

**Memorandum****U140**

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<b>Date:</b>	26 September 2024
<b>Subject:</b>	Vegetation Health Condition Assessment, 1 Rawling Rd, Davenport WA V&V Walsh



## 1 Introduction

GHD is assisting V&V Walsh, to prepare an amendment to extend their clearing permit (CPS 3810/2) for a further five years. CPS 3810/2 provides for fertigation of native vegetation using treated wastewater generated from the V&V Walsh abattoir and meat processing plant.

GHD sub-contracted Ecoedge to undertake a Vegetation Health Condition Assessment at the Site in Davenport and provide an assessment report of the area to be inform the amendment.

The scope of work:

- Identify and assess the areas not assessed in the GHD 2023 flora and vegetation spring assessment (GHD 2024 Flora and Vegetation Report).
- Survey for any significant flora included declared pest weeds
- Assess vegetation unit (as per previous rounds of assessment)
- Assess vegetation condition (using EPA 2016, **Appendix 1**)
- Compare the vegetation health condition to the vegetation condition reported in Cape Life Report, 2018.

The survey area is located east of Rawling Road, off South Western Highway, Davenport, Bunbury, Western Australia.

The location of V&V Walsh is shown in **Figure 1** with survey area shown in **Figure 2**.

This memo should be read in conjunction with GHD (2024) and Cape Life (2018) reports.



