines. Asset ID - DARDDP0176	DARDDP0176	Millbridge Boulevard (36-38), Millbridge	\$9,850.00
<b>Allocated Amount</b>					<b>\$195,370.00</b>

**RISK ASSESSMENT TOOL**

**OVERALL RISK EVENT:** Unbudgeted Expenditure 2022-23 Mitigation Activity Fund Grant Program (MAFGP)

**RISK THEME PROFILE:**

8 - Errors, Omissions and Delays

**RISK ASSESSMENT CONTEXT:** Operational

CONSEQUENCE CATEGORY	RISK EVENT	PRIOR TO TREATMENT OR CONTROL			RISK ACTION PLAN (Treatment or controls proposed)	AFTER TREATMENT OR CONTROL		
		CONSEQUENCE	LIKELIHOOD	INHERENT RISK RATING		CONSEQUENCE	LIKELIHOOD	RESIDUAL RISK RATING
HEALTH	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.
FINANCIAL IMPACT	Failure to comply with the conditions of the Mitigation Activity Fund Grant Agreement will cause payment of grant funding to be declined resulting in financial losses.	Major (4)	Unlikely (2)	Moderate (5 - 11)	Not required	Not required.	Not required.	Not required.
SERVICE INTERRUPTION	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.
LEGAL AND COMPLIANCE	Failure to comply with the conditions of the Mitigation Activity Fund Grant Agreement will cause the termination of the agreement for default.	Catastrophic (5)	Rare (1)	Moderate (5 - 11)	Not required.	Not required.	Not required.	Not required.
REPUTATIONAL	Failure to comply with the conditions of the Mitigation Activity Fund Grant Agreement will cause the grantor to decline future grant applications made by the Shire.	Moderate (3)	Rare (1)	Low (1 - 4)	Not required.	Not required.	Not required.	Not required.
ENVIRONMENT	No risk event identified for this category.	Not Required - No Risk Identified	N/A	N/A	Not required.	Not required.	Not required.	Not required.

## [Appendix ORD: 12.2.7C]

Local Government	Treatment ID	Treatment Type	Treatment Objective	Treatment Area (ha)	Treatment Length (km)	Date Scheduled	Primary Asset ID	Primary Asset Name	Asset Category	Asset Sub Category	(Priority) Risk Rating
Dardanup	4753	Mechanical Works	Conduct mechanical works to produce an hazard separation zone by slashing elevated vegetation. . Asset ID - DARDDP165	1.53	0.54	3/09/2023	DARDDP0165	Castlereagh Vista (17-33), Millbridge	Human Settlement	Residential	1C
Dardanup	5432	Mechanical Works	Create an Asset Protection Zone by parkland clearing / mulching vegetation to reduce elevated fuels to a compacted state across 90% of planned area. Using hand crews due to the limited access for machines. Asset ID - DARDDP157	1.51	0.99	3/09/2023	DARDDP0157	Alice Court (3-6), Millbridge	Human Settlement	Residential	1A
Dardanup	5433	Mechanical Works	Create an Asset Protection Zone by parkland clearing / mulching vegetation to reduce elevated fuels to a compacted state across 90% of planned area. Using hand crews due to the limited access for machines. Asset ID - DARDDP160	1.30	0.92	3/09/2023	DARDDP0160	Hunter Circle (1-3), Millbridge	Human Settlement	Residential	1A
Dardanup	5434	Mechanical Works	Create an Asset Protection Zone by parkland clearing / mulching vegetation to reduce elevated fuels to a compacted state across 90% of planned area. Using hand crews due to the limited access for machines. Asset ID - DARDDP176	0.95	0.39	3/09/2023	DARDDP0176	Millbridge Boulevard (36-38), Millbridge	Human Settlement	Residential	1A
Dardanup	5435	Mechanical Works	Create an Asset Protection Zone by parkland clearing / mulching vegetation to reduce elevated fuels to a compacted state across 90% of planned area. Using hand crews due to the limited access for machines. Asset ID - DARDDP177	3.49	1.45	3/09/2023	DARDDP0162	Castlereagh Vista (2-18), Millbridge	Human Settlement	Residential	2A



## [Appendix ORD: 12.2.7C]

Local Government	Treatment ID	Treatment Type	Treatment Objective	Treatment Area (ha)	Treatment Length (km)	Date Scheduled	Primary Asset ID	Primary Asset Name	Asset Category	Asset Sub Category	(Priority) Risk Rating
Dardanup	7238	Mechanical Works	Create an Asset Protection Zone by parkland clearing / mulching vegetation to reduce elevated fuels to a compacted state across 90% of planned area. Using hand crews due to the limited access for machines. Asset ID - DARDDP537	1.99	1.13	3/09/2023	DARDDP0537	Gardincourt Drive (42), Henty	Human Settlement	Residential	3A
Dardanup	7239	Mechanical Works	Create an Asset Protection Zone by parkland clearing / mulching vegetation to reduce elevated fuels to a compacted state across 90% of planned area. Using hand crews due to the limited access for machines. Asset ID - DARDDP538	0.91	0.65	3/09/2023	DARDDP0538	Gardincourt Drive (49), Henty	Human Settlement	Residential	2A
Dardanup	7240	Mechanical Works	Create an Asset Protection Zone by parkland clearing / mulching vegetation to reduce elevated fuels to a compacted state across 90% of planned area. Using hand crews due to the limited access for machines. Asset ID - DARDDP445	1.24	0.65	3/09/2023	DARDDP0445	BFB - Ferguson, Henty	Human Settlement	Special Risk and Critical Facilities	1C
Dardanup	7241	Mechanical Works	Create an Asset Protection Zone by parkland clearing / mulching vegetation to reduce elevated fuels to a compacted state across 90% of planned area. Using hand crews due to the limited access for machines. Asset ID - DARDDP540	1.97	1.20	3/09/2023	DARDDP0540	The Dress Circle (39), Henty	Human Settlement	Residential	2A

## [Appendix ORD: 12.2.7C]

Local Government	Treatment ID	Treatment Type	Treatment Objective	Treatment Area (ha)	Treatment Length (km)	Date Scheduled	Primary Asset ID	Primary Asset Name	Asset Category	Asset Sub Category	(Priority) Risk Rating
Dardanup	8333	Mechanical Works	Create an Asset Protection Zone for Houses & Agriculture Infrastructure along Warburton Road by using mechanical means to compact elevated fuels across 80% of the treatment area. This will help with residents to evacuate during a bushfire as this is their only emergency access. Asset ID - DARDDP374	4.08	4.16	3/09/2023	DARDDP0374	Warburton Road (2), Crooked Brook	Human Settlement	Residential	3A
Dardanup	8651	Mechanical Works	Create an Asset Protection Zone by parkland clearing / mulching vegetation to reduce elevated fuels to a compacted state across 90% of planned area. Using hand crews due to the limited access for machines.	1.47	0.99	3/09/2023	DARDDP0157	Alice Court (3-6), Millbridge	Human Settlement	Residential	1A
<b>TOTALS</b>				<b>20.44</b>	<b>11.94</b>						

