GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 6398/1
Permit Holder:	City of Rockingham
Duration of Permit:	9 May 2015 to 9 May 2020

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 road duplication

2. Land on which clearing is to be done

Lot 500 on Deposited Plan 54449, Golden Bay
Lot 509 on Deposited Plan 40136, Golden Bay
Lot 813 on Deposited Plan 30941, Golden Bay
Dampier Drive (PIN 11750648, PIN 11393660), Golden Bay
Peelfold Glen (PIN 11153805), Golden Bay
Trenant Park Gardens road reserve (PIN 11750649), Golden Bay
Sawley Close road reserve (PIN 11750650), Golden Bay
Dampier Drive road reserve (PIN 11057221), Secret Harbour

3. Area of Clearing

The Permit Holder must not clear more than 0.81 hectares of native vegetation within the area hatched yellow on attached Plan 6398/1a.

4. Period in which clearing is authorised

The Permit Holder shall not clear any native vegetation after 9 May 2017.

5. 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.

6. Type of clearing authorised

This Permit authorises the Permit Holder to clear native vegetation for the activities described in condition 1 of this Permit to the extent that the Permit Holder has the power to carry out works involving clearing for those activities under the *Local Government Act 1995* or any other written law.

PART II –MANAGEMENT CONDITIONS

7. Dieback and 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* and *dieback*:

(a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;

(b) ensure that no *dieback* or *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) within 12 months following completion of road duplication within the permit area *revegetate* and *rehabilitate* the area that is no longer required for the purpose for which it was cleared under this Permit within the areas cross-hatched red on attached Plan 6398/1b by:

(i) laying the vegetative material and topsoil retained under condition 8(a) within the area cross-hatched red on attached Plan 6398/1b; and

(ii) 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

(iii) ensuring only *local provenance* seeds and propagating material are used to *revegetate* and *rehabilitate* the area.

(c) within 24 months of undertaking *revegetation* and *rehabilitation* 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, the Permit Holder must undertake additional *planting* or *direct seeding* of native vegetation in accordance with the requirements of condition 8(b)(ii) and (iii) of this Permit.

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 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;

(ii) the date that the area was cleared; and

(iii) the size of the area cleared (in hectares).

(b) In relation to the *revegetation* and *rehabilitation* of areas pursuant to condition 8 of this Permit:

(i) the location of any areas *revegetated* and *rehabilitated*, 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;

(ii) a description of the *revegetation* and *rehabilitation* activities undertaken;

(iii) the size of the area *revegetated* and *rehabilitated* (in hectares);

(iv) the species composition, structure and density of *revegetation* and *rehabilitation*, and

(v) a copy of the environmental specialist's report.

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 financial 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 9 February 2020 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:

dieback means the effect of *Phytophthora* species on native vegetation;

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 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, or who is approved by the CEO as a suitable environmental specialist.

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 20 kilometres and the same Interim Biogeographic Regionalisation for Australia (IBRA) subregion 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 re-establishment of vegetation from in situ seed banks and propagating material (such as lignotubers, bulbs, rhizomes) 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 natural *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 a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
(b) published in a Department of Parks and Wildlife Regional Weed Rankings Summary, regardless of ranking; or
(c) not indigenous to the area concerned.

M Warnock
SENIOR MANAGER
CLEARING REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

9 April 2015

Plan 6398/1a

Legend

- Cadastre
- Roads
- Imagery
- Clearing Instruments Activities

N

0 200m

1:5,640

(Approximate when reproduced at A4)

GDA 94 (Lat/Long)

Geocentric Datum of Australia 1994

..... Date 9/4/15

M. Warnock

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

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

GOVERNMENT OF WESTERN AUSTRALIA

Plan 6398/1b

Legend

- Cadastre
- Roads
- Imagery
- Clearing Instruments Conditions

N

0 200m

1:5,640

(Approximate when reproduced at A4)

GDA 94 (Lat/Long)

