# Native Vegetation Clearance

# Dry Plains Road

# Data Report

## Clearance under the *Native Vegetation Regulations 2017*

16/03/2022

Prepared by Wayne A Brown

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1. Application information

**Application Details**

| | | | |
|---|---|---|---|
| Applicant: | Alexandrina Council | | |
| Key contact: | James Clay<br>PO Box 21 Goolwa SA 5214<br>James.Clay@alexandrina.sa.gov.au<br>M: 0410 284 524 / Office 08 8555 7000 | | |
| Landowner: | Under care and control of Alexandrina Council | | |
| Site Address: | Dry Plains Road | | |
| Local Government Area: | Alexandrina Council | Hundred: | Bremer |
| Title ID: | Dry plains road | Parcel ID | Dry plains road |

**Summary of proposed clearance**

| | |
|---|---|
| Purpose of clearance | Clearance required for the realignment and sealing of a road |
| Native Vegetation Regulation | Regulation 12, Schedule 1; clause 33, Infrastructure |
| Description of the vegetation under application | Size, type and general condition – Individual trees along a 6.4 km strip of fragmented narrow road corridor comprising of Mallee association in good to poor condition |
| Total proposed clearance - area (ha) and number of trees | 94 scattered trees are proposed to be cleared. |
| Level of clearance | Level 4 |
| Overlay (Planning and Design Code) | Native Vegetation Overlay |
| Map of proposed clearance area |  |

| | |
|---|---|
| Mitigation hierarchy | This well used dirt road is to be sealed. Engineers have designed the road avoid as much native vegetation as possible along with marking of the proposed road carriageway and reappraisal of the native vegetation impacted which again minimised the impact. Councils roadside management plan guidelines are used to further minimise impacts on the remaining native vegetation. |
| SEB Offset proposal | Payment of $28,513.05 |

# 2. Purpose of clearance

### 2.1 Description

3 The purpose of the proposal is to realign dry plans road and upgrade from unsealed to sealed Bitumen

### 3.1 Background

The Alexandrina Council have a Roadside Vegetation Management Plan (2016 – 2021 reviewed every 5 years). Page 21 of the plan provides the following guidelines;

Road Design

Alexandrina council will consider the following design principles when planning new roadworks:

- Vegetation communities of high conservation significance should be avoided. If significant vegetation is present, Council will consider modifying the roadworks to avoid or minimise damage.
- One wide roadside is preferable to two narrow roadsides. If widening is necessary where native vegetation is present on both sides, widening on the narrow roadside is preferred.
- The value of roadside vegetation is greater where there is adjacent native vegetation outside the road reserve.
- Drainage systems and batters should be designed to minimise sedimentation of watercourses, minimise discharge into disease-susceptible plant communities and control erosion.

Road Construction

One clearance approval has been obtained from the NVC, Alexandrina Council will minimise the impact of construction on adjacent vegetation by abiding with the following guidelines:

- Clearly identify and mark with stakes, tape or fencing any significant or protected vegetation and habitat areas prior to the commencement of works and always stay within the construction zone.
- Limit soil disturbance on roadsides – windrowing spoil onto roadside vegetation should be avoided by grading/directing any spoil towards the road pavement and removing it to a designated dump site.
- Identify the exact location of proposed stockpiles, plant compounds, access roads and turning areas to avoid any incidental vegetation damage – machinery and stockpiles should be kept on already cleared land.
- Borrow pits must be located where native vegetation will not be disturbed.
- Materials for construction works to be taken from disease and weed free sites.
- Equipment should be cleaned on site before moving on to other sites: this particularly applies where machinery is operating in weed-infested or disease prone areas.
- Only use the appropriate type and minimum size of machinery for the job.
- Dispose of other waste materials at an appropriate site or leave as habitat for wildlife – hollow logs and other woody material may be left on site if they are spread widely and not left in a pile.
- If there is not alternative to burning of pruning's for not burn close to native vegetation to avoid risk of fire.
- Native vegetation cleared should not be pushed and or heaped into native vegetation outside the approved clearance zone.

The widening and sealing of the currently unsealed portion of Dry Plains Road is part of Alexandrina councils network expansion. The unsealed portion is approximately 6.7km long (from Nurragi Road to the Finnis-Milang road) and requires an engineering design to widen the road to current standards and provide a new sealed surface.

The road has some native vegetation located in various areas on both sides of the road requiring clearance approval prior to the installation of new culverts and re shaping of the road.

The tender for the engineering works has been awarded to MLEI Consulting Engineers.

An initial review of the trees was conducted by native vegetation accredited consultant in December 2020 followed by modifications to engineering plans by MLEI Engineers to avoid as many remnant trees or remaining native vegetation as possible.

Final analysis of the native vegetation was conducted in later February 2022.

**General location map**

**Site Map**


Brewood Rd
Tucker Rd
Research Rd
Dry Plains Rd
Nurragi Rd
Echo Park Rd
Brimaryl Rd
Finniss-Milang Rd
Nurragi Rd
Map data is compiled from a variety of sources and hence its accuracy is variable.
Compiled: 7-Jan-2021
Generated at: www.naturemaps.sa.gov.au
Datum: Geocentric Datum of Australia, 1994
Projection: Web Mercator (Auxiliary Sphere)
N
0
1.48 Kms
Government of South Australia
Department for Environment and Water

### 3.2 Details of the proposal

The process included initial design plans, native vegetation review and tree marking, meeting to discuss any opportunity design changes to avoid unnecessary native vegetation clearance, final plans and final native vegetation reviews.

DESIGN PARAMETERS

| Parameter | Design Value |
|---|---|
| ROAD | |
| Compliance with guidelines and standards | Best appropriate local practice, in accordance with Austroads Guides, Standards Australia and other recognised sources. |
| Design speed | 100 km/h<br>Incorporate superelevation and transitions to suit types of heavy vehicles using the road. |
| AADT<br>(2-way, 24h) | 200vpd, 12% CV, estimated current.<br>(Based on 2011 survey and 2% annual growth) |
| Roadside vegetation | In accordance with Council's Roadside Vegetation Management Plan, the clearance width is the formation width plus 1m each side, height of the clearance corridor is 4.5m. At intersections, sight lines will need to be established. |
| Formation width | 10m |
| Shoulder width | 1.0m (0.5m sealed, 0.5m unsealed) |
| Seal width | 8m |
| Lane width | 3.5m |
| Pavement life | 20 years, 98% confidence level |
| Sub-base | Existing PM3 limestone rubble, supplemented as required with PM2. Minimum layer thickness determined by geotech and pavement design. |
| Base course | PM 1, with minimum layer thickness of 120mm, or as determined by pavement design. |
| Crossfall from centre crown | 3% minimum, on straight travelling lanes, with 2m rounding at crown line. |
| Crossfall on shoulder | 4%, minimum |
| Bitumen spray seal | 14/7 2-coat bitumen spray seal, incorporating polymer-modified binder. |
| Tucker Road intersection | Reconfigure intersection to 70 degree minimum angle.<br>Reconstruct to 25m into Tucker Road. |
| Finniss-Milang Road intersection | Reconfigure intersection to 90 degrees. Specify vegetation clearance for sightlines. Incorporate notional deceleration and acceleration lanes (sealed shoulder widening) in Finniss-Milang Road.<br>Investigate desirability of GIVE WAY signage and pavement marking. |
| Line marking | As per DPTI line marking manual |
| Guide post | Incorporate note for typical spacing and offset and of any specific installations. |
| Underground services | All services to be located on site and surveyed. Any service that may potentially cause a clash is to be uncovered and surveyed. |
| STORMWATER MANAGEMENT | |
| Roadside swale | Minimise flow travel distance between interception structures. Provide detail for swale cross-section, minimum longitudinal grade, erosion protection and the like. |

### 3.3 Approvals <u>required</u> *or* <u>obtained</u>

Provide details of the following approvals or applications under the follow legislation, where relevant:

- Native Vegetation Act 1991 – no prior application for this road is known.
- Planning, Development and Infrastructure Act 2016 (Council Project)
- Water Resources Act 1997 (e.g. a water license) – N/A
- Environment Protection and Biodiversity Conservation Act 1999 (impacts on MNES) – N/A
- National Parks and Wildlife Act 1972 (e.g. flora collection permit) – N/A
- Landscapes SA (e.g. water affecting activity permit) - N/A
- Aboriginal Heritage Act 1988 – Identified as not required

### 3.4 Native Vegetation Regulation

12, Schedule 1; clause 33, Infrastructure

### 3.5 Development Application information (if applicable)

Not applicable

# 3. Method

### 3.1 Flora assessment

The flora assessment was made on 16/12/2020 by two experienced environmental consultants W Brown (Native Vegetation accredited consultant) and Phil Collins.

Prior to the assessment of individual trees requested to be cleared a detailed survey of the location of vegetation along the road corridor was completed. The new road alignment was completed by MLEI Consulting Engineers showing which of the trees would require removal as part of the realignment and sealing process. The design approved by Alexandrina council.

The road length was divided into 19 manageable field maps showing which trees have been identified as requiring removal.

Each tree was identified on site using the maps provided with each tree given a number tag.

The survey was conducted gathering information to complete the field data sheets recording tree number, identifying species, height, circumference, dieback, hollows along with taking a waypoint and photo of the trees.

Species were identified by a review of leaves, buds & fruits and using reference books C.D Boomsma Native Trees of South Australia and A Field Guide to Eucalyptus Brooker and Kieinig vol 1.

A review of species was conducted to consider EPBC Act triggers and NP&W Act species rating. 1 small tree was found to be a rare species under the NP&W Act 1972.

Additional and final review of the clearance area was conducted on 17/12/2022, after the roads new alignment had been manually surveryed.

Time on the site for the first analysis was 11hrs and Time spent on site for the second analysis was 6hrs.

### 3.2 Fauna assessment

A practical fauna assessment was made by walking the site, once on 16/12/2020 and again on 17/02/2022 whilst on site capturing data. This included looking for tree hollows, bird nests, listening for different species and visually spotting species by eye or with the aid of binoculars.

With the aid of Neville Caley's "What bird is that" book species sighted were identified.

In the office a desktop review using the Atlas of Living Australia and Nature Maps, (5km radius of site since 1995), was conducted with a focus on the presence of species listed under the NP&W 1972 or the EPBC Act 1999 indicating 3 state rated species that maybe impacted by the proposed clearance.

