



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 5326/1
Permit Holder:	Oakajee Port and Rail Pty Ltd
Duration of Permit:	25 January 2013 – 25 January 2023

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 geotechnical and groundwater investigations.

2. Land on which clearing is to be done

Lot 2914 on Plan 113734
Lot 3150 on Plan 123380
Lot 69 on Plan 60302
Lot 54 on Diagram 95408
Lot 400 on Plan 53013
Lot 13 on Plan 232354
Lot 200 on Plan 300729
Lot 5663 on Plan 254830
Lot 2249 on Plan 254830
Lot 12 on Plan 232354
Lot 3062 on Plan 231882
Lot 2202 on Plan 254829
Lot 12588 on Plan 26781
Lot 16 on Plan 18559
Lot 15 on Plan 18559
Lot 14 on Plan 18559
Lot 13 on Plan 18559
Lot 2 on Diagram 35736
Lot 11 on Plan 18559
Lot 10 on Plan 18559
Lot 180 on Plan 302131
Lot 1039 on Plan 246909
Lot 6990 on Plan 103577
Lot 153 on Plan 302146
Lot 10562 on Plan 167487
Lot 180 on Plan 302131
Lot 3 on Plan 231530
Lot 2 on Plan 231530
Lot 12189 on Plan 193685

Lot 12 on Plan 18559
Lot 12187 on Plan 193685
Lot 1205 on Plan 18559
Lot 538 on Plan 231526
Lot 330 on Plan 40418
Lot 170 on Plan 38642
Coronation Beach Road reserve (PIN 1260698, 11101194)
North West Coast Highway road reserve (PIN 1260701, 1260705, 1260691, 1256967)
Unnamed Road reserve (PIN 11225689, 11101196, 1260693, 11049086, 11670438, 1260707)

3. Area of Clearing

The Permit Holder must not clear more than 7 hectares of native vegetation within the area cross hatched yellow on attached Plan 5326/1.

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. Compliance with Assessment Sequence and Management Procedures

Prior to clearing any native vegetation under conditions 1, 2 and 3 of this Permit, the Permit Holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

6. 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:

- (a) avoid the clearing of native vegetation;
- (b) minimise the amount of native vegetation to be cleared; and
- (c) 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.

8. Retain vegetative material and topsoil, revegetation and rehabilitation

The Permit Holder shall:

- (a) Retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil in an area that has already been cleared.
- (b) At an optimal time within 12 months following completion of activities under this permit, *revegetate* and *rehabilitate* areas not required for future scheduled and approved development, by:
 - (i) ripping the ground on the contour to remove soil compaction; and
 - (ii) laying the vegetative material and topsoil retained under condition 8(a) on the cleared area(s).
- (c) Within 18 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 8(b) of this Permit:
 - (i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and

- (ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 8(c)(i) of this Permit will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, *revegetate* the area by deliberately *planting* and/or *direct seeding* native vegetation that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area and ensuring only *local provenance* seeds and propagating material are used.
- (d) Where additional *planting* or *direct seeding* of native vegetation is undertaken in accordance with condition 8(c)(ii) of this permit, the Permit Holder shall repeat condition 8(c)(i) and 8(c)(ii) within 24 months of undertaking the additional *planting* or *direct seeding* of native vegetation.
- (e) Where a determination by an *environmental specialist* that the composition, structure and density within areas *revegetated* and *rehabilitated* will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, as determined in condition 8(c)(i) and (ii) of this permit, that determination shall be submitted for the CEO's consideration. If the CEO does not agree with the determination made under condition 8(c)(ii), the CEO may require the Permit Holder to undertake additional *planting* and *direct seeding* in accordance with the requirements under condition 8(c)(ii).

PART III - RECORD KEEPING AND REPORTING

9. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit:

- (a) In relation to the clearing of native vegetation authorised under this Permit:
 - (i) the species composition, structure and density of the cleared area;
 - (ii) 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;
 - (iii) the date that the area was cleared; and
 - (iv) the size of the area cleared (in hectares).

