GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 5121/1
Permit Holder:	Robe River Mining Co. Pty Ltd
Duration of Permit:	19 October 2012 – 30 September 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 purpose of power station, utilities, associated infrastructure and works.

2. **Land on which clearing is to be done**
   Lot 265 on Deposited Plan 220920 (Mount Anketell)
   Lot 63 on Deposited Plan 54397 (Point Samson)
   Lot 134 on Deposited Plan 184076 (Wickham)
   Lot 542 on Deposited Plan 43130 (Wickham)
   Lot 64 on Deposited Plan 57724 (Wickham)
   Lot 392 on Deposited Plan 217328 (Wickham)
   Lot 707 on Deposited Plan 31274 (Wickham)
   Lot 708 on Deposited Plan 31274 (Wickham)
   Lot 709 on Deposited Plan 31274 (Wickham)
   Unallocated Crown land (PIN 11261386, 694748, 11261424, 11261384)

3. **Area of Clearing**
   The Permit Holder must not clear more than 42 hectares of native vegetation within the area cross hatched yellow on attached Plan 5121/1.

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 activities to the extent that the Permit Holder has the right to access land under the *Land Administration Act 1997* or any other written law.

6. **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

7. 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.

8. 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

9. Records must be kept

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 that the area was cleared; and
(c) 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 and 31 December of the previous calendar year.
(b) Prior to 30 June 2017, 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:

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 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*.

