GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 5413/1
Permit Holder:	City of Canning
Duration of Permit:	14 December 2013 – 14 December 2018

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 developing sporting facilities within Queens Park Regional Open Space.

2. **Land on which clearing is to be done**
   Lot 500 on Deposited Plan 36532, Queens Park.

3. **Area of Clearing**
   The Permit Holder must not clear more than 1.3 hectares of native vegetation within the area shaded yellow on attached Plan 5413/1.

4. **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.

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.

PART II –MANAGEMENT CONDITIONS

6. **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) shall only move soils in *dry conditions*;
   (c) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
   (d) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

DEFINITIONS
The following meanings are given to terms used in this Permit:

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

dry conditions means when soils (not dust) do not freely adhere to rubber tyres, tracks, vehicle chassis or wheel arches;

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

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;

weed/s means any plant -

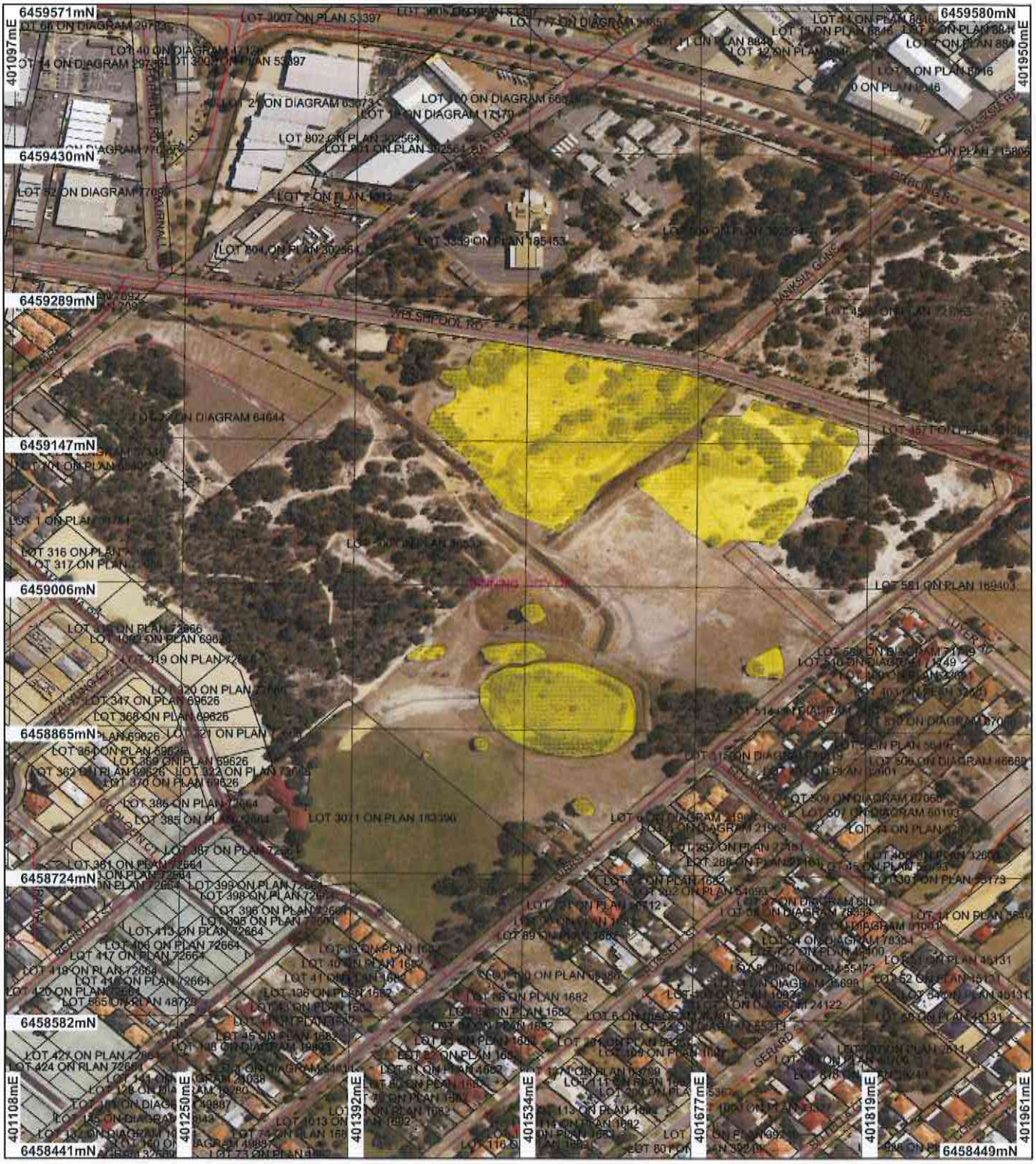
(a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
(b) published in the former Department of Environment and Conservation Regional Weed Assessments, regardless of ranking; or
(c) not indigenous to the area concerned.

