



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 5251/1
Permit Holder:	BGC (Australia) Pty Ltd
Duration of Permit:	4 January 2014 – 4 January 2019

ADVICE NOTE:

This Permit does not confer upon the Permit Holder authorisation to access the land to which the Permit relates.

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

1. Purpose for which clearing may be done

Clearing for the purpose of constructing a hollow core manufacturing plant, gantry, hard stand and associated infrastructure.

2. Land on which clearing is to be done

Lot 14 on Deposited Plan 39572 Donaldson Road, Kwinana Beach.

3. Area of Clearing

The Permit Holder must not clear more than 6 hectares of native vegetation within the area hatched yellow on attached Plan 5251/1.

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.

A handwritten signature in cursive script, appearing to read "M Warnock", written over a horizontal line.

M Warnock
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH


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

5 December 2013

Plan 5251/1



LEGEND

<p>Clearing Instruments</p> <ul style="list-style-type: none"> <input type="checkbox"/> Areas Approved to Clear <input checked="" type="checkbox"/> Road Centrelines <input type="checkbox"/> Cadastre 	<p>Perth Metropolitan Area Central 15cm Orthomosaic - Landgate 2012</p>	<p style="text-align: center;">N</p> <p style="text-align: center;">0 ————— 100 m</p> <p style="text-align: center;">Scale 1:4000 (Approximate when reproduced at A4)</p> <p style="text-align: center;">Geocentric Datum Australia 1994</p> <p style="text-align: center;"><i>Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.</i></p> <p style="text-align: right;"><i>M. Warnock</i> Date <u>5/12/13</u></p> <p>M. Warnock Officer with delegated authority under Section 20 of the Environmental Protection Act 1986</p> <p>Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.</p> <p style="text-align: center;"> WA Crown Copyright 2002</p>
---	---	--

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



Clearing Permit Decision Report

Government of Western Australia
Department of Environment Regulation

1. Application details

1.1. Permit application details

Permit application No.: 5251/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: BGC (Australia) Pty Ltd

1.3. Property details

Property: LOT 14 ON PLAN 39572 (Lot No. 14 DONALDSON KWINANA BEACH 6167)
Local Government Area: City of Kwinana
Colloquial name:

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 5 December 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: 3048 - Shrublands; scrub-heath on the Swan Coastal Plain (Shepherd et al. 2001).	The proposed clearing consists of 6 hectares of native vegetation within Lot 14 on Deposited Plan 39572, Kwinana Beach for the purpose of constructing a hollow core	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The majority of the vegetation under application has been previously cleared. There is a high impact of weeds within the application area. There are no overstorey species present.
Beard Vegetation Association: 998 - Medium woodland; tuart (Shepherd et al. 2001).	manufacturing plant, gantry, hardstand and associated infrastructure.	To	The vegetation is in degraded to completely degraded (Keighery 1994) condition. The vegetation consists predominately of Acacia saligna and Acacia rostellifera, with a ground cover of Eragrostis curvula. Other species include Acacia cochlearis, Jacksonia sp., Ricinus communis, Euphorbia sp., Ehrharta calycina and Schinus terebinthifolius
Hedde Vegetation Complex: Central and South Cottesloe Complex - Mosaic of woodland of Eucalyptus gomphocephala (Tuart) and open forest of Eucalyptus gomphocephala (Tuart) - Eucalyptus marginata (Jarrah) - Corymbia calophylla (Marri); closed heath on the Limestone outcrops (Hedde et al.1980).		Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	Vegetation description and condition was determined through aerial imagery and a site inspection (DEC 2012a).

3. Assessment of application against clearing principles

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

Comments **Proposal is not likely to be at variance to this Principle**
The proposed clearing consists of up to 6 hectares of native vegetation within Lot 14 on Deposited Plan 39572, Kwinana Beach for the purpose of constructing a hollow core manufacturing plant, gantry, hardstand and associated infrastructure.

The vegetation under application is in degraded to completely degraded (Keighery 1994) condition. The majority of the vegetation has been previously cleared several times (BGC (Australia) Pty Ltd 2012). Weeds have significantly impacted the application area (DEC 2012a).

There are numerous records of priority flora within the local area (10 kilometre radius). The closest record occurs on the same soil and vegetation type as the application area and is located approximately 2.9 kilometres away. Given the condition of the vegetation and the high impact of weeds, it is unlikely that priority flora occur within the application area.

There are nine priority ecological communities (PEC) within the local area (10 kilometre radius). The closest of these is a Northern Spearwood shrublands and woodlands community (priority 3). This community is described as heaths with scattered Eucalyptus gomphocephala occurring on deeper soils north from Woodman Point. The heathlands in this group typically include Dryandra sessilis, Calothamnus quadrifidus, and Schoenus grandiflorus (DEC 2012b). The vegetation under application is not representative of this community.

Given the condition of the vegetation under application and the lack of large habitat trees and native understorey species, it is unlikely that the application area provides significant habitat for fauna.

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

Methodology **References:**
- BGC (Australia) Pty Ltd 2012
- DEC 2012a
- DEC 2012b
- Keighery 1994

GIS Datasets:
- Heddle Vegetation Complexes
- Pre European Vegetation
- SAC Biodatabases
- Soils, Statewide

(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 fauna species of conservation significance mapped within the local area (10 kilometre radius). These include 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) (DPaW, 2007-).

Given the condition of the vegetation under application and the lack of large habitat trees and native understorey species, it is unlikely that the application area provides significant habitat for fauna. Therefore, the proposed clearing is unlikely to be at variance to this principle.

