

Document Reference: EP20-099(04)—004 SKP

Emerge contact: [REDACTED]

16 August 2021

PERTH OFFICE
Suite 4, 26 Railway Road
Subiaco
Western Australia 6008

P +61 8 9380 4988
F +61 8 9380 9636
emergeassociates.com.au

Emerge Environmental Services Pty Ltd ABN
57144772510 trading as Emerge Associates

Attention: Native Vegetation Regulation
Department of Water and Environmental Regulation
Locked Bag 10
JOONDALUP WA 6919

Delivered by email to: info@dwer.wa.gov.au

Dear Sir/Madam

**LETTER ADDRESSING THE *ENVIRONMENTAL PROTECTION ACT 1986*
CLEARING PRINCIPLES TO SUPPORT THE PROPOSED DUPLICATION OF
WARTON ROAD BETWEEN RANFORD ROAD AND NICHOLSON ROAD IN
CANNING VALE – ADDITIONAL AREA OF CLEARING WITHIN WARTON ROAD
ROAD RESERVE (LAND ID NUMBERS 3536574 AND 3951316)**

Overview

The City of Gosnells ('the applicant') has engaged Emerge Associates (Emerge) to provide environmental consultancy services to support the proposed duplication of Warton Road between Nicholson Road and Ranford Road which falls largely in the suburb of Canning Vale.

A clearing permit application (purpose permit 9257/1) was submitted by the applicant for the required clearing over the majority of the Warton Road road reserve in early April 2021. Subsequently, the applicant has determined the need to clear an additional 0.0186 ha of native vegetation to complete an important upgrade of the busy intersection of Warton and Ranford Road, within the suburb of Forrestdale, as is shown on **Figure 1**.

The following letter is provided in support of a clearing permit application (purpose permit) pursuant to Part V of the *Environmental Protection Act 1986* (EP Act) and addresses the ten clearing principles.

Emerge believe that the proposed clearing is consistent with the EP Act Clearing Principles, it relates to a relatively very small linear strip of degraded vegetation.

1 INTRODUCTION AND BACKGROUND

The City of Gosnells ('the applicant') plans to duplicate Warton Road between Nicholson Road and Ranford Road in Canning Vale. This duplication requires the clearing of native vegetation across the majority of the Warton Road road reserve, for which a clearing permit application was submitted in early April 2021 (purpose permit 9257/1).

Subsequently, the applicant has determined that an additional 0.0186 ha of native vegetation will need to be cleared near the junction of Warton and Ranford Roads (herein referred to as the 'clearing permit application area' and as shown on **Figure 1**).

The clearing permit application area is located on land managed by the City of Armadale (land ID numbers 3536574 and 3951316) and that is classified as 'other regional roads' under the Metropolitan Region Scheme (MRS) and the City of Armadale *Town Planning Scheme* (TPS) No. 4

The NV-F02 form is provided as **Attachment 1**. The City of Armadale have approved the City of Gosnells to sign this clearing permit application on their behalf, as per **Attachment 2**.

2 APPLICATION OF MITIGATION HIERARCHY

In accordance with *A guide to the assessment of applications to clear native vegetation* (DER 2014), the impact mitigation sequence has been considered in order to ensure the environmental impact from the proposed clearing for the project was kept to a minimum. These are detailed in the previous clearing permit application.

3 FLORA AND VEGETATION SURVEYS

A flora and vegetation survey was completed in the spring of 2020 across the broader Warton Road road reserve and an additional 20 m buffer area into the adjacent Jandakot Regional Park. The results were presented within the *Flora and Vegetation Survey and Monitoring Report* (Emerge 2021). The current works area is located directly to the north of the survey area covered by the *Flora and Vegetation Survey and Monitoring Report*. On this basis a reconnaissance survey was subsequently undertaken by Emerge on 22 April 2021 in order to confirm the environmental values present within the current works area (shown on **Figure 1**).

