Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2150/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Silcar Communications**

1.3. Property details

Property:
ROAD RESERVE (SHANNON 6262)
LOT 1 ON DIAGRAM 55677 (SHANNON 6262)
LOT 320 ON PLAN 36426 (BOORARA BROOK 6262)
NELSON LOCATION 13037 (SHANNON 6262)
LOT 12074 ON PLAN 203146 (SHANNON 6262)
LOT 321 ON PLAN 36426 (SHANNON 6262)
LOT 13316 ON PLAN 240298 (SHANNON 6262)
ROAD RESERVE (SHANNON 6262)
LOT 13408 ON PLAN 240359 (BROKE 6398)
LOT 13463 ON PLAN 240359 (SHANNON 6262)
ROAD RESERVE (BROKE 6398)
LOT 13409 ON PLAN 240359 (BROKE 6398)
LOT 13463 ON PLAN 240359 (BROKE 6398)
ROAD RESERVE (SHANNON 6262)
LOT 333 ON PLAN 36448 (NORTH WALPOLE 6398)
ROAD RESERVE (BROKE 6398)
ROAD RESERVE (BROKE 6398)
LOT 13463 ON PLAN 240359 (BROKE 6398)
ROAD RESERVE (BROKE 6398)
LOT 13463 ON PLAN 240359 (BROKE 6398)
LOT 13370 ON PLAN 240359 (BROKE 6398)
ROAD RESERVE (NORTH WALPOLE 6398)
LOT 8731 ON PLAN 201651 (BROKE 6398)
LOT 8716 ON PLAN 201649 (Lot No. 1 LONG POINT BROKE 6398)
LOT 8714 ON PLAN 201649 (NORTH WALPOLE 6398)
LOT 8713 ON PLAN 201649 (NORTH WALPOLE 6398)
STATE FOREST 48 (NORTH WALPOLE 6398)
CROWN RESERVE 31362 (WALPOLE 6398)
ROAD RESERVE (WALPOLE 6398)
ROAD RESERVE (WALPOLE 6398)
ROAD RESERVE (WALPOLE 6398)
ROAD RESERVE (WALPOLE 6398)
CROWN RESERVE 31362 (WALPOLE 6398)

Local Government Area: Shire Of Manjimup
Colloquial name: Optical Fibre line

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
63.5		Mechanical Removal	Miscellaneous

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

There are nine Beard (1980) mapped vegetation associations within the area under application:

- 1 - Tall forest; Eucalyptus diverscolor (Karri).

- 3 - Medium forest; Eucalyptus marginata (Jarrah) - Corymbia calophylla (Marri).

- 23 - Low woodland; Eucalyptus marginata - Banksia spp.

- 27 - Low woodland; Melaleuca sp. (Paperbark).

- 51 - Sedgeland; reed swamps, occasionally with heath.

- 1112 - Mosaic: Tall forest; Eucalyptus diverscolor / Tall forest; Eucalyptus marginata and Corymbia calophylla.

- 1134 - Medium woodland; Eucalyptus marginata (south coast).

- 1139 - Tall forest; Eucalyptus diversicolor and Eucalyptus guilfoylei (Yellow Tingle).

- 1144 - Tall forest; Eucalyptus diversicolor and Corymbia calophylla.

There are seventeen Mattiske (1998) mapped vegetation complexes within the area under application:

- A (Angove) - Open forest of Eucalyptus marginata subsp. marginata (Jarrah) - Banksia ilicifolia (Holly-leaved Banksia) - Nuytsia floribunda (WA Christmas Tree) with some Eucalyptus diversicolor (Karri) on gently sloping sandy terrain in hyperhumid and perhumid zones.

- BU (Burnett) - Mosaic of tall shrubland of Taxandria linearifolia (Swamp Peppermint) - Taxandria parviceps, open heaths of Myrtaceae - Proteaceae - Papilionaceae spp. with some emergent Eucalyptus patens (Blackbutt) and Eucalyptus megacarpa (Bullich) and sedgeland of Anarthria -

Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)

Lepidosperma spp. on broad flats in the hyperhumid zone.

- BWp (Blackwater) - Mosaic of low open woodland of Melaleuca preissiana (Moonah), low open woodland of Melaleuca cuticularis (Saltwater Paperbark), open heath of Myrtaceae - Proteaceae spp. and sedgelands of Restionaceae spp. on low lying flats in hyperhumid and perhumid zones.