Review of species habitats and commentary on preferred habitat has been sourced from;

- Nature Maps fauna species likely within 5km radius of the site
- Birds in backyards
- Birdlife.org.au
- Ebirds.org
- AofLA
- EPBC Act list
- NP&W act list
- Birds Australia

Time on dry plains road was around 17 hrs in total

# 4. Assessment Outcomes

*Provide information on the following assessment criteria. For more information see the NVC's Guide for Applications to Clear Native Vegetation.*

## 4.1 Vegetation Assessment

**General description of the vegetation, the site and matters of significance**

Provide a general description of the site including the following;

- Landform, geography and soils

Due the length of the corridor 2 distinct landforms and soils were observed which reflected the species type change along the 6.4km length.

Landform 1 - Gently undulating plains and low rises

Soils thin sandy surface soil, sharply overlying a hard, brownish columnar structured sandy clay loam to sandy clay subsoil, grading to a Class III A carbonate layer at shallow depth

Landform 2 Alluvial plain

Soils Medium thickness hard red brown sandy loam with a paler coloured subsurface, over a red coarsely structured clay, calcareous with depth

- Landform feature of significance (rivers, creeks, rocky outcrops, etc.)

Mostly flat land plains for the entire length, however there is a floodplain observed within 1km of the end of the proposed road alignment (closest to the Finnis to Milang road). This is evident due to Eucalyptus largiflorens dominating the this area.

- General overview of the vegetation under application as a whole (e.g. contains x number of vegetation associations / trees)

5km of the survey area can be classified as;

Eucalyptus incrassata, Eucalyptus socialis, Allocasuarina verticilliata *low open woodland* over Acacia pycnantha tall shrubs over Danthonia sp. (NC), Asparagus asparagoides, Clematis microphylla var. microphylla, Lomandra multiflora ssp. dura, Ehrharta longiflora low tussock grasses

The area closest to Finnis to Milang road became;

Eucalyptus largiflorens, +/-Eucalyptus odorata *mid woodland over* Muehlenbeckia florulenta mid shrubs over Avena barbata, Ehrharta longiflora mid tussock grasses over Einadia nutans ssp., Atriplex semibaccata

- General description of the vegetation relating to type and condition (i.e. is the vegetation relatively homogeneous, or there significant variation)

There is significant variation along the 6.4km strip however the corridor is a very thin strip which is highly degraded, thinned and narrow.

- Provide a description of the landscape context for the vegetation (e.g. isolated patch of vegetation in cropping landscape) and proximity to protected areas (Conservation Parks, Heritage Agreements, etc.)

This is a thin narrow corridor which crosses over Heritage Area 1236 (Old railway corridor). Further Heritage areas are located within 6km of the road corridor with the Finnis river within 5 km of parts of the road corridor.

**Details of the vegetation associates/scattered trees proposed to be impacted**

For **each** scattered tree present, provide the following;

Trees 1 to 32 totals 32 trees IBRA association – Angus Plains

| | |
|---|---|
| Tree ID – Tree 1 | Representative photo |
| Tree spp. *Eucalyptus largiflorens* |  Photo direction - West |
| Number of trees – 1 | Waypoint - 157 |
| Height (m) –4 | |
| Hollows –0 | |
| Diameter (cm) – 9 cm | |
| Canopy dieback (%) –10% | |
| Total Biodiversity Score –0.25 | |
| Two very small trees with a low habitat value | |

| | |
|---|---|
| Tree ID – Tree 2 | Representative photo |
| Tree spp. *Eucalyptus largiflorens* |  Photo direction - West |
| Number of trees – 1 | Waypoint 158 |
| Height (m) –3 | |
| Hollows –0 | |
| Diameter (cm) –21cm | |
| Canopy dieback (%) –5% | |
| Total Biodiversity Score –0.19 | |
| This is a small tree with a low habitat value | |

| Tree ID – Tree 3 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction - West |
| Number of trees – 1 | Waypoint 159 |
| Height (m) –11 | |
| Hollows –1 | |
| Diameter (cm) –40cm | |
| Canopy dieback (%) –5% | |
| Total Biodiversity Score –1.98 | |
| Excellent solid tree as part of a clump of the same species. Hollows present which may provide habitat for numerous species including NP&W Act species. | |

| Tree ID – Tree 4 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction - West |
| Number of trees – 1 | Waypoint 160 |
| Height (m) –5 | |
| Hollows –1 | |
| Diameter (cm) –35cm | |
| Canopy dieback (%) –10% | |
| Total Biodiversity Score –0.96 | |
| Damaged tree very close to the road Hollows present which may provide habitat for numerous species including NP&W Act species. | |

| Tree ID – Tree 5 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction - West<br>Waypoint 161 |
| Number of trees – 1 | |
| Height (m) –5 | |
| Hollows –0 | |
| Diameter (cm) –28cm | |
| Canopy dieback (%) –80% | |
| Total Biodiversity Score –0.11 | |
| Damaged tree, pruned many times as very close to road edge. No hollows. | |

| Tree ID – Tree 6 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction - West<br>Waypoint 162 |
| Number of trees – 1 | |
| Height (m) – 8 | |
| Hollows –1 | |
| Diameter (cm) –60cm | |
| Canopy dieback (%) –10% | |
| Total Biodiversity Score –2.51 | |
| Excellent solid tree as part of a clump of the same species. Hollows present which may provide habitat for numerous species including NP&W Act species. | |

| Tree ID – Tree 7 | Representative photo(s) |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction - West<br>Waypoint 163 |
| Number of trees – 1 | |
| Height (m) –9 | |
| Hollows –1 | |
| Diameter (cm) –55cm | |
| Canopy dieback (%) –60% | |
| Total Biodiversity Score –0.18 | |
| Tree in poor health. Hollows present which may provide habitat for numerous species including NP&W Act species. | |

| Tree ID – Tree 8 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction - West<br>Waypoint 164 |
| Number of trees – 1 | |
| Height (m) –3 | |
| Hollows –0 | |
| Diameter (cm) –21cm | |
| Canopy dieback (%) –20% | |
| Total Biodiversity Score –0.15 | |
| This is a small tree with a low habitat value | |

| Tree ID – Tree 9 | Representative photo |
|---|---|
| Tree spp. *Acacia pycnantha* |  Photo direction - West |
| Number of trees – 1 | Waypoint 165 |
| Height (m) –3 | |
| Hollows –0 | |
| Diameter (cm) –11cm | |
| Canopy dieback (%) –60% | |
| Total Biodiversity Score –0.12 | |
| This is a small tree with a low habitat value | |

| Tree ID – Tree 10 | Representative photo |
|---|---|
| Tree spp. *Acacia pycnantha* |  Photo direction - West |
| Number of trees – 1 | Waypoint 166 |
| Height (m) –4 | |
| Hollows –0 | |
| Diameter (cm) – 11cm | |
| Canopy dieback (%) –50% | |
| Total Biodiversity Score –0.19 | |
| This is a small tree with a low habitat value. Looks to be dying. | |

| Tree ID – Tree 11 | Representative photo |
|---|---|
| Tree spp. *Allocasuarina verticilliata* |  Photo direction - West<br>Waypoint 167 |
| Number of trees – 1 | |
| Height (m) –8 | |
| Hollows –0 | |
| Diameter (cm) –21cm | |
| Canopy dieback (%) –40% | |
| Total Biodiversity Score –0.33 | |
| This is a small tree with a low habitat value. Large branch has fallen off. | |

| Tree ID – Tree 12 | Representative photo |
|---|---|
| Tree spp. *Allocasuarina verticilliata* |  Photo direction - West<br>Waypoint 168 |
| Number of trees – 1 | |
| Height (m) –3 | |
| Hollows –0 | |
| Diameter (cm) –7cm | |
| Canopy dieback (%) –30% | |
| Total Biodiversity Score –0.10 | |
| This is a small tree with a low habitat value | |

| Tree ID – Tree 13 | Representative photo |
|---|---|
| Tree spp. *Allocasuarina verticilliata* |  Photo direction - West<br>Waypoint 169 |
| Number of trees – 1 | |
| Height (m) –5 | |
| Hollows –0 | |
| Diameter (cm) –10cm | |
| Canopy dieback (%) –30% | |
| Total Biodiversity Score –0.18 | |
| This is a small tree with a low habitat value | |

| Tree ID – Tree 14 | Representative photo |
|---|---|
| Tree spp. *Allocasuarina verticilliata* |  Photo direction - West<br>Waypoint 170 |
| Number of trees – 1 | |
| Height (m) –4.5 | |
| Hollows –0 | |
| Diameter (cm) –27cm | |
| Canopy dieback (%) –5% | |
| Total Biodiversity Score –0.4 | |
| This is a small tree with a low habitat value | |

| | |
|---|---|
| Tree ID – Tree 15 | Representative photo |
| Tree spp. *Allocasuarina verticilliata* |  Photo direction - West<br>Waypoint 171 |
| Number of trees – 1 | |
| Height (m) –6 | |
| Hollows –0 | |
| Diameter (cm) –36cm | |
| Canopy dieback (%) –100% | |
| Total Biodiversity Score –0.22 | |
| Tree is dead | |

| | |
|---|---|
| Tree ID – Tree 16 | Representative photo |
| Tree spp. *Eucalyptus largiflorens* |  Photo direction - West<br>Waypoint 172 |
| Number of trees – 1 | |
| Height (m) –8 | |
| Hollows –0 | |
| Diameter (cm) –54cm | |
| Canopy dieback (%) –20% | |
| Total Biodiversity Score –0.5 | |
| Multi trunk tree in fair condition | |

| Tree ID – Tree 17 | Representative photo |
|---|---|
| Tree spp. *Allocasuarina verticilliata* |  Photo Direction East<br>Waypoint 173 |
| Number of trees – 1 | |
| Height (m) –6 | |
| Hollows –0 | |
| Diameter (cm) –20cm | |
| Canopy dieback (%) –70% | |
| Total Biodiversity Score –0.18 | |
| This is a small tree with a low habitat value. Top of tree is dead with low shoots showing. | |

| Tree ID – Tree 18 | Representative photo |
|---|---|
| Tree spp. *Allocasuarina verticilliata* |  Photo Direction East<br>Waypoint 174 |
| Number of trees – 1 | |
| Height (m) –4 | |
| Hollows –0 | |
| Diameter (cm) –19cm | |
| Canopy dieback (%) –100% | |
| Total Biodiversity Score –0.7 | |
| Tree is dead | |

