GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS
Area Permit Number: 6769/1
File Number: DER2015/002162-1
Duration of Permit: 9 April 2016 to 9 April 2028

PERMIT HOLDER
North Bay Developments Pty Ltd

LAND ON WHICH CLEARING IS TO BE DONE
Lot 9501 on Deposited Plan 401285, Glenfield

AUTHORISED ACTIVITY
The Permit Holder shall not clear more than 4.97 hectares of native vegetation within the area hatched yellow on attached Plan 6769/1.

CONDITIONS

1. Period in which clearing is authorised
The Permit Holder shall not clear any native vegetation after 9 April 2018.

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; and
(c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared;

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) at an *optimal time* following the completion of works, *revegetate* and *rehabilitate* the area(s) that are no longer required for the purpose for which they were cleared under this Permit by;
  (i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land; and
  (ii) laying the vegetative material and topsoil retained under condition 3(a) on the cleared area(s).
(c) within 18 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 18 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 (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. 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 or decimal degrees;
  (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);
  (iv) the species composition, structure and density of *revegetation* and *rehabilitation*, and
  (v) a copy of the *environmental specialist*'s report.

5. 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 4 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 9 January 2028, the Permit Holder must provide to the CEO a written report of records required under condition 4 of this Permit where these records have not already been provided under condition 5(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 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;
optimal time means the period from April to May for undertaking *planting*;
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; and
weed/s means any plant -

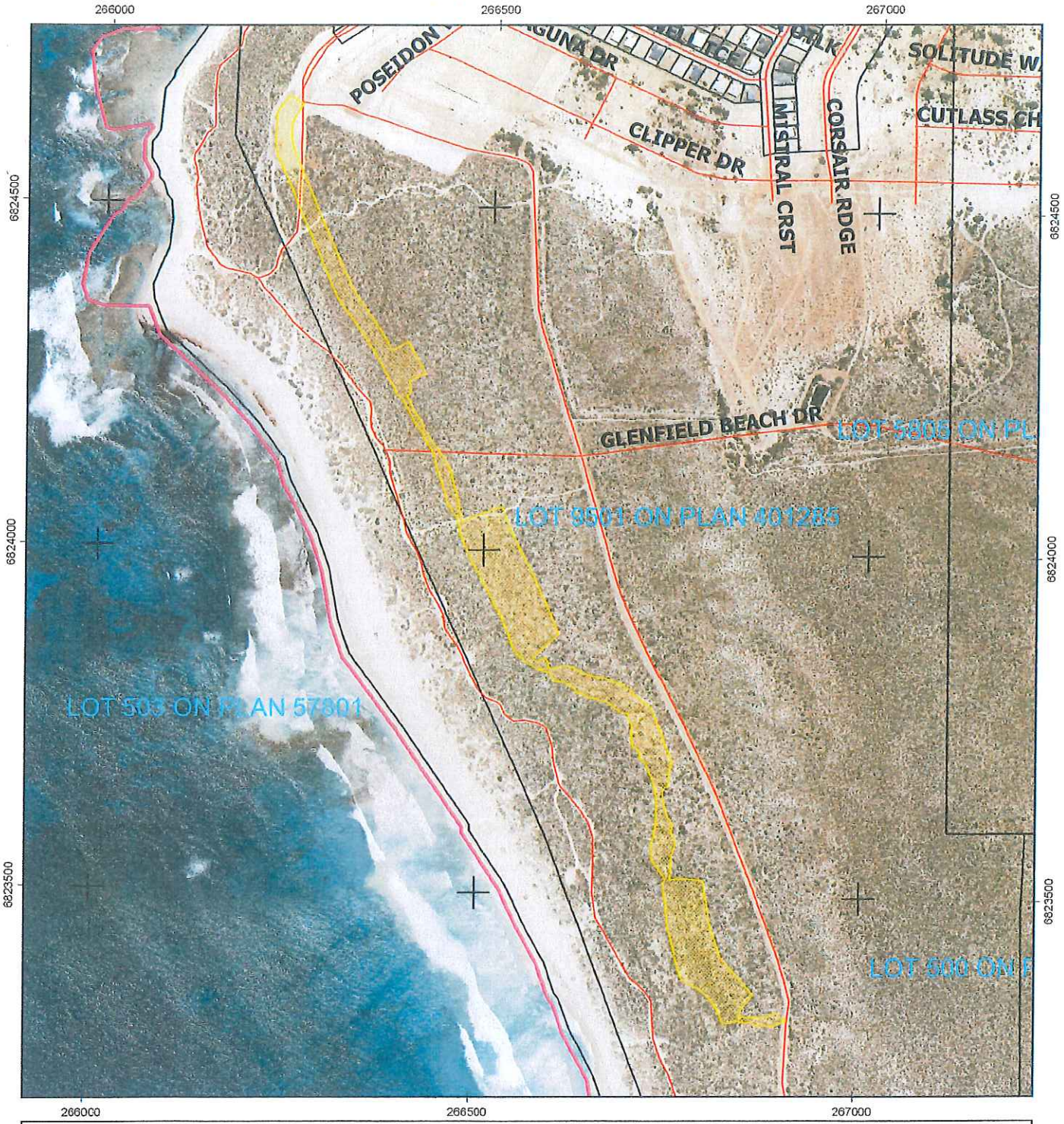
(a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
(b) published in a Department of Parks and Wildlife Regional Weed Rankings Summary, regardless of ranking; or
(c) not indigenous to the area concerned.

