Revegetation and Street Tree Management Plan

655 Pechey Road, Swan View

May 2025

Prepared by: Danae Pearce

Prepared for: Ragora Pty Ltd

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1. INTRODUCTION

This Revegetation and Street Tree Management Plan (the Plan) has been prepared on behalf of Ragora Pty Ltd (Ragora) for Lot 11 (No. 655) Pechey Road, Swan View (the Site).

The Site is located within the suburb of Swan View, approximately 20 km east of the Perth Central Business District. The location of the Site is shown on Figure 1.

The Western Australian Planning Commission (WAPC) granted Approval Subject to Conditions for the subdivision of the Site under the *Planning and Development Act 2005* on 16 September 2022 (Application No 162189). This report has been prepared to meet the requirements of Condition 7, Condition 8 and Condition 10(c) of the approval:

> ***Condition 7:*** *Prior to the commencement of subdivisional works, measures being undertaken to identify any vegetation on the site worthy of retention, including any potential habitat or foraging trees for threatened fauna species, and protection measures implemented to ensure such vegetation is not impacted by subdivisional works.*
>
> ***Condition 8:*** *A revegetation plan being prepared, approved and implemented for the revegetation of the Priest Brook watercourse and the proposed road reserve with appropriate native species to the specifications of the Local Government.*
>
> ***Condition 10:*** *Engineering drawings and specifications are to be submitted and approved, and subdivisional works undertaken for construction of roads in accordance with the approved plan of subdivision, engineering drawings and specifications to ensure that:*
>
> > **(c):** *installation of street trees in accordance with the Shire of Mundaring's Street Tree Policy. Prior to commencement of subdivision works, a street tree management plan is to be submitted, approved and satisfactory arrangements being made with the Local Government for implementation.*

The area of the Site to be revegetated is approximately 870 m^2 for the area of Priest Brook watercourse and 1,035 m^2 for the road reserve.

The objective of the Plan is to provide a program of works for revegetation and restoration of the Sites, including planting requirements and estimated costings.

Figure 1: Location of the Site

Lot 11 (No. 655) Pechey Road, Swan View
Priest Brook Watercourse Revegetation Area

0 10 20 40 60
Meters

N

Figure 1: Location of the Site

2. TREE PRESERVATION PLAN

Prior to the commencement of substantial works, 12 trees were identified as potential Black Cockatoo habitat tree suitable to be retained at the Site (Del Botanics 2022). Each retained tree will be tagged with a Shire of Mundaring habitat tree tag. Details of the retained trees are shown in Table 1 and locations are shown in Appendix A.

Table 1: Potential Black Cockatoo Habitat Trees Retained at the Site (Del Botanics 2022)

Tree Number	Species	DBH (mm)	Approximate Height (m)	Hollow Presence	GPS Location (Easting, Northing)	Photo
1	*Eucalyptus rudis*	694.27	30	2 small hollows	271415.61 73216.1459	
2	*Eucalyptus rudis*	531.85	30	1 small hollow	271411.963 73220.0832	
3	*Eucalyptus rudis*	535.03	30	2 small hollows	271413.436 73231.4678	

Tree Number	Species	DBH (mm)	Approximate Height (m)	Hollow Presence	GPS Location (Easting, Northing)	Photo
4	*Eucalyptus rudis*	866.24	30	1 medium and 1 small hollow	271416.335 73343.5001	
5	*Eucalyptus rudis*	700.64	30	1 medium and 3 small hollows	271419.014 73335.8252	
6	*Eucalyptus rudis*	538.22	25	2 small hollows	271388.937 73291.2922	
7	*Eucalyptus rudis*	636.94	30	2 small hollows	271393.58 73301.5666	

Tree Number	Species	DBH (mm)	Approximate Height (m)	Hollow Presence	GPS Location (Easting, Northing)	Photo
8	*Eucalyptus rudis*	649.68	30	2 medium and 3 small hollows	271385.736 73309.5523	
9	*Eucalyptus rudis*	878.98	30	N/A	271365.923 73313.157	
10	*Eucalyptus rudis*	700.64	30	1 large, 1 medium and 2 small hollows	271320.617 73304.4421	
11	*Eucalyptus rudis*	531.85	30	1 medium and 2 small hollows	271318.479 73284.7222	

