

28 November 2024

Dear [REDACTED]

RE: 279 Riverside Drive, Furnissdale – Vegetation Assessment

Following is our vegetation assessment report for 279 (Lot 119) Riverside Drive, Furnissdale.

1 Background

279 Riverside Drive, Furnissdale is located approximately 5km south-east of the Mandurah City Centre, close to the Serpentine River and Pinjarra Road. The south-east end of the lot is proposed to be developed as part of the Providence Lifestyle Resort project on the adjoining Lot 156.

The south-east end of the lot contains some trees, shrubs, cleared lawn areas and a residential dwelling. PGV Environmental was commissioned by [REDACTED] to undertake an assessment of the vegetation on the site with regards to a potential clearing permit application. The area requiring survey is about 0.6ha in size and is located between the 2m AHD contour and Riverside Drive (Plate 1).

Plate 1: Survey Area



2 Site Description

Assessment of historic aerial photograph available for the site shows that the site was mostly native vegetation until sometime between 1985 and 1989 when about half the site was cleared and a house was constructed (Plate 2). A wide firebreak was installed around the eastern perimeter of the site soon after the house was constructed and is clearly shown in the 2005 photograph (Plate 3).

Plate 2: 1989 Aerial Photograph



Plate 3: 2005 Aerial Photograph



The site is not mapped as being within a wetland (Plate 4). A Conservation Category Wetland (green area on Plate 4) is in close proximity to the site.

Plate 4: DBCA Geomorphic Wetlands, Swan Coastal Plain



3 Vegetation Assessment

3.1 Methodology

Paul van der Moezel of PGV Environmental assessed the vegetation on the site on 30 July 2024. The site was walked, and all trees were recorded for the following:

- Species
- Co-ordinates
- Height
- Diameter at Breast Height (DBH)
- Tree Health

Any other native shrub and herb species were also recorded.

3.2 Results

Twenty-six trees were recorded in the survey area (Attachments 1 and 3). The 26 trees included five locally native species and six non-local species. The five locally native species were:

- *Corymbia calophylla* (Marri) – 13 trees
- *Eucalyptus rudis* (Flooded Gum) – 3 trees
- *Allocasuarina fraseriana* (Sheoak) – 2 trees
- *Banksia attenuata* (Slender Banksia) – 1 tree
- *Xylomelum occidentale* (Woody Pear) – 1 tree

Photographs of the trees are provided in Attachment 4.

Three tall native shrub species were recorded in the survey area; one Zamia Palm (*Macrozamia riedlei*) (Plate 5), a few *Jacksonia furcellata* shrubs and a dense stand of Spearwood (*Kunzea glabrescens*) along the northwestern boundary (Plate 6). Some smaller native species were recorded in the Spearwood vegetation including *Lepidosperma pubisquameum*, *Dasypogon bromeliifolius*, *Drosera erythrorhiza*, *Phlebocarya ciliata*, *Styphelia propinqua*, *Hypolaena exsulca*, *Dianella revoluta*, *Desmocladius flexuosus*, *Lyginia imberbis* and *Xanthorrhoea brunonis*. None of the species is a Threatened or Priority plant species

Plate 5: Zamia Palm



Plate 6: Spearwood Stand



Figure 2 (Attachment 2) shows the location of native vegetation in the survey area. The amount of native vegetation (trees and shrubs) is 0.20ha

Overall, the condition of the native vegetation was rated as Completely Degraded. Plate 7 and 8 show the lawn under the trees and around the house on the site. Most of the Spearwood ground cover was weeds particularly *Oxalis pes-caprae*.

The native species mentioned above were recorded in a small area of Spearwood vegetation in the north-west corner of the site.

Plate 7: Typical Grassy Understorey



Plate 8: Grass Around the House



4 Discussion

A total of 0.20ha of native vegetation occurs in the survey area. The total includes native trees and shrubs.

A clearing permit may be required to clear the native vegetation unless an exemption applies.

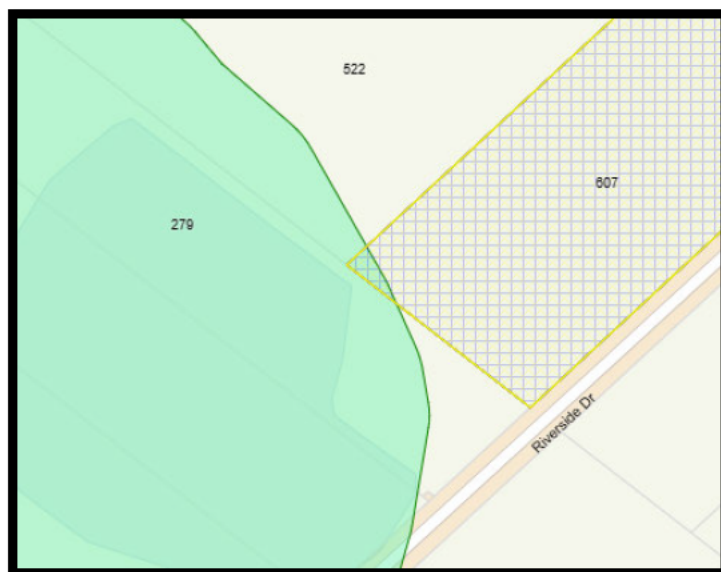
A Schedule 6 exemption could apply to a subdivision approval over the site, if the approval contains a condition that requires clearing to satisfy the condition.

