GOVERNMENT OF WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 6190/1
File Number: 2013/002860-1
Duration of Permit: From 3 January 2015 to 3 January 2025

PERMIT HOLDER

Stuart-Wayne Threadgold

LAND ON WHICH CLEARING IS TO BE DONE

Lot 75 on Diagram 98087, Yelverton

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 1.3 hectares of native vegetation within the area hatched yellow on attached Plan 6190/1.

CONDITIONS

1. **Period in which clearing is authorised**
   The Permit Holder shall not clear any native vegetation after 3 January 2020.

2. **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;
   (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared; and
   (d) where *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is to be removed from the area to be cleared, ensure it is transferred to areas of comparable *soil disease status*.

3. **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 6 months following completion of extractive activities, *revegetate* and *rehabilitate* the area cross-hatched yellow on attached Plan 6190/1 by:
      (i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land;
      (ii) ripping the ground on the contour to remove soil compaction;
      (iii) ripping the pit floor and contour batters within the extraction site;
      (iv) laying the vegetative material and topsoil retained under condition 3(a) on the cleared area(s);
      (v) 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
      (vi) ensuring only *local provenance* seeds and propagating material are used to *revegetate* and *rehabilitate* the area.

(c) within 24 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 3(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 3(c)(i) of this Permit will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, *revegetate* the area by deliberately *planting* and/or *direct seeding* native vegetation that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area and ensuring only *local provenance* seeds and propagating material are used.

(d) Where additional planting or direct seeding of native vegetation is undertaken in accordance with condition 3(c)(ii) of this permit, the Permit Holder shall repeat condition 3(c)(i) and 3(c)(ii) within 24 months of undertaking the additional planting or direct seeding of native vegetation.

(e) Where a determination by an *environmental specialist* that the composition, structure and density within areas *revegetated* and *rehabilitated* will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, as determined in condition 3(c)(i) and 3(c)(ii) of this permit, that determination shall be submitted for the CEO's consideration. If the CEO does not agree with the determination made under condition 3(c)(ii), the CEO may require the Permit Holder to undertake additional *planting* and *direct seeding* in accordance with the requirements under condition 3(c)(ii).

4. Fauna management

Prior to undertaking any clearing authorised under this Permit, the area(s) cross-hatched yellow on attached Plan 6190/1, shall be inspected by a *fauna specialist* who shall:

(a) identify habitat trees suitable to be utilised by Western Ringtail Possums (*Pseudocheirus occidentalis*);

(b) inspect habitat trees identified by condition 4(a) for the presence of Western Ringtail Possums (*Pseudocheirus occidentalis*); and

(c) within one week prior to undertaking any clearing authorised under this Permit, the Permit Holder shall engage a *fauna clearing person* to remove and relocate fauna identified under condition 4(b).

5. Records to be kept

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

(a) In relation to the clearing of native vegetation authorised under this Permit:
   (i) the species composition, structure and density of the cleared area;
   (ii) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
   (iii) the date that the area was cleared; and
   (iv) the size of the area cleared (in hectares).

(b) In relation to the *revegetation* and *rehabilitation* of areas pursuant to condition 3 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); and
   (iv) the species composition, structure and density of *revegetation* and *rehabilitation.*

(c) In relation to fauna management pursuant to condition 4 of this Permit:
   (i) the location of each *habitat tree* identified 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 location where each identified Western Ringtail Possum (*Pseudocheirus occidentalis*) was relocated to, 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

6. 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 5 of this Permit; and
  (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding calendar year.

(b) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar year, a written report confirming that no clearing under this permit has been carried out, must be provided to the CEO on or before 30 June of each year.

(c) Prior to 3 October 2024, the Permit Holder must provide to the CEO a written report of records required under condition 5 of this Permit where these records have not already been provided under condition 6(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;

fauna clearing person means a person who has obtained a licence from the Department of Parks and Wildlife, issued pursuant to the *Wildlife Conservation Regulations 1970* authorising them to take fauna;

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

local provenance means native vegetation seeds and propagating material from natural sources within 50 kilometres 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;

soil disease status means soil types either infested, not infested, uninterpretable or not interpreted with a pathogen; and