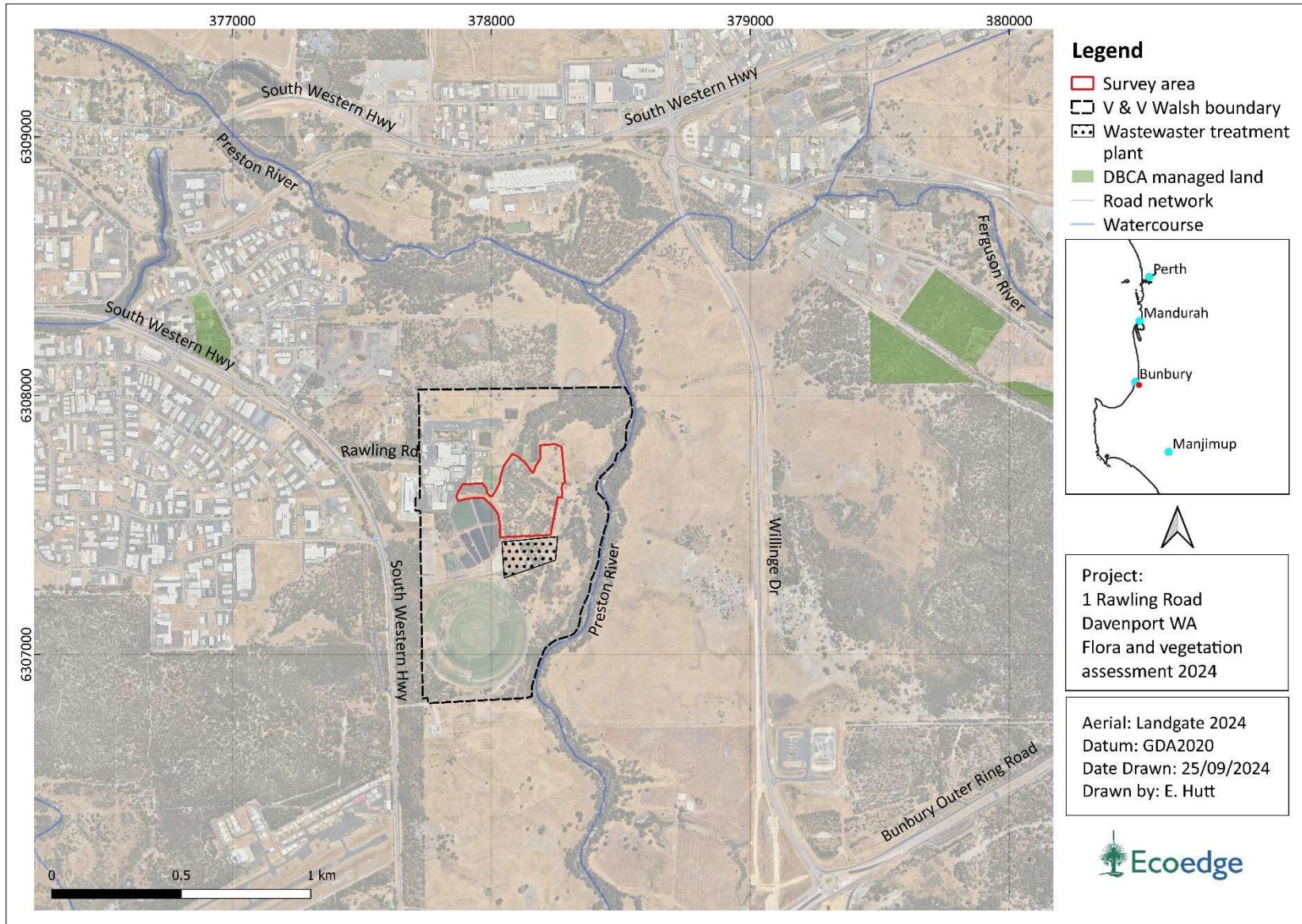


Figure 1. Regional area.