Geocentric Datum of Australia 1994

..... Date 9/4/15

M. Warnock

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

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

GOVERNMENT OF WESTERN AUSTRALIA

Government of Western Australia
Department of Environment Regulation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 6398/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: City of Rockingham

1.3. Property details

Property: ROAD RESERVE, GOLDEN BAY
LOT 509 ON PLAN 40136, GOLDEN BAY
LOT 813 ON PLAN 30941, GOLDEN BAY
LOT 500 ON PLAN 54449, GOLDEN BAY
ROAD RESERVE, SECRET HARBOUR
Colloquial name:
Local Government Authority: ROCKINGHAM, CITY OF
DER Region: Greater Swan
DPaW District: SWAN COASTAL
LCDC:
Localities: GOLDEN BAY

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.81		Mechanical Removal	Road construction or upgrades

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 09 April 2015

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Beard Vegetation Association 1001 is described as Medium very sparse woodland; jarrah, with low woodland; banksia & casuarina (Shepherd et al, 2001), Beard Vegetation Association 998 is described as Medium woodland; tuart (Shepherd et al, 2001), Heddle Vegetation Cottesloe Complex-Central And\South is comprised of WOODLAND AND OPEN FOREST AND CLOSED HEATH (Heddle et al, 1980), Heddle Vegetation Quindalup Complex is comprised of COASTAL DUNE COMPLEX - LOW CLOSED FOREST AND CLOSED SCRUB (Heddle et al, 1980), Heddle Vegetation Karrakatta Complex-Central And\South is comprised of OPEN FOREST AND WOODLAND (Heddle et al, 1980)	The proposal is to clear up to 0.81 hectares of native vegetation within Lot 500 on Deposited Plan 54449, Lot 509 on Deposited Plan 40136, Lot 813 on Deposited Plan 30941, Dampier Drive, Peelfold Glen, Trenant Park Gardens and Sawley Drive road reserves, Golden Bay and Dampier road reserve, Secret Harbour, for the purpose of road duplication.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994) To Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994).	Vegetation condition was established through a site visit conducted by a Department of Environment Regulation officer on 2 March 2015 (DER 2015).

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 proposed clearing of 0.81 hectares is for the purpose of road duplication.

A site visit of the application observed that the majority of the application area is in a degraded (Keighery 1994) condition and has an understorey infested with grassy weeds (DER 2015). Two large tuart trees were observed within the application area; however no hollows were observed (DER 2015).

There are numerous records of priority and rare flora species mapped within a 10 kilometre radius of the application. Given the degraded nature of the application area, it is not likely that the application area will contain habitat for these species.

The vegetation proposed for clearing is not likely to provide significant habitat for conservation significant fauna in the local area given the small, linear and degraded nature of the application area, as well as the vegetation being subject to disturbance from the adjoining road reserve.

A threatened ecological community (TEC) 'Woodlands over sedgelands in Holocene dune swales of the Southern Swan Coastal Plain" occurs five meters north of the application area. As the vegetation under application is in a degraded (Keighery 1994) condition, it is not likely to represent this TEC.

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

Methodology

References
-DER (2015)
-Keighery (1994)
GIS Databases
-SAC Bio datasets (15 January 2015)

(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

A site visit of the application area observed that the majority of the application area is in a degraded (Keighery 1994) condition and has an understorey infested with grassy weeds (DER 2015). Two large tuart trees were observed within the application area, however no hollows were observed (DER 2015).

The vegetation proposed for clearing is not likely to provide significant habitat for fauna in the local area given the small and linear nature of the application area, as well as the vegetation being subject to historical disturbance from the adjoining road reserve. In addition, the application area adjoins a large area of remnant vegetation that would provide more favourable habitat for fauna.

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

Methodology

References
-Keighery (1994)
-DER (2015)
GIS Database
-Sac Bio datasets (15 January 2015)

(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

Two rare flora species have been recorded within the local area (10 kilometer radius); the closest being recorded 3.4 kilometers south east of the application area.