M Warnock
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

Officer delegated under Section 20
of the Environmental Protection Act 1986

14 November 2013

Plan 5413/1



LEGEND

- Cadastre
- Local Government Authorities
- Road Centrelines

Clearing Instruments

- Areas Approved to Clear

Perth Metropolitan Area
Central 15cm Orthomosaic - Landgate 2012

N

0 125 m

Scale 1:5000
(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 14/11/13

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.: 5413/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: City of Canning

1.3. Property details

Property: LOT 500 ON PLAN 36532 (House No. 305 WELSHPOOL QUEENS PARK 6107)
Local Government Area: City of Canning
Colloquial name:

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 14 November 2013

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 - Medium very sparse woodland; jarrah, with low woodland; banksia and casuarina (Shepherd et al. 2001). Heddle Vegetation Complex: Southern River Complex - Open woodland of Corymbia calophylla (Marri) - Eucalyptus marginata (Jarrah) - Banksia species with fringing woodland of Eucalyptus rudis (Flooded Gum) - Melaleuca rhaphiophylla (Swamp Paperbark) along creek beds (Heddle et al. 1980).	The clearing consists of 1.3 hectares of native vegetation with Lot 500 on Deposited Plan 36532, Queens Park for the purpose of developing sporting facilities within Queens Park Regional Open Space, within the City of Canning.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994). To Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994).	Vegetation description and condition were determined through aerial imagery, supporting documentation provided by applicant (City of Canning 2012) and site inspection (DEC 2013a). The vegetation under application consists of four vegetation types, all in degraded to completely degraded condition: • Banksia attenuata and Banksia menziesii open woodland over sparse native understorey and grassy weeds with some areas of Adenanthos cygnorum. • Melaleuca preissiana woodland over grassy weeds. • Corymbia calophylla and Eucalyptus marginata forest over scattered native shrubs and herbs and grassy weeds. • Riparian vegetation consisting of scattered Juncus species, non-native Typha species and other non-native reed species. The application area also consists of isolated Eucalyptus rudis, Corymbia calophylla, Melaleuca preissiana, Kunzea glabrescens, Macrozamia fraseri and Casuarina fraseriana.

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 is to clear up to 1.3 hectares of native vegetation with Lot 500 on Deposited Plan 36532, Queens Park for the purpose of developing sporting facilities within Queens Park Regional Open Space.

The vegetation under application consists of four vegetation types in degraded to completely degraded (Keighery 1994) condition. These include Banksia attenuata and Banksia menziesii open woodland over sparse native understorey and grassy weeds with areas containing Adenanthos cygnorum; Melaleuca

preissiana woodland over grassy weeds; Corymbia calophylla and Eucalyptus marginata forest over scattered native shrubs and herbs and grassy weeds; and riparian vegetation consisting of scattered Juncus species, non-native Typha species and other non-native reed species (DEC 2013a).

The application area also consists of isolated Eucalyptus rudis, Corymbia calophylla, Melaleuca preissiana, Kunzea glabrescens, Macrozamia fraseri and Casuarina fraseriana (DEC 2013a).

The property under application has been disturbed through historical clearing, illegal access by off-road vehicles and rubbish dumping (DEC 2013a).

A flora and vegetation survey was conducted on several bushlands which comprise the Queens Park Regional Open Space (Ecoscape 2010). The survey included an Environmental Protection (Swan Coastal Plain Lakes) Policy (EPP) Lake and the Gibbs Street Bushland, which make up a small section of the application area. The majority of the application area was not surveyed.

There are numerous priority flora recorded within the local area (10 kilometre radius). The flora report recorded 108 individuals, within 22 areas, of a priority three flora species within the entire survey area (Ecoscape 2010). No priority flora were recorded within the EPP Lake area (Ecoscape 2010). The priority flora species was recorded twice within the Gibbs Street Bushland, but neither of the records occurs within the application area. The closest record of the priority species is approximately 25 metres from the application area. Although the majority of the vegetation under application was not surveyed, given the condition of the vegetation, it is unlikely that priority flora occur within the application area.

