



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 8870/1
Permit Holder:	City of Karratha
Duration of Permit:	16 August 2020 to 16 August 2025

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I – CLEARING AUTHORISED

1. Purpose for which clearing may be done

Clearing for the purpose of realigning a transportation corridor.

2. Land on which clearing is to be done

Lot 302 on Deposited Plan 41933, Gap Ridge
Bayly Avenue road reserve (PIN 1173499)

3. Area of Clearing

The Permit Holder must not clear more than 0.25 hectares within the area cross-hatched yellow on attached Plan 8870/1.

4. Application

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

5. Type of clearing authorised

This Permit authorises the Permit Holder to clear native vegetation for the activities described in condition 1 of this Permit for the purpose of carrying out works under the *Local Government Act 1995* or any other written law.

PART II – MANAGEMENT CONDITIONS

6. Avoid, minimise and reduce the impacts and extent of clearing

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

- avoid the clearing of native vegetation;
- minimise the amount of native vegetation to be cleared; and
- reduce the impact of clearing on any environmental value.

7. Weed control

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of weeds:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no weed-affected soil, mulch, fill or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

PART III – RECORD KEEPING AND REPORTING

8. Record keeping

The Permit Holder must maintain the following records in relation to the clearing of native vegetation authorised under this Permit:

- (a) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
- (b) the date(s) that the area was cleared;
- (c) the size of the area cleared (in hectares);
- (d) actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 6 of this Permit;
- (e) actions taken to minimise the risk of the introduction and spread of *weeds* in accordance with condition 7 of this Permit

9. Reporting

The Permit Holder must produce the records required under condition 8 of this Permit when required by the *CEO*.

DEFINITIONS

The following meanings are given to terms used in this Permit:


CEO means the Chief Executive Officer of the Department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*;

fill means material used to increase the ground level, or to fill a depression.

mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

weed/s means any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*;
or
- (b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or
- (c) not indigenous to the area concerned.

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Ryan Mincham
MANAGER
NATIVE VEGETATION REGULATION

*Officer delegated under Section 20
of the Environmental Protection Act 1986*

24 July 2020

Plan 8870/1



Legend

CPS layers


 CPS areas approved to clear

base layers

 Road Centrelines

Image




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Officer delegated under section 20 of the
Environmental Protection Act 1986



GOVERNMENT OF
WESTERN AUSTRALIA



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 8870/1
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: City of Karratha
Application received date: 9 April 2020

1.3. Property details

Property: Lot 302 on Deposited Plan 41933
Bayly Avenue road reserve (PIN 1173499)
Local Government Authority: City of Karratha
Localities: Gap Ridge

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	Purpose category:
0.25		Mechanical Removal	Realigning transportation corridor

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 24 July 2020

Reasons for Decision: The clearing permit application was received on 26 February 2020 and has been assessed against the clearing principles, planning instruments and other matters in accordance with section 51O of the *Environmental Protection Act 1986* (EP Act). The proposed clearing is not likely to be at variance with any of the clearing principles.

The applicant has demonstrated that measures to mitigate and minimise the impacts of clearing have been appropriately considered. In determining to grant a clearing permit subject to conditions, the Delegated Officer found that the proposed clearing is not likely to lead to an unacceptable risk to the environment.

2. Site Information

Clearing Description: The application is to clear 0.25 hectares of native vegetation within a defined development envelope of 3.4 hectares. The application area is located within Lot 302 on Deposited Plan 41933 and Bayly Avenue road reserve (PIN 1173499), Gap Ridge (Karratha), for the purposes of reconstruction and realignment of an existing transportation corridor, Bayly Avenue, which provides primary access to Karratha Airport.

Vegetation Description: The application area is mapped as occurring within Beard vegetation association 589: Short bunch-grass savanna steppe (Shepherd et al., 2001).

The flora and vegetation within the application area was surveyed in March 2020 by a qualified botanist and Sustainability Officer for the City of Karratha. The majority of the application area is devoid of vegetation, with only a minor area of grasses occurring in the west within a natural drainage area comprising levees and channels. There are a number of tree stands that have previously been planted as landscape features along the existing Bayly Avenue, which comprise *Eucalyptus victrix*, *Hibiscus tiliaceus*, and a palm. Six flora releve sites were applied across the application area, from which visual vegetation assessments were undertaken. Four vegetation types were described across the application area (City of Karratha, 2020):

- Low hummock grassland of *Triodia angusta* over low isolated clumps of shrubs of *Indigofera monophylla* and *Diplopeltis eriocarpa* and isolated forbs of *Hybanthus aurantiacus* with low isolated clumps of samphire shrubs in drainage lines and remnant mudflat.
- Low sparse tussock grassland of *Eragrostis xerophila*, **Cenchrus ciliaris* and *Dactyloctenium radulens* over low isolated clumps of shrubs of *Neptunia dimorphantha*.
- Low isolated clumps of tussock grasses of *Eragrostis xerophila*, **Cenchrus ciliaris* and *Dactyloctenium radulens* over low isolated clumps of shrubs of *Portulaca oleracea*.
- Low isolated tussock grassland of *Eragrostis xerophila*, **Cenchrus ciliaris* and *Eriachne obtusa* over low isolated clumps of shrubs *Portulaca oleracea*.