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

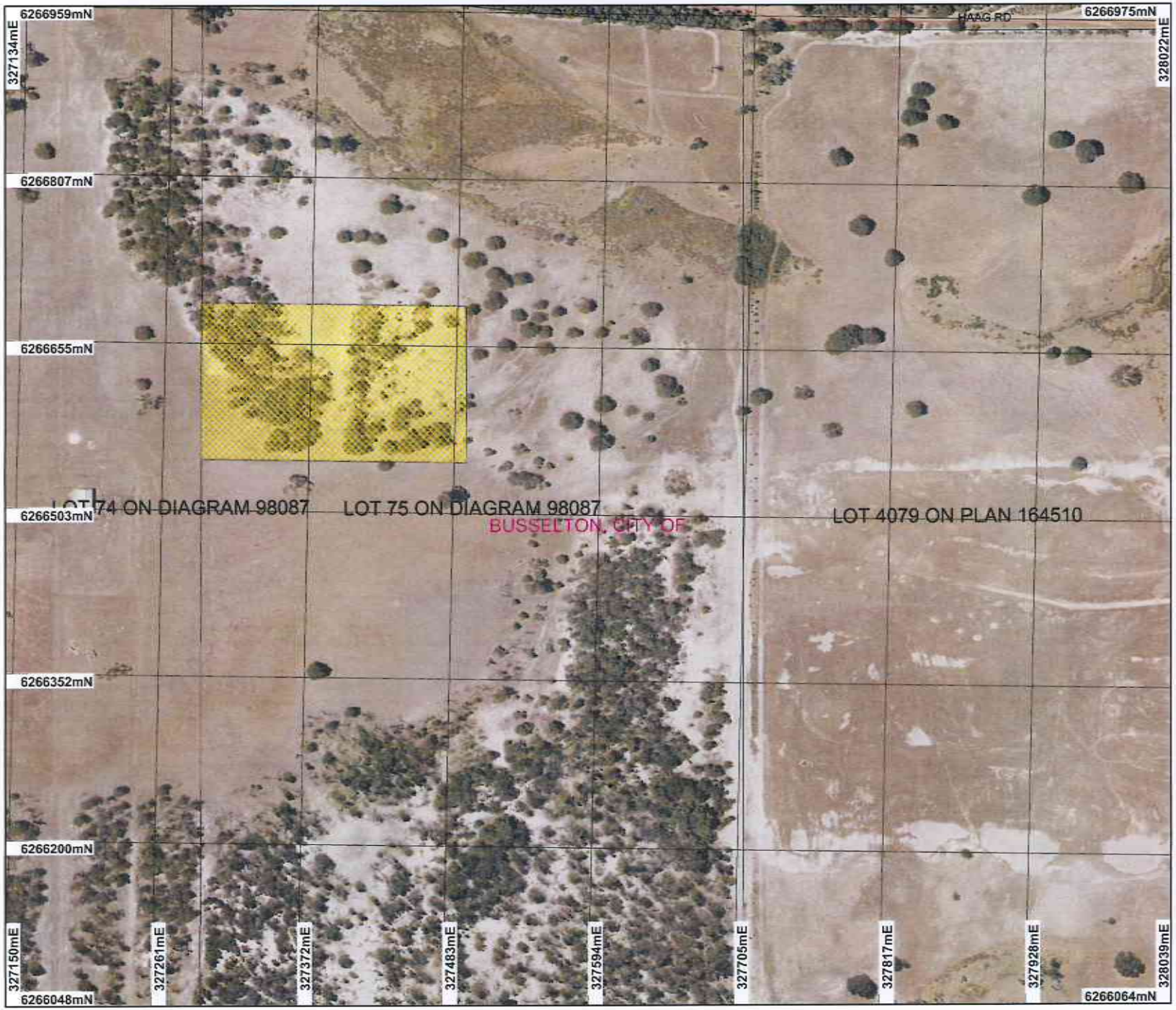
(c) not indigenous to the area concerned.

M Warnock
SENIOR MANAGER
CLEARING REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

4 December 2014

Plan 6190/1



LEGEND

- Local Government Authorities
- Road Centrelines
- Cadastre
  Clearing Instruments
- Areas Approved to Clear
  Busselton 50cm Orthomosaic - Landgate 2007

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

N

0 ~125 m

Scale 1:4335
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

Date 4/12/14

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 legend.