Species one occurs in low-lying depressions in peaty and sandy clay swamps that contain water into summer (Brown et al. 1998).

Species two occurs in deep sandy soil in banksia woodland, in low-lying areas alongside winter wet swamps (Brown et al. 1998)

A site visit of the application area identified a small portion of wetland vegetation consisting of sedges in a degraded (Keighery 1994) condition, the north eastern portion of the application consisting of Banksia woodland in a degraded (Keighery 1994) condition and the southern side and western portion of the northern side of Dampier Drive is in a completely degraded (Keighery 1994) condition and consists of non-native trees and Tuart trees over grassy weeds. The whole of the application area has an understorey infested with grassy weeds (DER 2015).

The application area may have previously contained suitable habitat for these rare flora species however, given the completely degraded to degraded (Keighery 1994) condition of the vegetation under application and the small size of the application area, the vegetation proposed to be cleared is no longer likely to contain suitable

habitat for these species.

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

Methodology

References
-DER (2015)
-Keighery (1994)
-Brown et al. (1998)
GIS Databases
-SAC Bio datasets (15 January 2015)

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

Comments

Proposal may be at variance to this Principle

The closest threatened ecological community (TEC) to the application area is "Woodlands over sedgelands in Holocene dune swales of the Southern Swan Coastal Plain" (critically endangered). This TEC is a wetland community and occurs approximately five meters to the north of the area under application. The TEC occurs within a mapped conservation category wetland.

Wetland vegetation was observed within the application area in a degraded (Keighery 1994) condition during a site inspection conducted by a DER officer (DER 2015). Given, the degraded condition of the vegetation, it is not considered likely for it to represent the TEC.

A small buffer of vegetation and a cleared firebreak separates the existing road and this TEC. The proposed clearing would remove this limited vegetated buffer to this TEC and is likely to increase disturbance to the TEC through increased weed encroachment and dust and trampling impacts during construction (Parks and Wildlife 2015a). The applicant advises that the existing cleared earth fire break around the TEC will be consolidated with crushed limestone and any mulch or soil used on batters will be certified weed and dieback free to reduce weed or dieback encroachment on the TEC (City of Rockingham 2015).

The proposed clearing within the buffer to this wetland may also increase runoff into the TEC and has the potential to impact the hydrological processes of this threatened ecological wetland community (Parks and Wildlife 2015a). Department of Water's storm water management principles (DoW 2009) state that runoff to a conservation category wetlands should be through overland flow across vegetated areas. The proposed clearing will remove the small vegetated buffer to this TEC (Parks and Wildlife 2015a). However, the applicant has advised that they have amended the road design to accommodate a vegetated buffer of 3.5 to 10.7 meters along the entire southern boundary of the TEC. This buffer will be revegetated with native species as soon as possible using mature green stock (City of Rockingham 2015). This area of native vegetation will maintain the natural overland flow necessary for wetland function while reducing the velocity of runoff from the road.

Parks and Wildlife (2015a and 2015b) has advised that a drainage swale should not be constructed along the northern side of Dampier Drive. It is recommended that any drainage swales constructed alongside Dampier Drive be limited to the southern side of Dampier Drive and on the northern side west of Swaley Close and east of Tenant Park Garden (Parks and Wildlife 2015a and 2015b).

The subject vegetation may be instrumental in the maintenance of a TEC and therefore the proposed clearing may be at variance to this Principle. The requirement to revegetate a buffer will assist in mitigating impacts to the TEC.

Methodology

References
-Keighery (1994)
-DER (2015)
-Parks and Wildlife (2015a)
-Parks and Wildlife (2015b)
-City of Rockingham (2015)
-DOW (2009)
GIS Databases
-Sac Biodatasets (15 January 2015)
-Pre-European vegetation

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

Comments

Proposal is not likely to be at variance to this Principle

The local area (10 kilometre radius) is approximately 25 per cent vegetated. The vegetation has been mapped as Beard vegetation associations 998 and 1001, of which there is approximately 38 per cent and 25 per cent of their pre-European extent remaining respectively within the Swan Coastal Plain bioregion (Government of Western Australia, 2013).