Reuben Gregor
A/SENIOR MANAGER
CLEARING REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

10 March 2016

Plan 6769/1



Legend

- LGA
- Areas approved to clear
- Roads
- Cadastre

Virtual Mosaic (LGATE-V001)

N

1:5,500

MGA 94
Geocentric Datum of Australia 1994

Reuben Gregor Date 10 March 2016

Reuben Gregor

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

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.: 6769/1
Permit type: Area Permit

1.2. Applicant details

Applicant's name: North Bay Developments Pty Ltd

1.3. Property details

Property: LOT 9501 ON PLAN 401285, GLENFIELD
Local Government Authority: GREATER GERALDTON, CITY OF
DER Region: Midwest
DPaW District: GERALDTON
LCDC: GREENOUGH
Localities: GLENFIELD

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
4.97		Mechanical Removal	Water/gas/cable/pipeline/power installation

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 10 March 2016
Reasons for Decision: The clearing application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, and has concluded that the proposed clearing may be at variance to Principle (g) and is not likely to be at variance to any of the remaining clearing principles.

Through assessment it has been determined that the proposed clearing may increase the risk of wind erosion. The requirement to revegetate post-clearing will mitigate this risk. The proposed clearing is unlikely to have any other significant environmental impacts.

Consideration was given to the infrastructure being located within the local road reserves and the Department of Planning approval for the Glenfield Beach Structure Plan.

State policies and other relevant policies have been taken into consideration in the decision to grant a clearing permit.

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 440 is described as shrublands; Acacia ligulata open scrub (Shepherd et al., 2001).	The clearing of 4.97 hectares of native vegetation is for the purpose of constructing a sewer pump station and pressure main.	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 condition and structure of the vegetation under application was determined via a Flora and Vegetation survey undertaken by Mattiske Consulting Pty Ltd (2011).

3. Assessment of application against clearing principles

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

Comments **Proposed clearing is not likely to be at variance to this Principle**
The application is to clear 4.97 hectares of native vegetation within Lot 9501 on Deposited Plan 401285,

Glenfield, for the purpose of constructing a sewer pump station and pressure main. The proposed works will service the new Glenfield Beach development and replace the temporary and undersized Waggrakine Wastewater Pump Station (WWPS) within the existing Glenfield development area (Calibre Consulting Pty Ltd, 2015). The proposed works consist of a gravity sewer to the new WWPS and approximately 1.8 kilometres of pressure main to the North Geraldton Wastewater Treatment Plan (Calibre Consulting Pty Ltd, 2015).

The vegetation under application consists of a low open shrubland of Rhagodia baccata, Olearia axillaris with patches of Acacia rostellifera over Ptilotus divaricatus subsp. divaricatus, Threlkeldia diffusa, Acanthocarpus preissii and Spinifex longifolius on low back dunes (Mattiske Consulting Pty Ltd, 2011).

