



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 4767/1
File Number: 2011/006925-1
Duration of Permit: From 3 May 2012 to 3 May 2014

PERMIT HOLDER

Town of Port Hedland

LAND ON WHICH CLEARING IS TO BE DONE

Lot 11 on Deposited Plan 144237 (Port Hedland 6721)
Lot 2443 on Deposited Plan 212197 (Port Hedland 6721)
Lot 2444 on Deposited Plan 212197 (Port Hedland 6721)
Lot 31 on Deposited Plan 168868 (Port Hedland 6721)

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 82.34 hectares of native vegetation within the area hatched yellow on attached Plan 4767/1.

CONDITIONS

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.

Definitions

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

fill means material used to increase the ground level, or fill a hollow;

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;

weeds means a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*.

Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

12 April 2012

Plan 4767/1

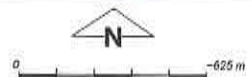


LEGEND

Clearing Instruments

- Areas Approved to Clear
- Road Centrelines
- Cadastre
- Image Index
(cont)

- Recently added
 - Coverage
- Port Hedland 50cm
Orthomosaic - Landgate
2004



Scale 1:24351

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: The data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

Date 12/4/12

K. Pulkner
Officer with delegated authority under Section 20 of
the Environmental Protection Act 1986

Information derived from this map should be
confirmed with the data custodian acknowledged
by the agency acronym in the legend.



Department of
Environment and Conservation

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1. Application details

1.1. Permit application details

Permit application No.: 4767/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Town of Port Hedland

1.3. Property details

Property: LOT 11 ON PLAN 144237 (Lot No. 11 GREAT NORTHERN PORT HEDLAND 6721)
LOT 2443 ON PLAN 212197 (Lot No. 2443 GREAT NORTHERN PORT HEDLAND 6721)
LOT 2444 ON PLAN 212197 (Lot No. 2444 GREAT NORTHERN PORT HEDLAND 6721)
LOT 31 ON PLAN 168868 (PORT HEDLAND 6721)

Local Government Area: Town of Port Hedland
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
82.34		Mechanical Removal	Building or Structure

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 12 April 2012

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
The area to be cleared consists of Beard Vegetation Association 647 - Hummock grasslands, dwarf-shrub steppe; <i>Acacia translucens</i> over soft spinifex (Shepherd, 2009).	Under this application the Town of Port Hedland is proposing to clear 82.34 hectares of native vegetation for the purpose of transient workforce accommodation.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	The condition of the vegetation under application was determined via a Flora and Vegetation Survey prepared by Pilbara Flora in November 2011.
	The area under application has been surveyed by Pilbara Flora (2011) and the following vegetation associations have been identified: Acacia stellaticeps heath with <i>Triodia</i> spp. Regrowth shrubland with <i>Poaceae</i> spp. Rehabilitated borrow pit mixed spp. Sapphire community Site Drain with <i>Typha domingensis</i>	To Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	
	The vegetation under application ranges in condition (Keighery, 1994) between 'completely degraded' and 'very good'. The majority of the vegetation has been assessed as being in 'very good' (Keighery, 1994).		

3. Assessment of application against clearing principles

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

Comments **Proposal may be at variance to this Principle**
This application proposes to clear 82.34 hectares of native vegetation for the purpose of constructing transient workforce accommodation. The clearing is proposed to take place within the boundaries of the Port Hedland International Airport, being; within Lot 11 on Deposited Plan 144237, Lot 31 on Plan 168868 and Lots 2443 and 2444 on Deposited Plan 212197.

Pilbara Flora was commissioned by the Town of Port Hedland to undertake a flora and vegetation survey of the application area. This survey identified a total of 131 vascular taxa from 82 genera and 34 families (Pilbara Flora, 2011).

The dominant landform within the application area is 'sandplains' and the dominant vegetation association is 'Acacia stellaticeps heath with *Triodia* spp.' (Pilbara Flora, 2011).

The Priority 1 species, *Tephrosia rosea* var. *venulosa*, has been recorded within the application area. *Tephrosia rosea* var. *venulosa* was listed as Priority 1 in 2008 due to its restricted distribution and because it was only known from a small number of locations near Port Hedland. Since it was listed a number of other small populations have been located within the Port Hedland area (DEC, 2012a). The Flora and Vegetation Survey provided by Pilbara Flora (2011) indicates that a number of other occurrences of this species are located near the area proposed to be cleared. As such, *Tephrosia rosea* var. *venulosa* will still be represented at the local level and therefore the loss of these plants would not severely impact the current extent of this species (DEC, 2012a).

No priority ecological communities (PEC) have been recorded within the areas under application (Pilbara Flora, 2011). The closest PEC was recorded 4.8km north east of the application area on different soil and vegetation types.

Pilbara Flora's Flora and Vegetation Survey (2011) identified two potential range extensions from the taxa recorded in the survey areas; *Glycine tomentella* and *Clerodendrum tomentosum* was. *Mollissima*.