Government of Western Australia
Department of Environment Regulation

GOVERNMENT OF WESTERN AUSTRALIA

Clearing Permit Decision Report

Government of Western Australia
Department of Environment Regulation

1. Application details

1.1. Permit application details

Permit application No.: 6190/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: **Stuart Threadgold**

1.3. Property details

Property: LOT 75 ON DIAGRAM 98087 (House No. 157 HAAG YELVERTON 6280)
Local Government Area: City of Busselton

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.3		Mechanical Removal	Extractive Industry

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 4 December 2014

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 1181: Medium woodland, jarrah & Eucalyptus haematoxylon (Whicher Range) (Shepherd et al, 2001) Mattiske Vegetation Complex: Yelverton (Yd) - Sandy deposits on the shelf carrying wooodland of jarrah (Eucalyptus marginata subsp. marginata), sheoak (Allocasuarina fraseriana), Xylomelum occidentale and Banksia species. Mattiske Vegetation Complex: Yelverton (Yw) - Woodland of Allocasuarina fraseriana-Nuytsia floribunda-Agonis flexuosa-Banksia attenuata on slopes and open forest of Corymbia calophylla-Eucalyptus patens-Eucalyptus marginata subsp. marginata on the lower slopes and woodland of Eucalyptus rudis-Melaleuca rhaphiophylla on valley floors in the humid zone. (Mattiske and Havel, 1998)	The clearing of 1.3 hectares of native vegetation within Lot 75 on Diagram 98087 Yelverton, City of Busselton, is for the purpose of sand extraction.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994) To Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	The vegetation description and condition was determined via a former Department of Environment and Conservation June 2013 site inspection (DEC, 2013). The native vegetation under application is in degraded to completely degraded (Keighery, 1994) condition. The vegetation condition is attributed to historical cattle grazing and vegetation deaths from possible dieback infestation (DEC, 2013). The vegetation under application is predominantly comprised of Allocasuarina fraseriana, Banksia attenuata, Agonis flexuosa low open forest with emergent Eucalyptus marginata and B. illicifolia, over Hibbertia sp., Kunzea glabrescens and low open shrubland (DEC, 2013).

3. Assessment of application against clearing principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments

Proposal is not likely to be at variance to this Principle

The application proposes to clear up to 1.3 hectares of native vegetation within Lot 75 on Diagram 98087 Yelverton, for the purpose of sand extraction. The area under application is in a completely degraded to good (Keighery, 1994) condition. The vegetation condition is attributed to historical cattle grazing and vegetation deaths from possible dieback infestation (DEC, 2013). The original area of proposed clearing was 2.8 hectares, however it has since been determined that the actual amount of vegetation proposed for clearing is 1.3 hectares.

A flora and vegetation survey undertaken in September 2013 identified three vegetation types within the application area, which largely consist of open forest of Eucalyptus marginata, Allocasuarina fraseriana, Banksia attenuata and Xylomelon occidentale, and woodland of Corymbia calophylla with scattered Nuytsia floribunda, Allocasuarina fraseriana and Agonis flexuosa. No rare or priority flora species were identified in the survey (Eco Logic, 2013).

The flora survey did not identify the presence of any priority or threatened ecological communities on site (Eco Logic, 2013).

The application area contains habitat suitable to be utilised for foraging by Baudin's Cockatoo (Calyptorhynchus baudinii) and Carnaby's Cockatoo (Calyptorhynchus latirostris), both listed as 'rare or likely to become extinct' under the Wildlife Conservation Act 1950. A fauna survey of the application area did not identify any hollows suitable for breeding for these species (Harewood, 2013). The application area contains several Agonis flexuosa which provide suitable habitat for Western Ringtail Possums (DEC, 2013 and Harewood, 2013).

The area under application falls within the South West Regional Ecological Linkage corridor. Generally, these corridors are important for the dispersal of native fauna as well as consisting of either breeding or foraging habitat, or both, for local fauna. Removal of vegetation from this corridor, at a local level, may cause a decrease in ecological linkage values and increase the fragmentation of the landscape (Molloy et al, 2009).

The local area surrounding the application (10 kilometre radius) retains approximately 25 per cent native vegetation.

The proposed clearing will increase the risk of weeds and dieback spreading into adjacent vegetated areas. Weed and dieback mitigation measures will assist in minimising this risk.

The vegetation under application provides suitable foraging habitat for two species of black cockatoo and habitat for Western Ringtail Possums, however given the relatively small size of the application area and the historical disturbance on site, the vegetation under application is not likely to comprise a high level of biodiversity.

