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# MEMORANDUM: Proposed Expansion Area associated with the Gas Facility to the south of the South 32 Collie Refinery

## 1. Introduction

The following is a summary of the work completed on the proposed expansion area (see Figure 1) near the Gas Facility located on the southern side of Gastaldo Road that runs east-west to the south of the main operational areas at the South32 Collie Refinery.

## 2. Site Inspection

A site inspection was undertaken on 20th September 2024 by Dr L Mattiske from Mattiske Consulting Pty Ltd with Melanie Kenny and John Quigley from AGIG Perth. Dr Mattiske has some 48 years of botanical and ecological experience in the southwest forests of Western Australia.

## 3. Background

As the area abuts forest areas there was a requirement to assess the biological values on the area prior to submitting an application to clear the vegetation.

The proposed expansion occurs within the largely cleared fringes of current Gas Facility and within the current gas pipeline easement to the west which is maintained for "Line of Sight" by the gas pipeline operators, Figure 1.

## 4. Methodology

The proposed clearing areas were inspected and recordings were undertaken on the following:

a. Native flora
b. Introduced flora
c. Tree species
d. Usage of the area by Fauna including the threatened black cockatoos (Carnaby's cockatoo and forest-red tailed black cockatoo)
e. Usage of the area by Quendas (Southern Brown Bandicoot)


**Figure 1:** **Proposed clearing areas (red lines) on the edges of the current Gas Facilities and the Gas Pipelines to the west (blue lines), Gastaldo Road to North of Gas Facilities**

## 5. RESULTS AND DISCUSSION

### 5.1 Photographic Record of Expansion Areas

A series photographs of the proposed expansion areas that occur immediately around the current Gas facilities and along the well-established gas pipeline (from the west of the current Gas facilities). These photographs illustrate the key values as follows:

1. Mostly cleared areas around the current Gas Facilities with localised patches of Acacia saligna establishing in previously cleared fringes of the facilities.
2. Planted *Eucalyptus resinifera* along the fringes of the Gastaldo Road.
3. The presence of a few *Corymbia calophylla* near the fringes of Gastaldo Road and the forested areas to the east and south. Three of these trees had evidence of foraging and only the tree on the north-east corner of the proposed expansion area (see Photograph 8 in Appendix A). The tree on the north-eastern corner has been flagged to avoid clearing and minimize disturbance.
4. The regrowth on the gas pipeline corridor (see Appendix A – photographs 2, 3 and 4) reflect the growth of B*ossiaea aquifolium, Acacia pulchella, Billardiera fusiformis* and seedlings of *Eucalyptus marginata* and *Corymbia calophylla*). The pipeline alignment is pruned to ensure line of sight along the pipeline route which is required for safety and visibility.

### 5.2 Vascular Plant Species

A total of 20 vascular plant species were recorded during the recent assessment of the proposed expansion areas near the Gas Facilities adjacent to South32 Collie Refinery, Appendix B. Of these 20 vascular plant species, 7 were introduced weeds and 1 was a planted Eucalypt (*Eucalyptus resinifera*). The latter numbers reflected the degree of disturbance in the vegetated areas.

Despite searching by two experienced botanists, no threatened or priority flora species as listed at the state or federal levels were recorded in the proposed clearing area in the spring months of 2024 (DBCA 2024a; DCCEEW 2024a).

Essentially, the proposed clearing areas has only a few remnant trees of *Corymbia calophylla* and *Eucalyptus marginata* as well as the planted *Eucalyptus resinifera* (on the road verges). The degree of disturbance is reflected in the occurrence of the weed species which dominate the lower shrub and herb layers and the shrub layers.

### 5.3 Vegetation

The extent of the completely degraded areas to the west of the proposed clearing area is evident in the photographs in Appendix A. As such the residual occurrence of a few species on the proposed clearing areas on the boundaries of the Gas Pipeline would not constitute native vegetation. The area along the current gas pipeline requires management to maintain line of sight for safety and visibility.