Vegetation Condition: Good; vegetation structure significantly altered with obvious signs of multiple disturbance. Retains basic vegetation structure or ability to regenerate.

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Completely degraded; the structure of the vegetation is no longer intact and the area is completely or almost completely without native species.

The majority of the application area is devoid of vegetation, with only a minor area of 0.25 hectares of grasses occurring in the west within a natural drainage area comprising levees and channels (Talis, 2020). The vegetation within the application area was assessed to range from Good to Completely Degraded condition (City of Karratha, 2020). The majority of the application area has been subject to previous disturbance from the establishment of Bayly Avenue and powerline corridors. The area is also regularly mown, and thus most of the application area displays soil disturbance and weed growth (Talis, 2020).

Soil type: The application area is situated within Lithostratigraphic Unit 'Qa', exhibiting channel and flood plain alluvial deposits of gravel, sand, silt, and clay, with locally calcareated areas (Talis, 2020).

The application area is situated on the Cheerawarra Land System which is described as sandy coastal plains and saline clay plains supporting soft and hard spinifex grasslands and minor tussock grasslands.

Comments: The local area referred to in the assessment of this application is defined as a 20 kilometre radius measured from the perimeter of the application area.

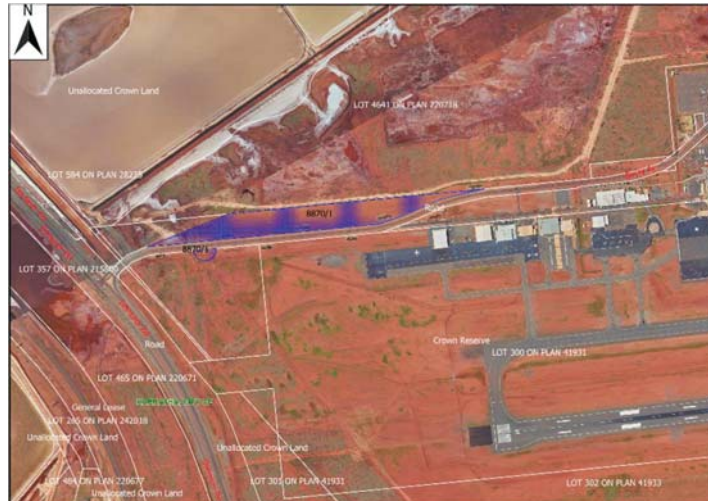


Figure 1: application area



Figure 2 and 3: Photographs of the application area (City of Karratha, 2020)



Figure 4 and 5: Photographs of the application area (City of Karratha, 2020)

3. Minimisation and mitigation measures

The City of Karratha have outlined a number of Environmental Management measures which will be undertaken during clearing and construction.

Prior to clearing, the disturbance footprint will be demarcated using high visibility tape or an equivalent marking tool where necessary to ensure that operators undertake clearing within the defined development envelope. Clearing will be undertaken using a dozer or loader to remove vegetation, topsoil and overburden. Any salvaged vegetation and topsoil will be stockpiled nearby for use in future rehabilitation works. A spotter will be present at all times to ensure all clearing and disturbance is undertaken within the proposed clearing boundaries.

Tussock grasses within the application area are regularly mown by the City of Karratha as part of landscape maintenance. This activity will continue to be undertaken throughout the Project works, and when required thereafter.

In the instance where the proposed works unexpectedly intercept Threatened and Priority flora and/or fauna, the City of Karratha will cease work and seek independent management advice from the DBCA.

The City of Karratha has committed to weed management for the Project which will be undertaken in accordance with City of Karratha procedures.

Where substantial dust generation is observed during clearing, the City of Karratha has committed to undertake appropriate means of dust suppression where required.

4. Assessment of application against clearing principles

The application proposes the clearing of 0.25 hectares of native vegetation within a defined development envelope of 3.4 hectares for the purpose of the reconstruction and realignment of an existing transportation corridor, Bayly Avenue, which provides primary access to Karratha Airport. The flora and vegetation within the application area was surveyed in March 2020 by a qualified botanist and Sustainability Officer for the City of Karratha. The majority of the application area is devoid of vegetation, with only a minor area of grasses occurring in the west within a natural drainage area comprising levees and channels. There are a number of tree stands that have previously been planted as landscape features along the existing Bayly Avenue, which comprise *Eucalyptus victrix*, *Hibiscus tiliaceus*, and a palm. Six releve sites were applied across the application area, from which visual vegetation assessments were undertaken. The vegetation within the application area consists of low hummock grasslands of *Triodia angusta* with low isolated clumps of samphire shrubs in drainage lines and remnant mudflat to low sparse or isolated clumps of tussock grasses of *Eragrostis xerophila*, **Cenchrus ciliaris*, *Eriachne obtusa* and *Dactyloctenium radulens* over scattered to isolated shrubs on flat coastal plains. The vegetation condition ranges from Good to Completely Degraded condition. The majority of the application area has been subject to previous disturbance from the establishment of Bayly Avenue and powerline corridors and the area is also regularly mown, causing soil disturbance and weed growth (Talis, 2020) Given the small size and condition of the application area and absence of conservation significant flora, fauna or ecological communities, the application area is not considered to contain a high level of biological diversity.