The reconnaissance survey identified that no threatened or priority flora were recorded within the clearing permit application area. One individual of the priority 4 species *Verticordia lindleyi* subsp. *lindleyi* was noted to occur approximately 10 m to the east of the clearing permit application area. This species is a perennial shrub and thus its absence from the clearing permit application area was straightforward to confirm. A range of annual or geophytic flora species have potential to occur in the clearing permit application area based on desktop information (Emerge 2021). These species may not have been detectable during the April survey meaning their absence could not be confirmed. The majority of such species tend to occur in low-lying habitats with the exception of the threatened species *Caladenia huegelii*, which occurs in 'well-drained, deep sandy soils in lush undergrowth in a variety of moisture levels' (Emerge 2021) (see Table 6 within the *Flora and Vegetation Survey and Monitoring Report* (Emerge 2021)). The clearing permit area straddles a steep sandy bund that drops away into a low-lying area of vegetation to the east. The boundary of the clearing permit application area is close to the base of the bund (**Plate 1** and **Plate 2**). As such, and considering the degraded condition of vegetation discussed below, it is considered unlikely that any threatened or priority, annual or geophytic flora occur in the clearing permit application area.

One native plant community was recorded within the clearing permit application area (**MpAfAc**). The remainder of the works area contain bare earth or non-native species (**Figure 2**). The **MpAfAc** vegetation comprises a woodland of *Melaleuca preissiana* and *Allocasuarina fraseriana* over an open shrubland of *Adenanthos cygnorum* subsp. *cygnorum* and *Rhagodia baccata* subsp. *baccata* (**Plate 1** to **Plate 3**). No other native species were present at the time of the survey within the clearing permit application area or wider works area. No declared pest species were recorded within the works area. However, several non-native species were recorded, including:

- **Pelargonium capitatum*
- **Eragrostis curvula*
- **Briza maxima*
- **Avena barbata*
- **Sonchus* sp.
- **Hypochaeris* sp.
- **Leptospermum laevigatum*.

The area of plant community **MpAfAc** within the clearing permit application area was mapped as being in degraded condition, due to limited native species present in the understorey layer, weed invasion and the alteration of the landform to form a steep bund. The majority of the bund itself comprises non-native species and overhanging branches from the trees and shrubs at the base of the slope. The remaining portion of the works area were mapped as being in 'completely degraded' condition and did not contain any native flora species (**Table 1** and **Figure 3**).

In conjunction with the vegetation to the east, plant community **MpAfAc** was considered most likely to represent FCT 21c ('low lying *Banksia attenuata* woodlands and shrublands'). FCT 21c is included within the 'banksia woodlands of the Swan Coastal Plain' Commonwealth 'threatened ecological community' (TEC) and the State 'priority ecological community' (PEC) (P3). FCT 21c is also separately listed at the State level as a PEC. As the clearing permit area does not meet the diagnostic characteristic of containing any *Banksia* spp it was not considered to represent the 'banksia woodlands of the Swan Coastal Plain' TEC or PEC. Conservation advice for PECs is less specific than that for TECs, but it is likely that only vegetation in good or better condition would be considered to represent the 'low lying *Banksia attenuata* woodlands and shrublands' PEC. As the vegetation within the clearing permit application area is in degraded condition, it is not considered to represent this PEC. As such, the clearing permit application area contains no TECs or PECs.



Plate 1: Plant community **MpAfAc** in 'degraded' condition (centre) and cleared areas with non-native species (left) located within the works area. Blue flagging tape in the centre of the photograph shows eastern extent of the clearing permit application area. Note the presence of a steep bund throughout most of the works area. Photograph taken looking north near the southern extent of the works area.



Plate 2: Photograph taken looking down the bund in the central portion of the works area. Blue flagging shows eastern extent of the clearing permit application area.



Plate 3: The northern most portion of the works area containing an Allocasuarina fraseriana tree with no native understorey.

Table 1: Extent of vegetation condition categories within the works area and clearing permit application area

Condition category (Keighery 1994)	Size (ha)	
	Works area	Clearing permit application area
Pristine	0	0
Excellent	0	0
Very good	0	0
Good	0	0
Degraded	0.0168	0.0168
Completely degraded	0.0118	0
TOTAL	0.0287	0.0168

4 RESPONSE TO EP ACT CLEARING PRINCIPLES

Under Section 51C of the EP Act, clearing of native vegetation is an offence unless a clearing permit has been obtained or an exemption applies. When assessing clearing permit applications, DWER has regard to the ten clearing principles contained in Schedule 5 of the EP Act so far as they are relevant to the matter under consideration.