If the proposed development requires a Development Approval rather than a subdivision, then an exemption might apply under the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (the Regulations). Exemptions under the Regulation do not apply in Environmentally Sensitive Areas (ESAs) and for some Items also do not apply for riparian vegetation (wetlands).

The survey area is not mapped as riparian vegetation/wetland on the Geomorphic Wetlands of the Swan Coastal Plain (Plate 4).

About half the site is mapped within an Environmentally Sensitive Area (ESA) (Plate 9). Therefore, the clearing of native vegetation in the ESA area will require a clearing permit.

Plate 9: ESA Mapping



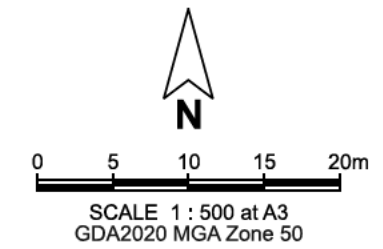
Please contact me if you require any clarification of this assessment.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'P. van der Moezel'.

Paul van der Moezel
Managing Director

- Attachment 1: Figure 1 Tree Locations
- Attachment 2: Figure 2: Map of Native Vegetation
- Attachment 3: Tree Data
- Attachment 4: Tree Photographs



Legend

- Site Boundary
- Cadastral Boundary

Tree Species

- Allocasuarina fraseriana*
- Agonia flexuosa*
- Banksia attenuata*
- Callitris preissii*
- Corymbia calophylla*
- Corymbia maculata*
- Eucalyptus camaldulensis*
- Eucalyptus rudis*
- Melaleuca quinquenervia*
- Washington Palm*
- Xylomelum occidentale*

12 Tree Number

CADASTRAL SOURCE:
AERIAL PHOTOGRAPH

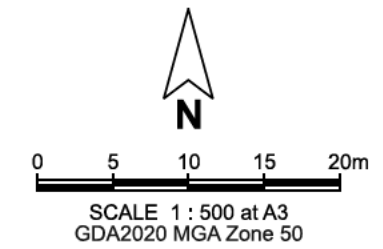
Drawn: P. van der Moezel	Date: 27 Nov 2024
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279 RIVERSIDE DRIVE
FURNISSDALE