A Level 2 flora and vegetation survey undertaken by Mattiske Consulting Pty Ltd (2011) of the area under application identified that the vegetation surveyed is in a completely degraded to good (Keighery, 1994) condition with approximately 95 per cent of the application area considered to be of a good (Keighery, 1994) condition.

The application area falls within Beard vegetation association 440 which retains approximately 77 per cent native vegetation within the Geraldton Sandplains IBRA bioregion (Government of Western Australia, 2014). The local area (10 kilometre radius) retains 10 per cent native vegetation. However, the application is located within the City of Greater Geraldton which retains approximately 43 per cent of its pre-European vegetation extent.

Thirty two species of priority flora have been recorded in the local area (10 kilometre radius). The closest priority flora is Eucalyptus blaxellii (priority 4) mapped approximately 466 metres south east of the application area. This species prefers rocky hillsides and creek flats on grey sand or clay soils (Western Australian Herbarium, 1998-). Suitable habitat for this species does not occur within the application area given the different soil types under application. The Department of Parks and Wildlife (Parks and Wildlife, 2015) has advised that the priority flora species recorded in the local area are not known to occur within the habitat present. In addition, there were no priority flora species recorded during a flora and vegetation survey conducted at the appropriate time of year by Mattiske Consulting Pty Ltd (2011).

The closest priority ecological community (PEC) is mapped approximately 2.3 kilometres north west of the application area and is known as 'Frankenia Pauciflora low open shrublands in swales' (Priority 1). Parks and Wildlife (2015) has advised that this PEC does not occur within the application area.

The application area may provide suitable habitat for two fauna species, namely the rainbow bee-eater (Merops ornatus) and carpet python (Morelia spilota subsp. imbricata). However, the vegetation proposed for clearing is not likely to provide significant habitat given the long and linear nature of the application area, and that suitable habitat occurs within close proximity to the application area.

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

Methodology

References:
Calibre Consulting Pty Ltd (2015)
Government of Western Australia (2014)
Keighery, B.J. (1994)
Mattiske Consulting Pty Ltd (2011)
Parks and Wildlife (2015)

GIS Databases:
NLWRA, Current Extent of Native Vegetation
SAC Bio Datasets (Accessed March 2016)

(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

Proposed clearing is not likely to be at variance to this Principle

A total of 24 conservation significant fauna species have been recorded within 10 kilometres of the area under application (Parks and Wildlife, 2007-). A habitat assessment conducted by Bamford Consulting Ecologists (2011) identified the main habitat type within the application area to consist predominantly of Acacia shrubland dominated by Acacia rostellifera. This vegetation community may provide suitable habitat for the rainbow bee-eater (Merops ornatus) and carpet python (Morelia spilota subsp. imbricata) (Bamford Consulting Ecologists, 2011).

The rainbow bee-eater occurs in numerous habitats including open forests and woodlands, shrublands, in cleared or semi-cleared habitats such as areas of human habitation and farmland. It prefers open, cleared or lightly-timbered areas that are often, but not always in close proximity to permanent water (Department of the Environment, 2015). The Acacia shrubland vegetation under application is likely to provide suitable habitat for this species. However, the proposed clearing is unlikely to significantly impact upon the conservation status of this species given its highly mobile nature and the long and linear nature of the application area.

Suitable habitat is likely to occur within the application area for the carpet python. This species has been recorded in semi-arid coastal and inland habitats consisting of Banksia woodland, eucalypt woodlands and grasslands (Parks and Wildlife, 2012a). However, this habitat is widespread and varied and therefore the

proposed clearing is not likely to impact upon significant habitat for this species.

Given the above, the area under application is not likely to contain significant habitat for fauna.

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

Methodology

References:
Bamford Consulting Ecologists (2011)
Department of the Environment (2011)
Parks and Wildlife (2007)
Parks and Wildlife (2012a)
Parks and Wildlife (2012b)

GIS Databases:
SAC Bio Datasets (Accessed March 2016)

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

Comments

Proposed clearing is not likely to be at variance to this Principle

Seven species of rare flora have been recorded within the local area (10 kilometre radius), with the closest known record being approximately 5.1 kilometres east of the application area. This species preferred habitat is on rises in brown sandy loam with sandstone or sometimes with granite, and in red-brown clayey loam with laterite (Brown et al, 1998-). The application area is not likely to provide suitable habitat for this species given the different soil and vegetation type under application.

