



1. Application details

1.1. Permit application details

Permit application No.: 1433/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: City of Gosnells

1.3. Property details

Property: LOT 2 ON DIAGRAM 68139
Local Government Area: City Of Gosnells
Colloquial name: Road Reserve

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1		Mechanical Removal	Road construction or maintenance

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 (Hopkins et al. 2001, Shepherd et al. 2001)	The proposed clearing of 1ha of native vegetation is required for the initial construction of a single carriageway to extend Garden St between Warton and Harpenden Road. The area under application is located adjacent to Lot 103 which is intended on becoming conservation estate in the future that will be managed by the DEC.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The study area for the flora survey included areas of better vegetation condition to the north and south of the proposed area (Woodman Environmental Consulting 2004). Given the high species richness in the general area and the low weed invasion throughout, an overall of 'very good' was deemed appropriate.
Heddle Vegetation Complex: Southern River Complex; Open woodland of Eucalyptus calophylla - Eucalyptus marginata - Banksia species with fringing woodland of Eucalyptus rudis - Melaleuca raphiophylla along creek beds (Hedde et al. 1980)	The majority of the vegetation under application was reported to be in Excellent to Very Good Condition, with low weed invasion throughout (Woodman Environmental Consulting 2004). However, it is noted that the vegetation surveyed in the flora report provided by the proponent, extended beyond the area under application.		

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

A flora survey of the area extends beyond the area under application (Woodman Environmental Consulting 2004). Notwithstanding the flora survey indicates that the vegetation within the area under application is generally of a 'very good condition' with low weed invasion throughout.

Bush Forever Site 125 is located approximately 310m south west of the area under application. Woodman Environmental Consulting (2004) reported the vegetation within this site to be in 'excellent to very good condition'.

The area under application also lies immediately adjacent to Lot 103: the Biodiversity Coordination Section

(2006) reported that this site is proposed to become conservation estate and managed by the Department of Environment and Conservation.

Given the area under application is located adjacent to a 5.5ha proposed conservation estate and in close proximity to a 140ha Bush Forever area, it is unlikely that the proposed small scale clearing (1ha) will compromise or impact upon the level of biodiversity within the local area.

Methodology Biodiversity Coordination Section (2006) (DEC TRIM ref: DOC 2246)
Woodman Environmental Consulting (2004) (DEC TRIM ref: DOC 4059)
GIS Databases:
- Bush Forever - MFP 07/01

(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 immediately south of the area under application is zoned residential and the area immediately north-east comprising 5.5 ha of vegetation in good condition, is proposed conservation estate, vested with the Conservation Commission and managed by the DEC (Biodiversity Coordination Section 2006). It is likely that the intact vegetation within the proposed conservation estate and the Bush Forever Site 125 (138 ha) to the south of the proposed clearing would provide significant habitat for indigenous fauna. It is therefore unlikely that the clearing of 1 ha will severely compromise habitat for indigenous fauna.

Methodology Biodiversity Coordination Section (2006) (DEC TRIM ref: DOC 2246)
GIS Databases:
- Bush Forever - MFP 07/01

(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

The Biodiversity Coordination Section (BCS) (2006) indicated that one Declared Rare Flora plant of *Caladenia huegelii* is located within the area under application. Subsequent to this advice, a review of a spring flora survey carried out by Woodman Consulting (2004) was undertaken by the BCS. The flora survey outlined that the construction of the Garden Street extension will not directly impact on any plants of *Caladenia huegelii* (Woodman Consulting, 2004), and it was indicated by BCS that Woodman's flora survey conclusion is justified (Biodiversity Coordination Section 2006).

The Biodiversity Coordination Section (2006) have also indicated that Lot 103 which lies immediately to the north of the area under application is intended to become conservation estate in the future, vested with the Conservation Commission and managed by the DEC, and that a number of *Caladenia huegelii* have already been transplanted into the area.

Therefore, given the small scale of the clearing (1ha) and the secured habitat for *Caladenia huegelii* north of the area, it is unlikely that the clearing as proposed is at variance to this Principle.

