



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 3214/1
Permit Holder:	Bushbeach Holdings Pty Ltd TA NLG Sand Supplies
Duration of Permit:	10 July 2010 – 10 July 2015

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I – CLEARING AUTHORISED

1. Purpose for which clearing may be done

Clearing for the purpose of sand extraction.

2. Land on which clearing is to be done

Lot 721 on Deposited Plan 130670 (HERRON, 6211)

3. Area of Clearing

The Permit Holder must not clear more than 8.9 hectares of native vegetation within the area hatched yellow on attached Plan 3214/1.

4. 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.

5. Compliance with Assessment Sequence and Management Procedures

Prior to clearing any native vegetation under conditions 1, 2 and 3 of this Permit, the Permit Holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

6. Dieback and Weed Control

(a) When undertaking any clearing, the Permit Holder must take the following steps to minimise the risk of introduction and spread of *dieback*:

- (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (ii) avoid the movement of soil in wet conditions;
- (iii) ensure that no *dieback*-affected *mulches* or *fill* are brought into an area that is not affected by *dieback*; and
- (iv) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

- (b) When undertaking any clearing or other activity pursuant to this Permit the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds*:
 - (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
 - (ii) ensure that no *weed*-affected *mulch*, *fill* or other material is brought into the area to be cleared; and
 - (iii) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

7. Wind Erosion Management

The Permit Holder shall not clear native vegetation under condition 1 and 2 on this Permit unless sand extraction begins within 2 weeks of the clearing being undertaken.

8. Revegetation

- (a) The Permit Holder shall retain the vegetative material and topsoil removed by clearing in accordance with this Permit.
- (b) Within six month of the area no longer being required for the purpose of limestone extraction the permit holder must *revegetate* the area by:
 - (i) deliberately planting and/or 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;
 - (ii) ensuring only local provenance seeds and propagating material from within 10km of the area cleared are used to *revegetate* the area; and
 - (iii) lay vegetative material and topsoil retained in accordance with condition 8(a) on the area.
- (c) Within one year of undertaking *revegetation* in accordance with condition 8(b), the Permit Holder must:
 - (i) determine the species composition, structure and density of the area revegetated; and
 - (ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 8(c)(i) will not result in a similar species composition, structure and density to pre-clearing vegetation types in that area the Permit Holder must undertake additional planting or seeding of native vegetation in accordance with the requirements of condition 8(b)(i) and (ii).

PART III - RECORD KEEPING AND REPORTING

9. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit in relation to the *revegetation* of areas pursuant to condition 8:

- (a) the commencement date of *revegetation*;
- (b) the location of any area *revegetated* recorded using Geocentric Datum Australia 1994;
- (c) a description of the *revegetation* activities undertaken;
- (d) the size of the area *revegetated* (in hectares); and
- (e) the species, structure and composition of *revegetation* measured.

10. Reporting

- (a) The Permit Holder must provide to the CEO, on or before 30 June of each year, a written report of records required under condition 9 of this Permit and activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.
- (b) Prior to 10 April 2015, the Permit Holder must provide to the CEO a written report of records required under condition 9 of this Permit where these records have not already been provided under condition 10(a) of this Permit.

Definitions

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

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

environmental specialist means a person who is engaged by the permit holder for the purpose of providing environmental advice, 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;

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;

revegetate, revegetated, revegetation means the re-establishment of a cover of native vegetation in an area such that the species composition, structure and density is similar to pre-clearing vegetation types in that area, and can involve regeneration, direct seeding and/or planting;

weed means a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the Agriculture and Related Resources Protection Act 1976.



Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

*Officer delegated under Section 20
of the Environmental Protection Act 1986*




10 June 2010

Plan - 3214/1



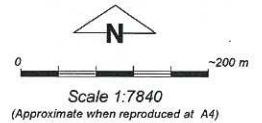
LEGEND

Clearing Instruments

-  Areas Applied to Clear
-  Areas Subject to Conditions
-  Areas Approved to Clear

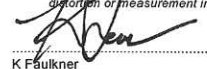
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-  Local Government Authorities



Geocentric Datum Australia 1994

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

 Date 10/6/10

K Faulkner
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 acknowledged by the agency acronym in the legend.