### 5.4 Trees and Fauna Activity

There were 3 Marri (Corymbia calophylla) trees that occur on the road verges that have been used for foraging by the listed Black Cockatoos. In the local and regional context these are not significant. Nevertheless every effort will be made to avoid the larger Corymbia calophylla on the north-eastern corner of the proposed expansion area (hence the flagging as illustrated in Appendix A – Photograph 8). The other Marri trees on the north-western corner

Overall, the fauna activity appears to be restricted by the proximity to the current facilities and the South32 Collie Refinery.

### 5.4 Vegetation Condition

The vegetation condition varied from completely degraded on the highly modified proposed clearing area.

The results as such question the interpretation of native vegetation. Whilst selected values may be used by species such as Cockatoos for foraging, the key point in this assessment is that the native biological values in the proposed clearing area are limited in extent.

## 6. Avoidance and Mitigation

In view of the limited number of native species and the close proximity to Gastaldo Road, current Gas Facilities and the South32 Collie Refinery the area has limited values. Avoidance is not feasible as the expansion needs to be undertaken on the fringes of the current facilities. If other options were considered the impacts would be substantially higher as there would be a need to clear forested areas.

## 7. Review of the 10 Clearing Principles

The observations were reviewed against the 10 clearing principles as defined under the EPA Regulations (2004) on the Native Vegetation Clearing. As stated above the interpretation of "Native Vegetation" is questionable in this instant.

**Principle (a): Native vegetation should not be cleared if it comprises a high level of biodiversity.**

This area is not considered to contain levels of high biodiversity. Many of the original dominant species are not present in the area.

Clearing of the vegetation is not at variance with this Principle.

**Principle (b): Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a significant habitat for fauna indigenous to Western Australia.**

The assessment area is largely already cleared around the Gas Facilities and therefore are of limited value to native fauna, however 3 trees area still used by the Black Cockatoos for foraging. As indicated above every effort has been made to avoid these 3 trees. No hollows were recorded in the trees.

Overall, the fauna activity appears to be restricted by the proximity to the current facilities and the South32 Collie Refinery.

Clearing of the vegetation is not at variance with this Principle.

**Principle (c): Native Vegetation should not be cleared if it includes, or is necessary, for the continued existence of rare flora.**

No naturally occurring threatened or priority flora species were present in the assessment area.

Clearing of the vegetation is not at variance with this Principle.

**Principle (d): Native vegetation should not be cleared if it compromises the whole or part of, or is necessary for the maintenance of a threatened ecological community.**

No threatened ecological communities were present in the assessment area.

Clearing of the vegetation is not at variance with this Principle.

**Principle (e): Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.**

The assessment area occurs within already cleared and highly modified areas.

Clearing of the vegetation is not at variance with this Principle.

**Principle (f): Native vegetation should not be cleared if it is growing in, or in association with, and environment associated with a watercourse or wetland.**

The assessment area is not associated with a watercourse or wetland.

Clearing of the vegetation is not at variance with this Principle.

**Principle (g): Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.**

The assessment area occurs near forested areas; however as the expansion is occurring on already cleared and highly disturbed areas the proposed activities will not have an impact on the environmental values in adjacent areas.

Clearing of the vegetation is not at variance with this Principle.

**Principle (h): Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.**

Clearing is unlikely to cause further degradation due to the highly modified nature of the surrounding areas.

Clearing of the vegetation is not at variance with this Principle.

**Principle (i): Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water**

Clearing is unlikely to cause would not influence current surface water flows.

Clearing of the vegetation is not at variance with this Principle.

**Principle (j): Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding.**

In view of the size of the proposed clearing area and the location any clearing activities are not likely to cause, or exacerbate, the incidence of flooding.

Clearing of the vegetation is not at variance with this Principle.

## 8. References

Department of Biodiversity, Conservation and Attractions 2024a *Threatened flora, fauna and ecological communities database searches*. Available from: https://www.dpaw.wa.gov.au/images/documents/plants-animals/threatened-species/database-search-request-information-sheet.pdf.