10. Reporting

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
 - (i) of records required under condition 9 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding calendar year.
- (b) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar year, a written report confirming that no clearing under this permit has been carried out, must be provided to the CEO on or before 30 June of each year.
- (c) Prior to 25 October 2022, the Permit Holder must provide to the CEO a written report of records required under condition 9 of this Permit where these records have not already been provided under condition 10(a) of this Permit.

DEFINITIONS

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

direct seeding means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

environmental specialist means a person who is engaged by the Permit Holder for the purpose of providing environmental advice, who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit;

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

local provenance means native vegetation seeds and propagating material from natural sources within 50 kilometres of the area cleared.

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;

planting means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;

regenerate/ed/ion means *revegetation* that can be established from in situ seed banks contained either within the topsoil or seed-bearing *mulch*;

rehabilitate/ed/ion means actively managing an area containing native vegetation in order to improve the ecological function of that area;

revegetate/ed/ion means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.

weed/s means any plant -

- (a) that is declared under the section 37 of the *Agriculture and Related Resources Protection Act 1976*; or
- (b) published in the Department of Environment and Conservation's Regional Weed Assessments, regardless of ranking; or
- (c) not indigenous to the area concerned.

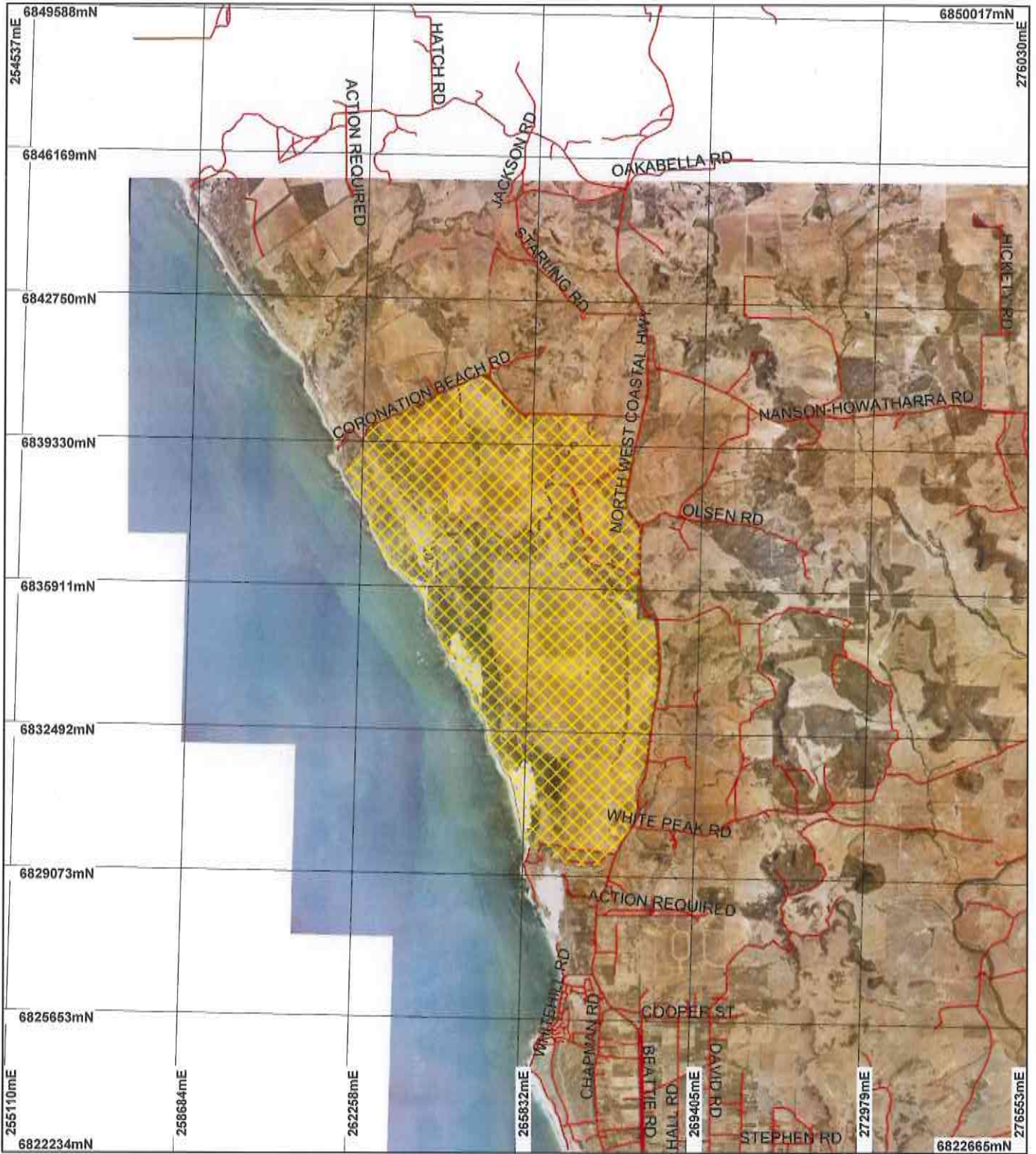


M Warnock
A/MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

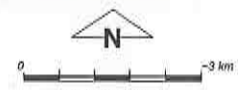
3 January 2013

Plan 5326/1



LEGEND

-  Road Centrelines
-  Clearing Instruments
-  Areas Approved to Clear
-  Geraldton 50cm Orthomosaic - Landgate 2006



Scale 1:122879
(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. Wamock Date **3.1.13**

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