In support of this purpose permit clearing application, we have considered and responded to the ten clearing principles in the following sections.

Principle (a) – Native vegetation should not be cleared if it comprises a high level of biological diversity.

The clearing permit application area is located on the Swan Coastal Plain, which is recognised as an area of high biological diversity (EPA 2007). The clearing permit application area contains a total of four native flora species. The plant community **MpAfAc** was considered to be representative of FCT 21c. FCT 21c is included within the 'banksia woodlands of the Swan Coastal Plain' Commonwealth TEC and the State PEC (P3). FCT 21c is also separately listed at the State level as a PEC. As the clearing permit area does not meet the diagnostic characteristic of containing any *Banksia* spp. it is not considered to represent the banksia woodlands of the Swan Coastal Plain TEC or PEC. Conservation advice for PECs is less specific than that for TECs, but it is likely that only the areas of vegetation in good or better condition would be considered to represent this PEC. As the clearing permit area is in degraded condition, it is not considered to represent this PEC. As such, the clearing permit area contains no TECs or PECs.

The clearing permit application area does not support a high level of biological diversity. The proposed clearing is therefore not considered to be at variance with Principle (a).

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.

Fauna values within the clearing permit application area are limited due to the historical clearing, vegetation degradation, and the presence of weeds. It is unlikely that the clearing permit application area would provide important fauna habitat to conservation significant fauna species given the small size of the clearing permit application area, and its highly modified and fragmented environment. There are also areas of better-quality contiguous vegetation located to the south and east of the clearing permit application area, which are likely to be preferred by native fauna.

Based on the small extent of vegetation proposed to be cleared, the removal of vegetation within the clearing permit application area is unlikely to have a significant impact on a habitat for fauna indigenous to Western Australia. Therefore, clearing within the clearing permit application area is not considered to be at variance with Principle (b).

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

No occurrences of rare flora were recorded within the clearing permit application area. Whilst the reconnaissance survey was undertaken in April, and thus there is the possibility that rare flora species would not have been discernible at the time of the survey. Most of the conservation significant species likely to occur in the wider area occur in low-lying habitats. The clearing permit area consists of a steep sandy bund with Warton Road to the west and a low-lying area of vegetation to the east. As such, should such species be present, they are considerably more likely to occur to the east of the works area. One exception is the threatened species *Caladenia huegelii*, which occurs in 'well-drained, deep sandy soils in lush undergrowth in a variety of moisture levels' (Emerge 2021). Despite this, the species is highly unlikely to occur in a weedy bund close to a main road.

The proposed clearing is therefore not at variance with Principle (c).

Principle (d) – Native 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.

No TECs are present within the clearing permit area. Thus the proposed clearing is not considered to be at variance with Principle (d).

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.

Vegetation complex mapping for the Swan Coastal Plain undertaken by Heddle *et al.* (1980) indicates that the clearing permit application area occurs within an area mapped as the 'Southern River complex'. This is described as 'open woodland of *Corymbia calophylla* - *Eucalyptus marginata* - *Banksia* species with fringing woodland of *Eucalyptus rudis* - *Melaleuca raphiophylla* along creek beds'.

The Southern River complex has 18.43% of its pre-European extent remaining on the Swan Coastal Plain with 1.18% under formal protection (Government of Western Australia 2018). Within the City of Gosnells, 8.23% of the original extent of the Southern River complex is remaining (Government of Western Australia 2018).

The Environmental Protection Authority's (EPA) (2006) *Guidance Statement No. 10. Guidance for the Assessment of Environmental Factors – Level of Assessment for Proposals Affecting Natural Areas Within the System 6 Region and Swan Coastal Plain Portion of the System 1 Region* identified a standard level of native vegetation retention of at least 10% of the pre-clearing extent of the vegetation complex in 'constrained areas' such as the Swan Coastal Plain portion of the Perth Metropolitan Region.