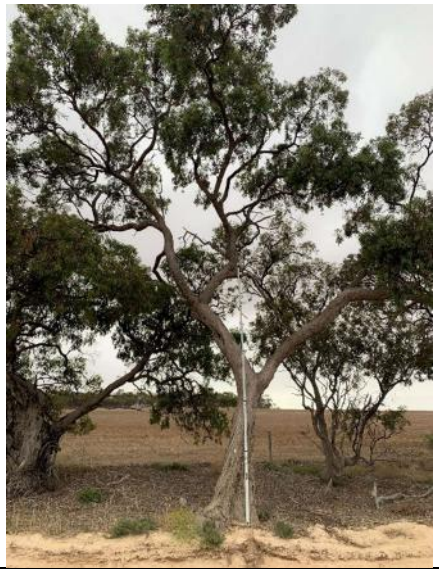
| Tree ID – Tree 19 | Representative photo |
|---|---|
| Tree spp. *Allocasuarina verticilliata* |  Photo Direction East<br>Waypoint 175 |
| Number of trees – 1 | |
| Height (m) –6 | |
| Hollows –0 | |
| Diameter (cm) –14cm | |
| Canopy dieback (%) –40% | |
| Total Biodiversity Score –0.15 | |
| This is a small tree with a low habitat value. Significant dieback. | |

| Tree ID – Tree 20 | Representative photo |
|---|---|
| Tree spp. *Allocasuarina verticilliata* |  Photo Direction East<br>Waypoint 176 |
| Number of trees – 1 | |
| Height (m) –4 | |
| Hollows –0 | |
| Diameter (cm) –20cm | |
| Canopy dieback (%) –100% | |
| Total Biodiversity Score –0.7 | |
| Tree is dead | |

| Tree ID – Tree 21 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo Direction East<br>Waypoint 177 |
| Number of trees – 1 | |
| Height (m) –8 | |
| Hollows –1 | |
| Diameter (cm) –31cm | |
| Canopy dieback (%) –40% | |
| Total Biodiversity Score –0.57 | |
| Canopy dieback. Hollows present which may provide habitat for numerous species including NP&W Act species. Leans back into the roadside vegetation. | |

| Tree ID – Tree 22 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo Direction South West<br>Waypoint 178 |
| Number of trees – 1 | |
| Height (m) –6 | |
| Hollows –0 | |
| Diameter (cm) –29cm | |
| Canopy dieback (%) –50% | |
| Total Biodiversity Score –0.41 | |
| Older tree that has been damaged in the past. Near an intersection. Hollows present which may provide habitat for numerous species including NP&W Act species | |

| Tree ID – Tree 23 | Representative photo(s) |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo Direction South West<br>Waypoint 179 |
| Number of trees – 1 | |
| Height (m) –9 | |
| Hollows –1 | |
| Diameter (cm) –31cm | |
| Canopy dieback (%) –20% | |
| Total Biodiversity Score –0.39 | |
| Smaller tree near the intersection and on a corner | |

| Tree ID – Tree 24 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East<br>Waypoint 180 |
| Number of trees – 1 | |
| Height (m) –9 | |
| Hollows –0 | |
| Diameter (cm) –65cm | |
| Canopy dieback (%) –30% | |
| Total Biodiversity Score –2.11 | |
| Larger tree for the region, found on very edge of gravel road. Hollows present which may provide habitat for numerous species including NP&W Act species. | |

| Tree ID – Tree 25 | Representative photo(s) |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East<br>Waypoint 181 |
| Number of trees – 1 | |
| Height (m) –9 | |
| Hollows –2 | |
| Diameter (cm) –55cm | |
| Canopy dieback (%) –25% | |
| Total Biodiversity Score –1.98 | |
| Larger tree for the region. Hollows present which may provide habitat for numerous species including NP&W Act species. | |

| Tree ID – Tree 26 | Representative photo(s) |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East<br>Waypoint 182 |
| Number of trees – 1 | |
| Height (m) –6 | |
| Hollows –0 | |
| Diameter (cm) –12cm | |
| Canopy dieback (%) –60% | |
| Total Biodiversity Score –0.09 | |
| This is a small tree with a low habitat value. | |

| Tree ID – Tree 27 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East |
| Number of trees – 1 | Waypoint 183 |
| Height (m) –11 | |
| Hollows –0 | |
| Diameter (cm) –39cm | |
| Canopy dieback (%) –30% | |
| Total Biodiversity Score –0.52 | |
| Tree close to edge of road way on a corner. Not a significant tree in good condition. | |

| Tree ID – Tree 28 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East |
| Number of trees – 1 | Waypoint 184 |
| Height (m) –7 | |
| Hollows –0 | |
| Diameter (cm) –30cm | |
| Canopy dieback (%) –20% | |
| Total Biodiversity Score –0.32 | |
| Tree close to edge of road way on a corner. Not a significant tree in good condition. | |

| Tree ID – Tree 29 | Representative photo(s) |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East<br>Waypoint 185 |
| Number of trees – 1 | |
| Height (m) –10 | |
| Hollows –0 | |
| Diameter (cm) –67cm | |
| Canopy dieback (%) –40% | |
| Total Biodiversity Score –3.63 | |
| On the edge of the road. Multiple stems, excellent solid tree as part of a clump of the same species. NO hollows present however may provide habitat for numerous species including NP&W Act species. | |

| Tree ID – Tree 30 | Representative photo(s) |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction West<br>Waypoint 186 |
| Number of trees – 1 | |
| Height (m) –3 | |
| Hollows –0 | |
| Diameter (cm) –55cm | |
| Canopy dieback (%) –80% | |
| Total Biodiversity Score –0.18 | |
| Large old tree with significant dieback | |

| Tree ID – Tree 31 | Representative photo(s) |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction West<br>Waypoint 187 |
| Number of trees – 1 | |
| Height (m) –4 | |
| Hollows –0 | |
| Diameter (cm) –25 cm | |
| Canopy dieback (%) –20% | |
| Total Biodiversity Score –0.20 | |
| This is a small tree, multi trunked with signs of dieback. | |

| Tree ID – Tree 32 | Representative photo(s) |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East<br>Waypoint 188 |
| Number of trees – 1 | |
| Height (m) –4 | |
| Hollows –0 | |
| Diameter (cm) –26cm | |
| Canopy dieback (%) –50% | |
| Total Biodiversity Score –0.14 | |
| This is a small tree, multi trunked with signs of dieback. | |

Site map showing areas of proposed impact – IBRA Association -Angus Plains Trees 1 to 32

**Change of IBRA Association**

Trees 33 to 94 = totals 61 trees IBRA association – Sandergrove

| Tree ID – Tree 33 | Representative photo(s) |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East<br>Waypoint 189 |
| Number of trees – 1 | |
| Height (m) –5 | |
| Hollows –0 | |
| Diameter (cm) –20cm | |
| Canopy dieback (%) –5% | |
| Total Biodiversity Score –0.22 | |
| This is a small tree with a low habitat value on roadside verge | |

| Tree ID – Tree 34 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East<br>Waypoint 190 |
| Number of trees – 1 | |
| Height (m) –6 | |
| Hollows –0 | |
| Diameter (cm) –19cm | |
| Canopy dieback (%) –5% | |
| Total Biodiversity Score –0.23 | |
| This is a small tree with a low habitat value | |

| Tree ID – Tree 35 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus odorata* |  Photo direction west<br>Waypoint 191 |
| Number of trees – 1 | |
| Height (m) –5 | |
| Hollows –0 | |
| Diameter (cm) –18cm | |
| Canopy dieback (%) –20% | |
| Total Biodiversity Score –0.22 | |
| Multi trunked small tree with a low habitat value. | |

| Tree ID – Tree 36 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus odorata* |  Photo direction West<br>Waypoint 192 |
| Number of trees – 1 | |
| Height (m) –3 | |
| Hollows –0 | |
| Diameter (cm) –9cm | |
| Canopy dieback (%) –20% | |
| Total Biodiversity Score –0.11 | |
| This is a small tree with a low habitat value | |

| Tree ID – Tree 37 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus odorata* |  Photo direction West |
| Number of trees – 1 | Waypoint 193 |
| Height (m) –5 | |
| Hollows –0 | |
| Diameter (cm) –13cm | |
| Canopy dieback (%) –95% | |
| Total Biodiversity Score –0.06 | |
| This is a small tree with a low habitat value | |

| Tree ID – Tree 38 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus Odorata* |  Photo direction West |
| Number of trees – 1 | Waypoint 194 |
| Height (m) –5 | |
| Hollows –0 | |
| Diameter (cm) –14cm | |
| Canopy dieback (%) –50% | |
| Total Biodiversity Score –0.13 | |
| This is a small tree with a low habitat value | |

| Tree ID – Tree 39 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus odorata* |  Photo direction West<br>Waypoint 195 |
| Number of trees – 1 | |
| Height (m) –1.5 | |
| Hollows –0 | |
| Diameter (cm) –14cm | |
| Canopy dieback (%) –90% | |
| Total Biodiversity Score –0.02 | |
| Tree is nearly dead | |

| Tree ID – Tree 40 | Representative photo |
|---|---|
| Tree spp. *Pittosporum angustifolium* |  Photo direction West<br>Waypoint 196 |
| Number of trees – 1 | |
| Height (m) –4 | |
| Hollows –0 | |
| Diameter (cm) –22cm | |
| Canopy dieback (%) – 0% | |
| Total Biodiversity Score –0.25 | |
| This is a small tree with a low habitat value | |

| Tree ID – Tree 41 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus odorata* |  Photo direction West<br>Waypoint 197 |
| Number of trees – 1 | |
| Height (m) –2 | |
| Hollows –0 | |
| Diameter (cm) –21cm | |
| Canopy dieback (%) –95% | |
| Total Biodiversity Score –0.04 | |
| This is a small tree is nearly dead. | |

| Tree ID – Tree 42 | Representative photo(s) |
|---|---|
| Tree spp. *Acacia pycnantha* |  Photo direction West<br>Waypoint 198 |
| Number of trees – 1 | |
| Height (m) –4 | |
| Hollows –0 | |
| Diameter (cm) –13cm | |
| Canopy dieback (%) –60% | |
| Total Biodiversity Score –0.17 | |
| This is a small tree in decline with a low habitat value | |

| Tree ID – Tree 43 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus odorata* |  Photo direction West |
| Number of trees – 1 | Waypoint 199 |
| Height (m) –2 | |
| Hollows –0 | |
| Diameter (cm) –14cm | |
| Canopy dieback (%) –70% | |
| Total Biodiversity Score –0.04 | |
| This is a small tree with a low habitat value | |

| Tree ID – Tree 44 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus odorata* |  Photo direction West |
| Number of trees – 1 | Waypoint 200 |
| Height (m) –2 | |
| Hollows –0 | |
| Diameter (cm) –14cm | |
| Canopy dieback (%) –70% | |
| Total Biodiversity Score –0.04 | |
| This is a small tree with a low habitat value | |

| Tree ID – Tree 45 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus socialis* |  Photo direction West<br>Waypoint 201 |
| Number of trees – 1 | |
| Height (m) –5 | |
| Hollows –0 | |
| Diameter (cm) –15cm | |
| Canopy dieback (%) –25% | |
| Total Biodiversity Score –0.30 | |
| This is a small tree on the edge of the alignment | |