There are several priority ecological communities (PEC) within the local area (10 kilometre radius). No mapped PECs are located within close proximity to the application area. There are four threatened ecological communities (TEC) mapped within the property under application. Based on recent quadrant data, these TECs are likely to be representative of priority ecological communities (DEC 2013b).

The application area is located within a highly cleared and fragmented landscape. The local area has approximately 15 percent of the native vegetation remaining. The application area is within a landscape that has been highly impacted by urban development.

The application area occurs within Bush Forever site 283 - Queens Park Bushland, Queens Park and is adjacent to Bush Forever site 424 - McDowell Street Bushland, Welshpool. Bush Forever identifies areas of regionally significant bushland for protection (Government of Western Australia 2000).

Given the condition of the vegetation under application, the proposed clearing is not likely to be at variance to this principle.

Methodology

References:
DEC 2013a
DEC 2013b
Ecoscape 2010
Government of Western Australia 2000
Keighery 1994
GIS Databases:
- Bush Forever Sites
- Perth Metropolitan Central - 15cm Orthomosaic - Landgate 2011
- SAC Biodatasets

(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

There are numerous conservation significant fauna species within the local area (10 kilometre radius) including Carnaby's Cockatoo (Calyptorhynchus latirostris; rare or likely to become extinct, Wildlife Conservation Act 1950; endangered, Environment Protection and Biodiversity Conservation Act 1999), Forest Red-tailed Black-Cockatoo (Calyptorhynchus banksii subsp. Naso; rare or likely to become extinct, Wildlife Conservation Act 1950; vulnerable, Environment Protection and Biodiversity Conservation Act 1999) and Baudin's Cockatoo (Calyptorhynchus baudinii; rare or likely to become extinct, Wildlife Conservation Act 1950; vulnerable, Environment Protection and Biodiversity Conservation Act 1999) (DEC 2007-).

A fauna survey was conducted on several bushlands which comprise the Queens Park Regional Open Space. None of the trapping or the use of trail cameras during this survey occurred within the application area. The report over the entire survey area recorded two fauna species of conservation significance, Carnaby's Cockatoo and Rainbow Bee-eater (Merops ornatus; protected under international agreement) (Ecoscape 2010).

The vegetation under application is in degraded to completely degraded (Keighery 1994) condition. The Banksia woodland and Eucalypt forest within the application area may provide feeding habitat for Carnaby's cockatoos, Forest red-tailed black cockatoos and Baudin's cockatoos. During a former Department of Environment and Conservation (DEC) site inspection, chewed Corymbia calophylla nuts were identified, most

likely eaten by Forest red-tailed black cockatoos (DEC 2013a). The total area of foraging habitat under application is approximately 0.7 hectares.

No significant hollows were seen within the application area (DEC 2013a). Therefore, it is unlikely that the proposed clearing contributes significant nesting or roosting habitat for black cockatoos.

The Rainbow Bee-eater is a migratory bird with a distribution across most of mainland Australia (DSEWPC 2013). The total population size has not been estimated, but is assumed to be reasonably large (DSEWPC 2013). Given the relatively small area of vegetation under application and the surrounding vegetation in better condition, the proposed clearing is unlikely to provide significant habitat for this species.

The fauna report concluded that the Queens Park bushlands are likely to provide good habitat for fauna, particularly reptiles, as evident from the trapping results (Ecoscape 2010). However, the survey was not conducted on the vegetation under application but on surrounding vegetation in better condition (Ecoscape 2010).

Given the degraded condition of the vegetation and the small area to be cleared, the proposed clearing is not likely to be at variance to this principle.

Methodology

References:
DEC 2007-
DEC 2013a
DSEWPC 2013
Ecoscape 2010
Keighery 1994

(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

There are numerous rare flora recorded within the local area (10 kilometre radius). The flora survey report recorded 12 individuals within 4 areas of a rare flora species within the entire survey area (Ecoscape 2010). No rare flora species were recorded within the EPP Lake area or the Gibbs Street Bushland (Ecoscape 2010). The closest record of the rare species is located approximately 160 metres from the application area.