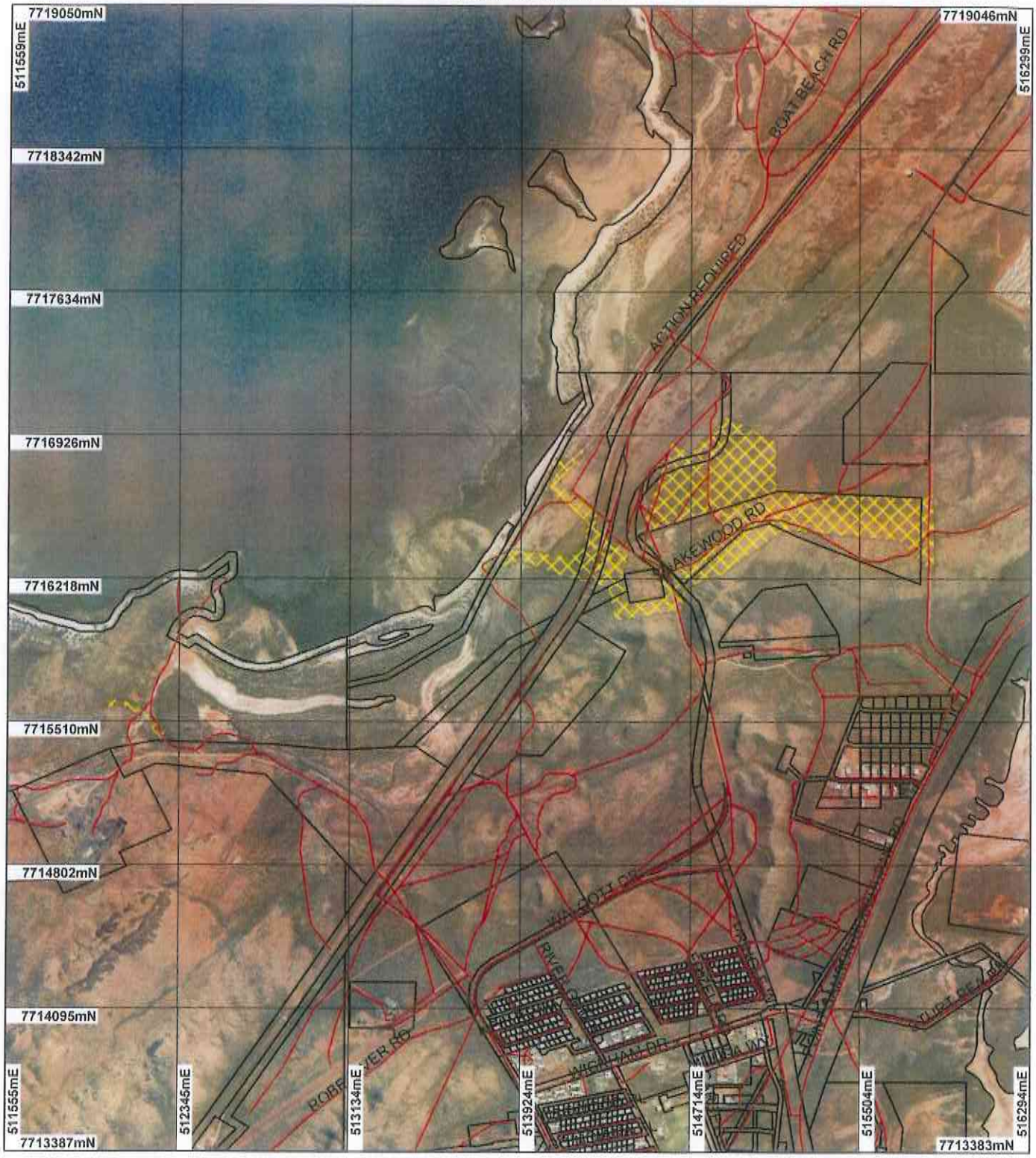
Roxane Shadbolt

Roxane Shadbolt
A/MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

Officer delegated under Section 20
of the Environmental Protection Act 1986

27 September 2012

Plan 5121/1



LEGEND

Clearing Instruments

- Areas Approved to Clear
- Road Centrelines
- Cadastre

Roebourne 50cm Orthomosaic - Landgate 2007

N

0 ~750 m

Scale 1:26109
(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

R. Shadbolt Date 27/9/12

R. Shadbolt

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

Our environment, our future

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

Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5121/1

Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Robe River Mining Company Pty Ltd**

1.3. Property details

Property: UNALLOCATED CROWN LAND (WICKHAM 6720)
LOT 134 ON PLAN 184076 (Lot No. 134 WALCOTT WICKHAM 6720)
LOT 542 ON PLAN 43130 (WICKHAM 6720)
PART LOT 63 ON PLAN 54397 (Lot No. 63 CAPE LAMBERT POINT SAMSON 6720)
LOT 709 ON PLAN 31274 (WICKHAM 6720)
LOT 64 ON PLAN 57724 (Lot No. 64 CAPE LAMBERT WICKHAM 6720)
LOT 707 ON PLAN 31274 (WICKHAM 6720)
LOT 392 ON PLAN 217328 (WICKHAM 6720)
PART LOT 265 ON PLAN 220920 (MOUNT ANKETELL 6714)
UNALLOCATED CROWN LAND (WICKHAM 6720)

Local Government Area: Shire of East Pilbara

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
42		Mechanical Removal	Power station, utilities and associated infrastructure

1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 27 September 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
Mapped Beard vegetation association 157: Hummock grasslands, grass steppe; hard spinifex Triodia wiseana (Shepherd et al, 2001)	The application is to clear up to 42 hectares of native vegetation within Lot 265, 63, 134, 542, 64, 707, 708, 709 and unallocated Crown land, for the purpose of a power station, utilities and associated infrastructure. A flora and fauna survey undertaken by GHD (2008) within and around the area under application describes the vegetation as hummock grasslands occurring on plains that are dominated by Triodia species. The vegetation under application ranges from a good to very good (Keighery, 1994) condition (GHD, 2008).	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994) To Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The condition of the native vegetation under application was determined by a Flora and Fauna Assessment undertaken by GHD, 2008.

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 application is to clear 42 hectares of native vegetation to construct a power station, utilities and associated infrastructure. The application area is approximately 2.6kms north of the town site of Wickham.

A flora and vegetation survey undertaken by GHD in 2008 within and around the area under application recorded a total of 158 taxa from 34 families (GHD, 2008). The vegetation within the survey ranged from good to a very good (Keighery, 1994) condition (GHD, 2008). Most of the study area has been historical impacted

upon from activities such as grazing, rubbish dumping and repeated fire events and other disturbances such as clearing for infrastructure, roads, railway, pipelines and powerlines.

Several priority flora have been mapped within 20kms of the area under application, with the closest being P1 species Helichrysum oligochaetum mapped approximately 3kms east of the application area and P3 species Eragrostis lanicaulis mapped approximately 4.3kms east of the application area. Both species have been mapped within different vegetation association to that within the application area.

The flora and vegetation survey within and around the area under application undertaken by GHD in 2008 recorded no priority flora or rare flora (GHD, 2008). Department of Environment and Conservation considers the survey undertaken by GHD to have been conducted at the appropriate time of year.

A reconnaissance fauna survey undertaken by GHD in 2008 within the Cape Lambert area recorded a total of 23 birds, two mammals and three reptile species (GHD, 2008). The survey found that significant fauna species habitat exists within the clearing footprint area, however it is widespread and abundant within the Pilbara Bioregion.

The disturbance caused by the proposed clearing will increase the risk of weeds spreading into adjacent vegetation. Weed management practices will assist in mitigating this risk.

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

Methodology

Reference:
Keighery (1994)
GHD (2008)

GIS Databases:
- Pre-European vegetation
- SAC Biodatasets - accessed August 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 terrestrial fauna species of conservation significance have been recorded within 20 km of the area under application including, Dasyurus hallucatus (Northern Quoll) which is listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 and Endangered under the Commonwealth Environmental Protection and Biodiversity Act 1999.

A reconnaissance fauna survey undertaken by GHD (2008) within and around the application area identified 23 birds, two mammals and three reptiles. The fauna survey undertaken by GHD (2008) identified a number of different fauna habitats within the study area that may be suitable for fauna species of conservation significance. However the habitats value has been reduced from activities such as grazing, fire and infrastructure activities such as road developments and associated infrastructure.