| Tree ID – Tree 46 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus phenax ssp* |  Photo direction East<br>Waypoint 202 |
| Number of trees – 1 | |
| Height (m) –3 | |
| Hollows –0 | |
| Diameter (cm) –22cm | |
| Canopy dieback (%) –40% | |
| Total Biodiversity Score –0.27 | |
| This is a small tree with a low habitat value surrounded by introduced weeds | |

| Tree ID – Tree 47 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East |
| Number of trees – 1 | Waypoint 203 |
| Height (m) –7 | |
| Hollows –0 | |
| Diameter (cm) –21cm | |
| Canopy dieback (%) –5% | |
| Total Biodiversity Score –0.28 | |
| This is a tree is on the edge of the alignment surrounded by introduced grasses. | |

| Tree ID – Tree 48 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus odorata* |  Photo direction East |
| Number of trees – 1 | Waypoint 204 |
| Height (m) –4 | |
| Hollows –0 | |
| Diameter (cm) –16cm | |
| Canopy dieback (%) –25% | |
| Total Biodiversity Score –0.16 | |
| This is a small tree with a low habitat value | |

| Tree ID – Tree 49 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus 0dorata* |  Photo direction East |
| Number of trees – 1 | Waypoint 205 |
| Height (m) –5 | |
| Hollows –0 | |
| Diameter (cm) –16cm | |
| Canopy dieback (%) –10% | |
| Total Biodiversity Score –0.26 | |
| This is a small tree with a low habitat value which has been cut back numerous times. | |

| Tree ID – Tree 50 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus odorata* |  Photo direction East |
| Number of trees – 1 | Waypoint 206 |
| Height (m) –5.5 | |
| Hollows –0 | |
| Diameter (cm) –25cm | |
| Canopy dieback (%) –0% | |
| Total Biodiversity Score –0.37 | |
| Multi trunk small tree with a low habitat value which has numerous stems | |

| Tree ID – Tree 51 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus odorata* |  Photo direction East<br>Waypoint 207 |
| Number of trees – 1 | |
| Height (m) –1 | |
| Hollows –0 | |
| Diameter (cm) –10cm | |
| Canopy dieback (%) –0% | |
| Total Biodiversity Score –0.10 | |
| This is a small tree with a low habitat value which has been cut back numerous times. | |

| Tree ID – Tree 52 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus incrassata* |  Photo direction East<br>Waypoint 208 |
| Number of trees – 1 | |
| Height (m) –7 | |
| Hollows –0 | |
| Diameter (cm) –33cm | |
| Canopy dieback (%) –25% | |
| Total Biodiversity Score –1.25 | |
| This is a small multi trunk mallee tree surrounded by introduced grasses | |

| Tree ID – Tree 53 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus incrassata* |  Photo direction East |
| Number of trees – 1 | Way Point 209 |
| Height (m) –6 | |
| Hollows –0 | |
| Diameter (cm) –20m | |
| Canopy dieback (%) –30% | |
| Total Biodiversity Score –0.60 | |
| Multi stemmed tree with broken branch, surrounded by introduced grasses | |

| Tree ID – Tree 54 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus socialis* |  Photo direction East |
| Number of trees – 1 | Waypoint 210 |
| Height (m) –6 | |
| Hollows –0 | |
| Diameter (cm) – 21cm | |
| Canopy dieback (%) –25% | |
| Total Biodiversity Score –0.44 | |
| This is a small tree as part of a group of trees close to the roadside verg | |

| Tree ID – Tree 55 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus socialis* |  Photo direction East |
| Number of trees – 1 | Waypoint 211 |
| Height (m) –6 | |
| Hollows –0 | |
| Diameter (cm) – 12cm | |
| Canopy dieback (%) –40 % | |
| Total Biodiversity Score –0.29 | |
| Multi stemmed tree as part of a group of trees close to the roadside verg | |

| Tree ID – Tree 56 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus socialis* |  Photo direction East |
| Number of trees – 1 | Waypoint 212 |
| Height (m) – 6 | |
| Hollows –0 | |
| Diameter (cm) – 28cm | |
| Canopy dieback (%) – 30% | |
| Total Biodiversity Score – 0.50 | |
| Multi stemmed tree as part of a group of trees close to the roadside verg | |

| Tree ID – Tree 57 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus socialis* |  Photo direction East |
| Number of trees – 1 | Waypoint 213 |
| Height (m) – 8 | |
| Hollows –0 | |
| Diameter (cm) –30cm | |
| Canopy dieback (%) –50% | |
| Total Biodiversity Score –0.63 | |
| Multi stemmed tree as part of a group of trees close to the roadside verg. Leaning over road. | |

| Tree ID – Tree 58 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus socialis* |  Photo direction East |
| Number of trees – 1 | Waypoint 214 |
| Height (m) –4 | |
| Hollows –0 | |
| Diameter (cm) –29cm | |
| Canopy dieback (%) –20% | |
| Total Biodiversity Score –0.37 | |
| This is a multi-stem small tree close to road verg | |

| Tree ID – Tree 59 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus socialis* |  Photo direction East |
| Number of trees – 1 | Waypoint 215 |
| Height (m) – 6 | |
| Hollows –0 | |
| Diameter (cm) –28cm | |
| Canopy dieback (%) –20% | |
| Total Biodiversity Score –0.54 | |
| This is a small tree close to road verg which is damaged by grader during maintenance | |

| Tree ID – Tree 60 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus socialis* |  Photo direction East |
| Number of trees – 1 | Waypoint 216 |
| Height (m) – 6 | |
| Hollows –0 | |
| Diameter (cm) –18cm | |
| Canopy dieback (%) –20% | |
| Total Biodiversity Score –0.42 | |
| Multi stemmed tree | |

| Tree ID – Tree 61 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus socialis* |  Photo direction East |
| Number of trees – 1 | Waypoint217 |
| Height (m) –5 | |
| Hollows –0 | |
| Diameter (cm) –18cm | |
| Canopy dieback (%) –80% | |
| Total Biodiversity Score –0.16 | |
| This is a small tree with significant dieback | |

| Tree ID – Tree 62 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus odorata* |  Photo direction East |
| Number of trees – 1 | Waypoint 218 |
| Height (m) –7 | |
| Hollows –0 | |
| Diameter (cm) –20cm | |
| Canopy dieback (%) –20% | |
| Total Biodiversity Score –0.32 | |
| Multi stemmed small tree in good condition however close to graded road | |

| Tree ID – Tree 63 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus phenax* |  Photo direction East |
| Number of trees – 1 | Waypoint 219 |
| Height (m) –7 | |
| Hollows –0 | |
| Diameter (cm) –33cm | |
| Canopy dieback (%) –30% | |
| Total Biodiversity Score –1.2 | |
| Multi stemmed small tree in good condition however close to graded road | |

| Tree ID – Tree 64 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East |
| Number of trees – 1 | Waypoint 220 |
| Height (m) –8 | |
| Hollows –0 | |
| Diameter (cm) –18cm | |
| Canopy dieback (%) –50% | |
| Total Biodiversity Score –0.16 | |
| Multi stemmed tree as part of a group of trees close to the roadside verg in poor health | |

| Tree ID – Tree 65 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East |
| Number of trees – 1 | Waypoint 221 |
| Height (m) –9 | |
| Hollows –0 | |
| Diameter (cm) –23cm | |
| Canopy dieback (%) –30% | |
| Total Biodiversity Score –0.14 | |
| Multi stemmed tree as part of a group of trees close to the roadside verg in poor health | |

| Tree ID – Tree 66 | Representative photo(s) |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East |
| Number of trees – 1 | Waypoint 222 |
| Height (m) –8 | |
| Hollows –0 | |
| Diameter (cm) –34cm | |
| Canopy dieback (%) –60% | |
| Total Biodiversity Score –0.21 | |
| Multi stemmed tree as part of a group of trees close to the roadside verg with greater than 50% dieback overhanging road | |

| Tree ID – Tree 67 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East<br>Waypoint 223 |
| Number of trees – 1 | |
| Height (m) –6 | |
| Hollows –0 | |
| Diameter (cm) –19cm | |
| Canopy dieback (%) –70% | |
| Total Biodiversity Score –0.09 | |
| Multi stemmed tree as part of a group of trees close to the roadside verg with significant dieback overhanging road | |

| Tree ID – Tree 68 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East<br>Waypoint 224 |
| Number of trees – 1 | |
| Height (m) –6 | |
| Hollows –0 | |
| Diameter (cm) –24cm | |
| Canopy dieback (%) –50% | |
| Total Biodiversity Score –0.15 | |
| Multi stemmed tree as part of a group of trees close to the roadside verg with significant dieback overhanging road | |

| Tree ID – Tree 69 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East<br>Waypoint 225 |
| Number of trees – 1 | |
| Height (m) –2.5 | |
| Hollows –0 | |
| Diameter (cm) –8cm | |
| Canopy dieback (%) –20% | |
| Total Biodiversity Score –0.08 | |
| This is a small tree damaged by grader | |

| Tree ID – Tree 70 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East<br>Waypoint 226 |
| Number of trees – 1 | |
| Height (m) –8 | |
| Hollows –0 | |
| Diameter (cm) –42cm | |
| Canopy dieback (%) –50% | |
| Total Biodiversity Score –0.34 | |
| Multi stemmed tree as part of a group of trees close to the roadside verg | |

| Tree ID – Tree 71 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East |
| Number of trees – 1 | Waypoint 227 |
| Height (m) –7 | |
| Hollows –0 | |
| Diameter (cm) –26cm | |
| Canopy dieback (%) –30% | |
| Total Biodiversity Score –0.24 | |
| Multi stemmed tree as part of a group of trees close to the roadside verg | |

| Tree ID – Tree 72 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East |
| Number of trees – 1 | Waypoint 228 |
| Height (m) –7 | |
| Hollows – 2 | |
| Diameter (cm) –85cm | |
| Canopy dieback (%) –80% | |
| Total Biodiversity Score –0.48 | |
| Larger tree for the area however has significant dieback and has 2 hollows | |

| | |
|---|---|
| Tree ID – Tree 73 | Representative photo |
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East |
| Number of trees – 1 | Waypoint 229 |
| Height (m) –6 | |
| Hollows –0 | |
| Diameter (cm) – 18cm | |
| Canopy dieback (%) –25% | |
| Total Biodiversity Score –0.28 | |
| Multi stemmed tree as part of a group of trees close to the roadside verg | |

| | |
|---|---|
| Tree ID – Tree 74 | Representative photo |
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East |
| Number of trees – 1 | Waypoint 230 |
| Height (m) – 6 | |
| Hollows –0 | |
| Diameter (cm) –15cm | |
| Canopy dieback (%) –30% | |
| Total Biodiversity Score –0.15 | |
| Multi stemmed tree as part of a group of trees close to the roadside verg | |

