

27 April 2022

Department of Water and Environmental Regulation  
Locked Bag 10  
JOONDALUP WA 6919



Dear Sir/Madam,

**RE: South Western Highway – Clearing Permit Application for Water Main**

On behalf of Aqwest please find attached an application for a Purpose Permit to clear 2,558m<sup>2</sup> of native vegetation in the South Western Highway road reserve in Bunbury (Figure 1). The proposed clearing is to install an underground water pipeline to ensure Aqwest is able to continue to meet service standards in relation to the provision of water services.

## **1 Site Description**

The proposed route of the water pipeline is on the western side of the South Western Highway road reserve, extending from Halifax Road at the northern and linking with an existing water pipe near the southern boundary of the Bunbury Motocross Club (Figure 1). The total length of the pipeline is around 1.84km.

Installation of the pipeline will require a 4m corridor to be cleared and later backfilled.

Some native vegetation occurs within the 4m corridor in the northern section. The southern section is close to the highway and does not require the clearing of any native vegetation.

## **2 Site History**

Examination of historic aerial photographs shows that the northern part of the pipeline route was formerly a part of the South Western Highway (Plate 1). The Highway was realigned to its current location slightly further east in the late 1990s. A section of the old Highway was turned into a large parking bay as shown on Plate 1. The northern section of the old Highway was partly revegetated and partly left as a track.



**Plate 1: Aerial Photograph 1992 (left) and 2021 (right)**

### **3 Vegetation**

#### **3.1 Vegetation Description**

PGV Environmental undertook a vegetation assessment of the proposed route as well as a possible option on the eastern side of the Highway on 17 November 2021. The location and type of native vegetation was described and mapped. Detailed flora surveys were not possible given the very late spring timing of the survey.

Figure 1 shows the location of native vegetation types recorded in the survey area. Attachment 1 shows photos of the various vegetation types at locations relevant to this clearing permit application.

Vegetation types recorded in the areas that require clearing and the extent of clearing is shown in Table 1 and described below.

**Table 1: Vegetation Types to be cleared**

<b>Vegetation Type</b>	<b>Area (m<sup>2</sup>)</b>
Marri/Peppermint Woodland	1,361
Marri Woodland with Paperbark (Marri/Mp)	232
Marri/Flooded Gum Woodland (Marri/Er)	822
Paperbark Low Woodland (Mp)	143
<b>TOTAL</b>	<b>2,558</b>

- Marri/Peppermint Woodland

This vegetation type occurs at the northern end of the pipeline route. The vegetation is mostly rehabilitation on the old South Western Highway road reserve (Plate 2). The understorey is all grassy weeds due to the past disturbance for the old Highway.

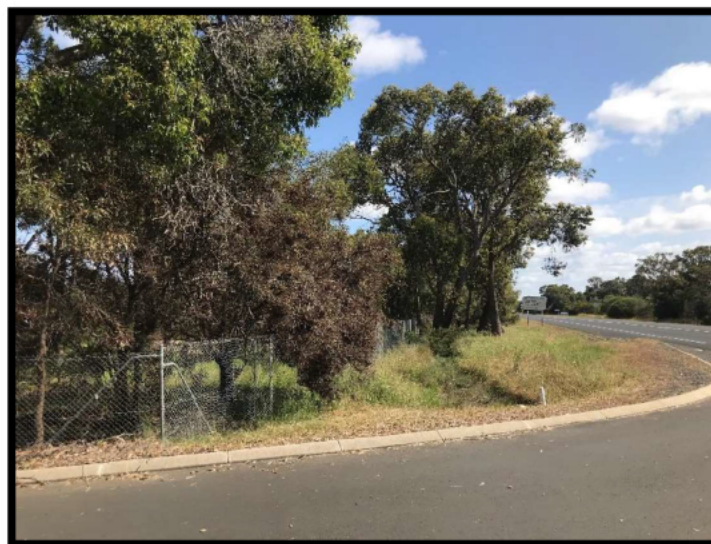
**Plate 2: Marri/Peppermint Woodland**



- Marri Woodland with Paperbark (Mp)

A section of the alignment contains Marri trees to 12m high with occasional Paperbark (*Melaleuca preissiana*) trees between the fence shown in Plate 3 and the Highway. The understorey is all grassy weeds.

**Plate 3: Marri Woodland with Paperbark (Mp)**





- Marri Woodland with Flooded Gum (Er)

A short section of this vegetation type occurs south of the parking area and close to the western boundary of the road reserve. The alignment is close to an existing stormwater drain and contains Marri and Flooded Gum trees, some Paperbarks and a weedy understorey (Plate 4).