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss

appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001).

Beard vegetation association 1001 retains less than the national recommended level of 30 percent, however given the degraded nature of the vegetation it is not considered to be a true representative of this community.

The area under application falls within a continuous/wetland regionally significant north to south ecological linkage (Government of Western Australia 2000). The proposed clearing is not considered to contribute to the fragmentation of this ecological linkage given the predominantly degraded (Keighery 1994) condition of the vegetation and small area proposed to be cleared.

Therefore, the proposed clearing is not considered to represent a significant vegetation remnant and is therefore not likely to be at variance to this Principle.

	Pre-European	Current Extent	Remaining	Extent in DPaW Managed Lands
	(ha)	(ha)	(%)	(%)
IBRA Bioregion*				
Swan Coastal Plain	1,501,222	586,975	39	36
Shire*				
City of Rockingham	26,335	7,994	30	10
Beard Vegetation Association in Bioregion*				
998	50,867	19,373	38	41
1001	57,410	14,152	25	6

Methodology

References
-Commonwealth of Australia (2001)
- Government of Western Australia (2000)
- Government of Western Australia (2013)*
-Keighery (1994)
- GIS Databases:
- Interim Biogeographic Regionalisation of Australia
- Pre-European Vegetation
- SAC Bio datasets (15 January 2015)
-NWLRA, Extent of Native Vegetation

(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 central and eastern end of the proposed clearing is located within a conservation category and multiple use sumpland. The proposed clearing will impact upon the buffer to this wetland and will result in a direct loss of 0.09 hectares of conservation category wetland vegetation as well as dryland and multiple use wetland vegetation within the buffer to the conservation category wetland (Parks and Wildlife 2015b). The minimum buffer to a conservation category wetland such as this is 50 meters (Parks and Wildlife 2015b).

Wetland vegetation was observed within the application area in a degraded (Keighery 1994) condition during a site inspection conducted by a DER officer (DER 2015). The vegetation under application is growing in association with a wetland.

Conservation category wetlands are wetlands that support a high level of ecological attributes and functions and are of highest priority for preservation (Waters and Rivers Commission 2001).

Wetlands that are to be conserved require a buffer to protect them from adverse impacts and maintain ecological processes and functions within the wetland. The width of the buffer should be determined based on values of the wetland to be protected and the threats posed by the adjacent land use (EPA 2008).

The proposed clearing within the buffer may increase runoff into the wetland. Department of Water's storm water management principles (DoW 2009) state that runoff to a conservation category wetland should be through overland flow across vegetated areas. The proposed clearing will remove the small vegetated buffer to this wetland. In addition, the Department of Water's storm water management principles state that storm water swales and other infrastructure should not be constructed within conservation category wetlands or their buffers (DoW 2009).

The end land use may also alter the hydrology of this wetland through increasing runoff. Altering the hydrology of a wetland can result in degradation of its flora and fauna values (Parks and Wildlife 2015b).

The applicant has advised that they have amended the road design to accommodate a vegetated buffer of 3.5 to 10.7 meters along the entire southern boundary of the TEC. This buffer will be revegetated with native species as soon as possible by using mature green stock (City of Rockingham 2015). This area of native vegetation will maintain the natural overland flow necessary for wetland function while reducing the velocity of runoff from the road.

The proposed clearing is at variance to this Principle. The requirement to revegetate the buffer will ensure that the proposed clearing does not significantly impact upon the values of the adjacent wetlands.

Methodology References
-EPA (2008)
-City of Rockingham (2015)
-Waters and Rivers Commission (2001)
-Keighery (1994)
-DoW (2009)
-DER (2015)
-Parks and Wildlife (2015b)
GIS Databases
-Hydrography, linear

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

Comments

Proposal is not likely to be at variance to this Principle

The application area is mapped within soil types B24 (98 per cent) and JK9 (2 per cent). Chief soils are siliceous sands with smaller areas of brown sands and leached sands in the wetter sites (Northcote et al 1960-68).