- COb (Collis) - Tall open forest of Eucalyptus diversicolor - Corymbia calophylla (Marri) on crests of hills arising above the southern coastal plain in the hyperhumid zone.

- COy1 (Collis 1) - Tall open forest to woodland of Eucalyptus marginata subsp. marginata - Corymbia calophylla - Banksia grandis (Bull Banksia) - Allocasuarina fraseriana (Sheoak) on low hills and with Allocasuarina decussata (Karri Sheoak) on slopes in perhumid and humid zones.

- CRb (Crowea) - Tall open forest of Corymbia calophylla - Eucalyptus diversicolor on upper slopes with Allocasuarina decussate - Banksia grandis on upper slopes in hyperhumid and perhumid zones.

- KO (Kordabup) - Mosaic of low forest of Taxandria juniperina, closed heath of Myrtaceae - Proteaceae - Papilionaceae spp. with occasional emergent Melaleuca preissiana and Banksia littoralis (Swamp Banksia) on broad swampy plains in hyperhumid and perhumid zones.

- Kb (Keystone) - Mosaic of tall open forest of Eucalyptus guilfoylei (Yellow Tingle) - Eucalyptus jacksonii (Red Tingle) - Eucalyptus diversicolor on slopes of major hills rising above coastal plain with Allocasuarina decussata - Banksia grandis - Agonis flexuosa (Peppermint) on slopes in hyperhumid and perhumid zones and tall open forest of Eucalyptus brevistylis (Rates Tingle) - Eucalyptus marginata

subsp. marginata - Corymbia calophylla and the occasional Eucalyptus megacarpa near rock outcrops in hyperhumid and perhumid zones.

- MTb (Mattaband) - Mixture of tall open forest of Eucalyptus diversicolor - Corymbia calophylla and woodland of Eucalyptus marginata subsp. marginata - Corymbia calophylla - Agonis flexuosa on small hills arising above the coastal plain with some outcrops in hyperhumid and perhumid zones.

Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)

- MTy1 (Mattaband) - Mixture of tall open forest of Eucalyptus diversicolor - Eucalyptus guilfoylei, tall open forest of Eucalyptus jacksonii - Eucalyptus diversicolor and an open forest of Eucalyptus marginata subsp. marginata - Corymbia calophylla - Banksia grandis on hills rising above the coastal plain in hyperhumid and perhumid zones.

- Pi (Pingerup) - Mosaic of closed heaths of Myrtaceae spp. and sedgeland of Restionaceae - Cyperaceae spp. with occasional emergent Eucalyptus patens and Melaleuca preissiana on broad depressions and drainage corridors in hyperhumid and perhumid zones.

- Q (Quagering) - Mosaic of low open woodland of Eucalyptus marginata subsp. marginata - Banksia ilicifolia - Nuytsia floribunda and low open woodland of Eucalyptus patens - Melaleuca preissiana - Nuytsia floribunda on less undulating flats in hyperhumid and perhumid zones.

- S1 (Granite Valleys) - Tall open forest of Eucalyptus diversicolor - Corymbia calophylla on slopes with some Eucalyptus patens and Eucalyptus megacarpa on valley floors in hyperhumid and perhumid zones.

- S3 (Shadow Valleys) - Low woodland of Eucalyptus marginata subsp. marginata - Corymbia calophylla on

slopes, and mosaic of low open woodland of Melaleuca preissiana - Banksia littoralis , closed heaths and sedgeland of Cyperaceae spp. on valley floors with impeded drainage in hyperhumid and perhumid zones.

- V4 (Granite Valleys) - Tall open forest of Eucalyptus diversicolor - Allocasuarina decussata - Agonis flexuosa with Eucalyptus patens and Corymbia calophylla on slopes at the interface between granite hills and the southern coastal plain, with some shrublands of Myrtaceae species in hyperhumid and perhumid zones.

- Vh3 (Granite Valleys) - Tall open forest of Eucalyptus diversicolor - Eucalyptus guilfoylei on slopes and woodland of Eucalyptus rudis (Flooded Gum) - Banksia littoralis on lower slopes in hyperhumid and perhumid zones.

