



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 6098/1
Permit Holder:	Kimberley Ports Authority
Duration of Permit:	21 February 2015 – 21 February 2017

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 purposes of constructing consolidated port administration facilities, passenger terminal, recreational and tourism support facilities, car park and marine rescue facilities.

2. Land on which clearing is to be done

Lot 621 on Deposited Plan 70861 (Minyirr 6725)

3. Area of Clearing

The Permit Holder must not clear more than 1.84 hectares of native vegetation within the area hatched yellow on attached Plan 6098/1.

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.

PART II – MANAGEMENT CONDITIONS

5. Avoid, minimise etc 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.

6. 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*:

- clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- 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;

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 Parks and Wildlife Regional Weed Rankings Summary, regardless of ranking; or
- (c) not indigenous to the area concerned.



M Warnock
SENIOR MANAGER
CLEARING REGULATION






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

22 January 2015

Plan 6098/1



LEGEND

-  Road Centrelines
-  Local Government Authorities
- Clearing Instruments**
-  Areas Approved to Clear
-  Cadastral for labelling
-  Broome Townsite 2007 20cm Orthosaic - Landgate 2007



Scale 1:4484
(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.

M. Warnock Date 22/1/15
M Warnock

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.



Government of Western Australia
Department of Environment Regulation

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1. Application details

1.1. Permit application details

Permit application No.: 6098/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Kimberley Ports Authority

1.3. Property details

Property: LOT 621 ON DEPOSITED PLAN 70861 (MINYIRR 6725)
Local Government Area: Shire of Broome
Colloquial name:

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 22 January 2015

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
A flora and vegetation survey undertaken by Woodman (2008) has identified the southern and extreme western portion of the application as being representative of vegetation association FCT 3d which is described as: a highly disturbed open woodland of mixed species including <i>Bauhinia cunninghamii</i> and <i>Terminalia petiolaris</i> over occasional shrubland dominated by <i>Acacia bivenosa</i> over lower shrubland of mixed species including <i>Tephrosia rosea</i> var. <i>rosea</i> , <i>Euphorbia coghlani</i> and <i>Abrus precatorius</i> subsp. <i>precatorius</i> on pale orange to brown sand on lower slopes behind dunes, and secondary dunes.	The clearing of 1.84 hectares of native vegetation is for the purposes of constructing consolidated port administration facilities, passenger terminal, recreational and tourism support facilities, car park and marine rescue facilities.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994) To Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The condition and description of the vegetation has been determined from a flora and vegetation survey undertaken by Woodman (2008) and aerial imagery. The majority of the area under application is in a degraded (Keighery 1994) condition (Parks and Wildlife 2014b).

A targeted flora survey undertaken by Coffey Environmental Australia Pty Ltd (2013) described the application area as open woodland of mixed species over occasional shrubland dominated by *Acacia bivenosa* over lower shrubland of mixed species.

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 is not likely to be at variance to this Principle**
The clearing of 1.84 hectares of native vegetation is for the purposes of constructing consolidated port administration facilities, passenger terminal, recreational and tourism support facilities, car park and marine rescue facilities.

The majority of the area under application is in a degraded (Keighery 1994) condition (Parks and Wildlife 2014b).

Numerous priority flora and one rare flora species have been recorded within the local area (10 kilometre radius). A targeted flora survey undertaken by Coffey Environments Australia Pty Ltd (2013) in July 2013 and a flora and vegetation survey undertaken by Woodman (2008) did not identify any rare or priority flora within the application area. Therefore the clearing proposed is not likely to impact upon rare or priority flora species.

Two threatened ecological communities (TEC), 'Roebuck Bay mudflats' and 'Vine thickets on coastal sand dunes of the Dampier Peninsula' are located approximately 35 metres and 50 metres respectively from the area under application. Two priority ecological communities (Priority 1) have also been recorded within close proximity of the application area. The targeted flora survey undertaken by Coffey Environmental Pty Ltd (2013) did not identify any TEC's or PEC's within the area under application. The clearing proposed may indirectly impact the TEC's located within close proximity to the application area through the spread of weeds, increased dust or through increased runoff into the areas containing TEC's (Parks and Wildlife 2014b). A weed management condition will help mitigate impacts to the nearby TEC's.

Numerous fauna species listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 have been recorded within the local area (10 kilometre radius) (DEC 2007-). The majority of the vegetation subject to this application is in a degraded (Keighery 1994) condition and therefore the vegetation proposed to be cleared is not likely to comprise of significant habitat for fauna indigenous to Western Australia. Vegetation in a better condition located adjacent to the application area and within the local area (10 kilometre radius) is likely to provide significant habitat for fauna indigenous to Western Australia.