Glycine tomentella is mainly a Kimberley species, but a single record is found in the Hamersley Ranges so the occurrence at Port Hedland is within range (DEC, 2012b). This species is broadly distributed and therefore it is likely to be present at other sites in the Pilbara, especially on coastal areas, and so the impact to this population is unlikely to be significant (DEC, 2012b).

Clerodendrum tomentosum was. *Mollissima* is scattered over much of the Kimberley, with the range extending down along 80 Mile Beach and Barrow Island (DEC, 2012b). So the Port Hedland site is within range, but a significant location as it is a mainland extension (from 80 Mile Beach). This species is only known from 13 locations in total, so the occurrence within the application is of significance given the number of collections and its range location. Measures should be taken avoid, minimise clearing of this species.

The area under application is surrounded by vegetation in a very good (Keighery, 1994) condition. The disturbance caused by the proposed clearing will increase the likelihood of weeds spreading into adjacent vegetation. Weed management practices will assist in mitigating this risk.

Given that the area under application is predominately in very good (Keighery, 1994) condition and contains priority flora the area under application may contain a high level of biodiversity.

Methodology DEC (2012a)
DEC (2012b)
Keighery (1994)
Pilbara Flora (2011)

GIS Databases:
- Port Hedland 50cm Orthomosaic - Landgate 2004
- Pre-European vegetation
- SAC Biodatasets

(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.

Comments **Proposal is not likely to be at variance to this Principle**

Numerous records of conservation significant fauna have been recorded within the local area (20km radius), including; *Dasyurus cristicauda* (Crest-tailed Mulgara), *Dasyurus hallucatus* (Northern Quoll), *Lagostrophus fasciatus* subsp. *fasciatus* (Bernier Is. Banded Hare-wallaby) and *Macrotis lagotis* (Bilby). All of these species are listed as rare or likely to become extinct under the Wildlife Conservation Act 1950.

The fauna habitats within the area proposed to be cleared are well represented elsewhere within the local and regional area, and no significant loss of habitat for fauna indigenous to Western Australia is expected. The area to be cleared does not represent a fauna corridor and therefore the clearing will not remove an ecological linkage that is necessary for the maintenance of fauna.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Database:
- SAC Biodatasets - Accessed 1 August 2011
- Pre European Vegetation

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

Comments **Proposal is not likely to be at variance to this Principle**
 There are no known records of rare flora within a 20km radius of the application area.

In addition, Pilbara Flora (2011) surveyed the application area did not identify any rare flora.

The proposed clearing is not likely to be at variance to this principle.

Methodology References:
 Pilbara Flora (2011)

GIS Databases:
 - SAC Biodatasets

(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.

Comments **Proposal is not likely to be at variance to this Principle**
 There are no known Threatened Ecological Communities (TECs) within a 20km radius of the proposed clearing area.

In addition, Pilbara Flora (2011) surveyed the application area and did not identify any TECs.

The proposed clearing is not likely to be at variance to this principle.

Methodology References:
 Pilbara Flora (2011)

GIS Databases:
 - SAC Biodatasets

(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.

Comments **Proposal is not likely to be at variance to this Principle**
 The area under application is located within the Pilbara Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion has approximately 100 per cent of its Pre European vegetation extent remaining (Shepherd, 2009).

The application area is mapped as Beard Vegetation Association 647. This vegetation association has approximately 100 per cent (196 371 hectares) of its pre-European extent remaining in the Pilbara bioregion (Shepherd, 2009).

The local area (20km radius) retains approximately 90 per cent vegetation cover. The vegetation loss within the local area is concentrated around the Port Hedland town site. The proposed clearing of 82.34 hectares at this location will see an increase in cleared land localised around the Port Hedland town site however when viewed at a regional level the 82.34 hectares (which is approximately 0.1 percent of the remaining extent of vegetation association 647) which is proposed to be cleared is unlikely to be considered to be a significant remnant in an extensively cleared area.

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

The vegetation types present within the application area retain above the recommended nation level and therefore the clearing as proposed is not likely to be at variance to this principle.

	Pre-European (ha)	Current Extent Remaining (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion*				
Pilbara	17 804 193	17 785 000	100	8
Shire*				
Town of Port Hedland	1 850 070	1 846 056	100	0

Beard Vegetation Association in Bioregion*
 647

Methodology References:
Commonwealth of Australia (2001)
Shepherd (2009)

GIS Databases:
- Port Hedland 50cm Orthomosaic - Landgate 2004
- Pre-European vegetation
- SAC Biodatasets

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

Comments **Proposal is not likely to be at variance to this Principle**
There are no watercourses or wetlands recorded within the application area.

The coastline is located approximately 1.5km north of the application area.

Considering the above the proposed clearing is not likely to be at variance to this principle.

Methodology Reference:
Pilbara Flora (2011)

GIS Databases:
- Hydrography, linear

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

Comments **Proposal is not likely to be at variance to this Principle**
The majority of the area under application has been mapped as soil type AB19 (90 per cent of application area) which Northcote (1960-68) describes as 'Extensive sandy plains: chief soils are red earthy sands (Uc5.21) with extensive areas of red earths (Gn2.12) and with some hard red soils (Dr) along creek lines?.'