- Wp (Walpole) - Low woodland of Allocasuarina fraseriana - Banksia attenuata (Slender Banksia) - Banksia ilicifolia with stunted Eucalyptus marginata subsp. marginata on flats in the hyperhumid zone.

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

This application for a purpose permit proposes the clearing of up to 63.5 hectares of native vegetation to enable the installation of telecommunications optical fibre cable, linking Northcliffe East exchange to Walpole exchange. The clearing is proposed to occur within DEC-managed conservation estate and road reserves along the alignment and will involve strips of 5-8 metres parallel to the road formation and diversions around large trees and drains, and boring for 60-90 metres under water course crossings.

There are nine Beard (1980) mapped vegetation associations and seventeen Mattiske (1998) mapped vegetation complexes within the area under application. Aerial photography suggests that most of the alignment is vegetated and is likely to be of good or better condition with some degree of edge effect from the road.

It is likely that the vegetation under application comprises a high level of biological diversity, however given the extensive cover of vegetation within the local context (much of which is contained within the conservation estate) it is unlikely that the clearing would have a significant impact on local biodiversity.

Methodology

Proponent's supporting information - preliminary design
GIS datasets
- Deep River 50cm Orthomosaic - Landgate04
- Deep River 1.4m Orthomosaic - DLI 04/00
- Northcliffe 1.4m Orthomosaic - DLI00

(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

The clearing is proposed to occur predominantly within road reserves along the alignment and will involve strips of 5-8 metres parallel to the road formation and diversions around large trees and drains, and boring for 60-90 metres under water course crossings. There are diverse mapped vegetation types present within the area under application. Aerial photography suggests that most of the alignment is well vegetated and is likely to be of good or better condition with some degree of edge effect from the road.

There are more than 100 recorded occurrences of Threatened and priority-listed fauna within a 50 kilometre radius of the area under application, with the majority of these records from within adjacent conservation estate. The nearest recorded occurrences to the area under application are:
- Chuditch (Dasyurus geoffroii, Threatened) within the area under application;
- three occurrences of WA Pill Millipede (Cynotelopus notablis, Threatened) within approximately 75 metres;
- three occurrences of Tingle Mogriddgea Spider (Mogriddgea tingle, Threatened) within approximately 100 metres;
- Brush-tailed Phascogale (Phascogale tapoatafa, Threatened) within approximately 120 metres;
- Quenda (Isoodon obesulus fusciventer, Priority 5) within approximately 150 metres;
- two occurrences of Quokka (Setonix brachyurus, Threatened) within approximately 230 metres;
- Crested Shrike-Tit (Falcunculus frontatus leucogaster, Priority 4) within approximately 250 metres; and
- several Threatened and priority-listed fish species within river systems in close proximity (within approximately 250 metres) of proposed crossings.

A Level 1 vertebrate fauna assessment undertaken by Ninox Wildlife Consulting (February 2008) confirmed the presence of Forest Red-tailed Black-Cockatoo (Calyptorhynchus banksia naso, Threatened), Baudin's White-tailed Black-Cockatoo (Calyptorhynchus baudinii, Threatened) and Crested Shrike-Tit (Falcunculus frontatus leucogaster, Priority 4) within the area under application. It is not expected that the area under application would constitute sole habitat for these species.

Ninox Wildlife Consulting also identified a number of significant fauna and non-Threatened local fauna species that are likely to utilise habitat consistent with that present within the area under application. In particular, those habitats found within forested valleys and in and around wetlands and swamps within the area under application are considered to be significant for fauna.

The proponent's application indicates that wherever possible the alignment of the area under application will occur adjacent to existing roads, thus minimising the impact of the proposed clearing.

It is likely that the vegetation under application comprises significant habitat for fauna, however given the extensive cover of vegetation within the local context (much of which is contained within the conservation estate) it is unlikely that the clearing would have a significant impact on fauna habitats. However given the close proximity of several recorded occurrences of significant fauna, it is possible that the area under application comprises significant habitat for those species with small home ranges.