| Tree ID – Tree 75 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus socialis* |  Photo direction East |
| Number of trees – 1 | Waypoint 231 |
| Height (m) –5 | |
| Hollows –0 | |
| Diameter (cm) –28cm | |
| Canopy dieback (%) –40% | |
| Total Biodiversity Score –0.37 | |
| This is a small tree with significant dieback | |

| Tree ID – Tree 76 | Representative photo |
|---|---|
| Tree spp. *Acacia pycnantha* |  Photo direction East |
| Number of trees – 1 | Waypoint 232 |
| Height (m) –3 | |
| Hollows –0 | |
| Diameter (cm) – 8cm | |
| Canopy dieback (%) – 0% | |
| Total Biodiversity Score –0.23 | |
| This is a small tree under mallee | |

| Tree ID – Tree 77 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus phenax ssp* |  Photo direction East<br>Waypoint 233 and 234 |
| Number of trees – 1 | |
| Height (m) – 8 | |
| Hollows –0 | |
| Diameter (cm) – 64cm | |
| Canopy dieback (%) –40% | |
| Total Biodiversity Score –2.19 | |
| Tallest tree in the group in good health | |

| Tree ID – Tree 78 | Representative photo(s) |
|---|---|
| Tree spp. *Acacia pycnantha* |  Photo direction East<br>Waypoint 235 |
| Number of trees – 1 | |
| Height (m) –2 | |
| Hollows –0 | |
| Diameter (cm) – 12cm | |
| Canopy dieback (%) –90% | |
| Total Biodiversity Score –0.04 | |
| This is a small tree with significant dieback | |

| Tree ID – Tree 79 | Representative photo |
|---|---|
| Tree spp. *Acacia pycnantha* |  Photo direction East<br>Waypoint 236 |
| Number of trees – 1 | |
| Height (m) – 2 | |
| Hollows –0 | |
| Diameter (cm) – 24 cm | |
| Canopy dieback (%) – 90% | |
| Total Biodiversity Score –0.08 | |
| This is a small tree with significant dieback | |

| Tree ID – Tree 80 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction West<br>Waypoint 237 |
| Number of trees – 1 | |
| Height (m) –6 | |
| Hollows –0 | |
| Diameter (cm) –27cm | |
| Canopy dieback (%) –50% | |
| Total Biodiversity Score –0.17 | |
| Multi stemmed tree as part of a group of trees close to the roadside verg and culvert | |

| Tree ID – Tree 81 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction West<br>Waypoint 238 |
| Number of trees – 1 | |
| Height (m) – 4 | |
| Hollows –0 | |
| Diameter (cm) –28cm | |
| Canopy dieback (%) –50% | |
| Total Biodiversity Score –0.14 | |
| Multi stemmed tree as part of a group of trees close to the roadside verg and culvert | |

| Tree ID – Tree 82 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East<br>Waypoint 239 |
| Number of trees – 1 | |
| Height (m) –4 | |
| Hollows –0 | |
| Diameter (cm) –11cm | |
| Canopy dieback (%) –30% | |
| Total Biodiversity Score –0.09 | |
| Multi stemmed tree as part of a group of trees close to the roadside verg and culvert | |

| Tree ID – Tree 83 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East<br>Waypoint 240 |
| Number of trees – 1 | |
| Height (m) –5 | |
| Hollows –0 | |
| Diameter (cm) –26cm | |
| Canopy dieback (%) –30% | |
| Total Biodiversity Score –0.19 | |
| Multi stemmed tree as part of a group of trees close to the roadside verg and culvert | |

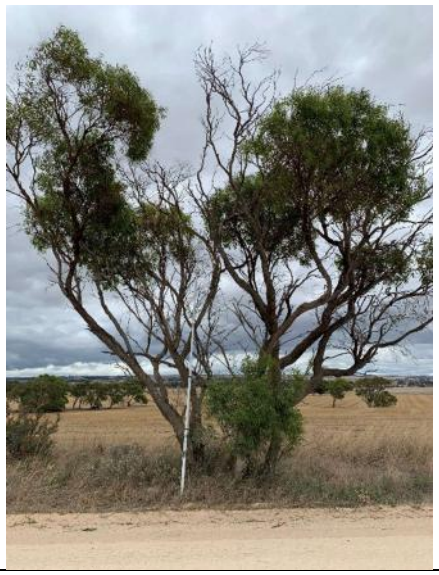
| Tree ID – Tree 84 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus fasciculosa* |  Photo direction West<br>Waypoint 241 |
| Number of trees – 1 | |
| Height (m) –6 | |
| Hollows –0 | |
| Diameter (cm) –38cm | |
| Canopy dieback (%) –50% | |
| Total Biodiversity Score –1.24 | |
| Small tree on edge of road in poor health | |

| | | |
|---|---|---|
| Tree ID – Tree 85 |  | Representative photo<br>Photo direction East<br>Waypoint 242 |
| Tree spp. *Eucalyptus largiflorens* | | |
| Number of trees – 1 | | |
| Height (m) –6 | | |
| Hollows –0 | | |
| Diameter (cm) –23cm | | |
| Canopy dieback (%) –10% | | |
| Total Biodiversity Score –0.25 | | |
| Damaged by grader close to the roadside verg | | |

| | | |
|---|---|---|
| Tree ID – Tree 86 | Representative photo | |
| Tree spp. *Eucalyptus largiflorens* |  | Photo direction West<br>Waypoint 243 |
| Number of trees – 1 | | |
| Height (m) – 7 | | |
| Hollows –0 | | |
| Diameter (cm) – 36cm | | |
| Canopy dieback (%) –10% | | |
| Total Biodiversity Score –0.40 | | |
| Multi stemmed tree close to the roadside verg | | |

| Tree ID – Tree 87 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction East |
| Number of trees – 3 | Waypoints 244, 245,246 |
| Height (m) – 7 | |
| Hollows –0 | |
| Diameter (cm) – 48cm | |
| Canopy dieback (%) –5% | |
| Total Biodiversity Score –1.56 | |
| A group of trees in good condition | |

| Tree ID – Tree 88 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction West |
| Number of trees – 1 | Waypoint 247 |
| Height (m) – 7 | |
| Hollows –0 | |
| Diameter (cm) – 32cm | |
| Canopy dieback (%) –70% | |
| Total Biodiversity Score –0.18 | |
| Multi stemmed tree which is in poor condition | |

| Tree ID – Tree 89 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus largiflorens* |  Photo direction West |
| Number of trees – 1 | Waypoint 248 |
| Height (m) – 7 | |
| Hollows –0 | |
| Diameter (cm) – 41cm | |
| Canopy dieback (%) – 50% | |
| Total Biodiversity Score –0.30 | |
| Multi stemmed tree close to the roadside verg in poor condition | |

| Tree ID – Tree 90 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus socialis* |  Photo direction West |
| Number of trees – 1 | Waypoint 249 |
| Height (m) – 6 | |
| Hollows –0 | |
| Diameter (cm) – 27cm | |
| Canopy dieback (%) –100% | |
| Total Biodiversity Score –0.23 | |
| Tree is dead | |

| Tree ID – Tree 91 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus socialis* |  Photo direction West |
| Number of trees – 1 | Waypoint 250 |
| Height (m) – 6 | |
| Hollows –0 | |
| Diameter (cm) – 18cm | |
| Canopy dieback (%) –0% | |
| Total Biodiversity Score –0.51 | |
| Smaller mallee in good condition | |

| Tree ID – Tree 92 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus socialis* |  Photo direction West |
| Number of trees – 1 | Waypoint 251 |
| Height (m) – 7 | |
| Hollows –0 | |
| Diameter (cm) – 23cm | |
| Canopy dieback (%) –10% | |
| Total Biodiversity Score –0.64 | |
| Smaller mallee in good condition no hollows | |

| Tree ID – Tree 93 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus socialis* |  Photo direction West<br>Waypoint 252 & 253 |
| Number of trees – 1 | |
| Height (m) – 2 | |
| Hollows –0 | |
| Diameter (cm) – 8 cm | |
| Canopy dieback (%) –10% | |
| Total Biodiversity Score –0.13 | |
| Smaller mallee close to verg and cut frequently | |

| Tree ID – Tree 94 | Representative photo |
|---|---|
| Tree spp. *Eucalyptus socialis* |  Photo direction West<br>Waypoint 254 |
| Number of trees – 1 | |
| Height (m) – 6 | |
| Hollows –0 | |
| Diameter (cm) – 17cm | |
| Canopy dieback (%) –5% | |
| Total Biodiversity Score –0.48 | |
| Multi stemmed tree close to the roadside verg no hollows | |

Trees 33 – 94 = 61 trees

Site map showing areas of proposed impact – IBRA Association -Angus Plains Trees 33 to 94

**Photo log**

Roadside Trees 1- 32

Facing South at the start

Roadside Trees 1- 32

Facing North

Roadside Trees 33 - 94

Facing South

Roadside Trees 33 - 94

Facing South

## 4.2 Threatened Species assessment

| SPECIES | COMMON NAME | NP&W Act | EPBC Act | Data source | NUMBER OF RECORDS | DATE OF LAST RECORD | Species known habitat preferences | Likelihood of use for habitat comments |
|---|---|---|---|---|---|---|---|---|
| Lichenostomus cratitius occidentalis | Purple-gaped Honeyeater (mainland SA) | R | | 4 | 1 | 30-May-2021 | Mallee heathland and shrubby vegetation | Possible - Recorded within the previous 20 years, the area falls inside the known distribution of the species, but the area provide limited habitat or feeding resources for the species |
| Melanodryas cucullata cucullata | Hooded Robin (YP, MN, AP, MLR, MM, SE) | R | | 4 | 3 | 15-Jul-1995 | Are found in lightly timbered woodland, mainly dominated by acacia and/or eucalypts | Unlikely - Recorded within the previous 20 years, but the area provide no habitat or feeding resources for the species |
| Melithreptus gularis | Black-chinned Honeyeater | ssp | | 4 | 2 | 15-Oct-2000 | Feed much more often on invertebrates that bound leaves together | Unlikely - Recorded within the previous 20 years, but the area provide no habitat or feeding resources for the species |
| Neophema elegans elegans | Elegant Parrot | R | | 4 | 4 | 30-May-2021 | Can be found in a wide variety of habitats, including grasslands, shrublands, mallee, woodlands and thickets, bluebush plains, heathlands, saltmarsh and farmland. | Possible - Recorded within the previous 20 years, the area falls inside the known distribution of the species, but the area provide limited habitat or feeding resources for the species |
| Petroica boodang boodang | Scarlet Robin | R | | 4 | 1 | 15-Jul-1995 | Lives in open forests and woodlands in Australia | Unlikely - Recorded within the previous 20 years, but the area provide no habitat or feeding resources for the species |
| Stagonopleura guttata | Diamond Firetail | V | | 4 | 5 | 13-May-2006 | Are found in open grassy woodland, heath and farmland or grassland with scattered trees. | Possible - Recorded within the previous 20 years, the area falls inside the known distribution of the species, but the area provide limited habitat or feeding resources for the species |
| Zoothera lunulata halmaturina | Bassian Thrush (southern FR, MLR, KI) | SP | VU | 4 | 1 | 27-Jun-2010 | Damp, densely forested areas and gullies are favoured by the Bassian Thrush, usually with a thick canopy overhead and leaf-litter below | Unlikely - Recorded within the previous 20 years, but the area provide no habitat or feeding resources for the species |