Given the large amount of vegetation remaining in the local area and the reduced value of the habitat within the area under application, the clearing, as proposed, is not likely to significantly impact on fauna habitats or on fauna of conservation significance known to occur in the area.

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

Methodology

References:
GHD (2008)

(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 records of rare flora within 20kms of the area under application. The closest recorded rare flora species is approximately 206kms away.

A flora and vegetation survey undertaken by GHD in 2008 at the appropriate time of year did not record any rare flora species within or surrounding the application area (GHD, 2008).

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

Methodology

Reference:
GHD (2008)

GIS Databases:
- SAC Biodatasets - accessed August 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 are no records of threatened ecological communities (TEC) within 20kms of the area under application. The closet mapped TEC to the application area is approximately 181kms away.

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

Methodology

Reference:
GHD (2008)

GIS Databases:
- SAC Biodatasets - accessed August 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 is not at variance to this Principle
The application area has been mapped as occurring within Beard vegetation association 157. The mapped vegetation association retains vegetation above 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 application and surrounding areas are extensively vegetated with approximately 95 percent of its pre-European vegetation remaining in the local area (20km radius). The Shire of Roebourne contains a large amount of vegetation within its boundaries, with approximately 97 percent of its pre-European vegetation remaining (Government of Western Australia 2011).

The application area does not occur within an extensively cleared landscape and is not at variance to this principle.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion*				
Pilbara	17,804,427	17,729,352	99	8
Shire				
Shire of Roebourne	1,535,627	1,496,779	97	1
Beard Vegetation Association in Bioregion				
157	502,729	498,026	99	18

Methodology

References:
Commonwealth of Australia (2001)
Government of Western Australia (2011)

GIS Database:
- IBRA Australia
- Local Government Authority
- Pre-European vegetation
- SAC Biodatasets - accessed August 2012

(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
Seasonal creeks and drainage lines have been mapped as intersecting with the clearing area. There are no mapped permanent watercourses or wetlands recorded within the application area.

Given the above, the clearing as proposed, may remove vegetation that is associated with the known watercourses. Where practical, the clearing of riparian vegetation should be avoided.

The application may be at variance to this principle.

Methodology

GIS Databases:
-Hydrology, 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

There are two soil types mapped within the clearing area. The mapped soil comprise of steep stony hills and ranges on metamorphosed basic and ultrabasic rocks, with some iron ore formations and alluvial plains with occasional stony residuals of basic and ultrabasic rocks (Northcote et al, 1960 - 1968).

Given the nature of the soil within the application area it is unlikely that appreciable land degradation in the form of water or wind erosion will occur.

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

Methodology

Reference:
-Northcote et al. (1960 - 1968)

GIS Database:
-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 is not at variance to this Principle

The closest conservation area to the application area is an unnamed nature reserve approximately 22kms north east from the area under application.

Given the distance between the application area and the nature reserve, it is unlikely that the proposed clearing will impact upon the environmental values of the nature reserve.

The application is not at variance to this principle.

Methodology

GIS Databses:
-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, consisting mainly of seasonal creeks and drainage lines. It is possible the clearing as proposed may cause deterioration in water quality of the watercourses during seasonal rains. However these impacts are likely to be short term with minimal impacts.

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

Methodology

GIS Databases:
-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

Numerous watercourses have been mapped as occurring within the application area, including areas that are subject to inundation during the wet season. However, given the large amount of vegetation remaining in the local area, the proposed clearing is not likely to cause or exacerbate flooding.

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

Methodology

GIS Databases:
-Hydrology, Linear

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

Comments

The application area falls within the Surface Water and Groundwater Pilbara area covered by the Rights in Water and Irrigation Act 1914. If the use of water is required, a water license may need to be obtained from the Department of Water.

The area under application is subject to native title claims. Both the claimants and their representing body have been notified of the application. No response has been received.

The Department of Regional Development and Lands (RDL) has confirmed that Rio Tinto in the name of Robe

River Mining Co. Pty Ltd have made an application for a section 91 licence for the purpose of facilitating the feasibility studies and temporary access for a period of two years the Cape Lambert Power Station. The application has been made under the Land Administration Act 1997.

The application was referred to the Office of the Environmental Protection Authority (OEPA) on the 1 November 2011. The OEPA advised that no formal assessment of the application was required.

Methodology GIS Databases:
Groundwater, RIWI

4. References

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

Department of Regional Development and Lands (2012). Additional Information within clearing permit application CPS 5121/1 (DEC Ref:A515998)

GHD (2008) Report for 320 Mt Marshalling Yards, Maintenance Workshop and Quarry - Flora and Fauna Assessment. WA. (DEC Ref: A497001)

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.

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.

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)