Methodology

Level 1 Vertebrate Fauna Assessment (Ninox Wildlife Consulting; TRIM Ref DOC48815)
GIS dataset
- SAC Bio dataset - Fauna 24/10/07
- Pre-European Vegetation
- Mattiske Vegetation

(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

There are over 70 recorded occurrences of Declared Rare and Priority Flora within a 10 kilometre radius of the area under application. The nearest recorded occurrences to the area under application are:
- Meziella trifida (Declared Rare) three populations within approximately 10 metres (Deeside Coast Road, Chesapeake Road), and one population within approximately 200 metres (Chesapeake Road);
- Kennedia glabrata (Declared Rare) within approximately 10 metres (South Western Highway);
- Reedia spathacea (Declared Rare) one population within approximately 50 metres (South Western Highway), and one population within approximately 420 metres (Chesapeake Road);
- Microtis globula (Declared Rare) one population within approximately 150 metres (South Western Highway), and one population within approximately 420 metres (South Western Highway);
- Banksia verticillata (Declared Rare) within approximately 250 metres (South Western Highway);
- Lomandra ordii (Priority 3) two populations within approximately 10 metres (South Western Highway), and three populations within approximately 150 metres (Chesapeake Road);
- Gonocarpus simplex (Priority 3) within approximately 10 metres (Deeside Coast Road);
- Amperea protensa (Priority 3) two populations within approximately 10 metres (Deeside Coast Road), one population within approximately 120 metres (Deeside Coast Road), and one population within approximately 30 metres (South Western Highway);

- Meeboldina crassipes (Priority 3) within approximately 10 metres (South Western Highway);
- Hypocalymma cordifolium subsp. minus (Priority 4) two populations within approximately 10 metres (Chesapeake Road, South Western Highway), one population within approximately 240 metres (Broke Inlet Road), and one population within approximately 470 metres (Broke Inlet Road);
- Sphenotoma parviflorum (Priority 3) within approximately 10 metres (South Western Highway);
- Tyrbastes glaucescens (Priority 4) two populations within approximately 30 metres (Chesapeake Road), and one population within approximately 100 metres (South Western Highway);
- Actinotus sp.Walpole (Priority 3) within approximately 30 metres (South Western Highway);
- Goodenia filiformis (Priority 3) within approximately 30 metres (South Western Highway);
Caladenia plicata (Priority 4) within approximately 100 metres (South Western Highway);
- Chamelaucium floriferum subsp. floriferum (Priority 3) within approximately 100 metres (South Western Highway);
- Chamelaucium floriferum subsp. diffusum (Priority 2) within approximately 100 metres (South Western Highway);
- Pleurophascum occidentale (Priority 4) one population within approximately 100 metres (South Western Highway), and one population within approximately 100 metres (South Western Highway);
- Caladenia abbreviata (Priority 2) within approximately 200 metres (South Western Highway);
- Microtis media (Priority 4) within approximately 250 metres (Broke Inlet Road);
- Anthocercis sylvicola (Priority 2) within approximately 350 metres(South Western Highway); and
- Cyathochaeta stipoides (Priority 3) within approximately 350 metres (Lower Shannon Road);

Many of these species occur within similar soil types and similar vegetation associations as those found within the area under application. Further, for those populations within close proximity of the area under application it is possible that there will be an impact as a result of the proposed clearing if not directly on the flora then on the habitat of that species.

Mattiske Consulting Pty Ltd (February 2008) was commissioned by URS Corporation to undertake a flora survey along the alignment of the area under application during November 2007 on behalf of the proponent. Mattiske Consulting identified 7 flora of significance within or immediately adjacent the area under application. These include Amperea protensa (Priority 3), Meeboldina thysanantha (Priority 3), Sphaerolobium pubescens (Priority 3), Hypocalymma cordifolium subsp. minus (Priority 4), Tripterococcus brachylobus (Priority 4), Stylidium rupestre (range extension) and Boronia fastigiata (range extension). No Declared Rare species were identified within the area under application, however this may be due to the timing of the survey rather than an indication that they do not occur within the area under application.

Targeted flora surveys at an appropriate time of year will be required prior to any clearing being undertaken. The proponent should be aware that Ministerial approval is required to take Declared Rare flora.