Methodology Biodiversity Coordination Section (2006) (DEC TRIM ref: DOC 2246)
Woodman Consulting (2004) (DEC TRIM ref: DOC 4059)

(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 no Threatened Ecological Communities (TEC's) mapped within the area under application. The nearest TEC is located 3.7km south of the area under application and three other TEC's are located approximately 4km north west of the area.

Woodman Environmental Consulting (2004) reported that none of the plant communities mapped within the proposed area were listed as Threatened Ecological Communities by the Department of Conservation and Land Management or the Environmental Protection and Biodiversity Conservation Act (EPBC) 1999.

Methodology Woodman Environmental Consulting (2004) (DEC TRIM ref: DOC 4059)
GIS Databases:
- Threatened Ecological Communities - CALM 15/7/03
- Clearing Regulations - Environmentally Sensitive Areas - DOE 8/03/05

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

Comments Proposal may be at variance to this Principle

The vegetation within the area under application is mapped as Beard vegetation association 1001, of which there is

27.6% (18,907 ha) remaining (Shepherd et al. 2001, Hopkins et al. 2001). The vegetation has also been mapped as Heddle vegetation Southern River Complex, of which there is 19.8% (11,501 ha) remaining (Heddle et al. 1980). These vegetation complexes have a conservation status of 'vulnerable' for biodiversity conservation (Department of Natural Resources and Environment 2001).

Beard vegetation association has 5.5% of the remaining vegetation in secure tenure and Southern River Complex 8% in secure tenure. While these percentages are below the 15% set by JANIS Forests Criteria (1997), 5.5 ha of vegetation in very good condition in the adjacent Lot (103) is proposed conservation estate to be vested with the Conservation Commission and managed by the DEC.

Methodology Department of Natural Resources and Environment (2001)
JANIS Forests Criteria (1997)
Hopkins et al. (2001)
Shepherd et al. (2001)
Heddle et al. (1980)
GIS Databases:
- Bush Forever - MFP 07/01
- Pre-European Vegetation - DA 01/01
- Heddle Vegetation Complexes - DEP 21/06/95
- Swan Coastal Plain North 40cm Orthomosaic - DLI 05

(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 no watercourses or wetlands within the area under application.

A Conservation Category Wetland (CCW) is located approximately 155m south of the proposed area. A large portion of the eastern extent of the CCW is zoned residential, with established residential blocks separating the area under application from the wetland area.

Methodology GIS Databases:
- EPP, Areas - DEP 06/95
- Geomorphic wetlands (Mgmt Categories) - Swan Coastal Plain - DOE 15/09/04
- Swan Coastal Plain North 40cm Orthomosaic - DLI 05
- EPP, Lakes - DEP 28/07/03

(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 characteristic landscape of the area is sandy dunes with intervening sandy and clayey swamp flats, with the chief soils being leached sands.

The area under application lies within a Class 2 Moderate to Low risk Acid Sulfate area. The area is also in a low salinity risk area with salinity 500-1000mg/l.

Given that the proposed clearing is small (1ha) and lineal in nature, it is unlikely that the clearing will cause any appreciable land degradation.

Methodology GIS Databases:
- Acid Sulfate Soil Risk Map, SCP - DOE 04/11/04
- Groundwater Salinity, Statewide - 22/02/00
- 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 is not likely to be at variance to this Principle

Bush Forever Site 125 (140ha) is located approximately 310m south of the area under application. A Conservation Category Wetland (CCW) is located approximately 155m south of the proposed area. Given the small (1ha) and lineal nature of the vegetation under application, in addition to its separation from these areas by established roads and residential areas, it is unlikely that the clearing as proposed will have an impact on the environmental values of these conservation areas.

Methodology GIS Databases:
- CALM Managed Lands and Waters - CALM 01/08/04
- Bush Forever - MFP 07/01
- Geomorphic wetlands (Mgt Categories) - Swan Coastal Plain - DOE 15/09/04

(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 EPP Areas within the area under application, or within 5km. A Priority 1 Public Drinking Water Source Area (PDWSA) (Jandakot Underground Water Pollution Control Area) is located approximately 4km south west of the proposed area.