Methodology

References:
-Eco Logic (2013)
-DEC (2013)
-Keighery (1994)
-Molloy (2009)

(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

Numerous fauna species listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 (WC Act) have been recorded in the local area (10 kilometre radius), including; Baudin's Cockatoo (Calyptorhynchus baudinii), Carnaby's Cockatoo (Calyptorhynchus latirostris), Western Ringtail Possum (Pseudocheirus occidentalis), Dunsborough Burrowing Crayfish (Engaewa reducta), Southern Brush-tailed Phascogale (Phascogale tapoatafa subsp. Tapoatafa) and Chuditch (Dasyurus geoffroii) (DEC, 2007-).

The June 2013 site inspection (DEC, 2013) noted that the application area has little understorey present due to previous agricultural (grazing) practices. The application area is therefore unlikely to offer significant habitat for the Western Brush Wallaby (Priority 4, WC Act) or Quenda (Priority 5, WC Act), since these species prefer dense understorey cover (DEC, 2013). Photographs from the site inspection also demonstrate that the completely degraded dampland is unlikely to support the Water-rat (Priority 4, WC Act) or Dunsborough Burrowing Crayfish.

A fauna survey of the application area identified that the majority of the vegetation under application provides suitable foraging habitat for Baudin's Cockatoo and Carnaby's Cockatoo as these species forage on the seeds, nuts and flowers of proteaceous species (Banksia, Hakea, Grevillea), as well as Allocasuarina and Eucalyptus species (Valentine and Stock, 2008). Evidence of foraging in the form of chewed Corymbia calophylla fruits and Banksia cones were identified on site (Harewood, 2013). Given the relatively small size of the application area, and impact of historical disturbance on site, it is not likely that the vegetation under application comprises significant foraging habitat for black cockatoos.

The fauna survey identified several trees with small hollows within Lot 75, however these were not considered to be suitable breeding habitat for black cockatoos (Harewood, 2013).

The application area contains several large Agonis flexuosa which are the preferred habitat for Western Ringtail Possums (WRP) within the South West Region. There were no active nesting dreys identified within the application area, however there were dreys found nearby within Lot 75 and WRP scats were observed within the area of proposed clearing (Eco Logic, 2013). A total of 13 WRPs were recorded within Lot 75, and the presence of scats within the application area indicates that WRPs utilise the vegetation under application. Prior to the commencement of clearing there will be a requirement for WRP's identified on site to be removed and relocated to an area of equally suitable habitat in accordance with authorisation under the WC Act.

The application area falls within the South West Regional Ecological Linkage corridor. Generally, these corridors are important for the dispersal of native fauna as well as consisting of either breeding or foraging habitat, or both, for local fauna. Removal of vegetation from this corridor, at a local level, may cause a decrease in ecological linkage values and increase the fragmentation of the landscape (Molloy et al, 2009).

Another permit to clear vegetation adjacent to the application area has been granted to the proponent (CPS 5606/1). CPS 5606/1 requires the proponent to revegetate the cleared area post extraction. Consistent with CPS 5606/1, the proponent will be required to revegetate the cleared area post extraction, which will help to mitigate long term impacts to the abovementioned ecological linkage.

The vegetation under application provides suitable habitat for WRP's and is likely to contribute towards an ecological linkage, therefore the proposed clearing may be at variance to this Principle.

The proponent has advised that the extraction will be complete within three months, which will allow for the prompt commencement of revegetation post clearing. This will aid in mitigating the long term impact of the proposed clearing on fauna habitat values.

Methodology References:
-Eco Logic (2013)
-DEC (2013)
-Molloy (2009)
-DEC (2007)
-Harewood (2013)
-Valentine and Stock (2008)

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

Comments **Proposal is not at variance to this Principle**
One rare orchid has been recorded in the local area (10 kilometre area) on the same soil and vegetation types as the application area. This species is known to occur within comparable habitat and sandy soils of the Whicher Scarp landform north and south of the application area (DEC, 2013; Brown et al, 1998).

A flora survey undertaken in September 2013 did not identify the presence of this species within the application area (Eco Logic, 2013).

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

Methodology References:
-Brown et al (1998)
-DEC (2013)
-Eco Logic (2013)

(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 at variance to this Principle**
No threatened ecological communities (TEC) are mapped within the application area.

There are three TEC's recorded within a 10 kilometre radius of the application area: Eucalyptus calophylla woodlands on heavy soils of the southern Swan Coastal Plain (listed as Vulnerable under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)), Shrublands on dry clay flats (listed as Endangered under the EPBC Act) and Shrublands on southern Swan Coastal Plain Ironstones (Busselton area) (listed as Critically Endangered under the EPBC Act).