Methodology Flora and Vegetation Survey (Mattiske Consulting Pty Ltd; TRIM Ref DOC48816)
GIS dataset
- SAC Bio dataset - DeFI 13/02/08
- SAC Bio dataset - WAHerb 30/05/07
- Soils Statewide DAWA 1999
- Pre-European Vegetation
- Mattiske Vegetation

(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 18 occurrences of mapped Threatened Ecological Communities (TECs) within ten kilometres of the alignment of the area under application, the nearest is located approximately 85 kilometres south of the eastern end of the alignment along South Western Highway with another located 300 metres north of the alignment along Chesapeake Road and others within 500 metres of the area under application.

There is a possibility that the proposed clearing may have an impact on the two nearest TECs in the form of changed hydrology and/or sedimentation in the short term, since the topographic dataset indicates that the TECs are on approximately parallel contours as the area under application and possibly downslope.

However given that the clearing is for the installation of a cable predominantly following existing linear clearing, and given that the alignment is proposed to have vegetation cover restored following installation and there are existing buffers of vegetation between the TECs and the area under application, any impact is expected to be short-term and minimal at the most.

Methodology GIS datasets
- TEC database - 02/08
- Topographic Contours, Statewide - 12/09/02

(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

There are 9 mapped Beard (1980) vegetation associations and 17 mapped Mattiske (1998) vegetation complexes within the area under application. Aerial photography suggests that most of the alignment is vegetated and is likely to be of good or better condition with a degree of edge effect from the roads.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	Conservation status **	Pre-European % in reserve/DEC
IBRA Bioregions: #					
- Warren	851,529	739,273	86.8		
Local governments: #					
- Shire of Manjimup	705,670	591,748	83.9		
Beard vegetation association (within IBRA region): *					
- 1	7,254	2,099	28.9	Vulnerable	0.0
- 3	250,261	199,967	79.9	Least Concern	69.4
- 23	37,735	28,038	74.3	Least Concern	54.2
- 27	70,203	53,497	76.2	Least Concern	67.5
- 51	35,867	24,757	69.0	Least Concern	59.0
- 1112	11,085	10,357	93.4	Least Concern	94.7
- 1134	14,408	12,867	89.3	Least Concern	77.3
- 1139	15,253	14,282	93.6	Least Concern	88.2
- 1144	159,668	127,227	79.6	Least Concern	75.5
Mattiske vegetation complex: ##					
- A	397,028	355,374	89.5	Least Concern	74.8
- BU	70,298	69,978	99.5	Least Concern	99.5
- BWp	325,413	287,703	88.4	Least Concern	80.9
- COb	218,419	187,148	85.7	Least Concern	75.3
- COy1	228,751	192,244	84.0	Least Concern	71.2
- CRb	527,433	428,454	81.2	Least Concern	30.3
- KO	27,207	12,859	47.3	Depleted	38.5
- Kb	283,460	231,926	81.8	Least Concern	64.3
- MTb	118,149	105,589	89.4	Least Concern	80.7
- MTy1	204,273	190,809	93.4	Least Concern	90.8
- Pi	138,275	134,819	97.5	Least Concern	95.0
- Q	149,548	142,078	95.0	Least Concern	80.5
- S1	255,050	215,886	84.6	Least Concern	53.3
- S3	62,306	54,949	88.2	Least Concern	62.5
- V4	54,178	52,345	96.6	Least Concern	91.4
- Vh3	124,009	108,802	87.7	Least Concern	66.7
- Wp	10,449	6,221	59.5	Least Concern	25.8

statistics from Shepherd et al 2001 (Technical Report 249)
* statistics from AGWA 2006 (Shepherd et al) - within IBRA Bioregion
** Department of Natural Resources and Environment 2002
*** Within the Intensive Landuse Zone
statistics from Mattiske Consulting Pty Ltd RFA report 1998

Of the mapped vegetation types occurring within the area under application, but with the exception of Beard (1980) association 1 and possible exception of Mattiske complex KO, the vegetation associations and complexes present within the Warren IBRA region have the greater portion of their pre-European extents remaining and are generally well represented (>25% of pre-European extent) within the conservation estate. The Beard (1980) association 1 has slightly less than 30% of its pre-European extent remaining and the Mattiske complex KO has slightly less than 50% of its pre-European extent remaining, however given that the total area proposed for clearing is 63.5 hectares it is not expected that the portion of the proposed clearing within these vegetation types will significantly impact on their current extents.