Digital imagery indicates that the local area (10 kilometre radius) surrounding the area under application retains approximately 90 per cent vegetation cover.

Given the above, the clearing as proposed is not likely to comprise a high level of biological diversity and is not likely to be at variance to this principle.

Methodology

References:

- Coffey Environmental Australia Pty Ltd (2013)
- DEC (2007-)
- Parks and Wildlife (2014a)
- Parks and Wildlife (2014b)
- Woodman (2008)

GIS Databases:

- SAC Bio Datasets - accessed June 2014

(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 fauna species listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 have been recorded within the local area (10 kilometre radius) including: Red Knot (*Calidris canutus* subsp. rogersi), Curlew Sandpiper (*Calidris ferruginea*), Great Knot (*Calidris tenuirostris*), Greater Sand Plover (*Charadrius leschenaultii* subsp. leschenaultii), Lesser Sand Plover (*Charadrius mongolus*), Grey Falcon (*Falco hypoleucos*), Bar-tailed Godwit (*Limosa lapponica* subsp. menzbieri), Bilby (*Macrotis lagotis*), Eastern Curlew (*Numenius madagascariensis*), Hutton's Shearwater (*Puffinus huttoni*) (DEC 2007-).

The majority of the application area is in a degraded (Keighery 1994) condition and therefore the vegetation proposed to be cleared is not likely to comprise of significant habitat for fauna indigenous to Western Australia.

Digital imagery indicates that the local area (10 kilometre radius) surrounding the area under application retains approximately 90 per cent vegetation cover. In addition the application area is located adjacent to a reserve managed for conservation and recreation. Therefore vegetation located adjacent to the application area and within the local area (10 kilometre radius) is likely to provide better habitat for the above fauna species.

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

Methodology

References:

- DEC (2007-)

GIS Databases:

- SAC Bio Datasets - accessed June 2014

(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**

One rare flora species has been recorded within the local area (10 kilometre radius) the closest being recorded approximately one kilometre north of the area under application.

This species is found on red sand within pindan coastal sites, relict desert dune swale and flowers between April to December (Western Australian Herbarium 1998-).

A targeted flora survey undertaken by Coffey Environmental Australia Pty Ltd (2013) in July 2013 did not identify any rare flora within the application area. Furthermore a flora and vegetation survey undertaken by Woodman (2008) did not identify any rare flora.

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

Methodology References:
- Coffey Environmental Australia Pty Ltd (2013)
- Western Australian Herbarium (1998-)
- Woodman (2008)

GIS Databases:
- SAC Bio Datasets - accessed June 2014

(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 may be at variance to this Principle**

Two threatened ecological communities (TEC) are known to occur within close proximity of the area under application. 'Roebuck Bay mudflats' and 'Monsoon vine thickets on coastal sand dunes of the Dampier Peninsula' are located approximately 35 metres and 50 metres respectively from the area under application.

The 'Roebuck Bay mudflats' TEC is described based on the assemblage of water birds and the complex, diverse benthic invertebrate community in the intertidal zone. Proposals such as large agricultural developments and industrial plants adjacent to the bay have potential to result in significant impacts to water quality and freshwater inflow volumes into the Roebuck Bay TEC (Parks and Wildlife 2014a). In addition there is increasing pressure on shorebirds from tourism and expansion of Broome. There is likely to be incrementally increased pressure on the Roebuck Bay ecosystem due to cumulative impacts from numerous projects occurring within close proximity to the TEC. However, the proposed clearing of 1.84 hectares of native vegetation and the proposed land use is likely to have a minimal effect upon water quality therefore will not have a significant impact on this TEC (Parks and Wildlife 2014a).

The 'Monsoon vine thickets on coastal sand dunes of the Dampier Peninsula' is located within the reserve adjacent to Lot 621. This TEC may be indirectly impacted if drainage is altered (water flows in or out of the TEC), dust is increased or through the spread of weeds. The proponent must ensure impacts to this TEC are mitigated (Parks and Wildlife 2014a). Weed management practices will help mitigate this risk.

Given the above the clearing as proposed may be at variance to this principle.

To mitigate impacts to the nearby Monsoon vine thickets on coastal sand dune of the Dampier Peninsula the applicant has advised that management measures will be undertaken including:

- Appropriate wildfire management, including the management of an appropriate firebreak and control of fuel load on the boundary of the development area.
- Weed control will occur along the boundary to minimise the spread of weeds into the TEC.
- Stormwater drainage will be diverted away from the TEC to an approved location or alternatively the stormwater will be management appropriately within the development area (Coffey Environmental Australia Pty Ltd 2014).