Department of Environment and Conservation

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1. Application details

1.1. Permit application details

Permit application No.: 3214/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Bushbeach Holdings Pty Ltd t/a N.L.G Sand Supplies

1.3. Property details

Property: LOT 721 ON PLAN 130670 (House No. 138 MOUNT JOHN HERRON 6211)
Local Government Area:
Colloquial name:

1.4. Application

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

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 (Shepherd, 2007): 6 - Medium woodland; tuart and Jarrah 998 - Medium woodland; tuart Heddle Vegetation Association (1980): KARRAKATTA COMPLEX - CENTRAL AND SOUTH - Predominantly open forest of Eucalyptus gomphocephala (Tuart) - Eucalyptus marginata (Jarrah) - Corymbia calophylla (Marri) and woodland of Eucalyptus marginata (Jarrah) - Banksia species.	The area under application is considered to be parkland cleared, with heavy grazing apparent. It consists of scattered mature Corymbia calophylla (Marri), Eucalyptus marginata (Jarrah) and the occasional Eucalyptus gomphocephala (Tuart), Agonis flexuosa (Peppermint tree) and hollyhock. The vegetation is considered to be in a completely degraded (Keighery, 1994) condition.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	The vegetation condition was assessed through aerial photography and a site inspection (DEC, 2009a).

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 proposal is to clear 8.9 hectares of native vegetation for the purpose of sand extraction.

The vegetation under application is in a completely degraded (Keighery, 1994) condition and was observed to be impacted by grazing pressure (DEC, 2009a).

The applied area is in close proximity to a Threatened Ecological Community (TEC) the Lake Clifton Stomatalites located 1.2km west of the applied area. The application area falls within the buffer of this TEC.

The applied area is approximately 1.2km east of the Yalgorup National Park.

The local area retains approximately 50% native vegetation, most of which is in similar or better condition as the applied area (some of which is within secure tenure).

Given the completely degraded (Keighery, 1994) condition of the vegetation under application and the presence of vegetation in close proximity, which is likely to retain a higher level of biological diversity than the vegetation under application, the applied area is not likely to contain a high level of biodiversity in the local context.

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

Methodology

References:
DEC (2009a)
Keighery (1994)

GIS Database:
SAC Biodataset accessed 23 July 2009
CALM Managed Lands and Waters - CALM 01/06/05
Hedde Vegetation Complexes - DEP 22/06/95
Pre European Vegetation - DA 01/01
Clearing Regulations, Environmentally Sensitive Areas 30 May 2005
NLWRA, Current Extent of Native Vegetation 20 Jan 2001

(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

The area under application is considered to be parkland cleared, with heavy grazing apparent. It consists of scattered mature *Corymbia callophylla* (Marri), *Eucalyptus marginata* (Jarrah) and the occasional *Eucalyptus gomphocephala* (Tuart), *Agonis flexuosa* (Peppermint tree) and hollyhock (DEC, 2009a).

Western Ringtail Possums (*Pseudocheirus occidentalis*) are known to occur within the local area however given the completely degraded (Keighery, 1994) condition of the vegetation it is not likely that the applied area has sufficient vegetation cover and litter to provide habitat for this species. The application area has been assessed by the Department of Environment, Water, Heritage and the Arts (DEWHA) and it was decided that the proposed sand extraction within lot 721 is not a controlled action, provided it is done in accordance with DEWHA conditions including rehabilitation of the application area (DEWHA, 2009).

Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) is known to nest within the local area (10km radius), however based on aerial photography, photographs provided by the applicant and ground survey conducted by DEWHA, the applied area is not likely to be significant habitat for this species (DEC, 2009b). A site inspection of the applied area did not identify any habitat trees suitable for Black Cockatoo's (DEC, 2009a).

Given the completely degraded (Keighery, 1994) condition of the vegetation and the presence of nearby vegetation in better condition than the applied area the vegetation under application is not likely to be significant habitat for any native fauna.

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

Methodology

References:
DEC (2009a)
DEC (2009b)
DEWHA (2009)
Keighery (1994)

GIS Database:
CALM Managed Lands and Waters - CALM 01/06/05
SAC Biodatasets accessed 23 July 2009
Pre European Vegetation - DA 01/01
Clearing Regulations, Environmentally Sensitive Areas 30 May 2005
NLWRA, Current Extent of Native Vegetation 20 Jan 2001

(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 2 records of rare flora occurring within the local area (10km radius) of the vegetation under application, namely *Caladenia huegelii*, and *Diuris purdiei*.

The vegetation under application was noted as not being suitable habitat for *D. purdiei* which are usually found in winter wet swamps (WA Herbarium, 1998).

C. huegelii are generally found in grey or brown sand and clay loam (WA Herbarium, 1998). The soil on site is predominately siliceous sand (Northcote, 1960-68).

The site inspection also noted that the applied area had been heavily grazed and rabbit diggings were observed on site (DEC, 2009a).

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

Methodology References:
 Northcote (1960-68)
 WA Herbarium (1998)

GIS Database:
 Heddle Vegetation Complexes - DEP 22/06/95
 Pre European Vegetation - DA 01/01
 SAC Biodatasets - accessed 23 July 2009
 Soils, Statewide DA 11/99

(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 is one Threatened Ecological Community (TEC) recorded within the local area (10km radius).