Department of Climate Change, Energy, the Environment and Water 2024a, *EPBC Act list of threatened flora*, Commonwealth of Australia. Available from: http://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=flora.

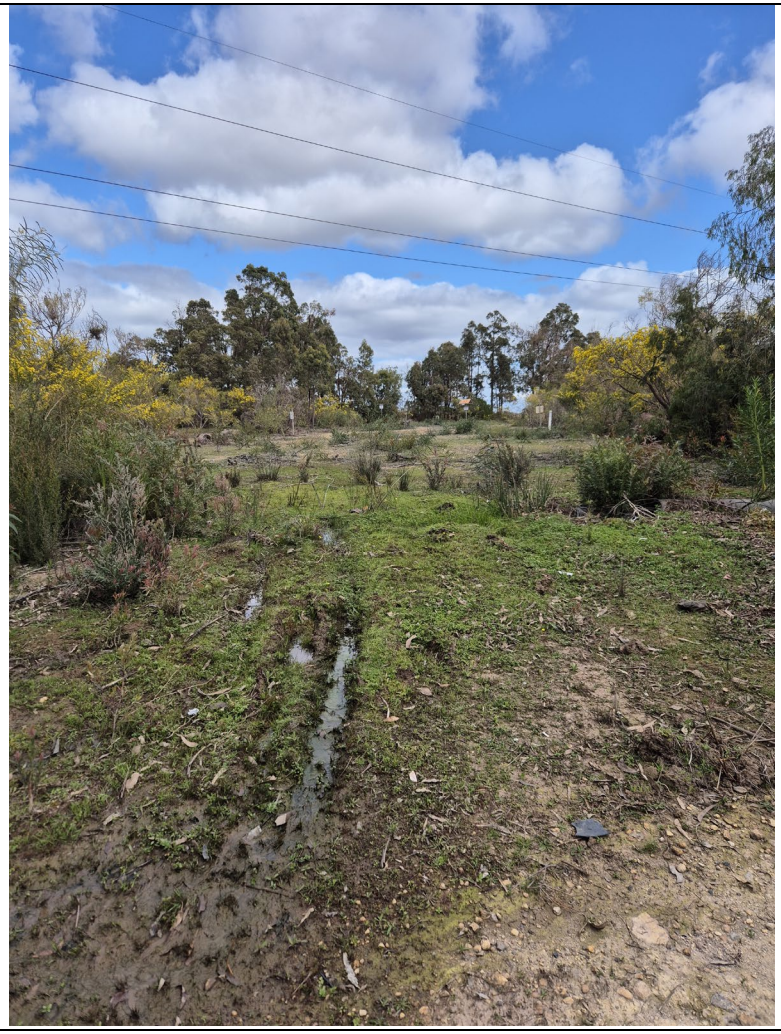
Department of Climate Change, Energy, the Environment and Water 2024b, *Protected Matters Search Tool*. Available from: http://www.environment.gov.au/epbc/protected-matters-search-tool.

Department of Water and Environmental Regulations (2024) Application to Clear Native Vegetation under the Environmental Protection Act 1986 – Request for Further Information. Letter received in September 2024.

Western Australian Herbarium 1998-, *FloraBase - the Western Australian Flora*. Available from: https://florabase.dpaw.wa.gov.au.