**Plate 4: Marri Woodland with Flooded Gum (Er)**



- Paperbark Low Woodland (Mp)

Some Paperbark trees occur on the western side of the large parking bay and the western end of the road reserve (Plate 5). This area has periods of inundation, therefore the pipeline is proposed to be installed as close as possible to the pavement of the parking bay as possible. A few native species, *Lepidosperma longitudinale* and *Kunzea glabrescens*, occur with the Paperbark trees.

**Plate 5: Paperbark Low Woodland (Mp)**



### 3.2 Vegetation Condition

The condition of the native vegetation proposed to be cleared was all rated as Completely Degraded due to the abundance of weeds and absence of an intact native understorey.

### 3.3 Vegetation Significance

PGV Environmental obtained DBCA database records for any Threatened and Priority Ecological Communities (TEC and PEC) mapped on or near the site. The whole northern route of the pipeline, for which this application is made, is mapped as Banksia Woodland of the Swan Coastal Plain ecological community which is a PEC at State level and TEC at Commonwealth level. The application area is also in the buffer of a TEC called the 'Herb-rich shrublands in claypans (FCT 8) which is a TEC at State and Commonwealth level. The location of the Herb-rich shrublands in claypans community is within Manea Park to the west of the site.

As demonstrated by the description of the vegetation in the preceding section, the vegetation to be cleared is not representative of either of these two TEC/PECs for the following reasons:

- No Banksia trees (predominantly *B. attenuata* and *B. menziesii*) were recorded in the application area or on the eastern side of the South Western Highway road reserve. Some *Banksia littoralis* (Swamp Banksia) were recorded on the eastern side but that species is not part of the Banksia Woodland PEC.
- No areas with intact understorey occur in the application area, including no areas containing herb-rich shrublands.

## 4 Ten Clearing Permit Principles

The Ten Clearing Principles have been addressed below to determine the environmental impact that the removal of the native vegetation on the site would have.

*Principle (a): Vegetation should not be cleared if it comprises a high level of biological diversity.*

The vegetation on the site is Completely Degraded and in many places is regrowth after clearing of the site in the past. The native plants are mostly tree species with very little native understorey. The vegetation is too degraded to be representative of a TEC or a PEC. The proposed clearing is not considered at variance to this principle.

*Principle (b): 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 fauna habitat is in poor condition with high levels of disturbance. The site contains some Marri trees that may be foraged by Black Cockatoo species. The Peppermint trees are considered too small to support Western Ringtail Possum dreys. The proposed clearing may be at variance to this principle due to the impact on Marri trees.

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

No Threatened or Priority plant species are likely to occur on the site given the past clearing and high level of disturbance. Therefore, the proposed clearing is not considered at variance to this principle.

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

The vegetation on the site is too degraded to be representative of a Threatened Ecological Community. The area is mapped as Banksia Woodlands of the Swan Coastal Plain PEC and within the buffer of the Herb-rich Claypans. However, the vegetation clearly is not representative of either of these two ecological communities. Therefore, the proposed clearing is not considered at variance to this principle.

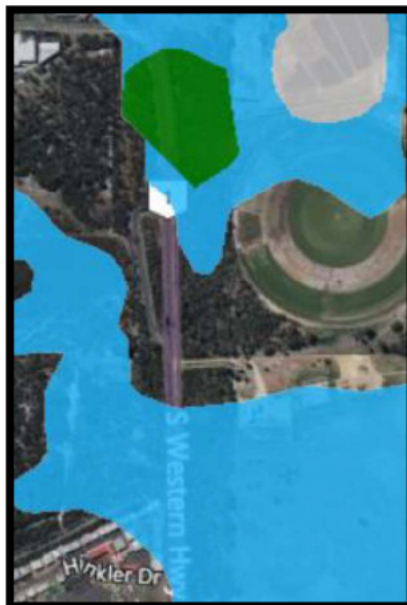
*Principle (e): Vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.*

The site is not a significant remnant of vegetation. The proposed clearing is not considered at variance to this principle.

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

The southern end of the pipeline passes through a portion of wetland mapped as a Multiple Use Palusplain (Unique Feature Identifier (UFI) 15450) (blue area on Plate 7). The northern end of the pipeline route is 20m to the west of a Conservation Category Palusplain (UFI 14516). Installation of the pipeline will not impact directly on the wetland vegetation or indirectly on the groundwater as no dewatering is anticipated for the installation. The proposed clearing is not considered to be at variance to this principle.

**Plate 7: Geomorphic Wetland Map**



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

Clearing the vegetation on the site is within a road reserve and will not result in land degradation.

*Principle (h): 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.*

A portion of the pipeline is adjacent to Manea Park, north of the Bunbury Airfield. A small amount of clearing is required in the area adjoining the Park. However, the proposed clearing will not impact on the environmental values of the Park and is therefore not considered at variance to this principle.

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

There are no surface watercourses in the application area. A part of Multiple Use Sumpland (UFI 15450) is mapped on the site. The wetland is highly modified, and the clearing will not further impact on the wetland values.

