



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 5477/1
Permit Holder:	Shire of Northampton
Duration of Permit:	12 September 2013 – 12 September 2023

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 road maintenance.
- 2. Land on which clearing is to be done**
Ogilvie Road Reserve, Pin 1323504, Pin 1323538 and Pin 1323503.
- 3. Area of Clearing**
The Permit Holder must not clear more than 0.4733 hectares of native vegetation within the area hatched yellow on attached Plan 5477/1a.
- 4. Period in which clearing is authorised**
The Permit Holder shall not clear any native vegetation after 12 September 2018.
- 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.
- 6. 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.

PART II – MANAGEMENT CONDITIONS

- 7. Land on which revegetation and rehabilitation is to be done**
Lot 11197 on Deposited Plan 91078
- 8. Retain vegetative material and topsoil, revegetation and rehabilitation**
The Permit Holder shall:
 - (a) retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil within the area cross hatched red on attached Plan 5477/1b.

- (b) within 6 months following clearing authorised under this Permit, *revegetate* and *rehabilitate* the area within the area cross-hatched red on attached Plan 5477/1b by:
 - (i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land; and
 - (ii) laying the vegetative material and topsoil retained under condition 8(a) within the area cross-hatched red on attached Plan 5477/1b.
- (c) within 18 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 8(b) of this Permit:
 - (i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
 - (ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 8(c)(i) of this Permit will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, *revegetate* the area by deliberately *planting* and/or *direct seeding* native vegetation that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area and ensuring only *local provenance* seeds and propagating material are used.
- (d) Where additional *planting* or *direct seeding* of native vegetation is undertaken in accordance with condition 8(c)(ii) of this permit, the Permit Holder shall repeat condition 8(c)(i) and 8(c)(ii) within 24 months of undertaking the additional *planting* or *direct seeding* of native vegetation.
- (e) Where a determination by an *environmental specialist* that the composition, structure and density within areas *revegetated* and *rehabilitated* will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, as determined in condition 8(c)(i) and (ii) of this permit, that determination shall be submitted for the CEO's consideration. If the CEO does not agree with the determination made under condition 8(c)(ii), the CEO may require the Permit Holder to undertake additional *planting* and *direct seeding* in accordance with the requirements under condition 8(c)(ii).

9. Native Vegetation Conservation

- (a) In respect to the area hatched red on attached plan 5477/1b, the permit holder shall amend the vesting of the land from its existing stated purpose to a purpose for the establishment and maintenance of vegetation.
- (b) The vesting amendment outlined in condition 9(a) shall include, but not be limited to, the following conditions:
 - (i) native vegetation in the area subject to vesting must not be cleared, other than for clearing required under another prescribed written law;
 - (ii) the land subject the vesting shall not be used for the purpose of cultivation of crops or pasture, or for the de-pasturing of any stock; and
 - (iii) the vesting is to apply for a minimum of 30 years;
- (c) the permit holder is to execute and return the vesting amendment described in condition 9(a) of this permit prior to 12 September 2015.

10. Vegetation management

- (a) Where practicable the Permit Holder shall avoid clearing riparian vegetation.
- (b) Where a watercourse is to be impacted by clearing, the Permit Holder shall maintain the existing surface flow by use of culverts.

PART III - RECORD KEEPING AND REPORTING

11. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit:

- (a) In relation to the clearing of native vegetation authorised under this Permit:
 - (i) the species composition, structure and density of the cleared area;
 - (ii) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
 - (iii) the date that the area was cleared; and
 - (iv) the size of the area cleared (in hectares).
- (b) In relation to the **revegetation and rehabilitation** of areas pursuant to condition 8 of this Permit:
 - (i) the location of any areas *revegetated* and *rehabilitated*, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
 - (ii) a description of the *revegetation* and *rehabilitation* activities undertaken;
 - (iii) the size of the area *revegetated* and *rehabilitated* (in hectares);
 - (iv) the species composition, structure and density of *revegetation* and *rehabilitation*, and
 - (v) a copy of the environmental specialist's report.

12. Reporting

- (a) The Permit Holder must provide to the CEO on or before 1 July of each year, a written report:
 - (i) of records required under condition 11 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding calendar year.
- (b) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar year, a written report confirming that no clearing under this permit has been carried out, must be provided to the CEO on or before 1 July of each year.
- (c) Prior to 12 June 2023, the Permit Holder must provide to the CEO a written report of records required under condition 11 of this Permit where these records have not already been provided under condition 12(a) of this Permit.

