



1. Application details

1.1. Permit application details

Permit application No.: 1921/1
 Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Rosmerta Pty Ltd ATF The Scott River Unit Trust

1.3. Property details

Property: ROAD RESERVE (LAKE JASPER 6260)
 Local Government Area: Shire Of Nannup
 Colloquial name: Western Power line in Mayall Road Reserve.

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.04		Mechanical Removal	Infrastructure Maintenance

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
Beard Unit 3: Medium forest; Jarrah-Marri	The proposal is for the clearing of 1.04ha of native vegetation ranging from good to excellent condition (Keighery, 1994), with some small pockets of degraded vegetation attributed to past tree removal activities within the area. The proposed clearing is for the purposes of underground powerline construction.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Vegetation condition established through DEC site visit conducted on the 12th September 2007.
Mattiske Vegetation Complexes: - Scott (Sd) - Low open forest and low woodland of Eucalyptus marginata subsp. marginata-Corymbia calophylla-Agonis flexuosa with some Eucalyptus patens and Banksia spp. on low dunes to low woodland of Melaleuca preissiana-Banksia littoralis on interdune depressions in hyperhumid and perhumid zones. - Jangardup (JN) - Open woodland of Eucalyptus marginata subsp. marginata-Corymbia calophylla on rises and low open woodland of Melaleuca preissiana-Banksia littoralis on depressions in hyperhumid and perhumid zones.	See above.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	See above.
	See above.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive	See above.

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**

A portion of the proposed clearing lies within an environmentally sensitive area attributed to a palusplain wetland.

The vegetation ranges in condition from good to excellent (DEC, 2007a and Keighery, 1994) with a high diversity of plant species with some small areas showing signs of disturbance, likely due to tree removal taking place in the past.

There is a high likelihood that the area supports declared rare and priority flora species, as addressed within principle c, and it is also known that a number of threatened fauna species occur within the local area and within the proposed clearing area, particularly Black cockatoo species and the Quenda.

A submission received by the Department states that "the area should be revegetated with appropriate local vegetation and would consider that a detailed list of species with densities be provided as part of their conditions." "It is also of concern that weeds may encroach rapidly in the cleared area and as such, works should be timed to accommodate suitable planting times so that success rates are optimal."

To mitigate potential impact to biodiversity revegetation and weed conditions will be imposed if clearing is permitted.

Methodology DEC (2007a)
Keighery (1994)
GIS Databases:

- Clearing Regulations - Environmentally Sensitive Areas - DoE 30/5/05
- Geomorphic wetlands, Augusta to Walpole - DoE 18/6/03
- SAC Bio datasets - Threatened and Priority Fauna
- SAC Bio datasets - DEFL
- SAC Bio datasets - southwest_blackwood_waherb

(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 may be at variance to this Principle**

A number of threatened fauna species have been recorded within the local area of the proposed clearing area including three fish species - the Black-stripe Minnow (*Galaxiella nigrostriata*, a Priority 3 species), Balston's Pygmy Perch (*Nannatherina balstoni*, classed as Vulnerable) and the Western Mud Minnow (*Galaxiella munda*, classed as Vulnerable) and one mammal, the Chuditch (*Dasyurus geoffroi*, classed as Vulnerable).

Balston's Pygmy Perch requires permanent waterbodies to survive and therefore will not inhabit the area under application and given the scale of the clearing within the wetland area and the extent of the wetlands in the local area it is unlikely that the other fish species will be significantly impacted by this proposal.

During the DEC site visit (DEC, 2007a) a white-tailed black cockatoo was also sighted and photographed within close proximity to the area under application but due to the distance the species was unable to be confirmed.

An environmental report prepared by BK Masters and Associates in June 2007, identified Quenda (*Isodon obesulus fusciventer*) diggings throughout sections of the proposed clearing area with digging intensity increasing towards the western end of the reserve. Forest Red-tailed Black Cockatoos were also seen and heard in the State Forest adjoining the road reserve. The environmental report also concludes that the following fauna species may be present within the road reserve however, evidence of their presence is currently lacking -

- Chuditch (*Dasyurus geoffroi*)
- Brush-tailed Phascogale (*Phascogale tapoatafa tapoatafa*)
- Baudin's Black Cockatoo (*Calyptorhynchus baudinii*)
- Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*)
- Western False Pipistrelle (*Falsistrellus mackenziei*)
- Woylie (*Bettongia penicillata ogilbyi*)
- Quokka (*Setonix brachyurus*)
- Ranbow Bee-eater (*Merops ornatus*)

Other species identified within the environmental survey to be using the local area included several frog species with the Quacking and Slender Tree Frogs being identified and Western Grey Kangaroos were also in the area (BK Masters and Associates, 2007).