According to available databases, 58 conservation significant fauna species have been recorded in the local area. No conservation significant fauna have been recorded within the application area. The closest known record is the Migratory bird Little Curlew (*Numenius minutus*), located at the Karratha airport approximately 1 kilometre from the application area. The majority of significant fauna potentially occurring within the application area are migratory shorebirds. The nearby solar evaporation ponds associated with the Dampier Salt Operations are known to provide optimal wetland habitat for a diversity of shorebirds, with high abundances of these species observed during seasonal roosting and feeding (Talis, 2020). An opportunistic fauna assessment of the application area was undertaken in conjunction with the flora and vegetation assessment. The assessment did not record any Threatened or Priority fauna species. The vegetation within the application area has been highly disturbed with minimal native vegetation remaining. Given the ongoing disturbances to the application area and proximity to the existing road and airport infrastructure, the application area is unlikely to comprise significant habitat for indigenous fauna, including species of conservation significance.

A review of available databases determined that no Threatened flora and ten Priority flora are known to occur within the local area (20 kilometre radius). The closest known records are *Stackhousia clementii* (Priority 3) located approximately 1.6 kilometres away and *Themeda* sp. Hamersley Station (M.E. Trudgen 11431) (Priority 3) located approximately 2.1 kilometres from the application area. No threatened or priority flora species were recorded within the application area during the flora and vegetation survey.

No threatened ecological communities (TECs) have been recorded within the application area or within the local area. Three priority ecological communities (PECs) have been recorded within the local area. The application area falls within the buffer area of the 'Roebourne Plains coastal grasslands with gilgai microrelief on deep cracking clays (Roebourne Plains gilgai grasslands)' (Priority 1) PEC which is located approximately 250 metres south of the application area. None of the vegetation types identified during the flora and vegetation survey are considered representative of any threatened or priority ecological communities. The vegetation under application is not likely to comprise or be necessary for the maintenance of a threatened or priority ecological community.

The application area is not mapped as remnant vegetation and over 97.5% of remnant vegetation remains within the local area. The application area is located within the Pilbara Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion has approximately 99 per cent of its pre-European vegetation extent remaining (Government of Western Australia, 2019). The vegetation under application is mapped as Beard vegetation association 589 which currently retains approximately 99 per cent of its pre-European extent within the Pilbara IBRA bioregion and 99 per cent of its pre-European extent within the City of Karratha (Government of Western Australia, 2019). Given the above, the application area is not considered a significant remnant within an extensively cleared landscape.

A review of available databases and aerial photography of the application area has determined that no watercourses or wetlands occur within or in the vicinity of the application area.

Clearing of the application area is not likely to result in appreciable land degradation. The minor localised wind and surface water erosion can be adequately managed through dust suppression activities during periods of particular risk, such as high winds or rainfall events. Increased risk of erosion is considered minimal as vegetative cover within the application area is currently already sparse, consisting mostly of grasses, additionally the topographical contours of the site show that there is minimal change in aspect across the entire application area. It should also be noted that the end land use will be sealed road and managed verges.

The application area is not within or in close proximity to any conservation areas or nature reserves. The closest DBCA-managed area is the Murujuga National Park which is located 4 kilometres north of the application area, on the Dampier Archipelago. Based on the distance from conservation areas and the size of the application area, the proposed clearing is not likely to have an impact on the environmental values of any conservation area.

The application area is located within the Pilbara Ground Water Area and the Pilbara Surface Water Area, as proclaimed under the *Rights in Water and Irrigation Act 1914*. As the end land use is not agricultural and will not involve the abstraction of groundwater this is not a significant environmental issue.

The soil type has a very low susceptibility to water repellance and given the small application area and sparse existing vegetation the proposed clearing is unlikely to significantly cause, or exacerbate, the incidence or intensity of flooding in the local area.

Given the above, the proposed clearing is not likely to be at variance with any of the clearing principles.

Planning instruments and other relevant matters.

No Aboriginal sites of significance have been mapped within the application area

The clearing permit application was advertised on the DWER website on 13 May 2020 with a 21 day submission period. No public submissions have been received in relation to this application.

The application area is located within the Pilbara Ground Water Area and the Pilbara Surface Water Area, as proclaimed under the *Rights in Water and Irrigation Act 1914*. The applicant is advised to contact the Department of Water and Environmental Regulation to determine any licensing and permit requirements.

5. References

City of Karratha (2020) Flora and Vegetation Data for Application for Clearing Permit Bayly Avenue Road Reserve – Karratha, prepared for Talis Consultants.

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.

Government of Western Australia (2019) 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions.
<https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>.

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.

Talis Consultants Pty Ltd (2020) Bayly Avenue NVCP Supporting Document, prepared for the City of Karratha.