The nearest surface water body is a Conservation Category Wetland (CCW) which lies 155m south of the area. This wetland area is separated from the proposal area by established roads and a residential area.

Given the Priority 1 PDWSA is sufficiently distanced from the proposed clearing, and the wetland is separated from the clearing area by established roads and a residential area, it is unlikely that the clearing will have any major impacts on the quality of underground and surface water.

Methodology GIS Databases:

- Public Drinking Water Source Areas (PDWSAs) - DoE 29/11/04
- EPP, Areas - DEP 06/95
- Geomorphic wetlands (Mgt Categories) - Swan Coastal Plain - DOE 15/09/04

(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 subject area is located in a high rainfall area (900mm per annum). However, the removal of a small amount of vegetation (1ha) in a lineal clearing nature is unlikely to have any significant impact on the incidence or intensity of flooding within the local area.

Methodology GIS Databases:

- Rainfall, Mean Annual - BOM 30/09/01

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

Comments

Three submissions were received opposing the clearing on the following collective grounds:

- The vegetation is part of a large significant (vegetated) area of high biological significance, is in a Bush Forever site and is in Excellent to Very Good condition.
- The Bush Forever site contains a Conservation Category Wetland.
- Clearing will lead to the loss of habitat for DRF species *Caladenia huegelii* and *Drakea elastica*
- Clearing will contribute to the loss of vegetation which is heavily cleared: Southern River vegetation complex has only 17% remaining with only 5.7% to 10% having some protection.
- Clearing will open the door to clearing for the extension of Garden Street which will impact significantly on local environmental values.

In response, the area applied to be cleared is not within a Bush Forever site and does not contain a Conservation Category Wetland. The area under application is approximately 310 m north of Bush Forever Site 125 and 155 m north of the Conservation Category Wetland. Further, parts of these areas are zoned residential, with established residential blocks separating the area under application from these areas.

The area is known to contain habitat for the DRF species, *Caladenia huegelii* with no known occurrences of *Drakea elastica*. The Biodiversity Coordination Section (2006) reported that the area has been surveyed 4 times and based on the outcomes of these surveys, the clearing is unlikely to have a significant impact on the level of habitat available for *Caladenia huegelii* in the local area.

While the vegetation percentages are below the threshold, 5.5 ha of vegetation in very good condition in the adjacent Lot (103) is proposed conservation estate to be vested with the Conservation Commission and managed by the DEC.

There is no other RIWI Act Licence, Works Approval or EP Act licence that will affect the area that has been applied to clear.

Methodology Biodiversity Coordination Section (2006) (DEC TRIM ref: DOC 2246)

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Road construction or Removal maintenance	Mechanical	1	Grant	The application has been assessed and the clearing as proposed may be at variance to Principle e and is not and not likely to be at variance to the remaining principles. For Principle e), while 1 ha of vegetation in being applied to be cleared, 5.5 ha of vegetation in very good condition in the adjacent Lot (103) is proposed conservation estate to be vested with the Conservation Commission and managed by the DEC.

Given the above, the assessing officer recommends that a permit be granted subject to the following condition;

1. The Permit Holder shall not clear any native vegetation within the area cross hatched red on attached Plan 1433/1.

5. References

- Biodiversity Coordination Section Advice (2006) (DEC TRIM ref: DOC 2246)
- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.
- 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.
- Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.
- JANIS Forests Criteria (1997) Nationally agreed criteria for the establishment of a comprehensive, Adequate and Representative reserve System for Forests in Australia. A report by the Joint ANZECC/MCFFA National Forest Policy Statement Implementation Sub-committee. Regional Forests Agreement process. Commonwealth of Australia, Canberra.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- 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.
- Woodman Environmental Consulting (2006) City of Gosnells - Spring 2004 Search for Declared Rare Orchid Species - Garden St Extension (DEC TRIM ref: DOC 4059)

6. Glossary

Term	Meaning
CALM	Department of Conservation and Land Management
DAWA	Department of Agriculture
DEP	Department of Environmental Protection (now DoE)
DoE	Department of Environment
DoIR	Department of Industry and Resources
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 DoE)