Criteria for the likelihood of occurrence of species within the Study area.

| **Likelihood** | **Criteria** |
|---|---|
| Highly Likely/Known | Recorded in the last 10 years, the species does not have highly specific niche requirements, the habitat is present and falls within the known range of the species distribution or;<br>The species was recorded as part of field surveys. |
| Likely | Recorded within the previous 20 years, the area falls within the known distribution of the species and the area provides habitat or feeding resources for the species. |
| Possible | Recorded within the previous 20 years, the area falls inside the known distribution of the species, but the area provides limited habitat or feeding resources for the species.<br>Recorded within 20 -40 years, survey effort is considered adequate, habitat and feeding resources present, and species of similar habitat needs have been recorded in the area. |
| Unlikely | Recorded within the previous 20 years, but the area provides no habitat or feeding resources for the species, including perching, roosting or nesting opportunities, corridor for movement or shelter.<br>Recorded within 20 -40 years; however, suitable habitat does not occur, and species of similar habitat requirements have not been recorded in the area.<br>No records despite adequate survey effort. |

## 4.3 Cumulative impact

*When exercising a power or making a decision under Division 5 of the Native Vegetation Regulations 2017, the NVC must consider the potential cumulative impact, both direct and indirect, that is reasonably likely to result from a proposed clearance activity.*

Describe all the sources of likely impact on native vegetation that have been considered and addressed as part of this application and the expected extent and severity of those impacts.

| Source of likely Impact on Native Vegetation | Expected extent | Expected severity |
|---|---|---|
| Machinery used to widen road | Clearance to the surveyed pegs | Complete removal |
| Addition of road base | Covering the soil | Complete cover |
| | | |
| | | |
| | | |
| | | |

## 4.4 Address the Mitigation Hierarchy

*When exercising a power or making a decision under Division 5 of the Native Vegetation Regulations 2017, the NVC must have regard to the mitigation hierarchy. The NVC will also consider, with the aim to minimize, impacts on biological diversity, soil, water and other natural resources, threatened species or ecological communities under the EPBC Act or listed species under the NP&W Act.*

***a) Avoidance – outline measures taken to avoid clearance of native vegetation***

Alexandrina council has followed their own guidelines to following design principles when planning new roadworks to include:

- Vegetation communities of high conservation significance should be avoided. If significant vegetation is present, Council will consider modifying the roadworks to avoid or minimise damage.
- One wide roadside is preferable to two narrow roadsides. If widening is necessary where native vegetation is present on both sides, widening on the narrow roadside is preferred.
- The value of roadside vegetation is greater where there is adjacent native vegetation outside the road reserve.

This project has been in motion for over 4 years. The process has been.

- The creation of initial engineering drawings with council assistance for the proposed new road realignment.
- Trees were surveyed and marked on CAD drawings.
- Once the draft plans were made available the site was walked reviewing the possible impact the new alignment would have on native vegetation and fauna that was identified or found on the roadside.
- A follow-up meeting with council staff occurred where this impact of the new road alignment was presented. The council placed great importance on avoiding all clearance where possible. At that meeting it was decided to manually mark the final road alignment to understand if any other vegetation would be impacted on or if some of the trees could be avoided.
- New alignment plans were made up ready for construction.

***b) Minimization – if clearance cannot be avoided, outline measures taken to minimize the extent, duration and intensity of impacts of the clearance on biodiversity to the fullest possible extent (whether the impact is direct, indirect or cumulative).***

The council has a roadside management plan which will assist the process to minimise the impact of construction on adjacent vegetation by abiding with the following guidelines:

- Clearly identify and mark with stakes, tape or fencing any significant or protected vegetation and habitat areas prior to the commencement of works and always stay within the construction zone.
- Limit soil disturbance on roadsides – windrowing spoil onto roadside vegetation should be avoided by grading/directing any spoil towards the road pavement and removing it to a designated dump site.
- Identify the exact location of proposed stockpiles, plant compounds, access roads and turning areas to avoid any incidental vegetation damage – machinery and stockpiles should be kept on already cleared land.
- Borrow pits must be located where native vegetation will not be disturbed.
- Materials for construction works to be taken from disease and weed free sites.
- Equipment should be cleaned on site before moving on to other sites: this particularly applies where machinery is operating in weed-infested or disease prone areas.
- Only use the appropriate type and minimum size of machinery for the job.
- Dispose of other waste materials at an appropriate site or leave as habitat for wildlife – hollow logs and other woody material may be left on site if they are spread widely and not left in a pile.
- If there is not alternative to burning of pruning's for not burn close to native vegetation to avoid risk of fire.
- Native vegetation cleared should not be pushed and or heaped into native vegetation outside the approved clearance zone.

All the trees that are to be impacted on were identified whilst walking the road. These trees were numbered at the time of assessment for future reference and site works.

Further alignment pegs were placed on the road to identify any trees that could be spared removal or if the road could be realigned as to minimise or avoid those trees in the path of the new works.

Further engineering changes have kept the impacts on the native Vegetation to a minium.

***c) Rehabilitation or restoration – outline measures taken to rehabilitate ecosystems that have been degraded, and to restore ecosystems that have been degraded, or destroyed by the impact of clearance that cannot be avoided or further minimized, such as allowing for the re-establishment of the vegetation.***

Although no current plans exist for roadside restoration are available the experience in the past has been natural regeneration occurs on the edges of the road once the road is sealed, presumably because additional water runoff provide moisture to seeds provide a good seed bed for germination. Also the control of the fine dust on the vegetation, that currently exists, is removed assisting the vegetation to improve, flower and produce seed.

***d) Offset – any adverse impact on native vegetation that cannot be avoided or further minimized should be offset by the achievement of a significant environmental benefit that outweighs that impact.***

No Offset has been considered

## 4.5 Principles of Clearance (Schedule 1, *Native Vegetation Act 1991*)

The Native Vegetation Council will consider Principles 1(b), 1(c) and 1(d) when assigning a level of Risk under Regulation 16 of the Native Vegetation Regulations. The Native Vegetation Council will consider all the Principles of clearance of the Act as relevant, when considering an application referred under the *Planning, Development and Infrastructure Act 2016*.

Data Report for level 4 application

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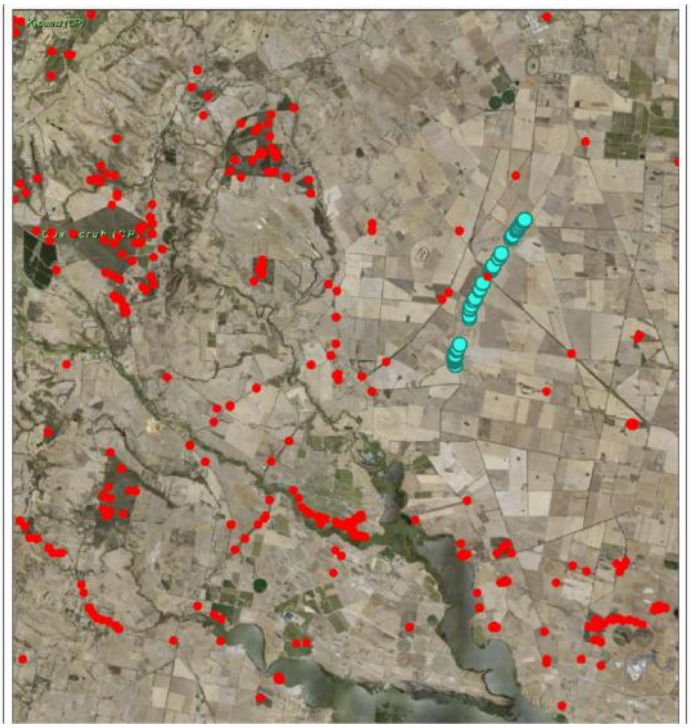
<table>
<tr><th>Principle of clearance</th><th>Considerations</th></tr>
<tr><td rowspan="3">Principle 1a - it comprises a high level of diversity of plant species</td><td>Relevant information<br>The number of plant species recorded (native and introduced) for each vegetation association<br><br>Patches;0<br>Bushland Plant Diversity Score - 0</td></tr>
<tr><td>Assessment against the principles<br>Not at Variance</td></tr>
<tr><td>Moderating factors that may be considered by the NVC</td></tr>
<tr><td>Principle 1b - significance as a habitat for wildlife</td><td>Relevant information<br>List of threatened species that were recorded or may use the vegetation.<br><br>
<table>
<tr><th>SPECIES</th><th>COMMON NAME</th><th>NP&W Act</th><th>EPBC Act</th></tr>
<tr><td>Lichenostomus cratitius</td><td>Purple-gaped Honeyeater (mainland</td><td>R</td><td></td></tr>
<tr><td>elegans elegans</td><td>Elegant Parrot</td><td>R</td><td></td></tr>
<tr><td>Stagonopleura guttata</td><td>Diamond Firetail</td><td>V</td><td></td></tr>
</table>
<br>Detail if the vegetation support a high diversity of animal species?<br>It is unlikely the vegetation supports a high diversity of animal species as it is a very narrow strip along a roadside which is extremely fragmented.<br><br>Detail if the vegetation provide a corridor for movements between other areas of native vegetation, or a habitat refuge, especially in heavily cleared areas.<br>Most of the roadside contains patches of poor quality native vegetation mixed in with introduced weeds such as bridle creeper and pasture species. The best quality vegetation can be found from Trees 3 to Tree 25.<br><br>IBRA association Angus Plains Trees 1-32<br><br>Fauna Habitat Score – 1.4<br>Biodiversity Score -20.33</td></tr>
</table>