Parks and Wildlife (2015) has advised that the rare flora species that have been recorded within the local area are not known to occur in the habitat present. In addition, a flora survey conducted by Mattiske Consulting Pty Ltd (2011) which was conducted in prime flowering period did not identify any rare flora species within the application area. Therefore it is not likely the proposed clearing will impact upon the conservation status of these species.

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

Methodology

References:
Brown et al (1998-)
Mattiske Consulting Pty Ltd (2011)
Parks and Wildlife (2015)

GIS Databases:
SAC Bio Datasets (Accessed March 2016)

(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

Proposed clearing is not likely to be at variance to this Principle

There are no records of threatened ecological communities recorded within 10 kilometres of the area under application.

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

Methodology

GIS Databases:
SAC Bio Datasets (Accessed March 2016)

(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

Proposed clearing is not likely to be at variance to this Principle

The area under application is located within the Geraldton Plains Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion has approximately 45 per cent of its pre-European vegetation extent remaining (Government of Western Australia 2014).

The vegetation under application comprises of Beard vegetation association 440 of which there is approximately 77 per cent of its pre-European extent remaining within the Geraldton Plains Bioregion (Government of Western Australia, 2014).

The area under application is located within the City of Greater Geraldton, within which there is approximately 43 per cent of pre-European extent remaining (Government of Western Australia 2014).

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).

The local area retains approximately 10 per cent of native vegetation within a 10 kilometre radius. Therefore, the application falls within a highly cleared landscape. While in a highly cleared landscape, the vegetation under application is not considered a significant remnant due to the low biodiversity values and the well represented vegetation types within the application area.

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

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in Parks and Wildlife Managed Lands (%)
IBRA Bioregion*				
Geraldton Sandplains	3,136,038	1,404,375	45	40
Shire*				
City of Greater Geraldton	988,399	428,564	43	16
Beard Vegetation Association in Bioregion*				
440	3,752	2,885	77	7

Methodology References:
Commonwealth of Australia (2001)
Government of Western Australia (2014)

GIS Databases:
Pre-European 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

Proposed clearing is not likely to be at variance to this Principle

The closest watercourse to the application area is a major non-perennial watercourse located approximately 1.5 kilometres east. The Chapman River is located approximately 3.8 kilometres south of the application area.

There are no geomorphic or ANCA wetlands mapped within the vicinity of the application area.

Given the distance from these water bodies, the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Databases:
Hydrography, Linear
Hydrography, Hierarchy
Geomorphic Wetlands

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

Comments

Proposed clearing may be at variance to this Principle

A flora survey undertaken by Bamford Consulting Ecologists (2011) identified the soil type under application consists of sandy dunes and sandy-gravelly swales.

The proposed clearing on sandy soils is likely to increase the risk of wind erosion. However, impacts are not likely to be appreciable, given the long and linear nature of the application area, and the requirement to revegetate areas no longer required for the purpose for which they were cleared which will address soil stabilisation.

It is unlikely that water erosion would result from the proposed clearing, given the highly permeable soils under application, and low annual rainfall of 500 millimetres per year.

Groundwater is saline, mapped at 3000-7000 total dissolved solids (milligrams per litres). The long and linear nature of the proposed clearing is not likely to contribute to the rise of groundwater causing land degradation due to increased salinity at the surface.

Given the above, the proposed clearing may be at variance to this Principle.

Methodology References:
Bamford Consulting Ecologists (2011)

GIS Databases:
Groundwater Salinity Statewide
Hydrography linear
Rainfall, Mean Annual

(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

Proposed clearing is not likely to be at variance to this Principle

The closest conservation reserve, Wokatherra Nature Reserve (A class), falls approximately three kilometres east of the application area. Given the distance to this conservation area and the road infrastructure and development that lies between the application area and the reserve, it is unlikely that the proposed clearing will impact upon the environmental values of the conservation area.