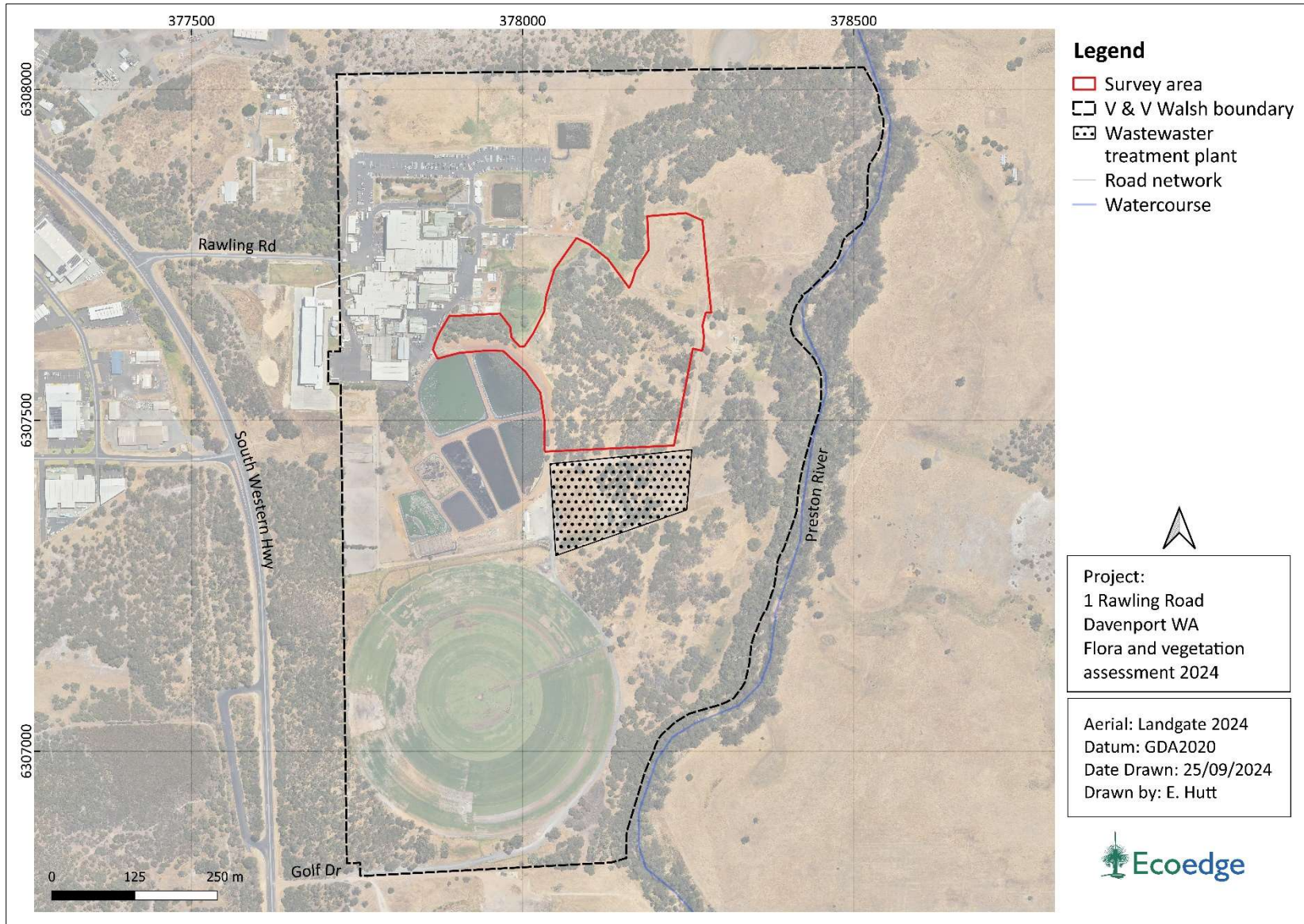


Figure 2. Survey area at V&V Walsh.