Although the majority of the application area was not surveyed, given the condition of the vegetation, it is unlikely that rare flora occur within the application area

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

Methodology

References:
Ecoscape 2010
GIS Databases:
- SAC Biodatasets

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

Comments

Proposal is not likely to be at variance to this Principle

There are four threatened ecological communities (TEC) mapped within the property under application. Three of the TECs are Corymbia calophylla - Eucalyptus marginata woodlands on sandy clay soils (SCP3b), of which two are within 10 metres of the application area. The other TEC is Banksia attenuata woodlands over species rich dense shrublands (SCP20a). Given the condition of the vegetation under application, it is unlikely to be representative of either TEC.

Based on recent quadrant data, the vegetation mapped as TECs are likely to be representative of priority ecological communities rather than threatened ecological communities (DEC 2013b).

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

Methodology

References:
DEC 2013b
GIS Databases:
- SAC Biodatasets

(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

Aerial photography indicates the local area (10 kilometre radius) is approximately 15 percent vegetated.

The IBRA Bioregion (Swan Coastal Plain) and the local government agency (City of Canning) retain approximately 39 percent and 7 percent of their respective pre-European extents (Government of Western Australia 2013).

The application area is mapped as Beard Vegetation Association 1001, which retains approximately 14 152 hectares (25 percent) of its pre-European extent within the Swan Coastal Plain IBRA Bioregion.

The area is mapped as Heddle Vegetation Complex Southern River Complex, which retains approximately 11 501 hectares (20 percent) of its pre-European extent within the Swan Coastal Plain IBRA Bioregion. Approximately two percent of Southern River Complex is held in secure land tenure (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 percent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001). The EPA has applied a biodiversity protection objective of 10 percent for constrained areas, such as the Swan Coastal Plain (EPA 2006). The application area occurs within a constrained area. The vegetation under application falls below the 30 percent threshold and above the 10 percent threshold.

Given the degraded to completely degraded condition of the vegetation, the proposed clearing is not likely to be at variance to this principle.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DPaW Managed Lands (%)
IBRA Bioregion*				
Swan Coastal Plain	1 501 209	587 833	39	35
Shire*				
City of Canning	6 432	445	7	7
Beard Vegetation Association in Bioregion*				
1001	57 410	14 152	25	6
Heddle Vegetation Complex**				
Southern River Complex	57 979	11 501	20	2

* Government of Western Australia 2013
** Heddle et al. 1980

Methodology

References:
Commonwealth of Australia 2001
EPA 2006
Government of Western Australia 2013
Heddle et al. 1980
GIS Databases:
- Heddle Vegetation Complexes
- NLWRA, Current extent of Native Vegetation
- Perth Metropolitan Central 15cm Orthomosaic - Landgate 2011
- Pre-European Vegetation
- SAC Biodatasets

(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 Maniana Park Compensation Basin is part of the application area and is located near the south-east corner of the property under application. The basin has been listed under the Environmental Protection (Swan Coastal Plain Lakes) Policy 1992 for protection. Draining into this EPP Lake are stormwater drains, one of which is under application.

A multiple use wetland occurs over a large section of the property under application, including some of the proposed clearing area. Multiple use wetlands are wetlands that score poorly on natural attributes and are considered to lack ecological function, the proposed land use is consistent with this category of wetland (WAPC 2005).

The majority of the riparian vegetation associated with the EPP Lake and drains are non-native Typha species and other non-native reed species (DEC 2013a). However, within the EPP lake, there are scattered Juncus species (DEC 2013a).

The proposed clearing includes areas of Melaleuca preissiana woodland and several scattered Eucalyptus rudis, both of which grow in association with watercourses (DEC 2013a).

Therefore, the proposed clearing is at variance to this principle.

Given the condition of the vegetation under application and the historical disturbance to the riparian vegetation on site, the proposed clearing is unlikely to further diminish the values of the area.

Methodology

References:
DEC 2013a
WAPC 2005
GIS Databases:
- EPP Lakes
- Geomorphic Wetlands, Swan Coastal Plain
- 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 soil within the application area is mapped as Cb38, which Northcote et al (1960 - 1968) describes as sandy dunes with intervening sandy and clayey swamp flats: chief soils are leached sands, sometimes with a clay D horizon below 5 ft, on the dunes and sandy swamps.

The main land degradation risk associated with this sandy soil type is wind erosion. Given the relatively small area of vegetation under application, the proposed clearing is unlikely to cause significant land degradation.