Tree Number	Species	DBH (mm)	Approximate Height (m)	Hollow Presence	GPS Location (Easting, Northing)	Photo
12	*Eucalyptus rudis*	700.64	30	2 medium and 2 small hollows	271328.314 73278.5769	

3. REVEGETATION PLAN

3.1. PLANT SELECTION

Plant selection for revegetation of the Site has been informed by the Shire of Mundaring's *Landscape and Revegetation Guidelines* (Shire of Mundaring 2020a). This includes only species native to the local area, to ensure tolerance to the specific climatic conditions and soil types of the locality.

As the soil types across the Shire of Mundaring's catchment vary considerably, plant species are recommended based on the vegetation complex of the area. The vegetation complex that occurs within the Site is described in Table 2.

Table 2: South West Forest Vegetation Complexes within the Site

South West Subregion	Subcategory	Complex Name	Complex Description (Shire of Mundaring 2020a)
Darling Plateau	Uplands	Darling Scarp	*The steeply sloping surface of the Darling Scarp is characterised by loams, gravels, clay-gravel, sands, quartzite sands and exposed granites. Clay-gravel soils are compacted hard in summer and moist in winter, and are prone to erosion on steep slopes. Natural vegetation on shallow soils is shrublands, and on deeper soils is woodland of jarrah, marri, wandoo and flooded gum. The gentler slopes have been preferentially cleared for agriculture, smallholdings and granite mines. Approximately 57% of the original Darling Scarp vegetation remains.*

Given the location of the Site, midstory shrubs have not been recommended as they are likely to increase the fuel load and bushfire risk. Sedges, rushes and groundcover species identified as suitable for revegetation of the Priest Brook watercourse area are shown in Table 3. Groundcover, small shrub and tree species identified as suitable for revegetation and street tree planting of the road reserve are shown in Table 4. It should be noted that some of these species are not identified as particularly suitable for the vegetation complex which occurs within the Site, according to the Shire of Mundaring's *Landscape and Revegetation Guidelines*

(Shire of Mundaring 2020a). However, these species are considered suitable for the soil types present at the Site. Street tree selection has been informed by the Shire of Mundaring's *Street Tree Guidelines* (Shire of Mundaring n.d.).

Table 3: List of Plant Species for Revegetation of the Priest Brook Watercourse Area

Species Name	Common Name	Type	Height at Maturity (m)	Flower Colour
Dampiera linearis	Common Dampiera	Groundcover	0.6	Blue
Hemiandra pungens	Snakebush	Groundcover	1	White/Blue/Purple/Pink
Kennedia prostrata	Running Postman	Groundcover	1.5	Red
Scaevola calliptera	Royal Robe	Groundcover	0.4	Blue/Purple
Baumea articulata	Jointed Twig-rush	Sedges/Rushes	2.5	Red/brown
Baumea juncea	Bare Twig-rush	Sedges/Rushes	1.2	Brown
Baumea preissii	Broad Twig Sedge	Sedges/Rushes	2	Purple/brown
Chorizandra enodis	Black Bristle-rush	Sedges/Rushes	1	Purple/brown/black
Juncus pallidus	Pale Rush	Sedges/Rushes	2	Green
Juncus subsecundus	Finger Rush	Sedges/Rushes	1	
Lepidosperma tetraquetrum	Pithy Sword-edge	Sedges/Rushes	2.5	Brown