Mapped approximately 1.2km west of the applied area are the Lake Clifton Stromatalites. This TEC is found within Lake Clifton. The vegetation under application is in a completely degraded (Keighery, 1994) condition (DEC, 2009a) and is not likely to represent any known TEC.

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

Methodology References:
 DEC (2009a)
 Keighery (1994)

References:
 SAC Biodatasets accessed 23 July 2009
 Heddle Vegetation Complexes - DEP 22/06/95
 Pre European Vegetation - DA 01/01
 Soils, Statewide DA 11/99

(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**

	Pre-European (ha)	Current extent (ha)	Remaining (%)	% In reserves DEC Managed Land
IBRA Bioregions*				
Swan Coastal Plain	1,501,208	583,140	38.84	24.21
City*				
Mandurah	16,795	8,470	50.43	43.93
Beard Vegetation Association within Bioregion*				
998	50,866	21,225	41.73	29.22
6	56,343	14,749	26.18	12.65
Heddle Vegetation Complex**				
Karrakatta Central and South	34,532	6,275	18.2	

* (Shepherd, 2007)

** (Heddle et al, 1980)

The vegetation under application is in a completely degraded (Keighery, 1994) condition and is impacted by grazing pressures (DEC, 2009a) and therefore is unlikely to be representative of under represented vegetation unit 6 (Shepherd, 2007) or Karrakatta complex central and south (Heddle et al., 1980).

The local area (10km radius) retains approximately 50% native vegetation, most of which is in similar or better condition as the applied area (some of which is within secure tenure).

Given the above, the vegetation is not considered to be significant in an extensively cleared landscape and is therefore not likely to be at variance to this principle.

Methodology References:
DEC (2009a)
Keighery (1994)
Hedde et al (1980)
Shepherd (2007)

GIS Database:
Hedde Vegetation Complexes - DEP 22/06/95
Interim Biogeographic Regionalisation of Australia - EA 18/10/00
Local Government Authorities - DLI 8/07/04
Pre European Vegetation - DA 01/01
SAC Biodatasets - accessed 23 July 2009
NLWRA, Current Extent of Native Vegetation 20 Jan 2001

(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**
The closest surface water expression area is located approximately 450m west of the applied area.

A site visit did not identify any riparian vegetation within the applied area (DEC, 2009a).

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

Methodology References:
DEC (2009a)

GIS Database:
CALM Managed Lands and Waters - CALM 01/06/05
EPP Lakes Policy Area - DEP 14/05/97
EPP, Wetlands 2004 (DRAFT) - EPA 21/7/04
Clearing Regulations, Environmentally Sensitive Areas 30 May 2005
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC 11/04/07
Hydrography linear - DOW 13/7/06
Hydrography linear (hierarchy) - DoW 13/7/06
Ramsar wetlands - DEC 03
South Coast Significant Wetlands - WRC 10/06/2003

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

Comments **Proposal may be at variance to this Principle**
The applied area is located on the top of a moderate ridge with topography falling from 55m to 25m AHD towards the west. The hydrogeology consists of surficial sediments (limestone, calcrete) and shallow aquifers. The application area is in close proximity to Lake Clifton (approximately 1.2km west).

Given the sloping topography, exposing the applied area to prevailing winds, the proximity to the coast and presence of sandy soils, land degradation in the form of wind erosion may result from the removal of native vegetation within the applied area.

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

Methodology GIS Database:
Acid Sulfate Soil Risk Map, Swan coastal Plain - DEC 07/08/06
Average Annual Rainfall Isohyets - WRC 29/09/98
Annual Evaporation Contours (Isopleths) - WRC 29/09/98
Hydrogeology, statewide DOW 13/07/06
Hydrographic catchments, catchments - DoW 01/06/07
Hydrography, linear - DOW 13/7/06
Salinity Risk LM 25m - DOLA 00
Soils, Statewide DA 11/99

(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 applied area is located approximately 1.2km east of the Yalgorup National Park. The vegetation under application was observed to be impacted by heavy grazing pressure (DEC, 2009a). Clearing of native vegetation within this area may increase the spread of weeds from the applied area to areas of conservation significance.

The applied area is mapped as have an annual rainfall of 900mm and annual evapotranspiration rate of 800mm. While no evidence of dieback was apparent during a site inspection the applied area is at high risk of obtaining and spreading dieback due to machinery movement through the applied area.

Given the above the clearing as proposed may be at variance to this principle as the proposal is likely to result in the spread of weeds and potentially dieback into nearby conservation areas.