It is acknowledged that whilst over 10% of the Southern River complex remains on the Swan Coastal Plain, there is currently very low levels of this complex retained in formal protection.

The vegetation within the clearing permit application area has been assessed as being in a 'degraded' condition. Thus the vegetation within the clearing permit area is not considered to represent significant vegetation of the Southern River complex.

Thus, the proposed clearing is not considered to be at variance with Principle (e).

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

As the vegetation within the clearing permit application area is not directly associated with a wetland, the proposed clearing is not considered to be at variance with Principle (f).

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

An examination of broad scale mapping places the clearing permit application area within the Southern River association (Churchward and McArthur 1980). The Southern River association comprises 'sandplain with low dunes and many intervening swamps; iron and humus podzols, peats and clays.' Soil landscape mapping indicates that the majority of the clearing permit application area is identified as sand (DPIRD 2019). Due to the features of these soils, the key risk for land degradation is wind erosion.

The proposed clearing of vegetation is unlikely to cause substantial wind erosion within the clearing permit application area, given the small amount of vegetation to be cleared, and mitigation measures to be employed during clearing, including dust suppression and surface stabilisation where required. Exposed surfaces within the clearing permit application area will be sealed post-clearing.

The proposed clearing is therefore not at variance to Principle (g).

Principle (h) – 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.

No conservation reserves are adjacent to the clearing permit application area. The measures for avoiding and mitigating any potential impacts to the portion of Jandakot Regional Park close to Warton Road were detailed in the previous clearing application and comprise a three-year maintenance and monitoring program as outlined in the *Flora and Vegetation and Monitoring Report* including weed control and rubbish removal every 6 weeks within the first 20 m of the regional park. The details of the post-construction monitoring program is outlined in **Section 5.7** of the *Flora and Vegetation and Monitoring Report*. This will allow the applicant to implement additional management measures should the condition of the portion of the Jandakot Regional Park directly adjoining Warton Road showing signs of decline.

Given the management measures proposed by the applicant and that the small area of vegetation within the clearing permit application area is in degraded condition with weed species currently present, the proposed clearing is not considered to be at variance to Principle (h).

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.

Deterioration in quality of surface water or underground water can occur as a result of activities that result in sedimentation, increased nutrient levels, changes to pH (through acid sulphate soils), salinity or changes in water regimes of groundwater dependent ecosystems. As outlined above, given the small amount of vegetation to be cleared; mitigation measures to be employed during clearing (dust suppression and surface stabilisation where required); and the long-term management of exposed surfaces post-clearing (surface sealing and the installation of linear biofiltration drains to treat road run-off), clearing is not likely to cause a deterioration in water quality.

Acid sulphate soil (ASS) risk mapping prepared by DWER (2021) indicates that the entire clearing permit application area has been identified as having a moderate to low risk of ASS occurring within 3 m of the natural soil surface.

It is unlikely that the proposed clearing will cause ASS or other issues that could cause a deterioration in water quality within or surrounding the clearing permit application area, and therefore the proposed clearing is not at variance with Principle (i).

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

The clearing permit application area is located within an area that is mapped as having predominantly sandy, free-draining soils.

A review of publicly available data and site-specific investigations did not identify any environmental factors that would increase the incidence of flooding, as discussed below:

- The water table below the clearing permit application area is between approximately 3.5 to 4 m below the natural surface level (DWER 2021).
- The clearing permit application area is not mapped as occurring within a floodplain area (DWER 2020).

Based on the above factors, the proposed removal of native vegetation within the clearing permit application area will not cause or exacerbate an incidence of flooding. The proposed clearing is not considered to be at variance with Principle (j).

5 SUMMARY AND CLOSING

The clearing permit application area is approximately 0.0186 hectares (ha) in size, and contains:

- One native plant community in ‘degraded’ condition.
- No recorded threatened flora species.
- No TECs or PECs.

A summary of response to clearing principles is provided in **Table 2**.

Table 2: Summary of response to each clearing principle

Clearing principle	Response to clearing permit principle
Principle (a)	Not at variance.
Principle (b)	Not at variance.
Principle (c)	Not at variance.
Principle (d)	Not at variance.
Principle (e)	Not at variance.
Principle (f)	Not at variance.
Principle (g)	Not at variance.
Principle (h)	Not at variance.
Principle (i)	Not at variance.
Principle (j)	Not at variance.