Table 4: List of Plant Species for Revegetation of the Road Reserve

Species Name	Common Name	Type	Height at Maturity (m)	Flower Colour
Dampiera linearis	Common Dampiera	Groundcover	0.6	Blue
Hemiandra pungens	Snakebush	Groundcover	1	White/Blue/Purple/Pink
Kennedia prostrata	Running Postman	Groundcover		Red
Scaevola calliptera	Royal Robe	Groundcover	0.4	Blue/Purple
Anigozanthos manglesii	Mangles Kangaroo Paw	Small shrub	1	Red/Green
Anigozanthos viridis	Green Kangaroo Paw	Small shrub	0.8	Green
Chorizema dicksonii	Yellow-eyed Flame Pea	Small shrub	1	Red/Orange
Gompholobium tomentosum	Hairy Yellow Pea	Small shrub	1	Yellow
Thysanotus multiflorus	Many Flowered Fringed Lily	Small shrub	0.5	Purple
Eucalyptus victrix	Little Ghost Gum	Tree	12	White/Cream

The Shire of Mundaring provides recommendations for revegetation planting density (Shire of Mundaring 2020a; Table 5). Revegetation of the Priest Brook watercourse and road reserve areas will be undertaken at an overall density of approximately one plant per three square meters. Street trees will be planted at approximately 10 m intervals in accordance with the Shire of Mundaring's *Street Tree Policy* (Shire of Mundaring 2018).

Table 5: Shire of Mundaring Revegetation Density Recommendations (Shire of Mundaring 2020a)

Category	Height	Density
Groundcovers and climbers	<0.5 m	1 per 2 sqm
Small shrubs	<1.0 m	1 per 5 sqm
Medium shrubs	1-3 m	1 per 8 sqm
Tall shrubs	>3 m	1 per 10 sqm
Trees	>8 m	1 per 10 sqm
Sedges and rushes	1-2 m	4-6 per 1 sqm
Grasses	0.5-2 m	1 per 1 sqm

Approximately 635 plants are proposed to be planted at the Site, including 290 plants within the Priest Brook watercourse area and 345 within the road reserve, including 18 street trees. The recommended plant selections for Priest Brook watercourse area and road reserve area are shown in Table 6 and Table 7, respectively. It is noted that the plant selection numbers are a recommendation and may require variation dependent on plant availability.

The recommended conceptual layout of the revegetation for the Priest Brook watercourse area and road reserve are shown in Figure 2 and Figure 3, respectively. Planting is recommended to occur around logs and granite rocks to create shelter and habitat for fauna. The indicative layout of street trees is provided in Appendix A.

Table 6: Recommended Plant Selection for Revegetation of the Priest Brook Watercourse Area

Species Name	Common Name	Number Required
Groundcover (Tubestock)		
Dampiera linearis	Common Dampiera	25
Hemiandra pungens	Snakebush	25
Kennedia prostrata	Running Postman	25
Scaevola calliptera	Royal Robe	25
Sedges/Rushes (Tubestock)		
Baumea articulata	Jointed Twig-rush	28
Baumea juncea	Bare Twig-rush	27
Baumea preissii	Broad Twig Sedge	27
Chorizandra enodis	Black Bristle-rush	27
Juncus pallidus	Pale Rush	27
Juncus subsecundus	Finger Rush	27
Lepidosperma tetraquetrum	Pithy Sword-edge	27
Total		**290**

Table 7: Recommended Plant Selection for Revegetation of the Road Reserve

Species Name	Common Name	Number Required
Groundcover (Tubestock)		
Dampiera linearis	Common Dampiera	50
Hemiandra pungens	Snakebush	50
Kennedia prostrata	Running Postman	50
Scaevola calliptera	Royal Robe	50
Small Shrub (Tubestock)		
Anigozanthos manglesii	Mangles Kangaroo Paw	26
Anigozanthos viridis	Green Kangaroo Paw	26
Chorizema dicksonii	Yellow-eyed Flame Pea	25
Gompholobium tomentosum	Hairy Yellow Pea	25
Thysanotus multiflorus	Many Flowered Fringed Lily	25
Tree (45 L)		
Eucalyptus victrix	Little Ghost Gum	18
Total		**345**