* Project Data is denoted by asterisk. This data has not been quality assured. Please contact map author for details.



1. Application details

1.1. Permit application details

Permit application No.: 5326/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Oakajee Port and Rail Pty Ltd

1.3. Property details

Property:

- LOT 180 ON PLAN 302131 (OAKAJEE 6532)
- LOT 3 ON PLAN 231530 (OAKAJEE 6532)
- LOT 2 ON PLAN 231530 (OAKAJEE 6532)
- LOT 1039 ON PLAN 246909 (House No. 1789 NORTH WEST COASTAL OAKAJEE 6532)
- LOT 12189 ON PLAN 193685 (OAKAJEE 6532)
- LOT 155 ON PLAN 302257 (OAKAJEE 6532)
- LOT 10562 ON PLAN 167487 (BULLER 6532)
- LOT 6990 ON PLAN 103577 (OAKAJEE 6532)
- LOT 153 ON PLAN 302146 (OAKAJEE 6532)
- LOT 11 ON PLAN 18559 (House No. 2017 NORTH WEST COASTAL OAKAJEE 6532)
- LOT 12 ON PLAN 18559 (Lot No. 12 NORTH WEST COASTAL OAKAJEE 6532)
- LOT 10 ON PLAN 25415 (Lot No. 10 NORTH WEST COASTAL OAKAJEE 6532)
- LOT 2 ON DIAGRAM 35736 (House No. 2097 NORTH WEST COASTAL OAKAJEE 6532)
- LOT 13 ON PLAN 18559 (Lot No. 13 NORTH WEST COASTAL OAKAJEE 6532)
- LOT 14 ON PLAN 18559 (Lot No. 14 NORTH WEST COASTAL OAKAJEE 6532)
- LOT 15 ON PLAN 18559 (Lot No. 15 NORTH WEST COASTAL OAKAJEE 6532)
- LOT 16 ON PLAN 18559 (Lot No. 16 NORTH WEST COASTAL OAKAJEE 6532)
- LOT 2249 ON PLAN 100569 (OAKAJEE 6532)
- LOT 2202 ON PLAN 254829 (OAKAJEE 6532)
- LOT 5663 ON PLAN 254830 (OAKAJEE 6532)
- LOT 12588 ON PLAN 26781 (OAKAJEE 6532)
- LOT 13 ON PLAN 232354 (Lot No. 13 NORTH WEST COASTAL HOWATHARRA 6532)
- LOT 200 ON PLAN 300729 (HOWATHARRA 6532)
- LOT 54 ON DIAGRAM 95408 (HOWATHARRA 6532)
- LOT 69 ON PLAN 60302 (House No. 44 CORONATION BEACH HOWATHARRA 6532)
- LOT 2914 ON PLAN 113734 (HOWATHARRA 6532)
- LOT 3150 ON PLAN 123380 (HOWATHARRA 6532)
- LOT 170 ON PLAN 38642 (Lot No. 170 CORONATION BEACH HOWATHARRA 6532)
- ROAD RESERVE (HOWATHARRA 6532)
- ROAD RESERVE (HOWATHARRA 6532)
- LOT 12187 ON PLAN 193685 (OAKAJEE 6532)
- LOT 12 ON PLAN 232354 (OAKAJEE 6532)
- ROAD RESERVE (HOWATHARRA 6532)
- ROAD RESERVE (OAKAJEE 6532)
- ROAD RESERVE (HOWATHARRA 6532)
- LOT 13 ON PLAN 232354 (Lot No. 13 NORTH WEST COASTAL HOWATHARRA 6532)
- ROAD RESERVE (OAKAJEE 6532)
- LOT 400 ON PLAN 53013 (Lot No. 400 NORTH WEST COASTAL HOWATHARRA 6532)
- LOT 3062 ON PLAN 231882 (House No. 2499 NORTH WEST COASTAL OAKAJEE 6532)
- ROAD RESERVE (HOWATHARRA 6532)
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- ROAD RESERVE (HOWATHARRA 6532)