The proposed clearing is not considered at variance to this principle.

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

The proposed clearing is a linear strip of vegetation in a road reserve. Clearing will not exacerbate the incidence of flooding. The proposed clearing is not considered at variance to this principle.

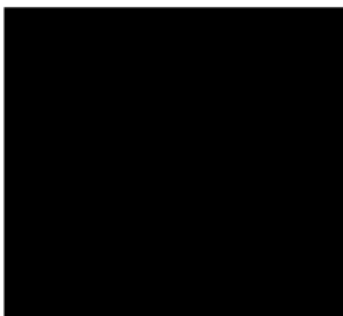
## **5 Conclusion**

Approximately 0.26ha of native vegetation is required to be cleared to install 1.84km of a water pipeline within the road reserve of the South Western Highway. The vegetation types consist of trees over a mostly cleared understorey. Assessment of the proposed clearing concludes that the clearing would not have a significant impact on the environment.

On behalf of Aqwest, PGV Environmental would like to apply for a Purpose Permit to clear the vegetation.

Please contact me if you would like any further information or if you would like some assistance on site during a site inspection.

Yours sincerely

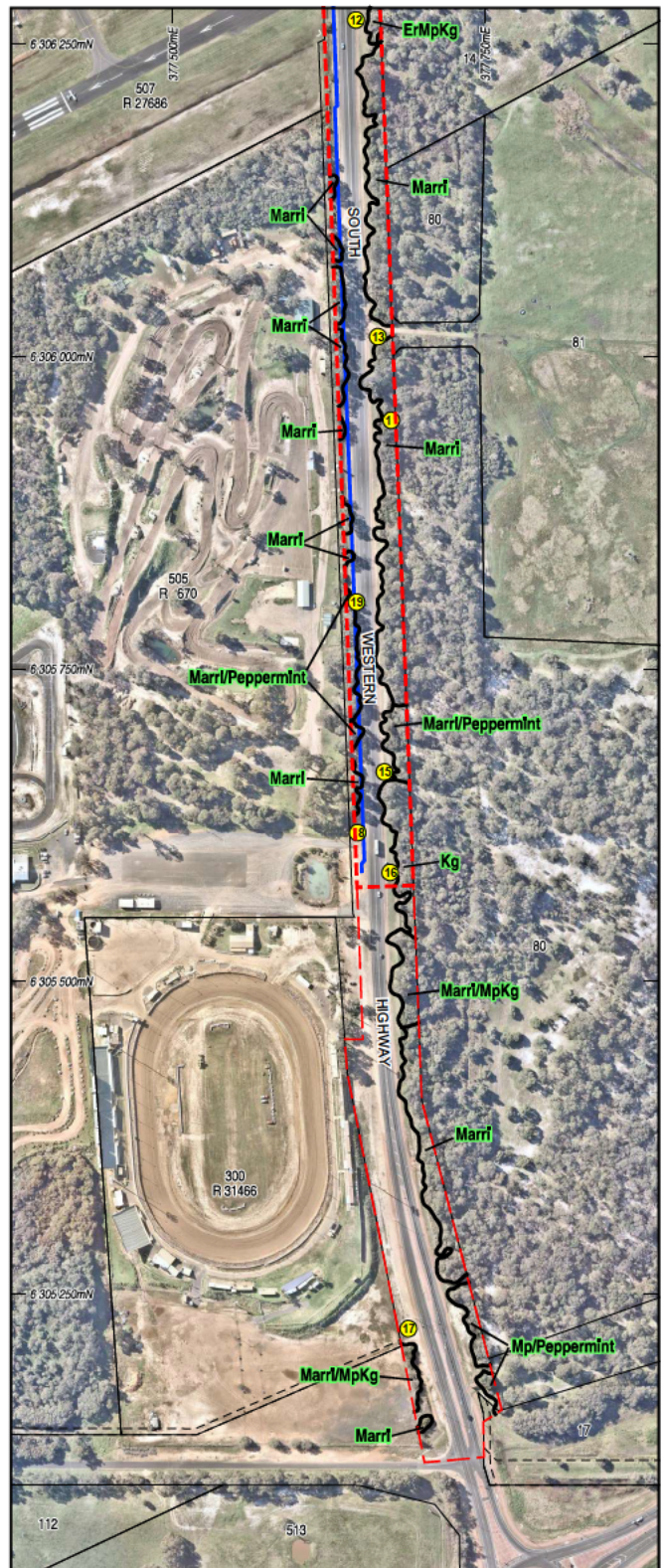
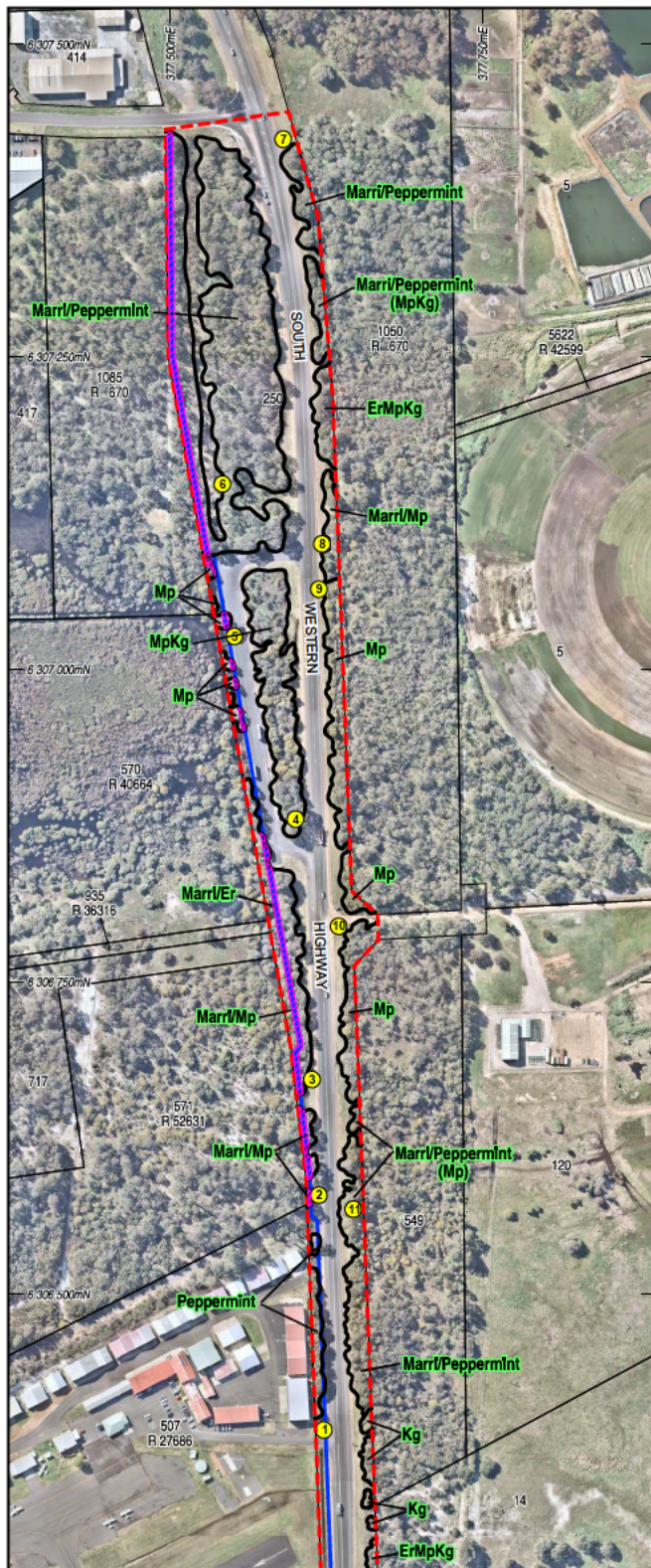