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

Methodology

GIS Databases:
Parks and Wildlife, 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

Proposed clearing is not likely to be at variance to this Principle

The closest watercourse to the application area is a major non-perennial watercourse located approximately 1.5 kilometres east. The Chapman River is located approximately 3.8 kilometres south of the application area.

Given the distance to the nearest watercourse and the long and linear nature of the proposed clearing, deterioration of groundwater or surface water quality is likely to be minimal.

Groundwater salinity mapped within the application area is between 3000 and 7000 milligrams per litre (saline). Given the long linear nature of the application area, it is not likely that the proposed clearing will lead to a perceptible rise in the water table or an increase in groundwater salinity levels.

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

Methodology

GIS Databases:
Groundwater Salinity, Statewide
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

Proposed clearing is not likely to be at variance to this Principle

The removal of remnant vegetation is not expected to contribute to flooding given the long and linear nature of the proposed clearing, permeable soils and that no waterbodies are present within the application area.

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

Methodology

GIS Datasets:
Hydrography linear

Planning instruments and other relevant matters.

Comments

The application is to clear 4.97 hectares of native vegetation within Lot 9501 on Deposited Plan 401285, Glenfield, for the purpose of constructing a sewer pump station and pressure main. The proposed works will service the new Glenfield Beach development and replace the temporary and undersized Waggrakine Wastewater Pump Station (WWPS) within the existing Glenfield development area (Calibre Consulting Pty Ltd, 2015). The proposed works consist of a gravity sewer to the new WWPS and approximately 1.8 kilometres of pressure main to the North Geraldton Wastewater Treatment Plan (Calibre Consulting Pty Ltd, 2015).

The City of Greater Geraldton (2016) has advised that the location of the pressure main and pumping station does not require approval from the City, however, generally the infrastructure is located within the road reserves. Therefore, the location of the infrastructure needs to be agreed to and engineering drawings approved following approval from the Department of Planning. The Western Australian Planning Commission (Department of Planning) granted approval to the Glenfield Beach Structure Plan on 17 February 2016 (WAPC, 2016). The City has confirmed that the proposed road reserve (and therefore pressure main alignment) is correctly aligned adjacent to the foreshore reserve.

There are no Aboriginal Sites of Significance recorded in the application area.

The clearing permit application was advertised on 19 October 2015 by the Department of Environment Regulation inviting submissions from the public. No submissions from the public were received.

Methodology

References:
Calibre Consulting Pty Ltd (2015)
City of Greater Geraldton (2016)
WAPC (2016)

GIS Databases:
Aboriginal Sites of Significance

4. References

Bamford Consulting Ecologists (2011) Assessment of Habitat within the Glenfield Beach Project Area, Geraldton, Western Australia. Subiaco, Western Australia. (DER Ref: A972149).

Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.

Calibre Consulting Pty Ltd (2015) Application to Clear Native Vegetation – Lot 9501 Chapman Road, Glenfield Beach, Geraldton. (DER Ref: A972149).

City of Greater Geraldton (2015) Advice for Clearing Permit CPS 6769/1. (DER Ref: A997218).

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

Department of the Environment (2015) Merops ornatus in Species Profile and Threats Database, Department of the Environment, Canberra.

Government of Western Australia (2014) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2014. WA Department of Parks and Wildlife, Perth.

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Mattiske Consulting Pty Ltd (2011) Level 2 Flora and Vegetation Survey of Glenfield Beach Survey Area. Perth, Western Australia. (DER Ref:A972149).

Parks and Wildlife (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: http://naturemap.dpaw.wa.gov.au/. Accessed 04/01/2015

Parks and Wildlife (2012a) Carpet Python Morelia spilota (Lacepede, 1804). Department of Environment and Conservation, Perth, Western Australia.

Parks and Wildlife (2012b) Western Brush Wallaby Macropus Irma (Jourdan, 1837). Department of Environment and Conservation. Perth, Western Australia.

Parks and Wildlife (2015) Regional advice received for Clearing Permit CPS 6769/1. Department of Parks and Wildlife. Western Australia (DER Ref: A1025157).

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.

WAPC (2016) City of Greater Geraldton. Glenfield Beach Structure Plan. Western Australian Planning Commission Decision – Structure Plan Approval (DER Ref: A1059655).