**APPENDIX A: PHOTOGRAPHIC RECORDS OF PROPOSED CLEARING ACTIVITES ON THE COLLIE REFINERY GAS FACILITY UPGRADE**

**Photograph 1: Planted *Eucalyptus resinifera* on road verges northwest of the current gas facilities with Gas Pipeline alignment behind the road plantings**



**Photograph 2: Looking westward along current Gas Pipeline; note some local water-logging**

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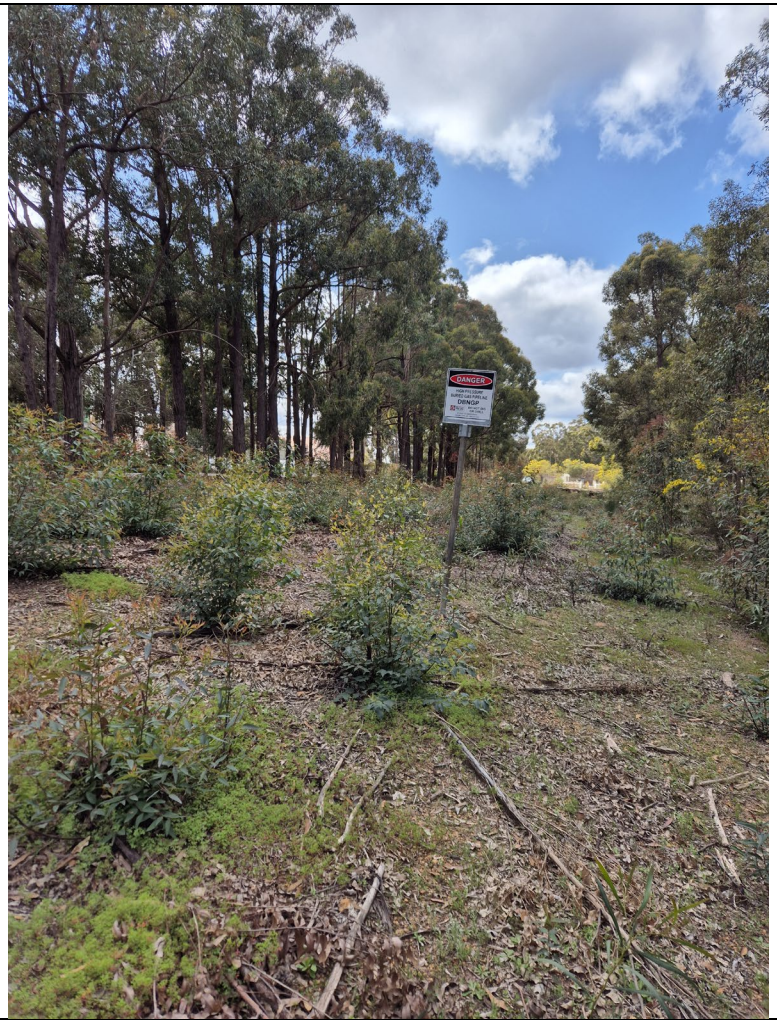
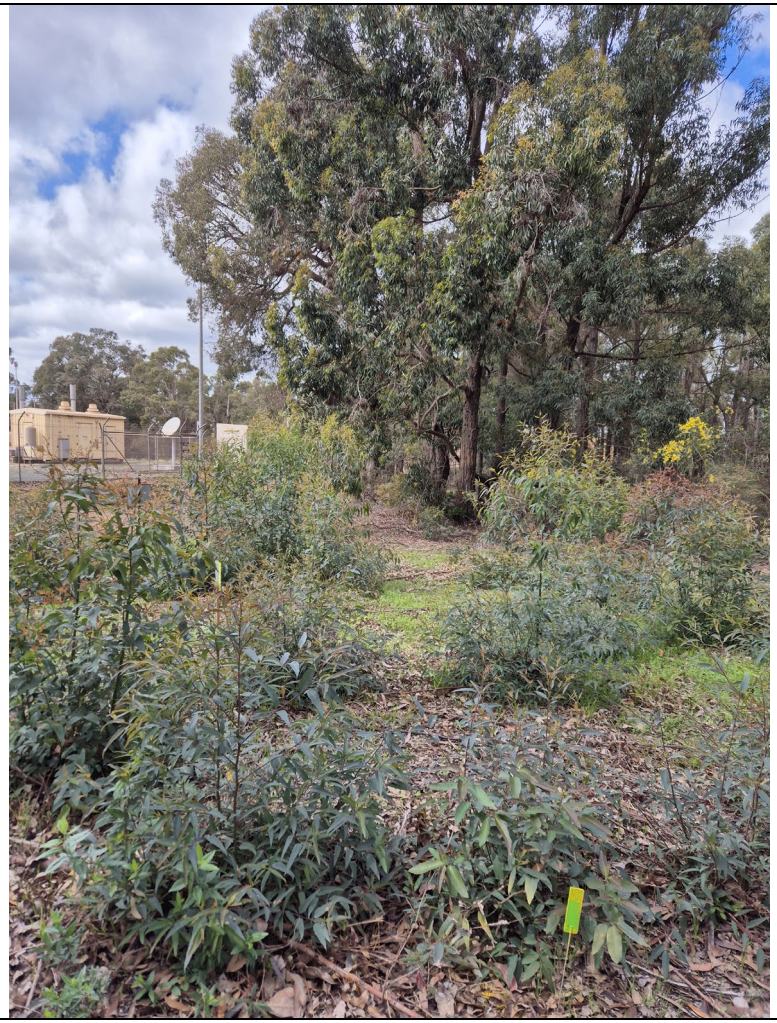
|  |  |
| **Photograph 3: Looking eastwards along current Gas Pipeline alignment towards the current Gas Facility** | **Photograph 4: Looking south-eastwards from Gas Pipeline towards southwest corner of the current Gas Facility** |