Methodology **References:**
- DPaW 2007-

(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 14 records of rare flora within the local area (10 kilometre radius). Only one record occurs on the same mapped soil and vegetation type as the application area.

Given the condition of the vegetation under application and that it is not representative of the mapped vegetation type, it is unlikely that this species occurs within the application area.

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

Methodology **GIS Datasets:**
- Heddle Vegetation Complexes
- Pre European Vegetation
- SAC Biodatabases
- Soils, Statewide

(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 numerous threatened ecological communities within the local area (10 kilometre radius). The closest community occurring on the same mapped soil and vegetation type as the application area is a *Melaleuca huegelii* *Melaleuca acerosa* shrublands on limestone ridges community.

The vegetation within the application area is not representative of this ecological community (DEC 2012a), therefore, the proposed clearing is not likely to be at variance to this principle.

Methodology References:
 - DEC 2012a

GIS Datasets:
 - Heddle Vegetation Complexes
 - Pre European Vegetation
 - SAC Biodatabases
 - Soils, Statewide

(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 40 per cent vegetated.

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 vegetation associations mapped over the application area retain over 30 per cent of their pre-European extents within the Swan Coastal Plain IBRA Bioregion (Government of Western Australia 2011).

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

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion*				
Swan Coastal Plain	1,501,209	587,832	39	34
Shire*				
Town of Kwinana	11,998	4,597	38	9
Beard Vegetation Association in Bioregion*				
998	50,867	19,595	38.5	40.6
3048	10,415	3,316	31	25
Heddle Vegetation Complex **				
Cottesloe Complex				
Central and South	44,995	18,474	41.1	8.8

* Government of Western Australia 2011

** Heddle et al. 1980

Methodology References:
 - Commonwealth of Australia 2001
 - Government of Western Australia 2011
 - 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 not likely to be at variance to this Principle

There are numerous watercourses and wetlands within the local area (10 kilometre radius). The closest of these is located approximately 600 metres from the application area.

A DEC site inspection (2012a) did not identify any vegetation growing in, or in association with, a watercourse or wetland.

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

Methodology References:
- DEC 2012a

GIS Datasets:
- 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 may be at variance to this Principle

The soil within the application area is mapped as B24, which Northcote et al. (1960 - 1968) describes as undulating dune landscape underlain by aeolianite which is frequently exposed with small swales of estuarine deposits and chief soils of siliceous sands with smaller areas of brown sands and leached sand.

The main land degradation risk associated with this sandy soil type is wind erosion. Without vegetation cover, the proposed clearing may result in wind erosion causing appreciable land degradation and may be at variance to this principle.

Wind erosion management practises would assist in managing and mitigating the impacts land degradation.

Methodology References:
- Northcote et al. 1960-1968

GIS Datasets:
- 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 is not likely to be at variance to this Principle

Within the local area (10 kilometre radius), there are numerous conservation areas and Bush Forever sites.

The closest conservation area is an unnamed conservation park, which is located approximately 3.1 kilometres from the application area. The closest Bush Forever site is located approximately 1.6 kilometres from the application area.

The proposed clearing is not likely to impact upon the environmental values of these conservation areas.

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

Methodology GIS Datasets:
- Bush Forever Sites
- DEC Tenure
- NLWRA, Current extent of Native Vegetation
- Perth Metropolitan Central 15cm Orthomosaic - Landgate 2011

(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

There are no watercourses or wetlands within the application area and therefore the proposed clearing is unlikely to cause deterioration in the quality of surface water.

The groundwater salinity within the application area is 500-1000 milligrams per litre of Total Dissolved Solids. This level of groundwater salinity is considered to be marginal.

The application area does not occur within a Country Area Water Supply Act 1914 area or a Public Drinking Water Source Area.

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

Methodology GIS Datasets:
- CAWSA Areas
- Geomorphic Wetlands, Swan Coastal Plain
- Groundwater Salinity, Statewide
- Hydrography, Linear
- PDWSA

(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 B24, which Northcote et al. (1960 - 1968) describes as undulating dune landscape underlain by aeolianite which is frequently exposed with small swales of estuarine deposits and chief soils of siliceous sands with smaller areas of brown sands and leached sand.

Given the porous nature of the sandy soils of the application area, the proposed clearing is unlikely to cause or exacerbate flooding.

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

Methodology References:
- Northcote et al. 1960 – 1968

GIS Datasets:
- Soils, Statewide

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

Comments
The application area is located within the Cockburn Groundwater area covered by the Rights in Water and Irrigation Act 1914.

The application area is zoned as General Industry under the Metropolitan Scheme Zone.

No public submissions have been received in response to this application.

The applicant has obtained planning approval from the Town of Kwinana and entered into a lease with LandCorp to access Lot 14.

Methodology GIS Datasets:
- RIWI Groundwater Area
- Town Planning Scheme Zones

4. References

- BGC (Australia) Pty Ltd (2012) Clearing Permit Application CPS 5251/1 - Lot 14 on Diagram 39572, Kwinana Beach (DEC REF: A543455).
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DPaW (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dec.wa.gov.au/>. Accessed 28/11/2013
- DEC (2012a) Site Inspection Report for Clearing Permit Application CPS 5251/1, Lot 14 on Deposited Plan 39572, Kwinana. Site inspection undertaken 27/09/2012. Department of Environment and Conservation, Western Australia (DEC REF: A550611).
- DEC (2012b) Priority Ecological Communities for Western Australia version 17, Species and Communities Branch. Department of Environment and Conservation.
- 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.
- Hedde, 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.