Methodology

DAWA 2001
EPA Position Paper No 2 Agriculture Region - DEP 12/00
GIS dataset
- Pre-European Vegetation
- Mattiske Vegetation
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Deep River 50cm Orthomosaic - Landgate04

- Deep River 1.4m Orthomosaic - DLI 04/00
- Northcliffe 1.4m Orthomosaic - DLI00

(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

The area under application traverses 4 hydrographic catchments, being Broke Inlet_Shannon River, Gardner River, Nornalup Inlet and Nornalup Inlet_Deep River. The area under application also occurs within two Public Drinking Water Source areas, being Deep River Water Reserve and Walpole Weir Catchment Area.

DEC Warren Region advice indicates that the Broke Inlet and the adjacent surrounding lands subject to inundation comprise a Wetland of International Importance.

There are 6 significant wetland areas within close proximity to the eastern end of the area under application; Bellanger Barrier, Collier Creek, an un-named wetland and Broke Inlet occur within 2 kilometres.

The area under application traverses several watercourses. Canterbury River intersects at the western end, Chesapeake Brook intersects that section of the area under application at Deeside Coast Road and again at Chesapeake Road, Shannon River intersects at Chesapeake Road, Forth River and Kingsman Brook intersect at Chesapeake Road at the northern end of Broke Inlet, Big Creek intersects at Chesapeake Road on the eastern side of Broke Inlet, a tributary of Inlet Brook intersects at Chesapeake Road and at South Western Highway, Inlet Brook intersects at South Western Highway, Deep River intersects at South Western Highway, and a tributary of Walpole Inlet intersects South Western Highway at the northern end of Walpole Inlet.

The proponent proposes to undertake boring for 60-90 metres under watercourse crossings.

Methodology

DEC Warren Region advice (verbal, 07/04/08)
GIS dataset
- Hydrographic Catchments - Catchments - DOW
- Public Drinking Water Source Areas (PDWSAs) - DOW
- South Coast Significant Wetlands - DOE 4/8/03
- ANCA, Wetlands - CALM 08/01
- Topographic Contours Statewide DOLA 2002

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

Comments

Proposal is not likely to be at variance to this Principle

The clearing is linear and will occur predominantly alongside existing roads. In the short-term there may be an impact of sedimentation in runoff, however given that the proponent intends to revegetate the area once clearing and cable installation is complete, in the long term it is unlikely that the proposed clearing will result in increased wind or water erosion.

Salinity mapping and salinity risk analysis indicate that salinity may be associated with watercourses. Given that the area under application is higher in the landscape except where it crosses these watercourses, and that it occurs along existing cleared areas and is to be revegetated, it is unlikely that the proposed clearing will exacerbate salinity.

The Broke Inlet and Walpole Inlet are mapped as having high to moderate risk of acid sulphate soils. These areas are downstream of and within 1 kilometre of the area under application.

Acid sulphate soil mapping is not available for the area under application, however given evidence of acid sulphate soils within areas subject to inundation and/or with peaty soils there is a likelihood that the low-lying sections of the area under application (particularly in close proximinty to wetlands and where watercourses are traversed) will have a risk of acid sulphate soils. It is likely that the clearing and subsequent digging of a trench for the installation of a telecommunications fibre optic cable will disturb sulphides and possibly other metals and/or minerals at depth. However given that the proposed clearing is linear and restricted to an 8 metre corridor, and given that the soil will be replaced and revegetated once the purpose of the clearing is complete, it is unlikely that the clearing will result in acid sulphate soils.

Methodology

DAWA 2001
Schoknecht 2002
GIS dataset
- Salinity Mapping LM (25m) DOLA 2000
- Salinity Risk LM (25m) DOLA 2000
- Topographic Contours Statewide (DOLA 2002)
- Acid Sulfate Soil Risk Map, Estuaries

(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

From west to east, the alignment of the proposed clearing occurs within Jane National Park, Shannon National Park, D'Entrecasteaux National Park, Mt Frankland South National Park, Keystone State Forest, and Walpole-Nornalup National Park, as well as within road reserves.

There are 6 significant wetland areas within 2 kilometres of the eastern end of the area under application, being Bellanger Barrier, Collier Creek, an un-named wetland and Broke Inlet.