The applied clearing area is directly adjacent to the Milyeannup State Forest. The majority of the local area, with the exception of the properties directly to the east and west of the proposed powerline location, is predominantly vegetated and likely to provide preferred habitat for fauna within the local area.

Despite this there are some large trees with hollows within the applied clearing area that could be significant for cockatoo nesting. The consultant's report concluded that "provided all larger trees are retained within the road reserve, the impact of the four (4) metre wide clearing proposal will be minor" (Masters, 2007a). "The proponent has committed to the protection of all larger trees with habitat value within the 4 metre wide clearing zone and will accept the added expense of drilling beneath these trees so that they can be retained" (Masters, 2007b).

Given the scale of the clearing and the State Forest being directly adjacent to the road reserve the vegetation would not be considered significant habitat for fauna other than the hollows for nesting. However, the clearing may allow for increased predator access within the area and therefore may be at variance to this Principle. If clearing is approved revegetation conditions will ensure short term impacts associated with possible predation impacts.

Methodology BK Masters & Associates (2007)
DEC (2007a)
Masters (2007a)
Masters (2007b)
GIS Databases:
- SAC Bio datasets - Threatened and Priority Fauna

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

Comments Proposal may be at variance to this Principle

44 records of 15 rare and priority flora species have been recorded within the local area (10km radius) with the closest being a declared rare species, Meziella trifida, within 300 metres of the proposed clearing area within the wetland that immediately adjoins the powerline alignment (DEC District Advice, 2007).

Advice received from the DEC District Botanist states that the "wetland vegetation community along the proposed alignment is the community that is most likely to support threatened flora."

Other species identified within the local area and may be found within the wetland vegetation community in the road reserve and would therefore need to also be targeted within a flora survey are *Cyathochaeta stipoides* (P3), *Grevillea papillose* (P3), *Tyrbastes glaucesens* (P4), *Cyathochaeta teretifolia* (P3) and potentially *Gastrolobium formosum* (P3). *Astroloma* sp. Nannup (P4) is likely to be found within the upland vegetation covered by the powerline alignment as it is known to occur within the area (DEC District Botanist, 2007).

Two of the recorded species that are declared rare are *Meziella trifida* and *Diuris drummondii*. *Meziella trifida* prefers habitats of sandy clay and winter-wet flats and *Diuris drummondii* occurs in low-lying depressions and swamps (DEC NatureBase, 2007), it is therefore likely that both of these species may occur within the applied clearing area particularly in the western portion associated with the wetlands.

Methodology DEC District Advice (2007)
DEC NatureBase (2007)
GIS Databases:
- SAC Bio datasets - defl
- SAC Bio datasets - blackwood_waherb

(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

No Threatened or Priority Ecological Communities have been recorded within the local area (10km radius) of the proposed clearing area, therefore the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Databases:
- SAC Bio datasets - Threatened & Priority Ecological Communities - DEC
- Threatened Plant Communities - DEP 06/95

(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 applied clearing area lies within the Warren IBRA region in the Shire of Nannup which have 79.5% and 84.4% of their pre-European extent of vegetation remaining respectively (Shepherd, 2006).

The vegetation with the Mayall Road Reserve is also a component of two Mattiske vegetation complexes, Scott (Sd) and Jangardup (JN), with 52.5% and 84.6% of the pre-European extent remaining, and one Beard vegetation association, 3 - Medium forest; jarrah and marri, with 69.4% (statewide), 79.9% within the Warren bioregion and 91.7% within the Shire of Nannup remaining (Mattiske, 1998 & Shepherd, 2006). These extents are all substantially above the 30% threshold for the National Objectives Targets for Biodiversity Conservation 2001-2005 (AGPS, 2001).

Other than the properties directly east and west of the proposed location for the powerline, the rest of the local area (10km radius) is predominantly vegetated and conserved within state forest. Therefore, the applied clearing area is not considered to be significant as a remnant of native vegetation in an area that has been extensively cleared.