Methodology References:
- Coffey Environmental Australia Pty Ltd (2014)
- Parks and Wildlife (2014a)

GIS Databases:
- SAC Bio Datasets - accessed June 2014

(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 Dampierland 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 2013).

The area under application is located within the Shire of Broome. This local government area has approximately 99 per cent of its Pre European vegetation extent remaining (Government of Western Australia 2013).

Digital imagery indicates that the local area (10 kilometre radius) surrounding the area under application retains approximately 90 per cent vegetation cover.

Given the vegetation representations outlined above, the area under application is not likely to be a significant remnant in an extensively cleared area.

Therefore the clearing as proposed is not likely to be at variance to this principle.

Pre-European	Current Extent (ha)	Remaining Extent in DPaW Managed Lands (ha)	(%)	(%)
IBRA Bioregion* Dampierland	8,343,939	8,319,872	99	1
Shire* Shire of Broome	5,469,436	5,436,202	99	1

*Government of Western Australia (2013)

Methodology References:
 -Commonwealth of Australia (2001)
 -Government of Western Australia (2013)
 -Keighery (1994)

GIS Databases:
 -NLWRA, Current Extent of Vegetation Remaining

(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**
 No watercourses or wetlands are located within the area under application.

The coastline is located approximately 20 metres south of the application area.

A site inspection undertaken by Parks and Wildlife (2014) did not identify riparian vegetation within the area under application.

Therefore the vegetation proposed to be cleared is not likely to be growing in association with a watercourse or wetland.

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

Methodology 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 may be at variance to this Principle**
 A portion of the application area is mapped as soil type AB21 which is described as: 'Pindan country--gently undulating sand plain with a few small rocky sandstone residuals; no external drainage: chief soils are red earthy sands'. The remaining application area is unmapped (Northcote 1960 -1968).

A site inspection undertaken by Parks and Wildlife (2014b) described the area under application as coastal primary and secondary dune systems with predominately brown sandy and white sandy soils.

Parks and Wildlife (2014b) identified areas within and adjacent to the area under application that have experienced soil degradation and erosion. The erosion is most likely a result of excessive runoff from surrounding infrastructure, particularly the nearby facilities (Parks and Wildlife 2014b).

The clearing proposed may increase runoff and cause further soil erosion within the application area and adjacent remnant vegetation.

Given the above the clearing as proposed may be at variance to this principle.

The applicant has advised that clearing will coincide with the dry season to reduce the likelihood of erosion and land degradation from heavy rainfall or cyclonic activities (Coffey Environmental Australia Pty Ltd 2014). Stormwater drainage will be diverted away from the TEC to an approved location or alternatively the stormwater will be management appropriately within the development area (Coffey 2014).

Methodology References:
- Coffey Environmental Australia Pty Ltd (2014)
- Northcote (1960 -1968).
- Parks and Wildlife (2014b)

GIS Databases:
- Soils, statewide

(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 may be at variance to this Principle**

The application area is adjacent to Crown Reserve 51001 which is managed for conservation and recreation.

The vegetation within the adjacent reserve is in a very good (Keighery 1994) condition and contains a TEC, Monsoon vine thickets on coastal sand dunes of the Dampier Peninsula. The clearing proposed may impact upon this conservation area through the spread of weeds, increased dust and by altering drainage flows and increasing run off into this area (Parks and Wildlife 2014a).

Given the above the clearing as proposed may be at variance to this principle.

A weed management condition will help mitigate impacts to the conservation area through the spread of weeds.

To mitigate impacts to the adjacent native vegetation the applicant has advised that management measures will be undertaken including:

- Appropriate wildfire management, including the management of an appropriate firebreak and control of fuel load on the bound of the development area.
- Weed control will occur along the boundary to minimise the spread of weeds into the TEC.
- Stormwater drainage will be diverted away from the TEC to an approved location or alternatively the stormwater will be management appropriately within the development area. (Coffey Environmental Australia Pty Ltd 2014b).

Methodology References:
- Keighery (1994)
- Coffey Environmental Australia Pty Ltd (2014)
- Parks and Wildlife (2014b)

(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**

No watercourses or wetlands are located within the area under application.

The coastline is located approximately 20 metres south of the application area.

Parks and Wildlife (2014b) identified areas within and adjacent to the areas under application that have experienced soil degradation and erosion. The erosion is most likely to be caused by excessive runoff from surrounding infrastructure, particularly the nearby facilities.

The clearing proposed is likely to increase runoff into adjacent vegetation however given no watercourses or wetlands are located within close proximity of the area under application the clearing proposed is not likely to impact upon the quality of surface water.