The alignment of the proposed clearing occurs within 2 System 2 areas, being Proposed South Coast National Park, and Shannon River Drainage Basin and Reservation of Karr.

The alignment of the proposed clearing occurs within 5 Register of National Estate areas, being Shannon Area, D'Entrecasteaux Area, Deep Area, Walpole Nornalup Area, and Proposed South Coast National Park.

Within 1 kilometre of the area under application is Shannon State Forest and an un-named reserve.

The proposed clearing will have an impact on the environmental values of the areas it traverses. However given that the width of the proposed clearing is up to 8 metres and the alignment of the area under application is parallel and adjacent existing transport corridors, and will be revegetated once cable installation is complete, it is expected that the impact will be minimal and contained in the long-term.

Methodology

GIS dataset
- CALM Managed Lands and Waters - CALM 1/07/05
- South Coast Significant Wetlands - DOE 4/8/03
- ANCA, Wetlands - CALM 08/01
- System 1 to 5 and 7 to 12 Areas - DEP 06/95
- Register of National Estate EA 2003
- Clearing Regulations - Environmentally Sensitive Areas DOE 2005
- Agreement to Reserve (ATRs)
- SAC Bio dataset - Covenants CALM 2006
- SAC Bio dataset - National Trust of Australia (WA) covenant sites 2006

(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 may be at variance to this Principle

The area under application traverses 4 hydrographic catchments, being Broke Inlet_Shannon River, Gardner River, Nornalup Inlet and Nornalup Inlet_Deep River. The area under application also occurs within two Public Drinking Water Source areas, being Deep River Water Reserve and Walpole Weir Catchment Area.

In the short-term there may be an impact of sedimentation in runoff entering watercourses, however given that the proponent intends to revegetate the area once clearing and cable installation is complete, in the long term it is unlikely that the proposed clearing will result in long-term impacts to water quality.

Methodology

GIS dataset
- Hydrographic Catchments - Catchments - DOW
- Public Drinking Water Source Areas (PDWSAs) - DOW

(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 is subject to moderate rainfall of 1200-1300mm/annum and an evapotranspiration rate of approximately 900mm/annum.

The clearing is linear and will occur predominantly alongside existing roads. Given that the proponent intends to revegetate the area once clearing and cable installation is complete, in the long term it is unlikely that the proposed clearing will result in increased surface water runoff or increased duration of peak flooding.

Methodology

GIS dataset
- Evapotranspiration Area Actual BOM 2001
- Mean Annual Rainfall Isohyets BOM 2001
- Topographic Contours Statewide DOLA 2002

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

Comments

A Clearance Survey report prepared for the proponent by Australian Interaction Consultants (AIC; February 2008) indicates that the area under application is in close proximity to 5 sites of Aboriginal significance, although none of these sites will be directly impacted by the proposed clearing. It is the responsibility of the proponent to ensure that matters of Aboriginal significance are addressed prior to undertaking any clearing.

There are additional approvals required prior to the proponent undertaking any clearing in the event that a clearing permit under the Environmental Protection Act 1986 is granted. These include:
- Ministerial approval for the taking of any Declared Rare flora;
- a license to occupy Conservation Commission land under the Conservation and Land Management Act 1984;
- a seed collection license to collect seed and plant propagation material;
- approval from DEC's CEO to collect seed and plant propagation material within National Park areas;
- compliance with the requirements of the Forest Management Plan and Old Growth Forest Policy; and
- approval to undertake an activity along a Level 1 travel route (being Deeside Coast Road) under the Forest Management Plan.

Methodology Clearance Survey (Australian Interaction Consultants; TRIM Ref DOC48815)
GIS dataset
- Aboriginal Sites of Significance DIA

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Miscellaneous	Mechanical Removal	63.5	Telstra Optical Fibre installation

5. References

AGPS (2001) The national objective and targets for biodiversity conservation 2001-2005. Commonwealth of Australia, Canberra.

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Mattiske Consulting (1998) Mapping of vegetation complexes in the South West forest region of Western Australia, CALM.

Mattiske Consulting Pty Ltd (February 2008). Flora and Vegetation Survey of the Silcar Proposal - Northcliffe to Walpole. Report prepared for URS Corporation on behalf of proponent. TRIM Ref DOC48816.

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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)