Given the small size and linear area of the application, it is not considered likely for the proposed clearing to cause appreciable land degradation.

Therefore, the proposed clearing is not likely to be at variance to this Principle.

Methodology References
-Parks and Wildlife (2015b)
-Northcote et al (1960-68)
GIS Databases
-Soils, statewide

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Comments

Proposal may be at variance to this Principle

The application area is adjacent to an offset site for clearing permit CPS 2493/4 .

The proposed clearing may increase the risk of weeds being introduced into adjacent areas of remnant vegetation. Weed management practices will assist in mitigating this risk. In addition, the proposed clearing may cause deterioration of water quality of the adjacent wetland within the conservation area.

Given the above, the proposed clearing may cause degradation of the flora and fauna habitat values of the adjacent conservation area. The proposed clearing may be at variance to this Principle.

The applicant advises that the existing cleared earth fire break around the TEC will be consolidated with crushed limestone and any mulch or soil used on batters will be certified weed and dieback free to reduce weed or dieback encroachment on the TEC (City of Rockingham 2015). In addition, a vegetated buffer of 3.5 to 10.7 meters along the entire southern boundary of the TEC will be installed. This buffer will be revegetated with native species as soon as possible by using mature green stock (City of Rockingham 2015). This area of native vegetation will maintain the natural overland flow necessary for wetland function while reducing the velocity of runoff from the road.

Methodology References
-City of Rockingham (2015)
GIS Databases
-Parks and Wildlife Managed Land
-Parks and Wildlife Regional Parks
-Land For Wildlife
-Offset sites
-SAC Bio datasets (15 January 2015)

(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 central and eastern end of the proposed clearing is located within a conservation category and multiple use sumpland. Wetland vegetation was observed within the application area in a degraded (Keighery 1994) condition during a site inspection conducted by a DER officer (DER 2015).

The proposed clearing within the wetland and its buffer may increase runoff into the wetland causing sedimentation and deterioration in the quality of surface water. Department of Water's storm water management principles (DoW 2009) state that runoff to a conservation category wetland should be through overland flow across vegetated areas. The proposed clearing will remove the small vegetated buffer to this wetland Parks and Wildlife 2015b). The applicant has advised that a vegetated buffer of 3.5 to 10.7 meters along the entire southern boundary of the TEC will be installed after clearing. This buffer will be revegetated with native species as soon as possible by using mature green stock (City of Rockingham 2015). This area of native vegetation will maintain the natural overland flow necessary for wetland function while reducing the velocity of runoff from the road.

Groundwater salinity within the vicinity of the application area is 500 - 1000 TDS mg/L. Given the small size of the clearing, it is not likely to cause an appreciable deterioration in the quality of underground water through increased salinity.

The proposed clearing may be at variance to this Principle.

Methodology

References
-DoW (2009)
-DER (2015)
-City of Rockingham (2015)
-Keighery (1994)
-Parks and Wildlife (2015b)
GIS Databases
-Hydrography, 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

The central and eastern end of the proposed clearing is located within a conservation category and multiple use sumpland. Wetland vegetation was observed within the application area in a degraded (Keighery 1994) condition during a site inspection conducted by a DER officer (DER 2015).

Given the small size and linear shape of the application area, it is not considered likely that the proposed clearing will exacerbate the incidence or intensity of flooding. Therefore, the proposed clearing is not likely to be at variance to this principle.

Methodology

References
-Keighery (1994)
-DER (2015)
GIS Databases
-Hydrography, linear

Planning instruments and other relevant matters.

Comments

The proposal is to clear up to 0.81 hectares of native vegetation within Lot 500 on Deposited Plan 54449, Lot 509 on Deposited Plan 40136, Lot 813 on Deposited Plan 30941, Dampier Drive, Peelfold Glen, Trenant Park Gardens and Sawley Drive road reserves, Golden Bay and Dampier road reserve, Secret Harbour, for the purpose of road duplication.