## 2 Assessment methods

Ecoedge's senior ecologist Debbie Brace (FB62000262) completed a single-season vegetation health condition assessment on 13 September 2024.

The assessment was undertaken to identify and describe the dominant vegetation types, assess vegetation condition, and identify any significant flora or declared pest weeds for V&V Walsh. This current survey area had not previously been surveyed.

The assessment methodology was undertaken in accordance with the EPA (2016) Technical Guidance - *Flora and Vegetation Surveys for Environmental Impact Assessment*.

### 2.1 Data collection

Field assessment methods involved walking meandering transects, opportunistic sampling (relevés) and representative photo points. No quadrats were undertaken in the survey area due to the lack of understorey and degraded condition of the site.

Information collected on site included: site code, recorder, date, photographs, location, vegetation condition, disturbance, flora and was recorded on a handheld device in the Fulcrum application.

Tracklogs and relevé locations are provided in Appendix 2.

### 2.2 Vegetation types

Vegetation types were identified, and boundaries delineated using a combination of walking boundaries with handheld GPS tracking device, aerial photography and field observations. Vegetation type descriptions follow National Vegetation Information System (NVIS), are consistent with NVIS Level V (Association) NVIS Technical Working Group, and historical reports from GHD (2024).

### 2.3 Vegetation condition

The vegetation condition was assessed and mapped in accordance with the vegetation condition rating scale for the SW and Interzone Botanical Provinces of WA (IBRA) adapted by the EPA (2016).

This scale is provided in **Appendix 1**.

### 2.4 Targeted flora

Prior to the field assessment, information obtained from the desktop assessments (e.g. EPBC Act PMST, NatureMap and DBCA database search results (GHD 2024) was reviewed to determine conservation significant flora taxa potentially present within the survey area. Targeted searches for conservation significant flora based on desktop assessments and habitat availability were undertaken throughout the survey area. Due to the known vegetation condition all Priority and Threatened species were deemed Unlikely to be found within the survey area.

### 3 Limitations

Potential limitations with regard to the survey are addressed in **Table 1**.

Table 1. Limitations of the field survey with regard to assessment adequacy and accuracy.

Aspect	Constraint	Comment
Scope	Negligible	The survey scope was prepared in consultation with the client and was designed to comply with EPA survey requirements.  Desktop assessment as per GHD (2024).
Proportion of flora identified	Negligible	The assessment was conducted in September 2024, within the primary season for flowering in the south-west of Western Australia.
Completeness of the survey	Negligible	The entire survey area was traversed on foot and there were no limitations to access.
Competency of personnel	Negligible	The field botanist conducting the assessment had over 5 years of experience working as a botanical consultant, and over five years working within the south-west bioregion of Western Australia.
Disturbance (fire, grazing, clearing etc.)	Medium to High	Parts of the survey area have previously been cleared and used as pasture for stock.  The survey area has been fenced off, but there was evidence of kangaroo, rabbit and livestock (sheep) activity within the survey area.  There were lines of planted eucalyptus trees.  There was some physical evidence of recent fire.

## 4 Results

### 4.1 Vegetation type

Four vegetation types were recorded on site. Photographs and descriptions are provided in **Table 2** and shown in **Figure 3**.



Table 2. Vegetation types within the survey area.

Veg type	Photograph	Description	Area (ha)
VT1		<p><i>Eucalyptus rudis</i> / <i>Agonis flexuosa</i> Woodland to Open Forest</p> <p><i>Eucalyptus rudis</i> subsp. <i>rudis</i> and <i>Agonis flexuosa</i> woodland to open forest with occasional <i>Corymbia calophylla</i> and <i>Melaleuca raphiophylla</i> over a predominantly cleared understorey dominated by introduced grasses and herbs including <i>*Zantedeschia aethiopica</i>, <i>*Cenchrus clandestinus</i> <i>*Phytolacca octandra</i> and <i>*Rumex crispus</i></p> <p>Degraded condition</p>	0.43 ha
VT4		<p><i>Melaleuca raphiophylla</i> Woodland</p> <p><i>Melaleuca raphiophylla</i> woodland with occasional <i>Agonis flexuosa</i> over <i>Lepidosperma longitudinale</i> scattered sedges over a groundcover dominated by introduced grasses and weeds including <i>*Zantedeschia aethiopica</i>, <i>*Cenchrus clandestinus</i></p> <p>Wetland area: Good condition</p>	0.73 ha