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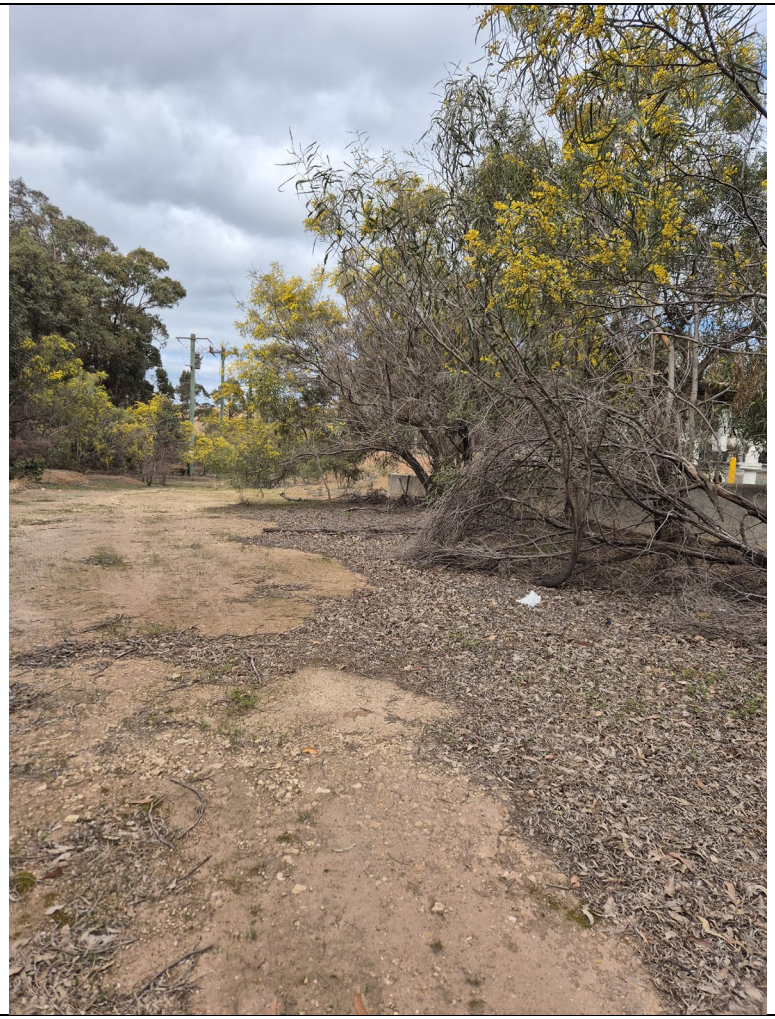
|  |  |
| **Photograph 5: Looking southwards along eastern fringes of the current Gas Facility** | **Photograph 6: Stands of *Acacia saligna* on eastern sides of the current Gas Facility** |