Emerge believe that the proposed clearing is consistent with the EP Act Clearing Principles, as detailed in this letter. This application relates to a relatively small amount of clearing along a narrow linear strip, that will impact upon degraded vegetation and that is required for the construction of an important upgrade to a busy section of road.

Should you have any questions regarding the content of this letter, please do not hesitate to contact the undersigned.

Yours sincerely
Emerge Associates



PRINCIPAL ENVIRONMENTAL CONSULTANT

cc:

Encl: Attachment 1: NV-F02 form
Attachment 2: City of Armadale letter of authority
Attachment 3: City of Armadale Technical Services Committee meeting minutes
Figure 1: Site Location
Figure 2: Plant Communities
Figure 3: Vegetation Condition

General References

Churchward, H. M. and McArthur, W. M. 1980, '*Landforms and Soils of the Darling System, Western Australia*', in Department of Conservation and Environment (ed.), *Atlas of Natural Resources Darling System Western Australia*, Department of Conservation and Environment.

Department of Biodiversity, Conservation and Attractions (DBCA) 2020, *Geomorphic Wetlands, Swan Coastal Plain (DBCA-019)*.

Department of Environment Regulation (DER) 2014, *A guide to the assessment of applications to clear native vegetation under Part V Division 2 of the Environmental Protection Act 1986*, Perth.

Department of Environment and Energy (DoEE) 2016, *Approved Conservation Advice (incorporating listing advice) for the Banksia Woodlands of the Swan Coastal Plain ecological community*, Canberra.

Department of Primary Industries and Regional Development (DPIRD) 2019, *Soil Landscape Mapping - Best Available (DPIRD-027)*.

Department of Water and Environmental Regulation (DWER) 2020, *FPM 1 in 100 (1%) AEP Floodplain Development Control Area (DWER-003)*.

Environmental Protection Authority (EPA) 2006, *Guidance Statement No. 10. Level of Assessment for Proposals Affecting Natural Areas Within the System 6 Region and Swan Coastal Plain Portion of the System 1 Region*, Perth.

Environmental Protection Authority (EPA) 2007, *State of the Environment Report: Western Australia 2007*, Perth.

Government of Western Australia 2018, *Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of December 2017*, WA Department of Biodiversity, Conservation and Attractions, Perth.

Hedde, E. M., Loneragan, O. W. and Havel, J. J. 1980, '*Vegetation Complexes of the Darling System Western Australia*', in Department of Conservation and Environment (ed.), *Atlas of Natural Resources Darling System Western Australia*, Perth.

Online References

Department of Water and Environmental Regulation (DWER) 2021, *Perth Groundwater Map*, viewed April 2021, <https://maps.water.wa.gov.au/#/webmap/gwm>.

Landgate 2021, *Map Viewer*, viewed April 2021, <https://maps.landgate.wa.gov.au/maps-landgate/registered/>.



Figure 1: Site Location

Project: Clearing Permit Application
Proposed Warton Road Duplication, Forrestdale

Client: City of Gosnells

Plan Number: EP20-099(04)--F20a
Drawn: GAR
Date: 06/05/2021
Checked: SKP
Approved: TAA
Date: 06/05/2021



0 10 20 30
Metres
Scale: 1:1,000@A4
GDA 1994 MGA Zone 50





Figure 2: Plant Communities

Project: Clearing Permit Application
Proposed Warton Road Duplication, Forrestdale

Client: City of Gosnells

Plan Number: EP20-099(04)--F21a
Drawn: GAR
Date: 06/05/2021
Checked: SKP
Approved: TAA
Date: 06/05/2021



