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Emerge contact: Tom Atkinson

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PERTH OFFICE
Suite 4, 26 Railway Road
Subiaco
Western Australia 6008

P +61 8 9380 4988
F +61 8 9380 9636
emergeassociates.com.au

Emerge Environmental Services Pty Ltd ABN
57144772510 trading as Emmerge Associates

Attention: Nathan Ryder
Manager Infrastructure Planning & Design
PO Box 7016
Eaton WA 6232

Delivered by email to: nathan.ryder@dardanup.wa.gov.au

Dear Nathan,

TARGETED FLORA SURVEY – PART FERGUSON ROAD, FERGUSON

1 INTRODUCTION

The Shire of Dardanup are proposing to undertake vegetation clearing to facilitate road widening within a portion of the Ferguson Road reserve between Ferguson and Wellington Mill (herein referred to as the 'site'). The site extends over 14.26 hectares (ha) as shown in **Figure 1**.

A flora and vegetation assessment of the site and broader area was undertaken in May 2022 (Emerge Associates 2022)¹. During this assessment, the presence or absence of two threatened and eight priority flora species could not be confirmed as the field survey component was undertaken outside of the flowering for these species (refer Table 1).

Table 1: Conservation significant flora species with potential to occur in the site based on known habitat preferences

Species	Level of significance		Life strategy	Habitat	Flowering period
	State	EPBC Act ²			
<i>Caladenia procera</i>	CR	CR	PG	Rich clay loam, alluvial loamy flats with jarrah/marri/ peppermint woodland, dense heath, sedges.	Sep-Oct
<i>Caladenia hoffmanii</i>	EN	EN	PG	Clay, loam, laterite, granite. Rocky outcrops and hillsides, ridges, swamps and gullies.	Aug-Oct
<i>Gastrolobium</i> sp. Yoongarillup (S.Dilkes s.n. 1/9/1969)	P1	-	P	Unknown.	Unknown
<i>Stylidium acuminatum</i> subsp. <i>acuminatum</i>	P2	-	P	Brown lateritic loam soils on slopes.	Nov-Jan
<i>Lomandra whicherensis</i>	P3	-	P	Sand and sandy loam with lateritic gravel on slopes and ridges.	Dec

¹ To the standard of a 'reconnaissance' survey with reference to the Environmental Protection Authority's (EPA's) relevant technical guidance documents Environmental Protection Authority (EPA) 2016, *Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment*, Perth..

² *Environmental Protection and Biodiversity Conservation Act 1999* (Commonwealth)

Table 1: Conservation significant flora species with potential to occur in the site based on known habitat preferences (continued)

Species	Level of significance		Life strategy	Habitat	Flowering period
	State	EPBC Act ³			
<i>Synaphea polypodioides</i>	P3	-	P	Light brown loam, red-brown sandy loam, gravelly, brown sandy clay over laterite in undulating areas.	Sep-Nov
<i>Acacia semitrullata</i>	P4	-	P	White/grey sand, sometimes over laterite, clay sometimes in sandplains, swampy areas.	May-Oct
<i>Chamelaucium erythrochlorum</i>	P4	-	P	Clay, loam and sandy soils in creeklines, slopes and ridges	Nov-Feb
<i>Cyanothamnus tenuis</i>	P4	-	P	Laterite, stony soils, granite.	Aug-Nov
<i>Senecio leucoglossus</i>	P4	-	A	Gravelly lateritic or granitic soils on outcrops or slopes.	Aug-Dec

Emerge Associates (Emerge) were engaged to undertake a targeted flora survey to determine whether the aforementioned threatened and priority flora or other conservation significant flora occur within the site.

2 METHODS

2.1 Field survey

Two botanists from Emerge visited the site on 30 September and 1 November 2022 to conduct the targeted flora survey.

During the targeted survey, **CcEmBa** vegetation in 'very good' condition reported in Emerge Associates (2022) was traversed on foot and searches were conducted for threatened and priority flora species, with a particular focus on the two threatened and eight priority flora species. A Garmin GPS receiver was used to record a tracklog to demonstrate survey effort and records for flora if detected. The tracklogs are shown in **Figure 2**.

Photographs were taken throughout the survey to show particular site conditions.

2.2 Limitations

The survey was undertaken by suitably experienced botanists and at an appropriate time of the year to detect the target species. The site was covered comprehensively, and all parts of the site could be accessed as required.

Handheld GPS receiver records have a precision ± 5 -10 metres (m).

3 RESULTS AND DISCUSSION

No threatened or priority flora species were recorded within the site.

Two *Synaphea* individuals were collected in the site and sent to the Western Australian Herbarium for identification. Due to the difficulties associated with *Synaphea* identification, the specimens could not be satisfactorily placed within the current taxonomy. However, the Western Australian Herbarium determined that the affinity of the specimens was closest to the common and widespread species *Synaphea gracillima* (M. Hislop, pers comm., 6 February 2023).

Potential habitat for the threatened and priority flora species was determined to be limited to the **CcEmBa** plant community within the eastern portion of the site, where a relatively intact

³ Environmental Protection and Biodiversity Conservation Act 1999 (Commonwealth)

understorey layer with native species and low to moderate weed cover remained (Emerge Associates 2022). The remainder of the vegetation within the site is predominantly present in 'degraded' or 'completely degraded' condition⁴ and so is unlikely to support threatened and priority flora species.

The site was surveyed comprehensively and no threatened or priority species or sterile plants that may represent threatened or priority species were recorded. Consequently, the target species or any other conservation significant flora are considered to be absent from the site.