Groundwater salinity is mapped as less than 500 milligrams per litre of Total Dissolved Solids (TDS) which is considered to be marginal. Given the low salinity level, the proposed clearing of 1.84 hectares of native vegetation is not likely to impact upon ground water quality.

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

Methodology References:
- Parks and Wildlife (2014b)

GIS Databases:
- Groundwater Salinity
- Hydrology, linear

(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

Natural flood events may occur in the Kimberley region following cyclonic activity. However, the proposed clearing is not expected to increase the incidence or intensity of flooding.

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

Methodology

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

Comments

Nyamba Buru Yawuru Ltd (2014) provided a submission on behalf of the Yawuru Registered Native Title Body Corporate (Yawuru RNTBC) and advised the applicant should consult with Yawuru RNTBC and enter into an appropriate heritage protection agreement covering the permit area, a heritage survey should be undertaken and that any vegetation clearing should be done in accordance with any condition set out in the heritage survey report.

Goolarabooloo Millibinyarri Indigenous Corporation (2014) provided a submission in relation to this application and advised that the application area is located entirely within the area of the 'Song Cycle Path' for which Goolarabooloo have primary traditional authority and responsibility. This area is of ultimate cultural, social religious and environmental importance to Goolarabooloo and other indigenous people within the Shire of Broome. Goolarabooloo Millibinyarri Indigenous Corporation has advised that adequate consultation should be undertaken with Goolarabooloo prior to a permit being granted.

One submission (2014) has been received in relation to this application which has raised concerns regarding impacts on vegetation comprising a high biological diversity, significant fauna habitat, TEC's, significant remnant native vegetation within an extensively cleared area, wetlands, land degradation, conservation areas and surface and ground water quality. These issues have been addressed in clearing principles (a), (b), (d), (e), (f), (g), (h) and (i).

One Aboriginal Site of Significance 'Entrance Point/Yinara' is mapped within the area under application. The applicant will be notified of their obligations under the Aboriginal Heritage Act 1972.

The Shire of Broome (2014) has advised that the proposed works are deemed to be public works and therefore do not require the issue of planning approval from the Shire, however in accordance with the provisions of the Planning and Development Act 2005, the works must be consistent with the purpose and intent of any planning scheme and the orderly and proper planning and preservation of amenity of the locality at that time.

The Shire of Broome (2014) advised that the application area is zoned 'Port' under the provision of Local Planning Scheme No. 4 and the development would be consistent with the Port Land Use Plan, which identifies the application area as 'port related operations'. Therefore the proposed works are considered consistent with the purpose and intent of the planning scheme and the orderly and proper planning of the locality.

Methodology

References:

- Submission (2014)
- Nyamba Buru Yawuru Ltd (2014)
- Goolarabooloo Millibinyarri Indigenous Corporation (2014)
- Shire of Broome (2014)

GIS Databases:

- Aboriginal Sites of Significance

4. References

- Coffey (2013) Pre-Clearance Flora and Vegetation Surveys for Numerous Port Managed Lease Holding. Western Australia. DER Ref:A761102
- Coffey (2014) Broome Port Authority Native Vegetation Clearing Permit Application - Entrance Point. Western Australia. DER Ref: A761102
- DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed June 2014
- Goolarabooloo Millibinyarri Indigenous Corporation (2014) Submission for Clearing Permit Application CPS 6098/1. Western Australia. DER Ref: A762571
- Government of Western Australia (2013) 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. WA Department of Environment and Conservation, Perth.
- 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.
- Nyamba Buru Yawuru Ltd (2014) Submission for Clearing Permit Application CPS 6098/1. Western Australia. DER Ref: A765943
- Parks and Wildlife (2014a) Threatened Ecological Community Advice for Clearing Permit Application CPS 6098/1. Department of Parks and Wildlife. Species and Communities Branch. DER Ref: A778729
- Parks and Wildlife (2014b) Site Inspection Report for Clearing Permit Application CPS 6098/1, Lot 621 on Plan 70861, Minyirr. Site inspection undertaken 19 July 2014. Department of Parks and Wildlife, Western Australia (DER Ref: A778724)
- 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.
- Shire of Broome (2014) Advice for Broome Sea Rescue Land as Port. Western Australia (DER Ref: A853722)
- Submission (2014) Submission for Clearing Permit Application CPS 6098/1. Western Australia. DER Ref: A762567
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Parks and Wildlife. <http://florabase.dpaw.wa.gov.au/> (Accessed June 2014).
- Woodman (2008). Fauna Assessment of the Broome Port. Woodman Environmental Consulting Pty Ltd. 31st July 2008.