Methodology AGPS (2001)
Mattiske (1998)
Shepherd (2006)
GIS Databases:
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Local Government Authorities - DLI
- Pre-European Vegetation - DA 01/01
- Mattiske vegetation - CALM 24/3 /98

(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 at variance to this Principle

A portion of the western end of the proposed clearing area is in association with a Palusplain (seasonally waterlogged flat) wetland and hence the wetland area and areas adjacent to it are subject to inundation.

A number of other wetlands are also within the local area including the Gingilup-Jasper wetland system, running west to south of the proposed clearing area with the closest component being a swamp 4.5km south of the proposed clearing area. The wetland areas also encompass a number of lakes with the closest being approximately 440m west of the proposed clearing area and three major lakes, Lake Quitjup, Lake Jasper and Lake Wilson also within a 10km radius of the Mayall Road Reserve.

A number of watercourses occur within the local area with the closest being a minor perennial watercourse approximately 420m east of the proposed clearing area.

Due to the scale of the proposed clearing it is unlikely that the impact upon the existing wetland will be significant and should conditions be imposed that will allow for the encouragement of vegetation to re-establish in the area post clearing, the impacts in this area are likely to be short term. It is also recommended that the clearing be completed at a time of the year when the wetland is dry in order to reduce the potential impacts on the wetland. However, due to the proposed clearing area being partially within a wetland it is concluded that the proposed clearing is at variance to this principle.

Methodology GIS Databases:
- Hydrography, linear - DoE 1/2/04
- Hydrography, linear (hierarchy) - DoW
- Geomorphic wetlands, Augusta to Walpole - DoE18/6/03
- ANCA wetlands - CALM 08/01

(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

The soils of the area under application are described as swampy and low-lying poorly drained plains (Northcote et al, 1960-68).

The area under application is subject to inundation and a cleared track within state forest approximately 300m of the proposed clearing area, as identified during the DEC site visit (DEC, 2007a), is prone to flooding in association with the palusplain wetland in which it is in. Therefore, the proposed clearing could result in an increase in waterlogging and the incidence and extent of water inundating the powerline alignment.

The area under application is situated within a low salinity risk area with a groundwater salinity of less than 500mg/L. While the majority of the applied area is mapped as no known acid sulphate soil risk, a portion of the western end of the applied area is classed as high to moderate risk attributed to the wetlands and areas subject to inundation, however the clearing of the vegetation itself should not create any acid sulfate soil issues.

Given that the area of vegetation under application is subject to inundation and is associated with a wetland, the clearing process may cause some sedimentation into the wetland if the clearing is not completed when the area is completely dry. The removal of vegetation could allow for some soil erosion as a result of water movement

into and out of the cleared area, however the relatively flat nature of the proposed clearing area means that the water would drain fairly slowly reducing the likelihood of soil erosion from water flows being a major problem.

Given the possibility of an increased extent of waterlogging as a result of the clearing it is concluded that the proposal may be at variance to this principle.

Methodology DEC (2007a)
Northcote et al (1960-1968)
GIS Databases:
- Soils, Statewide - DA 11/99
- Salinity Risk LM 25M - DOLA 00
- Acid Sulfate Soil Risk Map, Lower South West - DEC
- Topographic contours, Statewide - DOLA 12/09/02

(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 at variance to this Principle

Seven different DEC managed lands occur within the local area (10km radius) of the proposed clearing area with the closest being the Milyeannup State Forest directly adjacent to the proposed clearing area, north and south of the Mayall Road Reserve.

A number of Register of National Estates also occur within the local area including the area designated as both the Proposed South Coast National Park and the D'Entrecasteaux Area being the closest at 2.9km south of the applied clearing area, the Giblett-Hawke Area and the Lake Jasper Aboriginal sites complex, both within 7km of the road reserve.

The proposed clearing is directly adjacent to and in between state forest and therefore the existing vegetation provides a link between the southern and northern portions of the Milyeannup State Forest. Although the clearing will be 4 metres in width, the proposal will still cause a separation between the portions of state forest, increasing the edge effects on these conservation areas and causing further disturbance to an area in good to excellent condition (Keighery, 1994). However, the main concerns with regards the impact upon the State Forest are associated with the spread or introduction of dieback and weeds and the increase in ease of access for feral predators into the local area which could in turn impact upon the indigenous fauna.