The application area was surveyed in October 2013 and none of the above vegetation types recorded from the site corresponded to the vegetation communities outlined above (Eco Logic, 2013).

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

Methodology References:
-DEC (2013)
-Eco Logic (2013)

GIS Databases:
-SAC Biodatasets (accessed September 2014)

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

Comments **Proposal may be at variance to this Principle**
The application area is located in the Swan Coastal Plain Bioregion in the City of Busselton. The extent of native vegetation in these areas is 39 per cent and 42 per cent respectively (Government of Western Australia, 2013). There is approximately 25 per cent of pre-European native vegetation remaining in the local area (10 kilometre radius).

The area proposed for clearing has been identified as Beard Vegetation Association 1181, which has 40 per cent pre-European vegetation remaining.

The majority of the vegetation under application is classified as Yelverton (Yd) vegetation complex (Mattiske and Havel, 1998). This complex has 57 per cent (1,024 hectares) of its pre-European extent remaining and two per cent of this complex is located in formal reservation.

The southern section of the application area comprises the Yelverton (Yw) vegetation complex which has 24 per cent (927 hectares) of its pre-European extent. This is below the national objectives and targets for biodiversity conservation in Australia, being 30 per cent (Commonwealth of Australia, 2001)

While the percentage of the Yd vegetation complex remaining uncleared is above the national objectives and targets for biodiversity conservation in Australia, the actual amount remaining for both (Yd) and (Yw) complexes is below the recommended retention level of 1,500 hectares (Molloy et.al, 2009).

The vegetation under application links to, and may to contribute to, the function of the South West Regional Ecological Linkages (Molloy et al 2009) that exists east and west of Lot 75. These also link to small areas of other significant vegetation to the north and south of Lot 75, for example Haag Nature Reserve 600 metres to the northwest (DEC, 2013).Generally, these linkages provide an important corridor for the dispersal of native fauna and the proposed clearing may degrade the quality of this linkage resulting in fauna dispersal limitations.

The vegetation under application is largely in a degraded (Keighery, 1994) condition, however given its potential contribution towards an ecological linkage and that it provides suitable habitat for WRP's, it may represent a significant remnant.

Given the above, the proposed clearing may be at variance to this Principle. The proponent will be required to revegetate the cleared area post extraction, which will help to mitigate long term environmental impacts.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)
IBRA Bioregion*			
Swan Coastal Plain	1,501,221	587,708	39
Shire*			
City of Busselton	146,478.09	62,332.31	42
Beard Vegetation Association in Bioregion*			
1181	9,238.77	3,699.98	40
Mattiske Complex - Yelverton**			
Yd	1,768	1,024	57
Yw	3,841	927	24

*Government of Western Australia (2013)
**Mattiske & Havel (1998)

Methodology References:
-DEC (2013)
-Mattiske and Havel (1998)
-Molloy et.al (2009)
-Shepherd et al (2001)
-Commonwealth of Australia (2001)
-Government of Western Australia (2013)

(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 not likely to be at variance to this Principle**
A minor perennial watercourse is located in the upper, northern corner of Lot 75. Two conservation category wetlands occur 350 metres northwest and northeast and a multiple use wetland occurs within a fenced area at the southern end of Lot 75. None of these wetlands or watercourses occur within 100 metres of the vegetation under application.

The central area of Lot 75 supports wetland dependant species, however these species occur just south of the application area and were not identified within the application area in a flora survey of Lot 75 (Eco Logic, 2013).

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

Methodology References:
-DEC (2013)
-Keighery (1994)

GIS Databases:
-ANCA Wetlands
-Geomorphic wetlands
-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 comprised of two different soil types, these being, the Yelverton flats Phase Map Unit 214WsYLd which is comprised of sandy flats and rises on laterite and sand over Perth Basin sediments in the northern edge of the Donnybrook Sunklands between the Capel River and Dunsborough. Chief soils are comprised of pale deep sands, gravely pale deep sands and yellow deep sands and sandy earths.

The second soil type is the Yelverton deep sandy flats Phase Map Unit 214WsYLw, which is comprised of poorly drained flats and depressions on laterite over Perth Basin sediments in the northern edge of the Donnybrook Sunklands between the Capel River and Dunsborough. Chief soils within this map unit include wet and semi wet soils (CSLC, 2014).