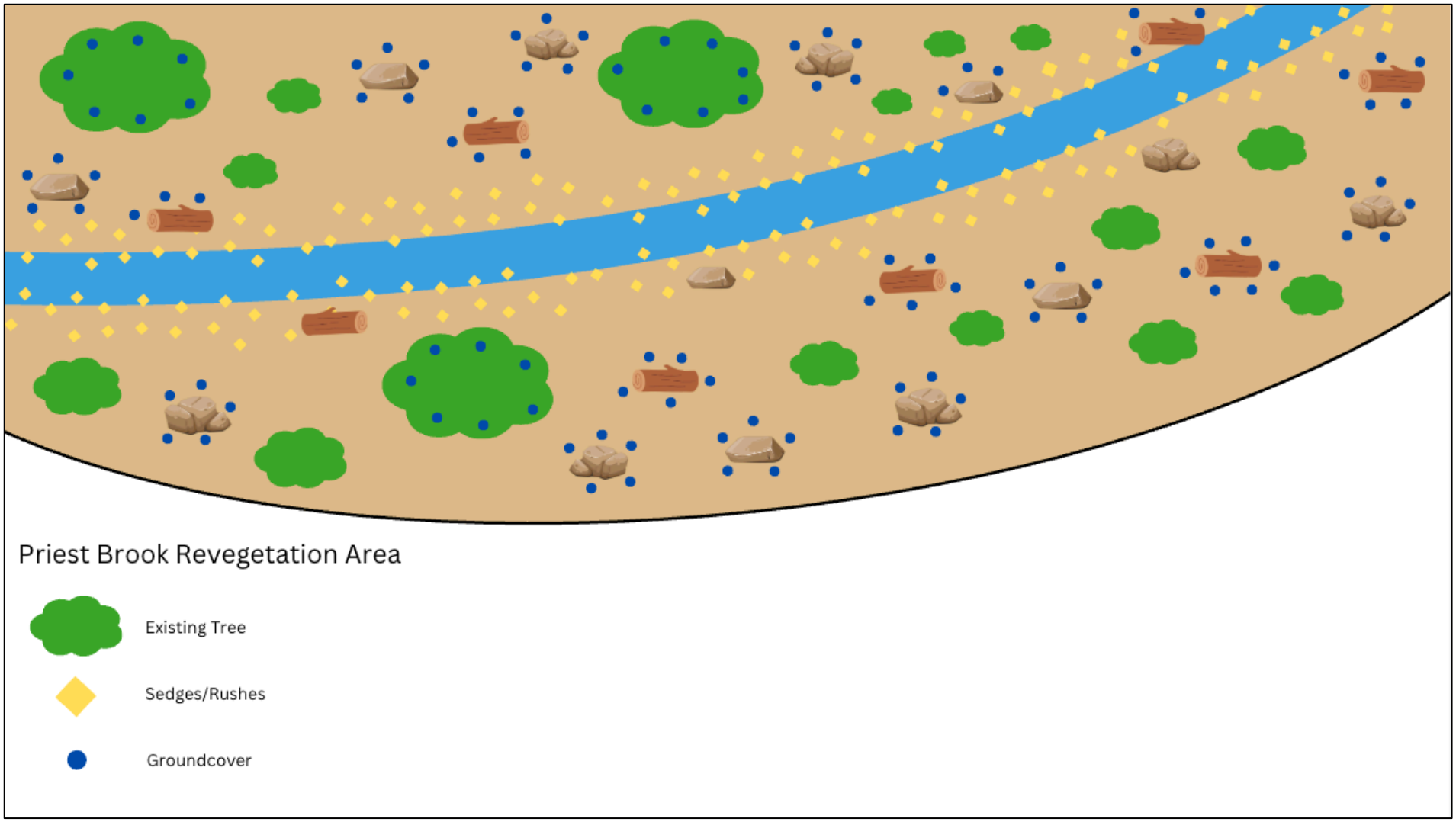


Figure 2: Conceptual Revegetation Layout for the Priest Brook Watercourse

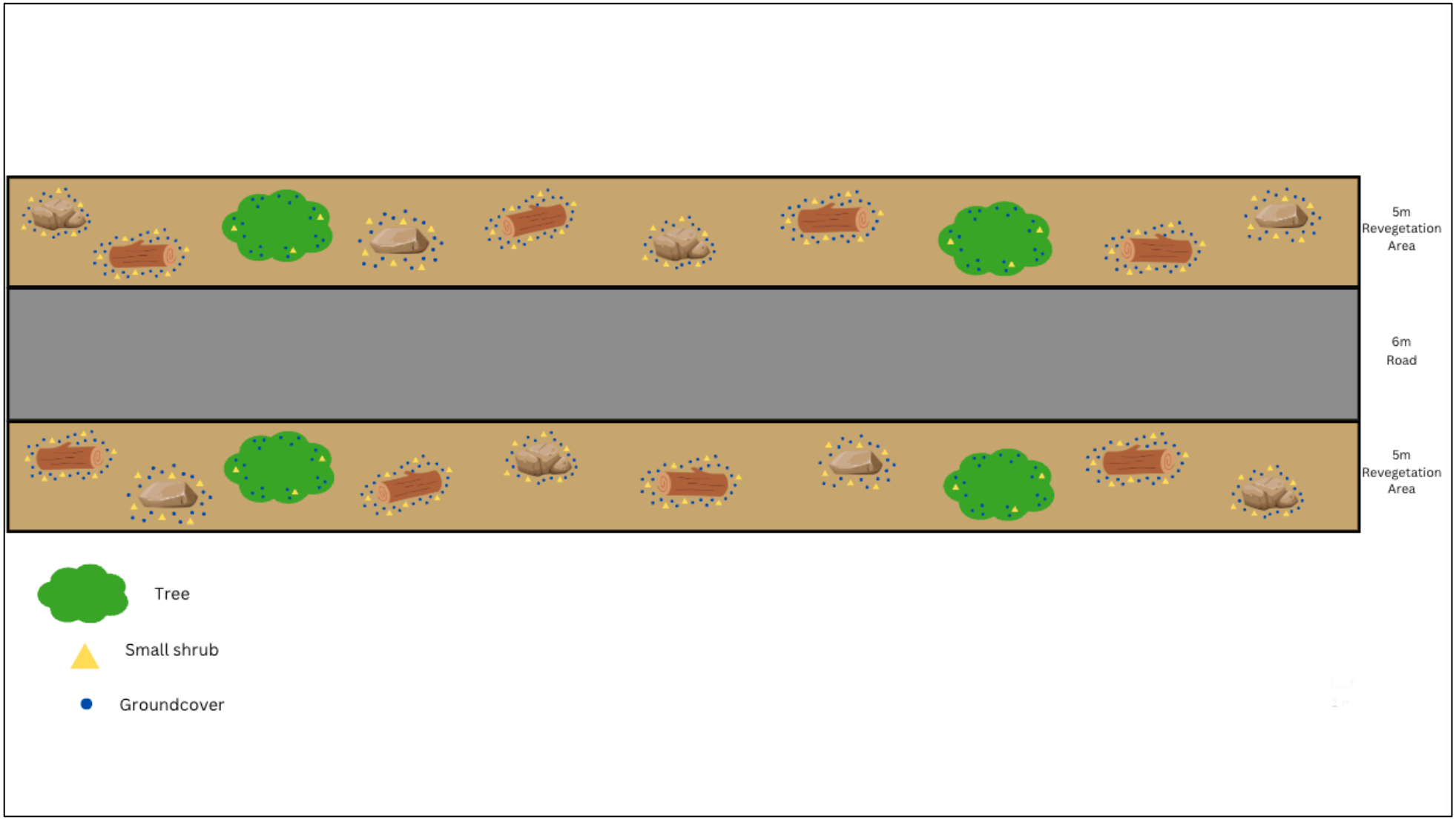


Figure 3: Conceptual Revegetation Layout for the Road Reserve

3.2. EARTHWORKS AND LANDSCAPING

The road reserve will be retained by kerbing. Tubestock will be planted directly into the existing ground and mulch will be laid.

Within the watercourse area, sedges and rushes will be planted along the banks of the watercourse to stabilise the banks and prevent erosion. Tubestock will be planted in jute matting and mulch will be laid.