| | |
|---|---|
| | Assessment against the principles<br>Seriously at Variance with principle 1b<br>trees; 3,4,6,7,21,22,24,25<br><br>IBRA association Sandergrove Trees 33 - 94<br><br>Fauna Habitat Score – 0<br>Biodiversity Score -22.88 |
| | Moderating factors that may be considered by the NVC<br>The clearance area is relatively small in size and in poor condition/ heavily modified and close to the edge of the road. It is<br><br>1. unlikely to lead to a long-term decrease in the size of a population<br>2. unlikely to reduce the area of occupancy of any of the species identified<br>3. unlikely to fragment an existing population into two or more populations<br>4. unlikely to adversely affect habitat critical to the survival of a species<br>5. unlikely modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline<br>6. unlikely to result in invasive species that are harmful to threatened species becoming established in the threatened species habitat<br>7. unlikely to interfere with the recovery of species.<br><br>This would suggest a reduction to "At variance" with principle 1b.<br><br>On review – Common Species<br>The relatively small size of the proposed clearance would suggest the area of clearance is not essential habitat to maintain the local population. This would suggest a reduction to "At variance" with principle 1b.<br><br>On review – Non-Essential Habitat<br>The relatively small size of the clearance would indicate the area is of non-essential habitat for threatened species and the clearance will have a negligible impact on the species identified local population over the long-term. This would suggest a reduction to "At variance" with principle 1b. |

| | |
|---|---|
| ***Principle 1c - plants of a rare, vulnerable or endangered species*** | <u>Relevant information</u><br>List threatened species that were recorded for the site<br>One tree was recorded – Eucalyptus fasciculosa<br><br>The rest of the vegetation along this roadside has been degraded for some time. It is highly unlikely that threatened species would be found at other times of the year.<br><br>Identify the distribution of species within the area of impact<br>Eucalyptus fasciculosa is found on many roadsides and in paddocks surrounding this project site. The map below shows the known distribution of the species (in red) against the clearance area (blue)<br>  <br><br>What level of impact on the local population of the plant species?<br>One very small tree is impacted on therefore no impact on the local population will occur. Other Eucalyptus fasciculosa along the corridor have been avoided by changing the new road alignment.<br><br>Number of plants likely to be impacted in the clearance area =1<br><br>Threatened Flora Score(s) – Tree 84 = 0.3 |
| | <u>Assessment against the principles</u><br>at Variance with principle 1c |
| | <u>Moderating factors that may be considered by the NVC</u><br>1. unlikely to lead to a long-term decrease in the size of a population<br>2. unlikely to reduce the area of occupancy of any of the species identified<br>3. unlikely to fragment an existing population into two or more populations<br>4. unlikely to adversely affect habitat critical to the survival of a species<br>5. unlikely modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline |

| | |
|---|---|
| | 6. unlikely to result in invasive species that are harmful to threatened species becoming established in the threatened species habitat<br>7. unlikely to interfere with the recovery of species.<br><br>This would suggest a reduction to " not At variance" with principle 1c.<br><br>Less than 10% of the individual plants are affected within the immediate vicinity (within 1km radius) of the proposed clearance. This would suggest a reduction to " not At variance" with principle 1c. |
| ***Principle 1d - the vegetation comprises the whole or part of a plant community that is Rare, Vulnerable or endangered*:** | <u>Relevant information</u><br>Identify any threatened communities under the EPBC Act or threatened ecosystems under the DEW Provisional list of threatened ecosystems present?<br><br>No threatened communities under the EPBC Act or Threatened ecosystems under DEW provisional list of threatened ecosystems are present.<br><br>Threatened Community Score – 0 |
| | <u>Assessment against the principles</u><br><u>Not at Variance</u><br>- List vegetation Associations - |
| | <u>Moderating factors that may be considered by the NVC</u> |
| ***Principle 1e - it is significant as a remnant of vegetation in an area which has been extensively cleared.*** | <u>Relevant information</u><br>Provide remnancy figures for<br><br>IBRA Association (trees 1 to 32) = Angas plains = 5%<br>IBRA Subregion = Murray Mallee = 21<br><br>IBRA Association (trees 33 to 94) = Sandergrove = 11%<br>IBRA Subregion = Fleurieu =12<br><br>Discuss the health and likely longevity of remnants.<br><br>The remaining native vegetation is likely to improve once the road is sealed as the additional water runoff from the new surface will provide a valuable water source to the remaining plants.<br><br>The roadside corridor vegetation is currently covered in limestone dust from high traffic numbers. Once this dust subsides the vegetation are likely to improve in condition. Begin flowering again enabling them to produce fruits and seeds for opportune natural regeneration.<br><br>Total Biodiversity Score – IBRA Association Angus Plains = 20.33<br>Total Biodiversity Score – IBRA Association Sandergrove = 22.88 |
| | <u>Assessment against the principles</u><br>IBRA Association (trees 1 to 32) = Angas plains = 5%<br>Total Biodiversity Score = 20.33<br><u>If remnancy is 1-10% it is at Variance with principle 1e =</u> IBRA Association Angus Plains<br><br>IBRA Association (trees 33 to 94) = Sandergrove = 11%<br>Total Biodiversity Score = 22.88<br><u>f remnancy is 11-30 % it is NOT at Variance with principle 1e =</u> IBRA Sandergrove |

| | |
|---|---|
| | Moderating factors that may be considered by the NVC<br>1. The trees assessed do not represent the original density.<br>2. No threatened plant communities will be impacted.<br>3. Most of the trees assessed are in poor health. |
| ***Principle 1f - it is growing in, or in association with, a wetland environment.*** | Relevant information<br>The trees are not growing as part of a wetland. |
| | Assessment against the principles<br>Seriously at Variance<br>- List vegetation associations & trees; Not applicable<br><br>At Variance –<br>- List vegetation Associations & trees; Not applicable |
| | Moderating factors that may be considered by the NVC<br>Not applicable |
| ***Principle 1g - it contributes significantly to the amenity of the area in which it is growing or is situated.*** | Relevant information<br>*Detail the location of trees or vegetation relative to sites frequented by the public*<br>This area is frequented by vehicle traffic on a constant basis. The trees are covered in a white limestone dust. Sealing the road will improve the visual amenity and health of the trees.<br><br>*Provide details of cultural or historical values*<br>No cultural or historic values were made available.<br><br>*Discuss possible effect on landscape character*<br>Part of dry plains road has been sealed. The vegetation growing along that section compared with the area surveyed is visually different. The sealing of the road is likely to improve the landscape character and improve the vegetation. |
| | N/A |
| | Moderating factors that may be considered by the NVC<br><br>The health of the roadside vegetation will improve once the roadworks are completed. This is achieved through additional water runoff, controlling dust and the removal of annual grading of the road surface. |

*Principles of Clearance (h-m) will be considered by comments provided by the local NRM Board or relevant Minister. The Data Report should contain information on these principles where relevant and where sufficient information or expertise is available.*

## 4.6 Risk Assessment

***Determine the level of risk associated with the application***

| | | |
|---|---|---|
| **Total clearance** | No. of trees | 94 |
| | Area (ha) | 0 |
| | Total biodiversity Score | 20.33 + 22.88 = 43.21 |
| **Seriously at variance with principle 1(b), 1(c) or 1 (d)** | | Seriously variance with principle 1b and 1e |
| **Risk assessment outcome** | | Level 4 |

## 4.7 NVC Guidelines

***Provide any other information that demonstrates that the clearance complies with any relevant NVC guidelines related to the activity.***

N/A

# 5. Clearance summary

Trees 1- 32 IBRA association Angus Plains

**Scattered Tree assessment**

| Tree or Cluster ID | Number of trees | Fauna Habitat score | Threatened flora score | Biodiversity score | Loss factor | SEB Points required | SEB Payment | Admin Fee |
|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 0 | 0 | 0.25 | 1 | 0.26 | $156.93 | $8.63 |
| 2 | 1 | 0 | 0 | 0.19 | 1 | 0.20 | $119.27 | $6.56 |
| 3 | 1 | 1.4 | 0 | 1.98 | 1 | 2.08 | $1,242.90 | $68.36 |
| 4 | 1 | 1.4 | 0 | 0.96 | 1 | 1.01 | $602.62 | $33.14 |
| 5 | 1 | 0 | 0 | 0.11 | 1 | 0.12 | $69.05 | $3.80 |
| 6 | 1 | 1.4 | 0 | 2.51 | 1 | 2.64 | $1,575.59 | $86.66 |
| 7 | 1 | 1.4 | 0 | 1.13 | 1 | 1.19 | $709.33 | $39.01 |
| 8 | 1 | 0 | 0 | 0.15 | 1 | 0.16 | $94.16 | $5.18 |
| 9 | 1 | 0 | 0 | 0.12 | 1 | 0.13 | $75.33 | $4.14 |
| 10 | 1 | 0 | 0 | 0.19 | 1 | 0.20 | $119.27 | $6.56 |
| 11 | 1 | 0 | 0 | 0.33 | 1 | 0.35 | $207.15 | $11.39 |
| 12 | 1 | 0 | 0 | 0.1 | 1 | 0.11 | $62.77 | $3.45 |
| 13 | 1 | 0 | 0 | 0.18 | 1 | 0.19 | $112.99 | $6.21 |
| 14 | 1 | 0 | 0 | 0.4 | 1 | 0.42 | $251.09 | $13.81 |
| 15 | 1 | 0 | 0 | 0.22 | 0 | 0.00 | $0.00 | $0.00 |
| 16 | 1 | 0 | 0 | 0.5 | 1 | 0.53 | $313.86 | $17.26 |
| 17 | 1 | 0 | 0 | 0.18 | 1 | 0.19 | $112.99 | $6.21 |
| 18 | 1 | 0 | 0 | 0.07 | 0 | 0.00 | $0.00 | $0.00 |
| 19 | 1 | 0 | 0 | 0.15 | 1 | 0.16 | $94.16 | $5.18 |
| 20 | 1 | 0 | 0 | 0.07 | 0 | 0.00 | $0.00 | $0.00 |
| 21 | 1 | 1.4 | 0 | 0.57 | 1 | 0.60 | $357.80 | $19.68 |
| 22 | 1 | 1.4 | 0 | 0.41 | 1 | 0.43 | $257.37 | $14.16 |
| 23 | 1 | 0 | 0 | 0.39 | 1 | 0.41 | $244.81 | $13.46 |
| 24 | 1 | 1.4 | 0 | 2.11 | 1 | 2.22 | $1,324.50 | $72.85 |
| 25 | 1 | 1.4 | 0 | 1.98 | 1 | 2.08 | $1,242.90 | $68.36 |
| 26 | 1 | 0 | 0 | 0.09 | 1 | 0.09 | $56.50 | $3.11 |
| 27 | 1 | 0 | 0 | 0.52 | 1 | 0.55 | $326.42 | $17.95 |
| 28 | 1 | 0 | 0 | 0.32 | 1 | 0.34 | $200.87 | $11.05 |
| 29 | 1 | 1 | 0 | 3.63 | 1 | 3.81 | $2,278.65 | $125.33 |
| 30 | 1 | 0 | 0 | 0.18 | 1 | 0.19 | $112.99 | $6.21 |
| 31 | 1 | 0 | 0 | 0.2 | 1 | 0.21 | $125.55 | $6.90 |
| 32 | 1 | 0 | 0 | 0.14 | 1 | 0.15 | $87.88 | $4.83 |
| **Total** | **32** | | | **20.33** | | **20.97** | **$12,535.69** | **$689.46** |

| | Total Biodiversity score | Total SEB points required | SEB Payment | Admin Fee | Total Payment |
|---|---|---|---|---|---|
| **Application** | 20.33 | 20.97 | $12,535.69 | $689.46 | $13,225.16 |

| **Risk level** Level 2, 3 or 4 | 4 |
|---|---|

| | |
|---|---|
| **Economies of Scale Factor** | 0.5 |
| **Rainfall (mm)** | 447 |