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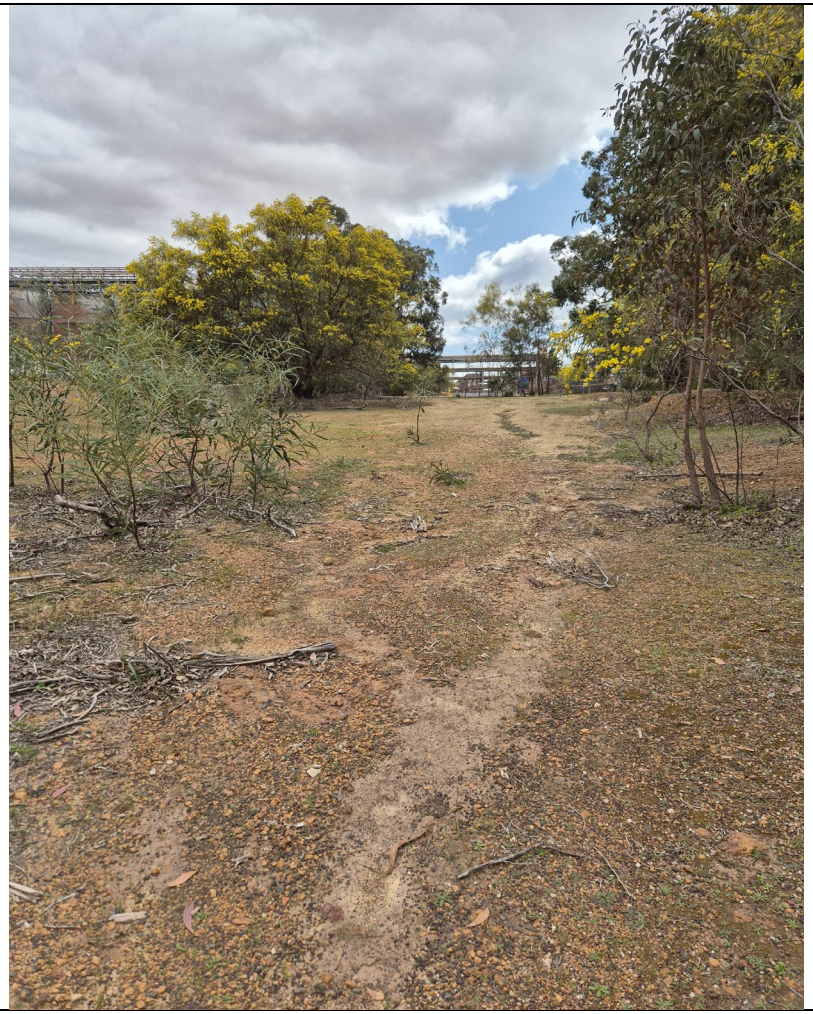
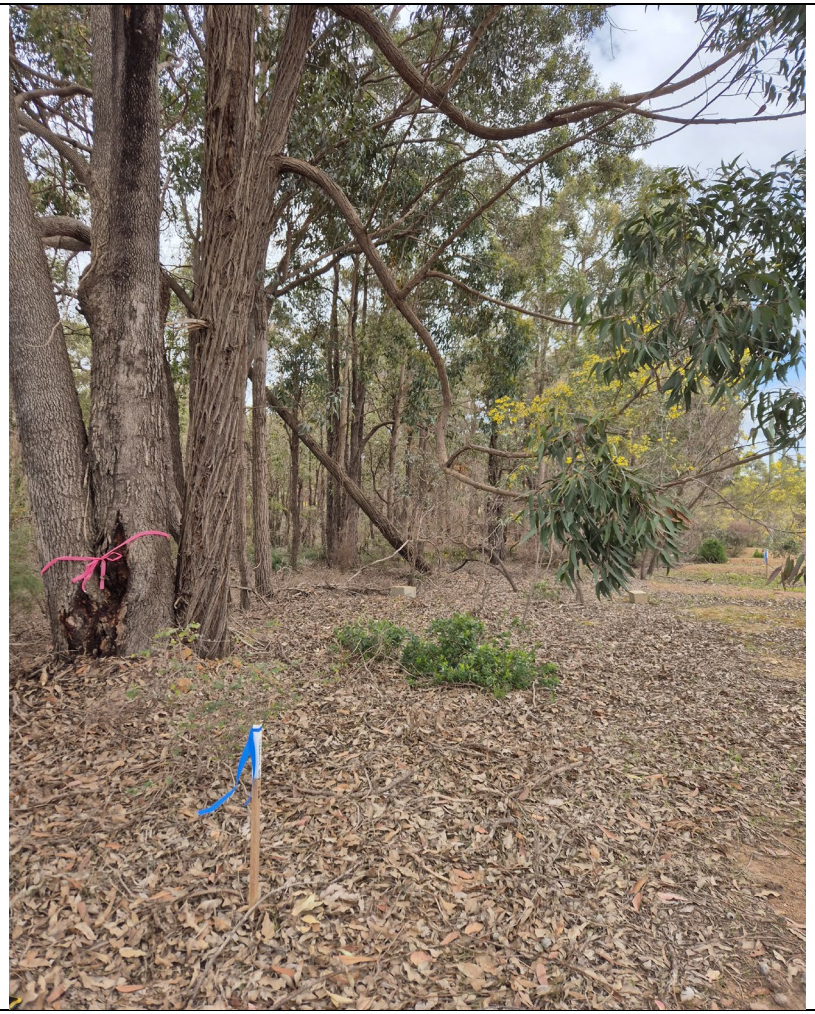