Therefore, should a permit be granted, advice from DEC District office (DEC District Advice, 2007) suggests that "prior to any proposed vegetation clearing a dieback survey will be required and dieback management plan will need to be written and submitted to the (DEC) Blackwood District for comment to ensure that any proposed clearing and associated soil movement in the line installation will not spread dieback disease that will adversely impact on the adjoining state forest." Weed management conditions will also need to be implemented to ensure weeds are not introduced or establish post clearing into the area which could therefore encroach into state forest. Fox baiting should also be put in place to reduce the potential for increased feral predator access.

Dieback and weed management conditions will be imposed if clearing is approved.

Methodology DEC District Advice (2007)
GIS Databases:
- CALM managed Lands & Waters - CALM 1/07/05
- Register of National Estate - EA 28/01/03

(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 area lies within the Donnelly River hydrographic catchment with a large portion of the area being within the Donnelly River and Tributaries RIWI area and the Blackwood Ground Water Area gazetted for management under the Rights in Water and Irrigation Act 1914.

The groundwater salinity is less than 500mg/L and the salinity risk for the area is low. Acid sulphate soil risk over the majority of the proposal is mapped as no known risk with the exception of a high to moderate area attributed to the wetlands on the western end of the proposed clearing area, however, the clearing of the vegetation itself is not likely to cause acid sulphate soil issues. Given that soil will be disturbed during the clearing process and power line installation there may be some sedimentation into the wetlands however, if the clearing and works are completed when the wetland is dry the impacts will be very minimal and confined to the duration of the works. Due to the scale of the proposed clearing it is unlikely that the clearing will cause deterioration of surface and underground water within the local area.

Methodology GIS Databases:
- Hydrographic Catchments - Catchments - DoW
- RIWI Act, Groundwater Areas - WRC 13/06/00

(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 area under application includes areas subject to inundation attributed to the palusplain wetland particularly at the western end of the applied clearing area. The soils of this area are also prone to waterlogging being swampy and low-lying drained plains (Northcote et al, 1960-68). Although the removal of vegetation will lead to a reduction in the uptake of water in the area, it is unlikely due to the scale and linear nature of the proposed clearing and in the context of the existing wetlands in the area, that the proposal will lead to an incremental increase in peak flood height and duration within the local area.

It is therefore concluded that the proposal is not likely to be at variance to this principle.

Methodology Northcote et al (1960-68)

GIS Databases:

- Hydrography, linear - DoE 1/2/04
- Geomorphic wetlands, Augusta to Walpole - DoE 18/6/03
- Soils, Statewide - DA 11/99

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

Comments

The area under application is zoned Road Reserve under the Town Planning Scheme.

In order to avoid further clearing within this area, the DEC Regional and District Offices have indicated that they would be willing to discuss alternative options of the possibility of this powerline alignment using existing tracks within the adjoining State Forest 58 (DEC District Advice, 2007). The straight existing track approximately 1.1km to the south of the road reserve which could be an option, is currently in an area gazetted as State Forest however, is proposed under the Forest Management Plan to become part of the D'Entrecasteaux National Park (DEC, 2007b). It is proposed that negotiations take place in order to investigate options that will provide a better conservation outcome.

The Chief Executive Officer of the Shire of Nannup on the 26th June 2007 wrote a letter of support of the proposal to the applicant. The letter states that "I would like to express the strong support of Council for the granting of a clearing permit for a portion of the Mayall Road Reserve west of Jangardup Road in the East Scott River area. It is understood the clearing permit is sought to secure a reliable power supply to the Lactanz dairies in the area. Council has long been a supporter of this industry and will assist where it can to promote the economic benefits that dairies bring to the region." The Shire also offers no objection to minor clearing required on Jangardup Road (Shire of Nannup 2007a & Shire of Nannup, 2007b).

A media statement released on the 6th August 2007 stated that "Acting Regional Development Minister Kim Chance today announced that Lactanz, a New Zealand investment group of dairy farmers, had received a cheque for \$220,000 to support their plans to establish a new dairy farm at Lake Jasper. The grant was provided through the State Government's Regional Headworks Program and would assist with the cost of providing suitable power supply to the property" (Government of Western Australia, 2007).