A letter was sent to the applicant on 10 March 2015 advising that the proposed clearing may impact on a TEC, an offset site and a conservation category wetland adjacent to the proposed clearing. The applicant's response was received on 1 April 2015 advising that they have redesigned the road to accommodate a vegetated buffer between the TEC/wetland and the road which will be planted as soon as possible with native species. The applicant also advised that;

1. The existing cleared earth fire break around Trenant Park wetland will be consolidated with crushed limestone,
2. Any mulch or soil used on batters will be certified weed and dieback free,
3. The construction boundary will be marked to ensure no clearing or movement occurs outside the approved clearing area,
4. The existing fence around the perimeter of the reserve will be upgraded to discourage unauthorized access, antisocial behavior and rubbish dumping,
5. Construction works will be accompanied by the installation of interpretive and regulatory signage within Trenant Park to educate reserve users about the significance of the conservation category wetland and TEC and the purpose of the reserve as an environmental offset site for protection in perpetuity (City of Rockingham 2015).

The applicant has advised that the widening of Dampier Drive is required as it is a major artery for traffic from the new subdivision to the northwest.

Parks and Wildlife (2015a and 2015b) has advised that a drainage swale should not be constructed along the northern side of Dampier Drive as runoff entering the conservation category wetland should occur via overland flow paths across vegetated surfaces. This is consistent with Department of Water's 'Decision Process for Stormwater Management in Western Australia' (DoW 2009). It is recommended that any drainage swales constructed alongside Dampier Drive be limited to the southern side of Dampier Drive and on the northern side west of Swaley Close and east of Tenant Park Garden (Parks and Wildlife 2015a and 2015b).

The application area is zoned as Other Regional Roads under the Metropolitan Regional Scheme.

A ceremonial, historical Aboriginal Site of Significance known as 'Golden Bay Camp and Swamp' is mapped over the application area. It is the proponent's responsibility to ensure that no Aboriginal Sites are damaged and it is recommended that they liaise with the Department of Aboriginal Affairs regarding statutory obligations under the Aboriginal Heritage Act 1972.

No submissions from the public have been received.

Methodology

References
-Parks and Wildlife (2015a)
-Parks and Wildlife (2015b)
-City of Rockingham (2015)
-DoW (2009)
GIS Databases
-Town Planning Scheme Zones
-Aboriginal sites of significance

4. References

City of Rockingham (2015) Response to DER letter dated 10 March 2015 for clearing application CPS 6398/1. DER ref A889959

Parks and Wildlife (2015b) Wetland advice for CPS 6398/1, City of Rockingham – Dampier Drive, Golden Bay. Department of Parks and Wildlife, Western Australia (DER ref A873851)

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

DOW (2009) Decision process for stormwater management in Western Australia. A component of Chapter 4: Integrating stormwater management approaches, Stormwater management manual for Western Australia. Department of Water, Western Australia

Parks and Wildlife (2015a) Threatened Ecological Community advice for CPS 6398/1, City of Rockingham – Dampier Drive, Golden Bay. Department of Parks and Wildlife, Western Australia (DER ref A874240)

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.

Government of Western Australia (2013) 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full

Report). Current as of October 2012. WA Department of Environment and Conservation, Perth.

Government of Western Australia (2000) Bush Forever Volumes 1 and 2. Western Australian Planning Commission, Perth WA. Water and Rivers Commission (2001) Position Statement: Wetlands, Water and Rivers Commission, Perth.

EPA (2008) Environmental Guidance for Planning and Development. Guidance Statement No. 33. Environmental Protection Authority. Western Australia.

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.

DER (2015) Site Inspection Report for Clearing Permit Application CPS 6398/1, City of Rockingham - Dampier Drive, Golden Bay. Site inspection undertaken 2 March 2015. Department of Environment Regulation, Western Australia (DER ref A873851).