TREE SURVEY

Figure 1

10617_002_pvd-m-101.dgn
PINPOINT CARTOGRAPHICS (08) 9562 7136



- Legend**
- Site Boundary
 - Cadastral Boundary
 - Native Vegetation

CADASTRAL SOURCE:
AERIAL PHOTOGRAPH

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279 RIVERSIDE DRIVE FURNISSDALE
NATIVE VEGETATION

Figure 2

PINPOINT CARTOGRAPHICS (08) 9562 7136 10617_002_pvd-m-f02.dgn

Tree #	Species	Easting	Northing	Photo	Height (m)	Diameter (cm)	2nd Branch (cm)	3rd Branch (cm)	Comments
1	<i>Corymbia calophylla</i>	384495	6398077	9.59	11	52	23		Healthy, no hollows
2	<i>Corymbia calophylla</i>	384488	6398077	10.01	16	74			Healthy, no hollows
3	<i>Corymbia calophylla</i>	384467	6398093	10.04	13	61	49		Healthy, small hollows
4	<i>Corymbia calophylla</i>	384482	6398091	10.06	11	42			Leaning 45 degrees, no hollows
5	<i>Corymbia calophylla</i>	384476	6398094	10.07	9	31			Healthy, no hollows
6	<i>Banksia attenuata</i>	384478	6398113	10.13	5	15			Healthy
7	<i>Eucalyptus rudis</i>	384479	6398127	10.14	20	72			Healthy, no hollows
8	<i>Corymbia calophylla</i>	384491	6398120	10.16	19	38			Average tree, no hollows
9	<i>Eucalyptus rudis</i>	384484	6398132	10.19	18	43	20		Healthy, no hollows
10	<i>Eucalyptus rudis</i>	384489	6398141	10.21	24	44			Healthy, no hollows
11	<i>Allocasuarina fraseriana</i>	384506	6398129	10.31L	20	53	48	18	Healthy
12	<i>Allocasuarina fraseriana</i>	384498	6398133	10.31R	17	25	24	16	Average tree
13	<i>Corymbia calophylla</i>	384495	6398114	10.44	21	64			Healthy, no hollows
14	<i>Corymbia calophylla</i>	384510	6398107	10.46L	19	41	39		Leaning, no hollows
15	<i>Corymbia calophylla</i>	384508	6398104	10.46R	21	53			Healthy, no hollows
16	<i>Corymbia calophylla</i>	384508	6398126	10.49L	16	27			Healthy, no hollows
17	<i>Corymbia calophylla</i>	384509	6398124	10.49R	15	38			Healthy, no hollows
18	<i>Washington Palm</i>	384509	6398098	10.51	4	40			Healthy
19	<i>Corymbia calophylla</i>	384524	6398112	10.54	17	27			Average tree, no hollows
20	<i>Xylomelum occidentale</i>	384526	6398115	10.55	4	14			Healthy
21	<i>Eucalyptus camaldulensis</i>	384532	6398094	10.56	22	66			Healthy, no hollows
22	<i>Corymbia maculata</i>	384532	6398092	10.58	19	38			Healthy, no hollows
23	<i>Melaleuca quinquenervia</i>	384529	6398085	10.59	16	51			Healthy
24	<i>Callitris preissii</i>	384526	6398085	11.01	4	23			Poor tree
25	<i>Corymbia calophylla</i>	384526	6398098	11.03	12	31	15	9, 8	Healthy, multiple small strems, no hollows
26	<i>Agonis flexuosa</i>	384502	6398062		6				Healthy small tree

Tree 1 *Corymbia calophylla*



Tree 2 *Corymbia calophylla*



Tree 3 *Corymbia calophylla*



Tree 4 *Corymbia calophylla*



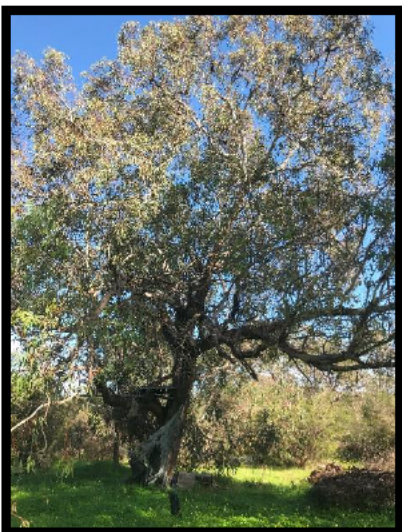
Tree 5 *Corymbia calophylla*



Tree 6 *Banksia attenuata*



Tree 7 *Eucalyptus rudis*



Tree 8 *Corymbia calophylla*



Tree 9 *Eucalyptus rudis*



Tree 10 *Eucalyptus rudis*



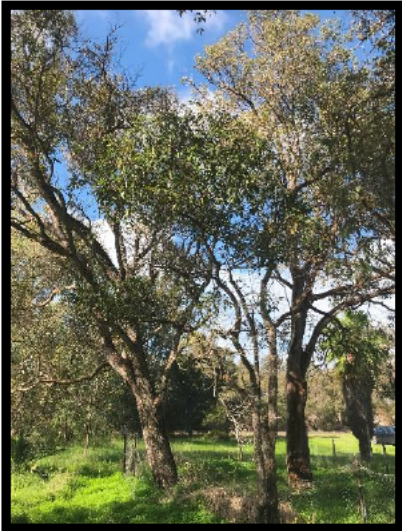
Tree 11 and 12 *Allocasuarina fraseriana*



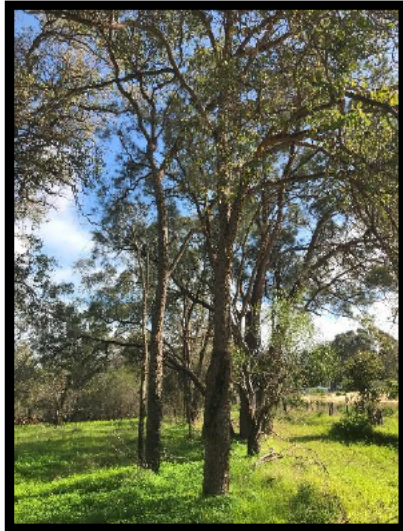
Tree 13 *Corymbia calophylla*



Tree 14 and 15 *Corymbia calophylla*



Tree 16 and 17 *Corymbia calophylla*



Tree 18 Washington Palm



Tree 19 *Corymbia calophylla*



Tree 20 *Xylomelum occidentale*



Tree 21 *Eucalyptus camaldulensis*



Tree 22 *Corymbia maculata*



Tree 23 *Melaleuca quinquenervia*



Tree 24 *Callitris preissii*



Tree 25 *Corymbia calophylla*



Tree 26 *Agonis flexuosa*