**Photograph 7: Looking north along eastern fringes of the current Gas Facility**



**Photograph 8: Large *Corymbia calophylla* (left of *Eucalyptus resinifera*) on the north-eastern corner of proposed clearing area on eastern side – flagged to avoid during clearing activities**

**APPENDIX B: VASCULAR PLANT SPECIES RECORDED ON THE PROPOSED EXPANSION AREAS NEAR THE GAS FACILITIES, COLLIE**

| Family | | Species | Pipeline | Fringes of Gas Facility |
|---|---|---|---|---|
| Apocynaceae | * | *Gomphocarpus fruticosus* | x | |
| Asteraceae | * | *Hypochaeris glabra* | x | x |
| | * | *Hypochaeris radicata* | | x |
| | * | *Sonchus oleraceus* | | x |
| | | *Lagenophora huegelii* | x | |
| Dilleniaceae | | *Hibbertia hypericoides* | x | |
| Fabaceae | | *Acacia lateriticola* | x | |
| | | *Acacia pulchella* | x | x |
| | | *Acacia saligna* | x | x |
| | | *Bossiaea aquifolium* | x | |
| Juncaceae | | *Juncus pallidus* | x | |
| Myrtaceae | PL | *Eucalyptus resinifera* | x | x |
| | | *Calothamnus quadrifidus* | | x |
| | | *Corymbia calophylla* | | x |
| | | *Corymbia calophylla (seedlings)* | | x |
| | | *Eucalyptus marginata (saplings)* | | x |
| | | *Eucalyptus marginata (seedlings)* | x | |
| | | *Hypocalymma angustifolium* | x | x |
| Pittosporaceae | | *Billardiera fusiformis* | x | x |
| Poaceae | * | *Aira caryophyllea* | x | x |
| Primulaceae | * | *Lysimachia arvensis* | x | x |
| Zamiaceae | | *Macrozamia riedlei* | | x |