### **Accompanying Documentation**

Purpose Permit Application Form

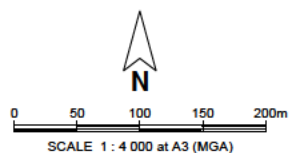
Shapefiles in ESRI Format





## Legend

- Site Boundary
- Extent of Survey
- Cadastral Boundary
- ④ Site Number
- Vegetation Type Boundary
- Mp** Vegetation Type
- Water Main Alignment
- Clearing Area



## Vegetation Types

- |  |  |
|--|--|
| Marri/Peppermint                                       | ErMpKg                                   |
| Marri/Peppermint Woodland                              | Flooded Gum/Paperbark/Spearwood Woodland |
| Marri  | Mp                                       |
| Marri Woodland   | Paperbark Low Woodland                   |
| Marri/Peppermint (MpKg)                                | MpKg                                     |
| Marri/Peppermint Woodland with Paperbark and Spearwood | Paperbark/Spearwood Low Woodland         |
| Marri/Mp   | Kg                                       |
| Marri Woodland with Paperbark                          | Spearwood Tall Shrubland                 |
| Marri/Er   |  |
| Marri/Flooded Gum Woodland                             |  |

**pgv**  
ENVIRONMENTAL

Drawn: P. van der Moezel

Date: 25 Feb 2022

Job: 10480 Rpt: -

Revision: A

Geographic Civil Pty Ltd  
NATIVE VEGETATION  
SOUTH WESTERN HIGHWAY WATER MAIN

## NATIVE VEGETATION

CADASTRAL SOURCE: Landgate, January 2022.  
AERIAL PHOTOGRAPH SOURCE: NearMap, flown September 2021.