ROAD RESERVE (HOWATHARRA 6532)
 LOT 538 ON PLAN 231526 (OAKAJEE 6532)
 LOT 12025 ON PLAN 18559 (OAKAJEE 6532)
 LOT 12588 ON PLAN 26781 (OAKAJEE 6532)
 ROAD RESERVE (OAKAJEE 6532)
 ROAD RESERVE (OAKAJEE 6532)
 ROAD RESERVE (OAKAJEE 6532)
 ROAD RESERVE (OAKAJEE 6532)
 ROAD RESERVE (BULLER 6532)
 Shire of Chapman Valley

Local Government Area:

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
7		Mechanical Removal	Geotechnical and Groundwater investigations

1.5. Decision on application

Decision on Permit Application: Grant
 Decision Date: 3 January 2013

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
Mapped Beard vegetation association 359: Shrublands; acacia & banksia scrub (Shepherd et al, 2001).	The application is to clear 7 hectares of native vegetation within a 4598 hectare footprint. The application footprint extends approximately 12 kilometres along the coast and approximately 7 kilometres inland.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The condition of the vegetation under application was obtained from a flora and vegetation assessment undertaken by Ecologia Environment 2010 and aerial photography (Geraldton 50cm Orthomosaic- Landgate 2006).
Mapped Beard vegetation association 35: Shrublands; jam scrub with scattered York gum (Shepherd et al, 2001).	A total of fourteen vegetation sub-associations have been recorded within the clearing footprint which comprises of a total 372 vascular taxa, including 43 naturalised alien taxa or weeds (Ecologia Environment, 2010).	To	
Mapped Beard vegetation association 440: as Shrublands; Acacia ligulata open scrub (Shepherd et al, 2001).	The vegetation within the clearing footprint ranges from completely degraded to an excellent (Keighery, 1994) condition (Ecologia Environment, 2010), with majority of the footprint comprising of areas of disturbed grazing and farmland, as well as large areas of remnant and regrown native vegetation.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	
Mapped Beard vegetation association 413: Shrublands; Acacia neurophylla & A. species thicket (Shepherd et al, 2001).			
Mapped Beard vegetation association 675: Shrublands; mixed thicket (melaluca & hakea?) (Shepherd et al, 2001).			
Mapped Beard vegetation association 125: Bare areas; salt lakes (Shepherd et al, 2001).			