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

Methodology

References:
Northcote et al. 1960 - 1968
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 occurs within Bush Forever site 283 - Queens Park Bushland, Queens Park and is adjacent to Bush Forever site 424 - McDowell Street Bushland, Welshpool. Bush Forever identifies areas of regionally significant bushland for protection (Government of Western Australia 2000).

The proposed clearing may increase the risk of weeds and dieback spreading into the adjacent vegetation. Weed and dieback management practices will assist in mitigating this risk.

Therefore, the proposed clearing may be at variance to this principle.

The installation of two additional bores on the property will lower the groundwater level over the property, which is likely to impact the remaining vegetation. It is not possible to locate the bores in an area where no vegetation will be effected by drawdown (Emerge 2012).

The use of fertilisers and herbicides to maintain the proposed ovals is likely to affect the adjacent vegetation through nutrient addition. The proximity of the remaining vegetation to proposed watered ovals means that potential for increased weed invasion, Phytophthora cinnamomi infestation, and altered hydrology are high.

Methodology

References:
Emerge 2012
Government of Western Australia 2000
GIS Databases:
- Bush Forever sites

(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 Maniana Park Compensation Basin is part of the application area and is located near the south-east corner of the property under application. The basin has been listed under the Environmental Protection (Swan Coastal Plain Lakes) Policy 1992 for protection. Surface water from the catchment (approximately 80 hectares) drains into this EPP Lake via stormwater drains, one of which is under application.

The groundwater salinity of the application area is 500 - 100 milligrams per litre, this level of salinity is considered marginal. The proposed clearing is considered unlikely to increase the risk of salinisation.

Given that some vegetation to be cleared is growing in association with a watercourse, the proposed clearing may cause deterioration in the quality of the surface water and therefore may be at variance to this principle.

The project proposal includes the removal of the compensation basin and the construction of a wetland approximately 200 metres north of the existing basin (City of Canning 2012). The water from the catchment will be diverted into the wetland using piped drains. The applicant proposes that the wetland be designed to treat the water using methods such as biofiltration (City of Canning 2012).The wetland will be lined to prevent infiltration of water into the groundwater.

The installation of two additional bores on the property will lower the groundwater level over the property. The groundwater within the property is located 2-7 metres from the surface (Emerge 2012).

Methodology

References:
City of Canning 2012
Emerge 2012
GIS Databases:
- EPP Lakes
- Geomorphic Wetlands, Swan Coastal Plain
- Groundwater Salinity
- 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 soil within the application area is mapped as Cb38, which Northcote et al (1960 - 1968) describes as sandy dunes with intervening sandy and clayey swamp flats: chief soils are leached sands, sometimes with a clay D horizon below 5 ft, on the dunes and sandy swamps.

Given the porous nature of the sandy soils of the application area, the proposed clearing is unlikely to cause or exacerbate flooding. Therefore it is not likely to be at variance to this principle.

Methodology

References:
Northcote et al. 1960 - 1968
GIS Databases:
- Soils, Statewide

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

Comments

The redevelopment of Queens Park Regional Open Space proposal was referred to the Environmental Protection Authority (EPA). The EPA determined they would not assess the application and recommended the proposal be dealt with under Part V Division 2 of the Act (Clearing of Native Vegetation) (EPA 2013).

The application area is located within an environmentally sensitive area associated with a Bush Forever site, an EPP Lake and a 50 metre buffer to rare flora.

The Department of Planning (2013) supports the proposal, with recommendations for the following conditions:

- An offset package be prepared in accordance with the Environmental Protection Authority's Position Statement No. 9
- No more than 1.3 hectares of native vegetation be cleared
- No direct drainage into Bush Forever site 283
- An urban water management plan be prepared
- No rubbish or any other deleterious matter be deposited in Bush Forever site 283

An Acid Sulfate Soil (ASS) investigation was conducted on the property however no samples were taken from the application area. The report concluded that there is a moderate to low risk of ASS material occurrence

within the site and that management of ASS materials will be required prior to development works (GHD 2010).

Whilst no residual impacts have been identified, the applicant has proposed to restore 9 hectares of vegetation in degraded to completely degraded condition, which they consider will result in a net increase in native vegetation and fauna habitat and will provide an ecological linkage between areas of remaining vegetation (City of Canning 2012). DER endorses this initiative.