Logs and large granite rocks will be positioned within the watercourse area and road reserve to enhance both aesthetic appeal and habitat value. Examples from a similar site are shown in Plate 1. Planting is recommended to be situated around these habitat features, as shown in Figure 2.

Plate 1: Landscaping and Habitat Features Examples

3.3. WEEDS

Removal of invasive flora species (weeds) is an important step in preparation for revegetation works. No weeds were present within the road reserve area at the time of inspection. A high cover of weed species was present within the Priest Brook watercourse area, with *Watsonia meriana* var. *bulbillifera* and *Cenchrus setaceus* (Fountain Grass) being the most abundant.

Recommended control methods for *Watsonia* include cutting flower spikes to prevent seed growth, chemical treatment with glyphosphate and regular, repeated mowing close to the ground. Fountain Grass should be removed by hand digging, or by slashing and spraying during the Winter months prior to seed development (Shire of Mundaring 2020b).

The Priest Brook watercourse area has a high cover of dead *Watsonia* plants, which likely provide stability to the banks of the watercourse (Plate 2). It is recommended that jute matting is placed over the dead plants prior to revegetation with tubestock.

Prior to planting, the Site should be assessed for additional weed presence and any identified weeds should be treated as per best practice methods for each species.

Plate 2: Dead Watsonia within the Priest Brook Watercourse Area

4. IMPLEMENTATION SCHEDULE

The recommended implementation schedule for revegetation of the Site is shown in Table 8. As the availability of plant stock is likely to be limited for planting in Winter 2025, species and quantities may need to be adjusted.

Table 8: Proposed Implementation Schedule

Activity	Timing
Year 1	
Site works (habitat logs and rocks)	May 2025
Order seedlings	May 2025
Pre-planting weed control	June 2025
Planting	July – August 2025
Year 2	
Follow-up weed control	June 2025

5. COSTINGS

The cost estimate to undertake the revegetation recommended for the Site is shown in Table 9. Should planting not be possible until Winter 2026 due the plant availability, the works will likely need to be bonded with the Shire of Mundaring, with a 25% refundable administration fee.

Table 9: Indicative Costings for Revegetation at the Site

Task	Description	Cost (ex GST)
Seedlings	617 tubestock plants	$1,851 (up to $3 per seedling)
Street trees (45 L)	18	$3,240 (up to $180 per tree)
Site preparation	Labour for site preparation including habitat logs and rocks	$5,500
	Mulch and topsoil	$13,335 ($7 per sqm)
	Jute matting	$7,620 ($4 per sqm)
Weed control	Pre-planting weed control	$250 per treatment
Planting	Manual tubestock planting	$1,080 ($1.75 per seedling)
	Tree planting	$2,880 ($160 per tree)
	Tree stakes	$324 ($18 per tree)
Watering	Watering for two summers	$5,900 ($300 per tree, encompassing tubestock, $500 for watercourse)
Total		**$41,980**

6. CONCLUSION

This plan provides recommendations for the revegetation and restoration of the road reserve and Priest Brook watercourse at the Site to ensure an increase in biodiversity and visual amenity. It is recommended that revegetation is undertaken in accordance with this plan to achieve best possible outcomes for the Site.

7. REFERENCES

Del Botanics 2022. *Reconnaissance Flora and Vegetation Survey and Habitat Tree Assessment: 655 Pechey Road, Swan View.* Report prepared for Alan McLean.