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**
 The application is to clear seven hectares of native vegetation within a 4598 hectare footprint across various properties for the purpose of geotechnical and groundwater investigations. The clearing footprint extends approximately twelve kilometres along the coast and approximately seven kilometres inland. The vegetation under application within the clearing footprint is considered to be in a completely degraded to excellent (Keighery, 1994) condition (Ecologia Environment, 2010).

The application footprint comprises of areas of disturbed grazing and farmland, as well as large areas of remnant and regrown native vegetation. The geotechnical and groundwater investigation will include approximately 18 geotechnical investigation targets and 5 ground water investigation targets, with each target requiring approximately 0.25 hectares of clearing (OPR, 2012)

Four priority flora species have been mapped within the clearing footprint, the priority flora are P4 Eucalyptus sp. P3 Calytrix sp, P3 Grevillea sp. and P4 Trioda sp. All priority flora identified have been recorded within the same soil profile and vegetation associations as the application footprint.

A flora and vegetation assessment was undertaken of the application footprint by Ecologia Environment (2010) of which a total of fourteen vegetation sub-associations have been recorded within the clearing footprint. Additionally the application area footprint comprises of eight Geraldton Regional Flora and Vegetation Survey (GRFVS) units. The landscape of the survey area is highly fragmented with the identified units having only 15 percent of their original extent of native vegetation within the survey area (Department of Planning, 2010). Therefore the vegetation units identified within the GRFVS, within the application area footprint in a good or better condition is important for conservation values.

The flora and vegetation assessment identified a total of 372 vascular taxa which included 43 naturalised alien taxa and weeds (Ecologia Environment, 2010). Of the recorded taxa, nine priority flora species were recorded. The priority flora species identified consisted of two P1 species (Lepidosperma sp. and Melaleuca sp.), five P3 species (Acanthocarpus sp, Geleznowia sp, Grevillea sp, Lasipetalum sp and Verticordia sp) and two P4 species (Eucalyptus sp and Verticordia sp) (Ecologia Environment, 2010). There was no rare flora identified within the clearing footprint.

The local area (20 kilometres radius) has been extensively cleared and the majority of the vegetation under application is adjacent to disturbed farmland which has been subject to grazing pressures or is composed of remnant or regrowth vegetation. Additionally the application area comprises of six Beard vegetation associations of which, four of them fall below the 30 percent threshold recommended in the National Objectives Targets for Biodiversity Conservation; below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

The applicant has indicated that no priority flora identified along with the eight vegetation communities identified as being associated to the GRFVS will be impacted upon from the proposal (OPR, 2012). However, considering that the application footprint comprises of vegetation in an excellent (Keighery, 1994) condition (Ecologia Environment, 2010) and contains vegetation associations that are poorly represented, it is considered that the vegetation under application within the clearing footprint to have high biodiversity values. The application may be at variance to this principle. Revegetation of temporary use areas, avoidance of known conservation flora species and weed conditions will assist in mitigating identified impacts.

Methodology References
Commonwealth of Australia (2001)
Ecologia Environment (2010)
Keighery (1994)
OPR (2012)
GIS Database:
- SAC Bio Datasets December 2012

(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**
Several fauna of conservation significance have been recorded within the clearing footprint, including but not limited Carnaby's cockatoo (*Calyptorhynchus latirostris*) and the Chuditch (*Dasyurus geoffroii*).

A Terrestrial Vertebrate Fauna Assessment was undertaken by Ecologia Environmental (2010) of the clearing footprint. The assessment recorded total of 10 native mammals, 76 native birds, 35 reptiles and two frogs. Of the identified fauna seven were of conservation significance, including four migratory birds. Additionally the fauna assessment considered that the clearing footprint comprised of suitable foraging habitat for Carnaby's cockatoo.