Methodology References:
DEC (2009a)

GIS Database:
CALM Managed Lands and Waters - CALM 01/06/05
Hydrography, linear - DOW 13/7/06
Register of National Estate - Environment Australia, Australian and world heritage division 12 Mar 02
System 1 to 5 and 7 to 12 areas - DEC 11/7/06

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

Comments Proposal may be at variance to this Principle

The area under application is considered to be parkland cleared, with heavy grazing apparent. It consists of scattered mature *Corymbia callophylla* (Marri), *Eucalyptus marginata* (Jarrah) and the occasional *Eucalyptus gomphocephala* (Tuart), *Agonis flexuosa* (Peppermint tree) and hollyhock (DEC, 2009a). The vegetation is considered to be in a completely degraded (Keighery, 1994) condition.

Removal of deep rooted perennial vegetation may incrementally impact on the quality and quantity of surface and ground water flowing into Lake Clifton. It is also noted that Lake Clifton supports a conservation significant community of Thrombolites which are sensitive to groundwater change.

The application area falls within the South West Coastal Rights in Water Irrigation area.

Given the above the clearing as proposed may be at variance to this principle.

Methodology References:
DEC (2009a)
Keighery (1994)

GIS Database:
Evapotranspiration Isoleths - WRC 29/09/98
Groundwater Salinity Statewide DoW 13/07/06
Hydrographic catchments, catchments - DoW 01/06/07
Hydrographic catchments, subcatchments - DoW 01/06/07
Hydrography, linear - DOW 13/7/06
Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
Salinity Risk LM 25m - DOLA 00
Topographic Contours, Statewide - DOLA 12/09/02

(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 applied area is located on sandy soils (DEC, 2009a). The local area (10km radius) retains approximately 50% native vegetation cover.

Given the above the removal of 8.9ha of native vegetation from the applied area is not likely to increase or exacerbate the incident or intensity of flooding within the local area.

Methodology References:

DEC (2009a)

GIS Database:

Evapotranspiration Isoleths - WRC 29/09/98
Groundwater Salinity Statewide DoW 13/07/06
Hydrographic catchments, catchments - DoW 01/06/07
Hydrographic catchments, subcatchments - DoW 01/06/07
Hydrography, linear - DOW 13/7/06
Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
Salinity Risk LM 25m - DOLA 00
Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

The proponent's application for an extractive industry licence has been referred to the EPA by the City of Mandurah. The application has been reviewed by the EPA and a level of assessment has been set as 'Not Assessed - Public Advice Given & Managed under Part V of the EP Act (Clearing)? (DEC TRIM Ref: DOC105523).

The proposal is to clear 8.9ha of native vegetation for the purpose of sand extraction. Planning approval and an extractive industry licence is required from the City of Mandurah for the proposed activity.

The application area falls within the South West Coastal Rights in Water Irrigation groundwater area. A groundwater licence is required from the Department of Water.

The application was referred to the Department of Environment, Water, Heritage and the Arts under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). It was decided that the proposed action was not a controlled action (DEC TRIM Ref: DOC90937).

The applied area falls within the Peel Region Scheme under which the land is identified as mineral and resource site (sand resource).

There is a current ICMS (#7726) over the area applied to be cleared.

The application area is zoned as rural.

The applied area includes some Tuart trees and the applied area falls within the boundary of the Tuart Conservation and Management Strategy. Given the sparsity of Tuarts within the applied area the clearing as proposed is not likely to be inconsistent with this strategy.

Methodology

GIS Database:
Cadastre - Landgate Dec 07
Native Title Claims - LA 2/5/07
RIWI Act, Groundwater Areas - DoW 13/07/06
RIWI Act, Irrigation Districts - DoW 13/07/06
Town Planning Scheme Zones - MFP 31/08/98
Country Area Water Supply Act (Part IIA) Clearing Control Catchments 29/06/2006
Aboriginal Sites of Significance 26 April 2007
Public Drinking Water Source Areas (PDWSAs) -07/02/06

4. References

- DEC (2009a) Site Inspection Report for Clearing Permit Application CPS 3214/1, Lot 721 Old Coast Road, Heron. Site inspection undertaken 17/08/2009. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC95364).
- DEC (2009b), Department of Environment and Conservation advice from Species and Communities Branch (DEC TRIM Ref: DOC94811).
- Department of Environment and Conservation (2009b). Species and Communities Branch Advice. DEC TRIM Ref: DOC94811.
- Department of the Environment, Water, Heritage and the Arts (2009). Decision on Referral. Extension and renewal of existing sand quarry at part of Lot 721, Old Coast Road.
- Heddlé, 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. (2007) Adapted from: 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.

5. Glossary

Term	Meaning
CALM	Department of Conservation and Land Management (now DEC)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment (now DEC)
DoW	Department of Water
DMP	Department of Mines and Petroleum (ex DoIR)
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)