0 2 4 6
Metres

Scale: 1:200@A4
GDA 1994 MGA Zone 50

emerge
ASSOCIATES

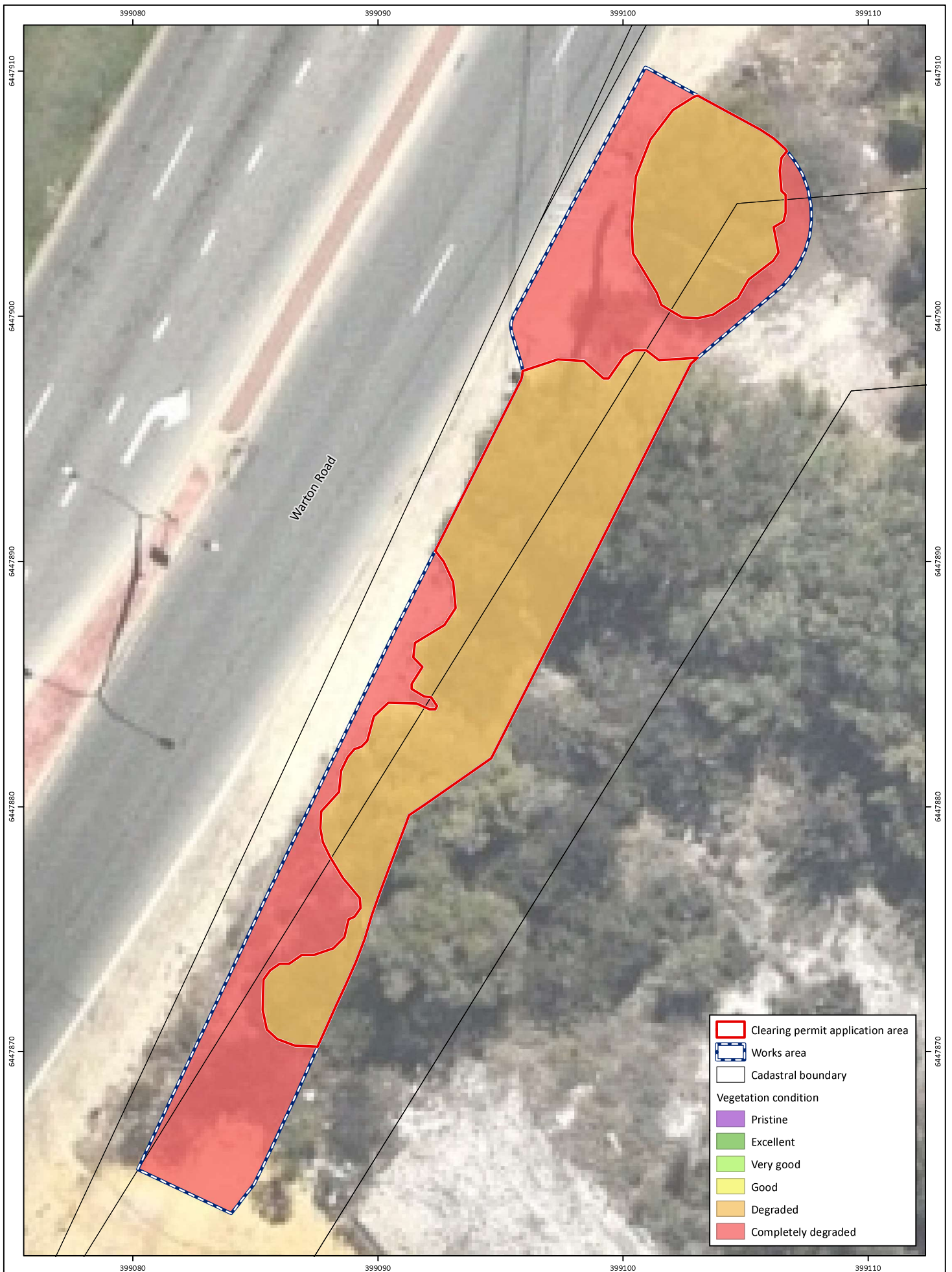


Figure 3: Vegetation Condition

Project: Clearing Permit Application
Proposed Warton Road Duplication, Forrestdale

Client: City of Gosnells

Plan Number:
EP20-099(04)--F22a

Drawn: GAR

Date: 06/05/2021

Checked: SKP

Approved: TAA

Date: 06/05/2021



0 2 4 6
Metres

Scale: 1:200@A4
GDA 1994 MGA Zone 50