The clearing as proposed will impact on vegetation that is suitable for conservation significant fauna in the local area, however given the clearing will be undertaken within areas subject to past disturbances, it considered that the clearing, as proposed is not likely to significantly impact on the fauna habitat, nor on the conservation status of fauna.

The application is not likely to be at variance to this principle.

Methodology References
- Ecologia Environmental (2010)

(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**
A total of four rare flora species have been recorded within a 20 kilometre radius of the area under application, none of the species have been mapped within the 4598 hectare footprint. The recorded rare flora species are Beyeria sp, Caladenia sp, Eucalyptus sp, and Philotheca sp which have been recorded approximately 1.7 kilometres, 2 kilometres, 2.2 kilometres and 500 metres respectively from the clearing footprint.

A flora and vegetation assessment was undertaken of the application area footprint by Ecologia Environment (2010) did not identify any rare flora to be within the clearing footprint. DEC considers that the vegetation assessment which was undertaken at an appropriate time of year.

Given that each clearing will consist of approximately 0.25 hectares across 23 sites within a footprint area of 4598 hectares and that no rare flora species were identified with the clearing footprint, it is considered that the application is not likely to impact of rare flora.

The application is not likely to be at variance to this principle.

Methodology References
- Ecologia Environment (2010)
GIS Database:
- SAC Bio Datasets December 2012

(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 has been no threatened ecological community recorded within 20 kilometre radius of the area under application. The closest known TEC occurs approximately 133 kilometres away from the clearing footprint.

A flora and vegetation assessment undertaken of the application footprint area by Ecologia Environment (2010) recorded fourteen vegetation sub-associations within the clearing footprint. Of the vegetation sub-associations identified none were considered to comprise of a TEC.

Given the above, the application is not likely to be at variance to this principle.

Methodology References
- Ecologia Environment (2010)
GIS Database:
- SAC Bio Datasets December 2012

(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 may be at variance to this Principle**
The clearing footprint comprises of six Beard vegetation associations, of which four have been recorded below the 30 percent threshold level as recommended in the National Objectives Targets for Biodiversity Conservation; below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

The area under application is within an extensively clearing landscape with approximately 20 percent of its pre-European vegetation remaining in the local area (20 Kilometre radius)

A flora and vegetation assessment was undertaken of the application footprint by Ecologia Environment (2010) of which a total of fourteen vegetation sub-associations have been recorded within the clearing footprint. Additionally the application area footprint comprises of eight Geraldton Regional Flora and Vegetation Survey (GRFVS) units. The survey identified that the recorded units have only 15 percent of their original extent of native vegetation within the survey area. The recorded units are highly fragmented, thus the vegetation in a good or better condition in the GRFVS area is considered important for conservation values (Department of Planning, 2010).

The proponent has committed not to clear and vegetation units that have been identified as being a part of the GRFVS area. Additionally, the proposed clearing of approximately 0.25 hectares across 23 sites will be undertaken within areas subject to past disturbances where possible. All sites used for the geotechnical and groundwater investigations will be revegetated upon completion of the investigations (OPR, 2012).

Given that the application area is within an extensively cleared landscape and may impact required vegetation communities that are poorly represented in the Geraldton Sandplains Bioregion, it is considered that the vegetation under application may be significant as a remnant.

Methodology References
- Commonwealth of Australia (2001)

- Department of Planning (2010)
- OPR (2012)
- GIS Databases:
 - Interim Biogeographic Regionalisation of Australia

(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 may be at variance to this Principle

Numerous watercourses intersect the application area including the Oakajee River. It is likely that the clearing may include vegetation that is associated with known watercourses.

Giving consideration to the relatively small amount of vegetation to be removed across 4598 hectares, it is unlikely that the impacts from the clearing native vegetation will significantly impact known watercourses within the application area.

- Methodology** GIS Databases:
- Hydrography, linear
 - Rivers

(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

There have been three different soil types mapped within the clearing area. The mapped soil types consist of undulating dune landscape or hilly terrain on granulite with chief soils being siliceous sands with some shallow grey-brown sandy and yellow earthy sands towards the coast and hard acidic red soils and neutral red soils further inland (Northcote et al, 1960 - 1968).