Summary and closing

No threatened or priority flora species are considered to occur within the site. We trust that this letter provides sufficient details on the vegetation within the site. If you have any questions or require further information, please do not hesitate to contact the undersigned.

Yours sincerely
Emerge Associates



Tom Atkinson

PRINCIPAL ENVIRONMENTAL CONSULTANT – ECOLOGY

cc: None

Encl: Figure 1: Site Location
Figure 2: Survey Effort

General References

Emerge Associates 2022, Reconnaissance Flora and Vegetation Assessment - Part Ferguson Road, Ferguson, EP22-044(01)--003 SCM.

Environmental Protection Authority (EPA) 2016, Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment, Perth.

Keighery, B. 1994, Bushland Plant Survey: A guide to plant community survey for the community, Wildflower Society of WA (Inc), Nedlands.

⁴ As per the Keighery, B. 1994, *Bushland Plant Survey: A guide to plant community survey for the community*, Wildflower Society of WA (Inc), Nedlands. condition scale.

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Figures



Figure 1: Site Location

Figure 2: Survey Effort

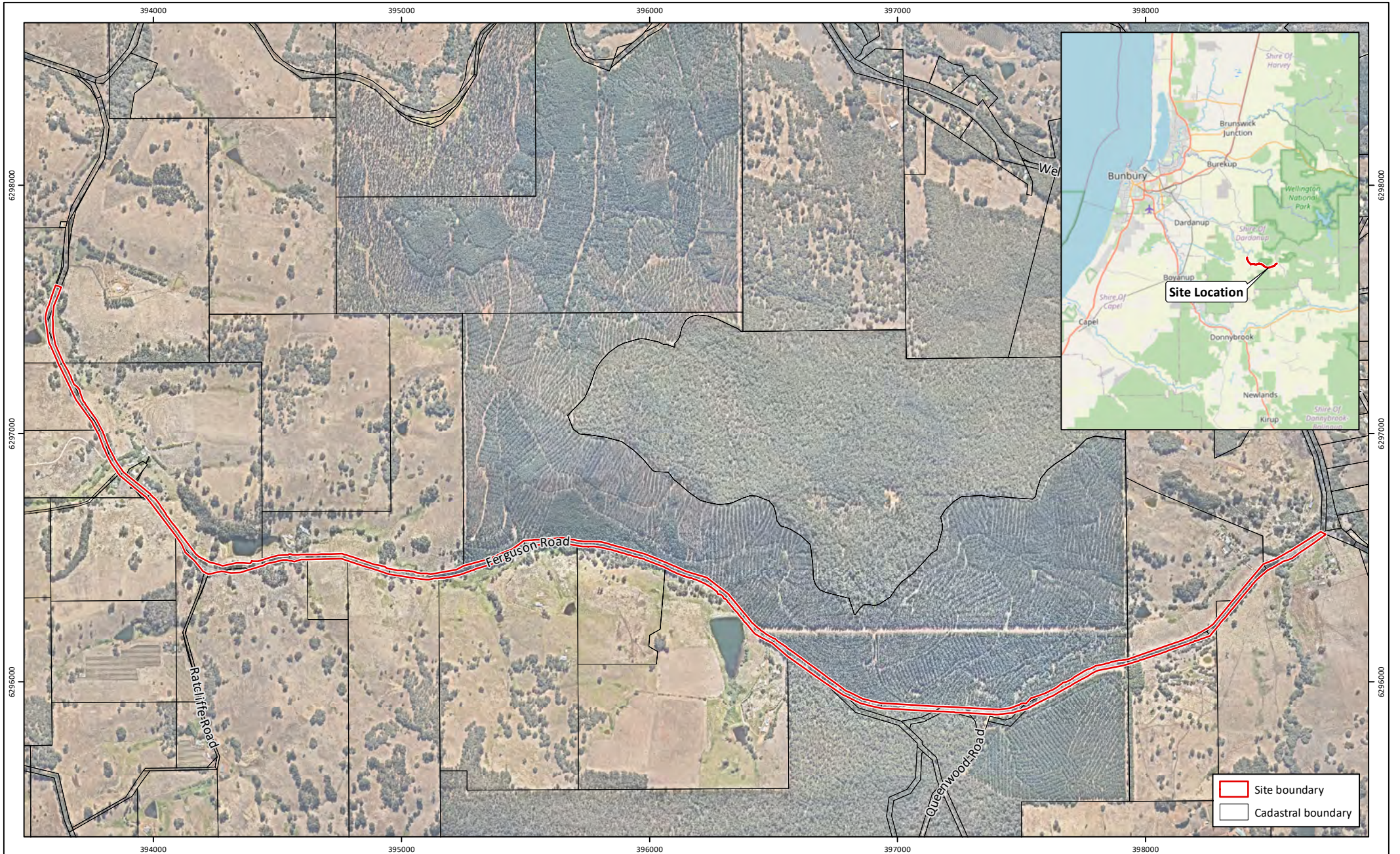


Figure 1: Site Location

Project: Targeted Flora Survey
Part Ferguson Road, Ferguson

Client: Shire of Dardanup

Plan Number:
EP22-044(01)-F26

Drawn: SCM
Date: 03/04/2023

Checked: SCM
Approved: TAA
Date: 03/04/2023

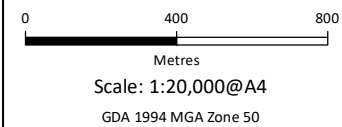




Figure 2: Survey Effort

Project: Targeted Flora Survey
Part Ferguson Road, Ferguson

Client: Shire of Dardanup

Plan Number:
EP22-044(01)-F27

Drawn: SCM

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