One public submission was made in objection to the application (Submission 2013). The issues raised in the submission have been considered and addressed where appropriate within the relevant clearing principles in this report. The submissions raised the following concerns:

- The vegetation under application provides habitat for Jewel beetle species
- The vegetation under application provides habitat for Carnaby's cockatoos
- In the supplementary information provided with the application form, the applicant mentions that the proposal aims to provide an ecological linkage from the bushland at the northeast of the site, along Welshpool Road to the north west of the site. However, the draft masterplan provided by the applicant does not depict the presence of a this linkage
- The transplanting of Macrozamia fraseri as discussed in the clearing permit application has had varying success
- Eucalyptus marginata have been extensively cleared within the Swan Coastal Plain
- Areas of vegetation under application with understorey should be retained
- The Queens Park Regional Open Space development may not be required
- The ground level change and groundwater extraction may impact the remaining vegetation

The City of Canning council endorsed the Queens Park Regional Open Space Master Plan 2006 as the preferred conservation and regional recreation development proposal for the Queens Park Regional Open Space on 2 December 2008 (City of Canning 2013).

The draft copy of the Queens Park Regional Open Space Master Plan was referred to the Western Australian Planning Commission (WAPC). WAPC advised they have no objection to the draft proposal (City of Canning 2013). The applicant has applied for development approval from WAPC.

Methodology

References:
City of Canning 2012
City of Canning 2013
Department of Planning 2013
EPA 2013
GHD 2010
Submission 2013
WAPC 2007
GIS Databases:
- Environmentally Sensitive Areas

4. References

City of Canning (2012) Clearing Permit Application CPS 5413/1 - Lot 500 on Deposited Plan 35632, Queens Park (DEC REF: A581632)

City of Canning (2013) Supporting information for Clearing Permit application CPS 5413/1. Received 30/04/2013. City of Canning, Western Australia (DEC REF: A625743).

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

DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: http://naturemap.dec.wa.gov.au/. Accessed 03/01/2013.

DEC (2013a) Site Inspection Report for Clearing Permit Application CPS 5413/1 Lot 500 on Deposited Plan 35632, Queens Park. Site inspection undertaken 15/01/2013. Department of Environment and Conservation, Western Australia (DEC REF: A590029).

DEC (2013b) Advice received for Clearing Permit Application CPS 5413/1. Received 14/02/2013. Department of Environment and Conservation, Western Australia (DEC REF: A600123).

Department of Planning (2013) Advice for Clearing Permit Application CPS 5413/1. Received 11/02/2013, Department of Planning, Western Australia (DEC REF: A598849).

Department of Sustainability, Environment, Water, Population and Communities (2013). Merops ornatus in Species Profile and Threats Database. Department of Sustainability, Environment, Water, Population and Communities, Canberra.

Ecoscape (Australia) Pty Ltd (2010) Flora and Fauna Assessment for Queens Park Regional Open Space. Ecoscape (Australia) Pty Ltd, Western Australia (DEC REF: A582612).

Emerge Associates (2012) Queens Park Regional Open Space - Ecohydrology Assessment. Emerge Associates, Western Australia (DEC REF: A582613).

Environmental Protection Authority (2013) Advice for Clearing Permit Application CPS 5413/1. Received 6/02/2013, Environmental Protection Authority, Western Australia (DEC REF: A596970).

EPA (1992) Environmental Protection (Swan Coastal Plain Lakes) Policy 1992. Western Australian Government Gazette, 24 December 1992, pp 6287-93.

EPA (2006) Guidance for the Assessment of Environmental Factors - Level of Assessment for Proposals Affecting Natural Areas Within the System 6 Region and Swan Coastal Plain Portion of the System 1 Region. Guidance Statement No 10. Environmental Protection Authority, Western Australia.

GHD (2010) Report for Queens Park Regional Open Space - Acid Sulfate Soil Investigation. GHD, Western Australia (DEC REF: A582611).
Government of Western Australia (2000) Bush Forever Volumes 1 and 2. Western Australian Planning Commission, Perth WA.
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.
Heddle, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, 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.
Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.
Submission (2013) Public Submission for Clearing Permit Application CPS 5413/1. Received 10/01/2013 (DEC REF: A588101).
Western Australian Planning Commission (2005) Guideline for the Determination of Wetland Buffer Requirements. Western Australian Planning Commission, Western Australia.

5. Glossary

Term	Meaning
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community