A land degradation report identified that the risk of salinity, eutrophication, water erosion and waterlogging is low. It is also advised that wind erosion is unlikely to result in appreciable land degradation if revegetation works on cleared areas with native species is undertaken (CSLC, 2014).

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

Methodology

References:
-CSLC (2014)

(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

Haag Nature Reserve occurs approximately 600 metres northwest, and Yelverton National Park occurs 3.5 kilometres west of the proposed clearing. The Nature Reserve is comprised of the same Mattiske vegetation complex, Yelverton, to that which occurs within the application area.

The vegetation under application may contribute towards two important ecological linkages that exist east and west of Lot 75. These also link to small areas of other significant vegetation to the north and south of Lot 75, for example Haag Nature Reserve (DEC, 2013).

These linkages are recognised within the South West Regional Ecological Linkages technical report (Molloy et al 2009). Generally, these linkages provide an important corridor for the dispersal of native fauna as well as supporting breeding or foraging habitat, or both, for local fauna.

Given the above, the proposed clearing may impact on the environmental values of the abovementioned conservation reserves through impacting on the linkage values that exist within Lot 75.

The proposed clearing may be at variance to this Principle. The proponent will be required to revegetate the cleared area immediately post extraction, which will help to mitigate long term environmental impacts.

Methodology

References:
-Molloy et al (2009)
-DEC (2013)

GIS Databases:
-Mattiske Vegetation
-DEC tenure

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Comments

Proposal is not likely to be at variance to this Principle

The proposed clearing is not within any gazetted public drinking water supply areas or major watercourses or wetlands. The clearing of the completely degraded to good (Keighery, 1994) condition vegetation is unlikely to impact or reduce water quality.

The City of Busselton (CoB, 2014) has granted planning consent with conditions requiring the development of a drainage management plan outlining the installation of detention and silt/nutrient stripping ponds to protect local waterways, prior to the commencement of the excavation operation.

A second condition states all stormwater is to be initially contained on-site to remove sediments and turbidity.

Overland stormwater flows outside of the project excavation area will be required to be diverted via adequate bypass drains / earthen bunds around disturbed surfaces and stockpiled matter. The condition specifies the sedimentation basins be designed and maintained in accordance with the Water and Rivers Commission's Minesite Stormwater Management (CoB, 2014).

The proposed protection methods identified above should address any potential risk to surrounding waterways.

Given the above preventative steps to protect both surface and groundwater the proposed clearing is not likely to be at variance to this Principle.

Methodology References:
-CoB (2013a)

GIS Databases:
-Groundwater Salinity Statewide
-Hydrographic catchments, catchments
-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 area of Lot 75 is a natural dampland, although in a completely degraded (Keighery, 1994) condition, where subsoil saturation is a natural occurrence (DEC, 2013).

The sandy soils elsewhere within the application area are well drained, where the proposed clearing is unlikely to exacerbate or cause water logging or flooding (CSLC, 2013).

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

Methodology References:
-CSLC (2013)
-DEC (2013)

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

Comments

A clearing permit has been granted over an adjacent portion of Lot 75 for the purpose of sand extraction (CPS 5606/1). The permit was granted in February 2014.

The previous owner of Lot 75 was granted a clearing permit in 2007 to extract sand from the upper, north eastern portion of Lot 75. No clearing under that permit occurred. A portion of this same area is included in this current application.

Planning consent was approved by the City of Busselton on 5 May 2013 (CoB, 2013a) for sand extraction. On 14 January 2014 the City of Busselton approved the applicant's amended plans to the planning consent and further amendments to the planning consent made in July 2014 have since been approved by the City.

The Department of Water (DoW, 2014) has advised that the subject property is located within the Busselton-Capel Groundwater area as proclaimed under the Rights in Water and Irrigation Act 1914. Any groundwater abstraction in this proclaimed area is subject to licensing by the DoW, other than supply from the shallow watertable (superficial) aquifer for domestic and non-intensive stock watering purposes.

The DoW (2014) further advise that the proposed clearing has the potential to cause erosion and mobilise sediments into the waterway. It is advised that the proposed sand extraction would also pose a turbidity risk to the waterway due to ground disturbance activities. DoW recommend that best practices be adopted including the information contained within the DoW's Water Quality Protection Note (WQPN) No 15 'Extractive industries near sensitive water resources' where appropriate and practical.

There have been no submissions received from the public for the proposed clearing.

Methodology References:
-CoB (2014)
-DoW (2014)

4. References

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