**Scattered Tree assessment**

| Tree or Cluster ID | Number of trees | Fauna Habitat score | Threatened flora score | Biodiversity score | Loss factor | SEB Points required | SEB Payment | Admin Fee |
|---|---|---|---|---|---|---|---|---|
| 33 | 1 | 0 | 0 | 0.22 | 1 | 0.23 | $139.34 | $7.66 |
| 34 | 1 | 0 | 0 | 0.23 | 1 | 0.24 | $145.67 | $8.01 |
| 35 | 1 | 0 | 0 | 0.22 | 1 | 0.23 | $139.34 | $7.66 |
| 36 | 1 | 0 | 0 | 0.11 | 1 | 0.12 | $69.67 | $3.83 |
| 37 | 1 | 0 | 0 | 0.06 | 1 | 0.06 | $38.00 | $2.09 |
| 38 | 1 | 0 | 0 | 0.13 | 1 | 0.14 | $82.33 | $4.53 |
| 39 | 1 | 0 | 0 | 0.02 | 1 | 0.02 | $12.67 | $0.70 |
| 40 | 1 | 0 | 0 | 0.25 | 1 | 0.26 | $158.34 | $8.71 |
| 41 | 1 | 0 | 0 | 0.04 | 1 | 0.04 | $25.33 | $1.39 |
| 42 | 1 | 0 | 0 | 0.17 | 1 | 0.18 | $107.67 | $5.92 |
| 43 | 1 | 0 | 0 | 0.04 | 1 | 0.04 | $25.33 | $1.39 |
| 44 | 1 | 0 | 0 | 0.04 | 1 | 0.04 | $25.33 | $1.39 |
| 45 | 1 | 0 | 0 | 0.3 | 1 | 0.32 | $190.00 | $10.45 |
| 46 | 1 | 0 | 0 | 0.27 | 1 | 0.28 | $171.00 | $9.41 |
| 47 | 1 | 0 | 0 | 0.28 | 1 | 0.29 | $177.34 | $9.75 |
| 48 | 1 | 0 | 0 | 0.6 | 1 | 0.63 | $380.01 | $20.90 |
| 49 | 1 | 0 | 0 | 0.26 | 1 | 0.27 | $164.67 | $9.06 |
| 50 | 1 | 0 | 0 | 0.37 | 1 | 0.39 | $234.34 | $12.89 |
| 51 | 1 | 0 | 0 | 0.1 | 1 | 0.11 | $63.33 | $3.48 |
| 52 | 1 | 0 | 0 | 1.25 | 1 | 1.31 | $791.68 | $43.54 |
| 53 | 1 | 0 | 0 | 0.6 | 1 | 0.63 | $380.01 | $20.90 |
| 54 | 1 | 0 | 0 | 0.44 | 1 | 0.46 | $278.67 | $15.33 |
| 55 | 1 | 0 | 0 | 0.29 | 1 | 0.30 | $183.67 | $10.10 |
| 56 | 1 | 0 | 0 | 0.5 | 1 | 0.53 | $316.67 | $17.42 |
| 57 | 1 | 0 | 0 | 0.63 | 1 | 0.66 | $399.01 | $21.95 |
| 58 | 1 | 0 | 0 | 0.37 | 1 | 0.39 | $234.34 | $12.89 |
| 59 | 1 | 0 | 0 | 0.54 | 1 | 0.57 | $342.01 | $18.81 |
| 60 | 1 | 0 | 0 | 0.42 | 1 | 0.44 | $266.00 | $14.63 |
| 61 | 1 | 0 | 0 | 0.16 | 1 | 0.17 | $101.33 | $5.57 |
| 62 | 1 | 0 | 0 | 0.32 | 1 | 0.34 | $202.67 | $11.15 |
| 63 | 1 | 0 | 0 | 1.2 | 1 | 1.26 | $760.01 | $41.80 |
| 64 | 1 | 0 | 0 | 0.16 | 1 | 0.17 | $101.33 | $5.57 |
| 65 | 1 | 0 | 0 | 0.14 | 1 | 0.15 | $88.67 | $4.88 |
| 66 | 1 | 0 | 0 | 0.21 | 1 | 0.22 | $133.00 | $7.32 |
| 67 | 1 | 0 | 0 | 0.09 | 1 | 0.09 | $57.00 | $3.14 |
| 68 | 1 | 0 | 0 | 0.15 | 1 | 0.16 | $95.00 | $5.23 |
| 69 | 1 | 0 | 0 | 0.08 | 1 | 0.08 | $50.67 | $2.79 |
| 70 | 1 | 0 | 0 | 0.34 | 1 | 0.36 | $215.34 | $11.84 |
| 71 | 1 | 0 | 0 | 0.24 | 1 | 0.25 | $152.00 | $8.36 |
| 72 | 1 | 0 | 0 | 0.48 | 1 | 0.50 | $304.00 | $16.72 |
| 73 | 1 | 0 | 0 | 0.18 | 1 | 0.19 | $114.00 | $6.27 |
| 74 | 1 | 0 | 0 | 0.15 | 1 | 0.16 | $95.00 | $5.23 |
| 75 | 1 | 0 | 0 | 0.37 | 1 | 0.39 | $234.34 | $12.89 |
| 76 | 1 | 0 | 0 | 0.23 | 1 | 0.24 | $145.67 | $8.01 |
| 77 | 1 | 0 | 0 | 2.19 | 1 | 2.30 | $1,387.02 | $76.29 |
| 78 | 1 | 0 | 0 | 0.04 | 1 | 0.04 | $25.33 | $1.39 |
| 79 | 1 | 0 | 0 | 0.08 | 1 | 0.08 | $50.67 | $2.79 |
| 80 | 1 | 0 | 0 | 0.17 | 1 | 0.18 | $107.67 | $5.92 |
| 81 | 1 | 0 | 0 | 0.14 | 1 | 0.15 | $88.67 | $4.88 |
| 82 | 1 | 0 | 0 | 0.9 | 1 | 0.95 | $570.01 | $31.35 |
| 83 | 1 | 0 | 0 | 0.19 | 1 | 0.20 | $120.34 | $6.62 |
| 84 | 1 | 0 | 0.3 | 1.24 | 1 | 1.30 | $785.35 | $43.19 |
| 85 | 1 | 0 | 0 | 0.25 | 1 | 0.26 | $158.34 | $8.71 |
| 86 | 1 | 0 | 0 | 0.4 | 1 | 0.42 | $253.34 | $13.93 |
| 87 | 1 | 0 | 0 | 1.56 | 1 | 1.64 | $988.02 | $54.34 |
| 88 | 1 | 0 | 0 | 0.18 | 1 | 0.19 | $114.00 | $6.27 |
| 89 | 1 | 0 | 0 | 0.3 | 1 | 0.32 | $190.00 | $10.45 |
| 90 | 1 | 0 | 0 | 0.23 | 1 | 0.24 | $145.67 | $8.01 |
| 91 | 1 | 0 | 0 | 0.51 | 1 | 0.54 | $323.01 | $17.77 |
| 92 | 1 | 0 | 0 | 0.64 | 1 | 0.67 | $405.34 | $22.29 |
| 93 | 1 | 0 | 0 | 0.13 | 1 | 0.14 | $82.33 | $4.53 |
| 94 | 1 | 0 | 0 | 0.48 | 1 | 0.50 | $304.00 | $16.72 |
| **Total** | **62** | | | **22.88** | | **24.02** | **$14,490.90** | **$797.00** |

| | Total Biodiversity score | Total SEB points required | SEB Payment | Admin Fee | Total Payment |
|---|---|---|---|---|---|
| Application | 22.88 | 24.02 | $14,490.90 | $797.00 | $15,287.90 |

| Risk level<br>Level 2, 3 or 4 | 4 |
|---|---|

| | |
|---|---|
| Economies of Scale Factor | 0.5 |
| Rainfall (mm) | 451 |

# 6. Significant Environmental Benefit

A Significant Environmental Benefit (SEB) is required for approval to clear under Division 5 of the *Native Vegetation Regulations 2017*. The NVC must be satisfied that as a result of the loss of vegetation from the clearance that an SEB will result in a positive impact on the environment that is over and above the negative impact of the clearance.

**ACHIEVING AN SEB**

Indicate how the SEB will be achieved by ticking the appropriate box and providing the associated information:

☐ Establish a new SEB Area on land owned by the proponent. Nil

☐ Use SEB Credit that the proponent has established. Provide the SEB Credit Ref. No. _____

☐ Apply to have SEB Credit assigned from another person or body. The application form needs to be submitted with this Data Report.

☐ Apply to have an SEB to be delivered by a Third Party. The application form needs to be submitted with this Data Report.

x Pay into the Native Vegetation Fund.

**PAYMENT SEB**

If a proponent proposes to achieve the SEB by paying into the Native Vegetation Fund, summary information must be provided on the amount required to be paid and the manner of payment:

IBRA association Angus Plains

| SEB Payment | Admin Fee | Sub Total Payment |
|---|---|---|
| $12,535.69 | $689.46 | $13,225.16 |

**IBRA association Sandergrove**

| SEB Payment | Admin Fee | Sub Total Payment |
|---|---|---|
| $14,490.90 | $797.00 | $15,287.90 |

| SEB Payment | Admin Fee | Total Payment |
|---|---|---|
| $27026.59 | $1486.46 | $28,513.05 |

# 7. Appendices

Appendix 1. Bushland, Rangeland or Scattered Tree Vegetation Assessment Scoresheets associated with the proposed clearance and SEB Area (to be submitted in Excel format) – Provided separately

Appendix 2. Flora Species List –

Appendix 3. Copies of associated approvals – to be provided through the process

Appendix 4 – Project plans