Considering the relatively small amount of clearing within a larger footprint, it is unlikely the proposed clearing will cause appreciable land degradation.

The application is not likely to be at variance to this principle.

- Methodology** References
- Northcote et al (1960-1968)

(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 closest conservation area to the application is the Oakajee Nature Reserve, approximately 1.7km east of the applied area.

Considering that the clearing consist of 7 hectares within a 4985 hectare footprint across 23 targeted sites with each clearing site comprising of approximately 0.25 hectares (OPR, 2012) it is not likely that the environmental values of the Oakajee Nature Reserve will be impacted by the proposed clearing.

The application is not likely to be at variance to this principle.

- Methodology** References
- OPR, (2012)
 - GIS database
 - 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

Several watercourses have been mapped as occurring within the clearing footprint. The known watercourses consist of the Oakajee river, seasonal creeks and drainage lines. It is considered unlikely that the clearing of 7 hectares of native vegetation within a footprint area of 4985 hectares will cause deterioration to the water quality of the known watercourses.

The application is not likely to be at variance to this principle.

- Methodology** GIS Databases:
- Hydrography, linear
 - Rivers

(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**
Numerous watercourses intersect the 4598 hectare footprint of the application area, consisting mainly of seasonal creeks and drainage lines. Given the small amount of clearing within a large footprint, the proposed clearing is not likely to cause or exacerbate flooding in the local area.

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

Methodology GIS Databases:
- Hydrography, linear

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

Comments
Under the Shire of Chapman Valley's Town Planning Scheme (SoCV TPS) N1 the application footprint is zoned Industrial Investigation. The Shire of Chapman Valley (2012) has no objections to the application.

The application area falls within the Gascoyne Rights in Water and Irrigation Act 1914 Groundwater Area. The applicant will require a 26D licence to undertake exploratory drilling and a 5C licence should they wish to take groundwater (DoW, 2012). The Department of Water (DoW) previously issued a 26D licence to the applicant in the same area the applicant has applied for. The licence has now expired and the applicant will require another 26D licence (DoW, 2012). DoW has not received an application for a new 26D licence, nor has it received an application for a 5C licence, however the exploratory drilling would need to be completed first to provide the information required to assess a groundwater licence.

The application is in relation to the Oakajee Port and Rail (OPR) Terrestrial Development which has been assessed by the Environmental Protection Authority (EPA). The EPA released report 1387 in March 2011 recommending approval for the Port Development however, to date no Ministerial Statement has been signed off on for the proposal. In accordance with the Office of the Environmental Protection Authority (EPA) Environmental Protection Bulletin No.16, the proposed works for investigation does not require referral to the EPA nor does it require approval from the EPA.

Methodology References
- DoW (2012)
- OPR (2012)
- Shire of Chapman Valley
GIS Database
- RIWI Act, Groundwater areas

4. References

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
DoW (2012) Direct Interest Submission (DEC Ref:A)
Ecologia Environment (2010) Oakajee Port and Rail. Oakajee Terrestrial Port Development Flora and Vegetation Assessment. May 2010 (DEC Ref:A557976)
Ecologia Environment (2010) Oakajee Port and Rail. Oakajee Terrestrial Port Development. Terrestrial Vertebrate Fauna Assessment. May 2010 (DEC Ref:A557976)
EPA (2011). Oakajee Terrestrial Port Development. Report 1387. Recommendations of the Environmental Protection Authority. Additional Information within clearing permit application CPS 5326/1 Oakajee Port and Rail Pty Ltd (DEC Ref:A557976).
Government of Western Australia (2011); 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). 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.
OPR (2012) Additional information provided within clearing permit application CPS 5326/1 Oakajee Port and Rail Pty Ltd (DEC Ref:A557976)
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.
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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)