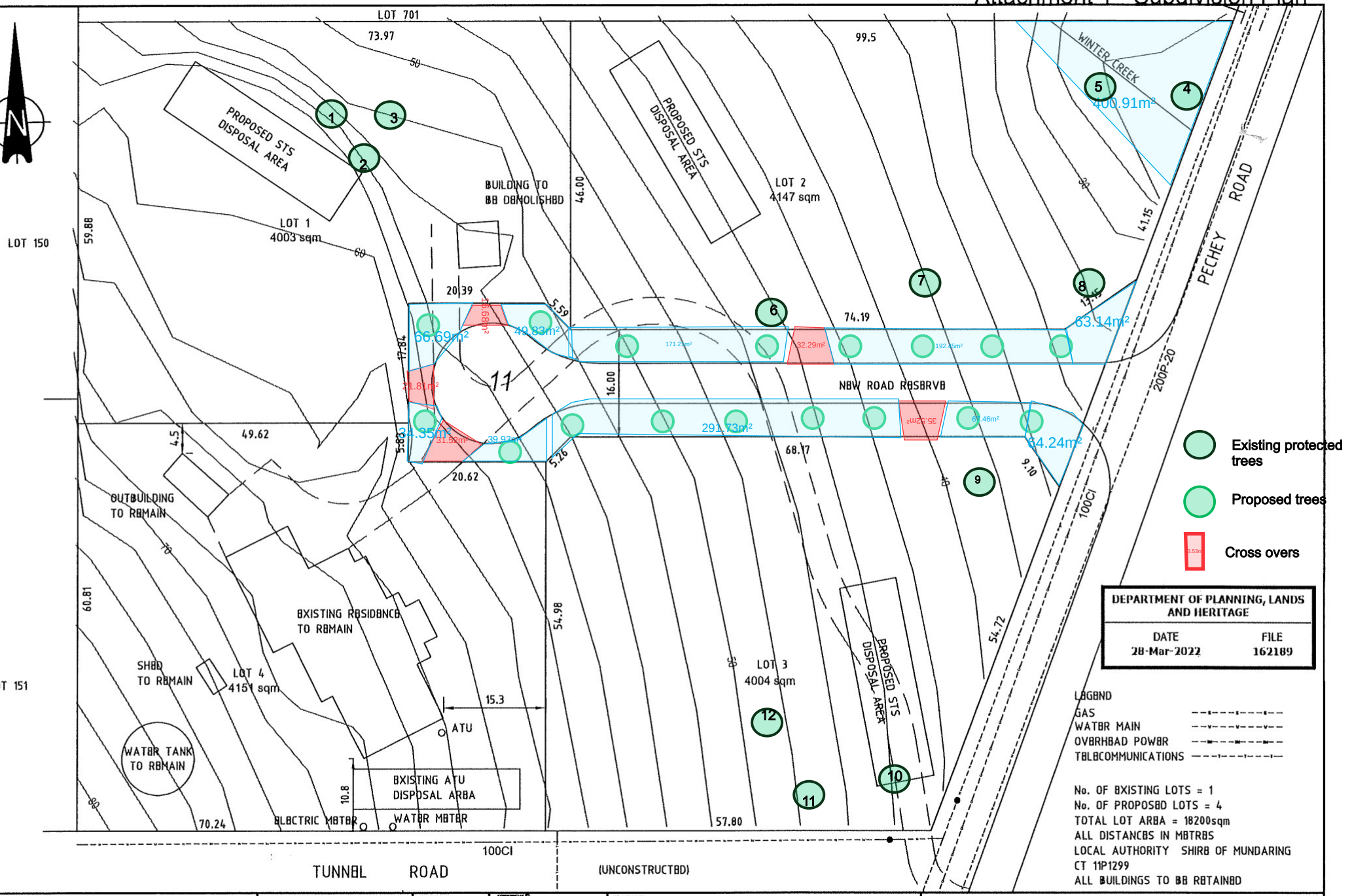
Shire of Mundaring 2018. *Shire of Mundaring Policy: Street Trees.* Mundaring, WA.

Shire of Mundaring 2020a. *Landscape and Revegetation Guidelines.* Mundaring, WA.

Shire of Mundaring 2020b. *Plants Out of Place.* Mundaring, WA.

Shire of Mundaring n.d. *Street Tree Guidelines.* Mundaring, WA.

APPENDIX A: INDICATIVE STREET TREE LAYOUT FOR THE SITE



AN McLEAN ENGINEERING PTY LTD
ARLUNYA AVENUE, BELMONT WA 6104
0419925752 amepl@inet.net.au A.B.N. 49 084 859 727

DESIGNED	A.J.McLEAN
DRAWN	A.J.McLEAN
CHECKED	
DATE	5 MAY 2022
SCALE:	1:500
DATUM:	A.H.D.

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