The applied area is within the Scott Coastal Plain Strategy area, and is therefore subject to the Scott Coastal Plain Steering Committee's 'Strategy for a Sustainable Future' (SCPSC, 2001). This strategy, also recognised by the EPA (2000a), recommends that planning for infrastructure development should incorporate EPA advice particularly with regards the management and protection of native vegetation and the principles and criteria referred to in Section 4.3 of the EPA's Position Statement No.2, Environmental Protection of Native Vegetation in Western Australia (EPA, 2000b). Given the scale of the proposed clearing and should vegetation be allowed to re-establish after the installation of the powerline, the proposal should be in line with the recommendations made by the EPA in this document.

A submission was received by the Department in December 2007 stating that "the area should be revegetated with appropriate local vegetation and would consider that a detailed list of species with densities be provided as part of their conditions" (should a permit be granted). This and other issues raised in this submission have been addressed within principle a.

Another issue which has been raised by the consultant and the Shire of Nannup is that the groundwater pumping and irrigation are currently being powered through diesel-powered generators which are costly and less reliable in comparison to electricity and environmentally unfriendly (Masters, 2007b & Shire of Nannup, 2007a).

Methodology

- DEC (2007b)
- DEC District Advice (2007)
- EPA (2000a)
- EPA (2000b)

Government of Western Australia (2007)
 Masters (2007b)
 SCPSC (2001)
 Shire of Nannup (2007a)
 Shire of Nannup (2007b)

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Infrastructure Maintenance	Mechanical Removal	1.04	<p>The assessment has found that this proposal is at variance to principles f and h, may be at variance to principles a, b, c, d and g, not likely to be at variance to principles i and j and not at variance to principle e.</p> <p>It is recommended that should a permit be granted that conditions to be imposed relating to fauna management, flora and vegetation surveys to be conducted prior to clearing, dieback and weed prevention and gate installation to allow for the re-establishment of vegetation.</p>

5. References

- AGPS (2001) The national objective and targets for biodiversity conservation 2001-2005. Commonwealth of Australia, Canberra.
- BK Masters & Associates (2007) Environmental Survey of Mayall Road Underground Powerline Route for Lactanz WA, Environmental & Earth Science Consultants, Capel, Western Australia. TRIM ref DOC27055.
- DEC (2007a) Site Visit Report, Department of Environment and Conservation, Western Australia. TRIM ref DOC39923.
- DEC (2007b) F58 Tenure confirmation from GIS Operations, Department of Environment and Conservation, Bunbury, Western Australia. TRIM ref DOC45646.
- DEC District Advice (2007) Flora, Location of Jangardup Powerline Alignment and Dieback advice received from Blackwood District Office, Department of Environment and Conservation, Western Australia. TRIM ref DOC41228.
- DEC NatureBase (2007) FloraBase, Department of Environment and Conservation, Western Australia.
- EPA (2000a) Scott Coastal Plain - a Strategy for a Sustainable Future: Report by the Environmental Protection Authority under Section 16(j) of the Environmental Protection Act 1986, EPA Bulletin 991, Perth, Western Australia.
- EPA (2000b) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority.
- Government of Western Australia (2007) Media Statement: \$220,000 WA Government funding for new dairy farm at Lake Jasper, Western Australia. TRIM ref DOC31229.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Masters (2007a) Vegetation Clearing Application by Lactanz WA - Underground Powerline, Mayall Road, Jangardup, Shire of Nannup, Environmental & Earth Science Consultants, Capel, Western Australia. TRIM ref DOC 25991.
- Masters (2007b) Email Correspondence: CPS1921 - Clearing Native Vegetation Purpose Permit Application - Mayall Road Reserve, Lake Jasper, Environmental and Earth Science Consultants, Capel, Western Australia. TRIM ref DOC41512.
- Mattiske Consulting (1998) Mapping of vegetation complexes in the South West forest region of Western Australia, CALM.
- 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.
- Scott Coastal Plain Steering Committee (SCPSC) (2001) Scott Coastal Plain: A Strategy for a Sustainable Future, AgWA Bulletin 4381, Perth, Western Australia.
- Shepherd, D.P. (2006). 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. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- Shire of Nannup (2007a) Support for Proposed Clearing Permit - Mayall Road, Shire of Nannup, Nannup, Western Australia. TRIM ref DOC29817.
- Shire of Nannup (2007b) Email: Clearing on Road Reserve, Shire of Nannup, Nannup, Western Australia. TRIM ref DOC39965.

6. 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)