Veg type	Photograph	Description	Area (ha)
VT6		<p>Weedy grassland with isolated trees</p> <p>Open paddocks and previous cleared areas dominated by introduced grasses and herbs with scattered clumps or isolated trees of <i>Agonis flexuosa</i>. Recent evidence of fire.</p> <p>Completely degraded condition</p>	1.54 ha
VT7		<p>Planted <i>Eucalyptus</i> sp.</p> <p>Planted <i>Eucalyptus</i> sp. with occasional <i>Agonis flexuosa</i> and <i>Eucalyptus rudis</i> over weedy grasses and herbs. Weeds include <i>Zantedeschia aethiopica</i> (some large patches), <i>Moraea flaccida</i> and <i>Phytolacca octandra</i>.</p> <p>Degraded condition</p>	4.63ha

Veg type	Photograph	Description	Area (ha)
Cleared		Cleared gravel roadway Completely Degraded	0.58 ha

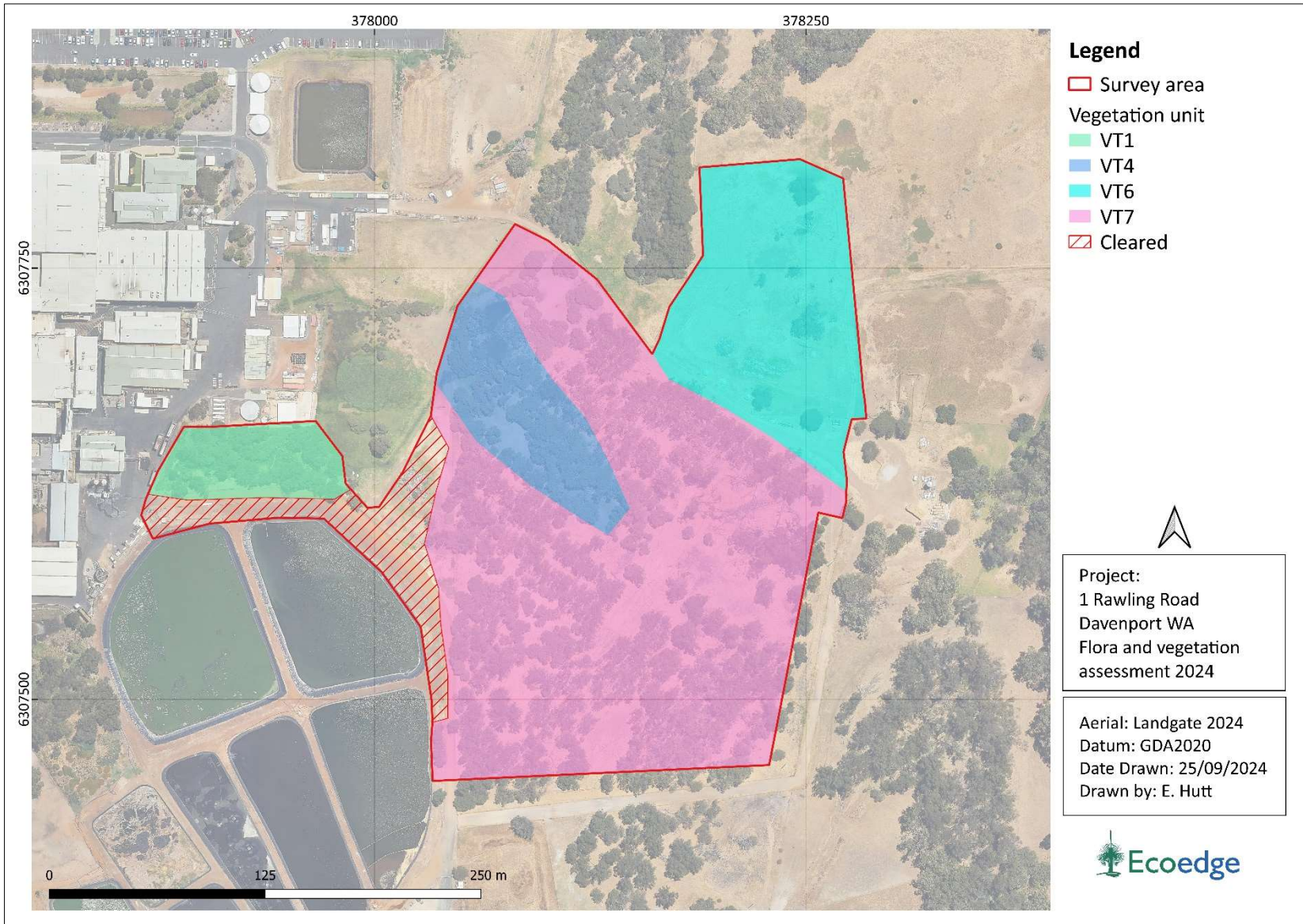


Figure 3. Vegetation types within the survey area.



## 4.2 Vegetation condition

The majority of the survey area was in Degraded or Completely Degraded condition. **Table 3** and **Figure 4** show the breakdown of the vegetation condition within the survey area.

Vegetation condition across the site has not changed since the Cape Life assessment in 2018. All vegetation is in Completely Degraded to Degraded condition, except for the wetland area which is still in Good condition.

Table 3. Summary of vegetation condition classes within the survey area.

Condition	Area (ha)	%
Excellent	-	-
Very Good	-	-
Good	0.73	9.2
Degraded	5.06	64.0
Completely Degraded	2.12	26.8
<b>Total</b>	<b>7.91</b>	<b>100%</b>