The topography of the site is very flat and therefore water erosion is unlikely to be an issue.

The main land degradation risk associated with the proposed clearing is wind erosion however impacts are unlikely to be appreciable.

Given the above the proposed clearing is not likely to be at variance to this principle.

Methodology Reference:
Northcote et al (1960-68)

GIS Databases:
- SAC Biodatasets

(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.

Comments **Proposal is not likely to be at variance to this Principle**
The nearest Directory of Important Wetlands (formerly Australian Nature Conservation Agency (ANCA)) wetland area is the Leslie (Port Hedland) Saltfields System, located approximately 11 kilometres north-east of the proposed clearing areas. The Saltfields System plays an important ecological role, as a major migration stop-over area for shorebirds in the East-Asia-Australasia Flyway (Department of the Environment and Water Resources, 2007). However, based on the distance between the proposed clearing and the wetlands, adverse impacts on the environmental values of the wetlands are unlikely.

There are no other DEC managed lands or waters within a 20km radius of the area applied to be cleared.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Reference:
Department of the Environment and Water Resources (2007)

GIS Databases:
- ANCA, Wetlands

- DEC Tenure

(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.

Comments Proposal is not likely to be at variance to this Principle

The proposed clearing is unlikely to have a significant impact on groundwater in the proposed area given the average annual rainfall of the site is 315mm, with most rainfall occurring over the summer months (DoW 2007), and an evaporation rate of 400mm per annum. Furthermore, the existing vegetation is shallow rooted grass and shrub species and thus the proposed clearing is unlikely to have a significantly impact the level of the groundwater table.

The topography of the site is very flat thus little water is likely to leave the site as runoff and is unlikely to have a significant impact on the quality or quantity of surface water.

Considering the above, the proposed clearing is not likely to be at variance to this principle.

Methodology Reference:
DoW (2007)

GIS database:
- Average Annual Rainfall Isohyets
- Topographic contours statewide

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

Comments Proposal is not likely to be at variance to this Principle

The proposed clearing is unlikely to cause or exacerbate the incidence or intensity of flooding and therefore not likely to be at variance to this principle.

Methodology GIS database:
- Average Annual Rainfall Isohyets
- Topographic contours statewide

Planning instrument, Native Title, Previous EPA decision or other matter.

Comments

The initial proposal under this application was to clear 382.39 hectares of native vegetation for the purpose of light industry and transient workforce accommodation. On 25 January 2012, a letter providing an 'Agreement on Principle' was sent to the applicant. This letter stated that a decision will be deferred until the following information is provided:

- Evidence that Council supports the proposed development
- Subdivision approval from West Australian Planning Commission
- Evidence that the proposed development is consistent with the zoning of the land

In response to this letter the Town of Port Hedland amended their application to only include to 82.34ha for the purpose of transient workforce accommodation.

The area under application is zoned as 'Airway's Ground Facilities' under the Town Planning Scheme. A letter has been received from the Acting Director of Planning and Development, Town of Port Hedland, stating that in terms of this zoning a 'Transient Workforce Accommodation' facility is an 'AA' use, a use not permitted unless Council has granted planning approval (Town of Port Hedland, 2012a).

Council minutes dated 12 March 2012, state that Council resolves to proceed with the current Business Plan for the Proposed Development of Precinct 3 at the Port Hedland International Airport via Private Treaty with BHPB (Town of Port Hedland, 2012b).

No Aboriginal Sites of Significance are located within the area under application.

The area under application falls within the Pilbara Groundwater and Pilbara Surface Water Areas which are areas proclaimed under the Rights in Water and Irrigation Act 1914.

Methodology References:
Town of Port Hedland (2012a)
Town of Port Hedland (2012b)

GIS database:
- Aboriginal Sites of Significance
- RIWI Act, Groundwater Areas

4. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DEC (2011a) Species and Communities Branch advice on *Tephrosia rosea* var. *venulosa* Pedley (P1). Department of Environment and Conservation, Western Australia (DEC Ref: A646632).
- DEC (2011b) Species and Communities Branch advice on *Glycine tomentella* and *Clerodendrum tomentosum* var. *mollissima*. Department of Environment and Conservation, Western Australia (DEC Ref: A465987).
- Department of the Environment and Water Resources (2007) A Directory of Important Wetlands in Australia, Leslie (Port Hedland) Saltfields System } WA068, <http://www.environment.gov.au>
- Department of Water (2007) Submission for Clearing Permit Application CPS 2025/1. Department of Water, Western Australia (TRIM Ref; DOC34840)
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- Pilbara Flora (2011) Flora and Vegetation Survey for the Port Hedland International Airport Land Developments, November 2011 (DEC Ref: A457223).
- Shepherd, D.P. (2009) Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.
- Town of Port Hedland (2012a) Letter addressing zoning. Acting Director Planning and Development, Town of Port Hedland (DEC Ref: A491578).
- Town of Port Hedland (2012a) Minutes: Special Council Meeting, 12 March 2012, Page 39 (DEC Ref: A491578).

5. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now BCS)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)