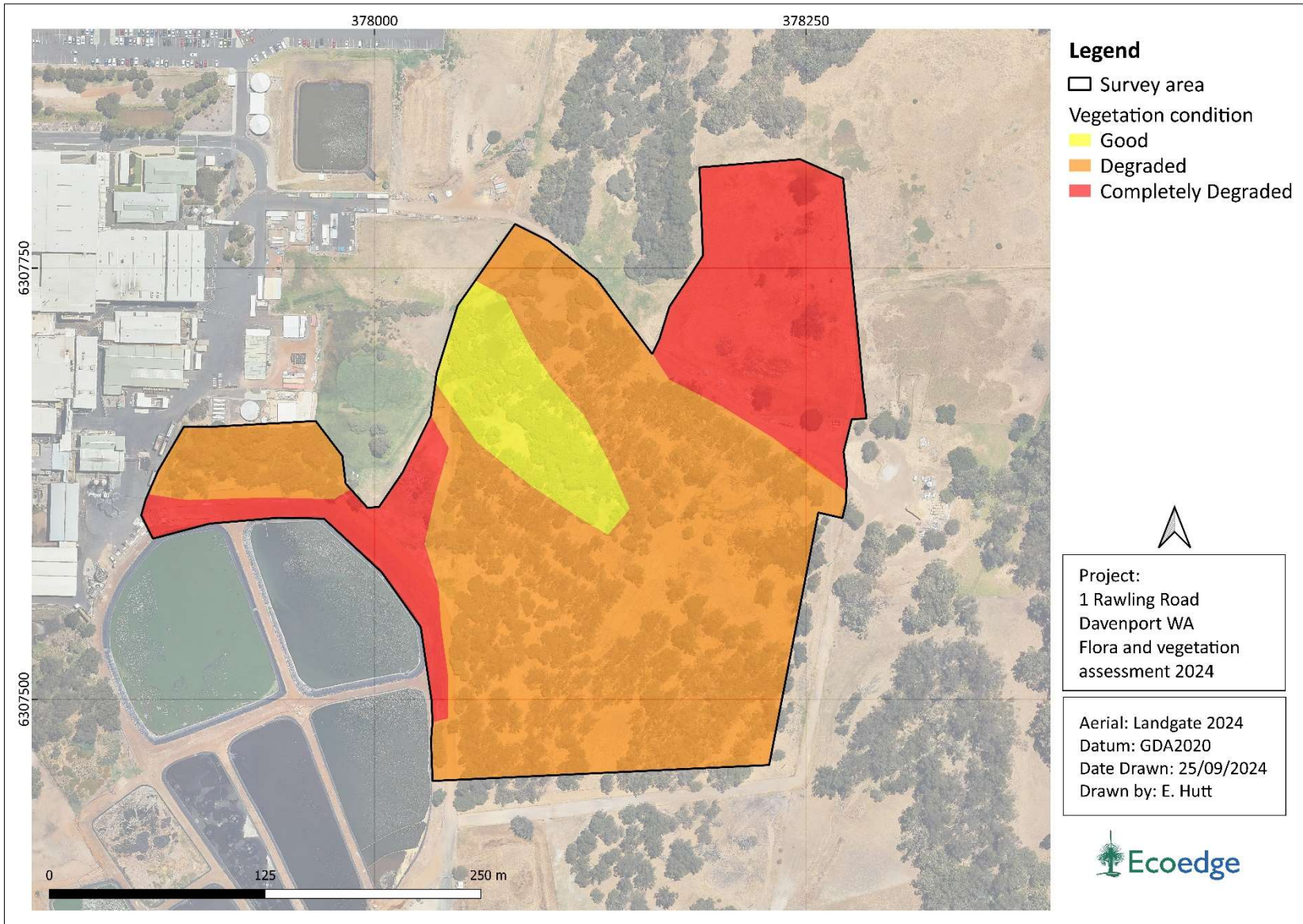


Figure 4. Vegetation condition within the survey area.

### 4.3 Target flora

No Priority or Threatened flora were found during the assessment of the survey area, mainly because the vegetation was in Degraded to Completely Degraded condition. The assessment was conducted during the optimal time in spring and if these plants were present, they would have been recorded.

Three exotic weeds were recorded, of which one was a Weed of National Significance (WoNS) and one a declared pest plant.

1. \**Zantedeschia aethiopica* (arum lily) – WoNS (**Figure 5**)
2. \**Moraea flaccida* (cape tulip) – declared pest plant (**Figure 6**)
3. \**Phytolacca octandra* (inkweed) (**Figure 7**).

The locations were not marked with a GPS due to the high abundance of arum lily, however pest control would easily be able to identify for control.



Figure 5. Patches of \**Zantedeschia aethiopica* arum lily are scattered throughout the survey area.





Figure 6. \**Moraea flaccida* patch within the survey area.



Figure 7. \**Phytolacca octandra* scattered across the survey area.

## 5 Conclusion

The survey area had no recorded Priority or Threatened flora.

Three introduced species were recorded, arum lily (WoNS), cape tulip (declared pest plant) and inkweed.

There were four vegetation types and one cleared roadway. Of these vegetation types 64% (5.06ha) were in Degraded condition and 26.8% (2.12ha) in Completely Degraded condition. One section of the survey area, VT4 *Melaleuca raphiophylla* Woodland, was classified as in Good condition (0.73ha/9.2%).

There has been no change in vegetation condition of the vegetation assessed by Cape Life (2018) report. The vegetation condition assessed in 2018 and 2024 are shown in **Table 4**.

Table 4. Comparison of vegetation conditions between 2018 and 2024.

Site	2018	2024
Cape Life - Site 2/GHD VT7	Degraded to completely degraded	Degraded
Cape Life - Site 2 - wet land areas /GHD VT4	Good	Good
GHD – VT1	Not assessed in 2018	Degraded
GHD – VT6	Not assessed in 2018	Completely Degraded

## 6 References

Cape Life (2018). Vegetation Assessment Report, Unpublish report for V & V Walsh.

Environmental Protection Authority (EPA). (2016). *Technical Guidance Flora and Vegetation Surveys for Environmental Impact*. EPA, Perth, Western Australia.  
[http://www.epa.wa.gov.au/sites/default/files/Policies\\_and\\_Guidance/EPA/Technical/Guidance/FloraandVegetationsurvey\\_Dec13.pdf](http://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EPA/Technical/Guidance/FloraandVegetationsurvey_Dec13.pdf)

GHD (2024). Bio Resource Recovery Plant Project Sites Spring Flora and Fauna Survey. Unpublished report for V & V Walsh, August 28, 2024.



## Appendix 1. Vegetation condition scale.

<b>Vegetation Condition</b>	<b>South West and Interzone Botanical Provinces</b>
Pristine	Pristine or nearly so, no obvious signs of disturbance or damage caused by human activities since European settlement.
Excellent	Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species. Damage to trees caused by fire, the presence of non-aggressive weeds and occasional vehicle tracks.
Very Good	Vegetation structure altered, obvious signs of disturbance. Disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds at high density, partial clearing, dieback and grazing.
Completely Degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees and shrubs.

Appendix 2. Track log and relevé location within the survey area.