DEFINITIONS

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

direct seeding means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

environmental specialist: means a person who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit, or who is approved by the CEO as a suitable environmental specialist.

local provenance means native vegetation seeds and propagating material from natural sources within 50 kilometres and the same Interim Biogeographic Regionalisation for Australia (IBRA) subregion of the area cleared.

mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

planting means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;

regenerate/ed/ion means re-establishment of vegetation from in situ seed banks and propagating material (such as lignotubers, bulbs, rhizomes) contained either within the topsoil or seed-bearing mulch;

rehabilitate/ed/ion means actively managing an area containing native vegetation in order to improve the ecological function of that area;

revegetate/ed/ion means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as natural *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.

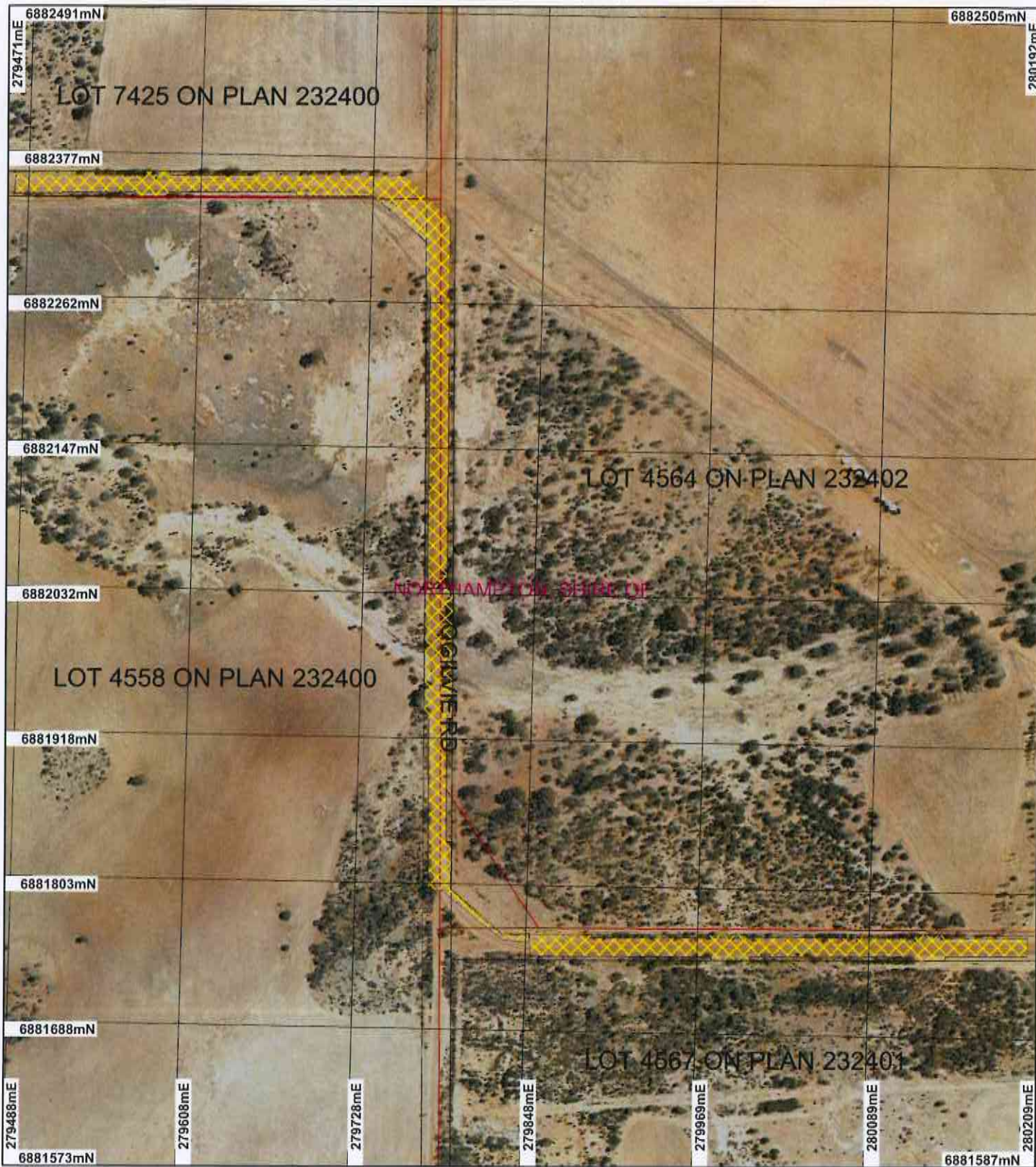


M Warnock
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

12 September 2013

Plan 5477/1a



LEGEND

-  Road Centrelines
-  Cadastre
-  Local Government Authorities_1
-  Clearing Instruments
-  Areas Subject to Conditions (cont)
-  Areas Approved to Clear
-  Northampton 50cm Orthomosaic - Landgate 2006



Scale 1:4119

(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.

M Warnock Date 12/9/13

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.

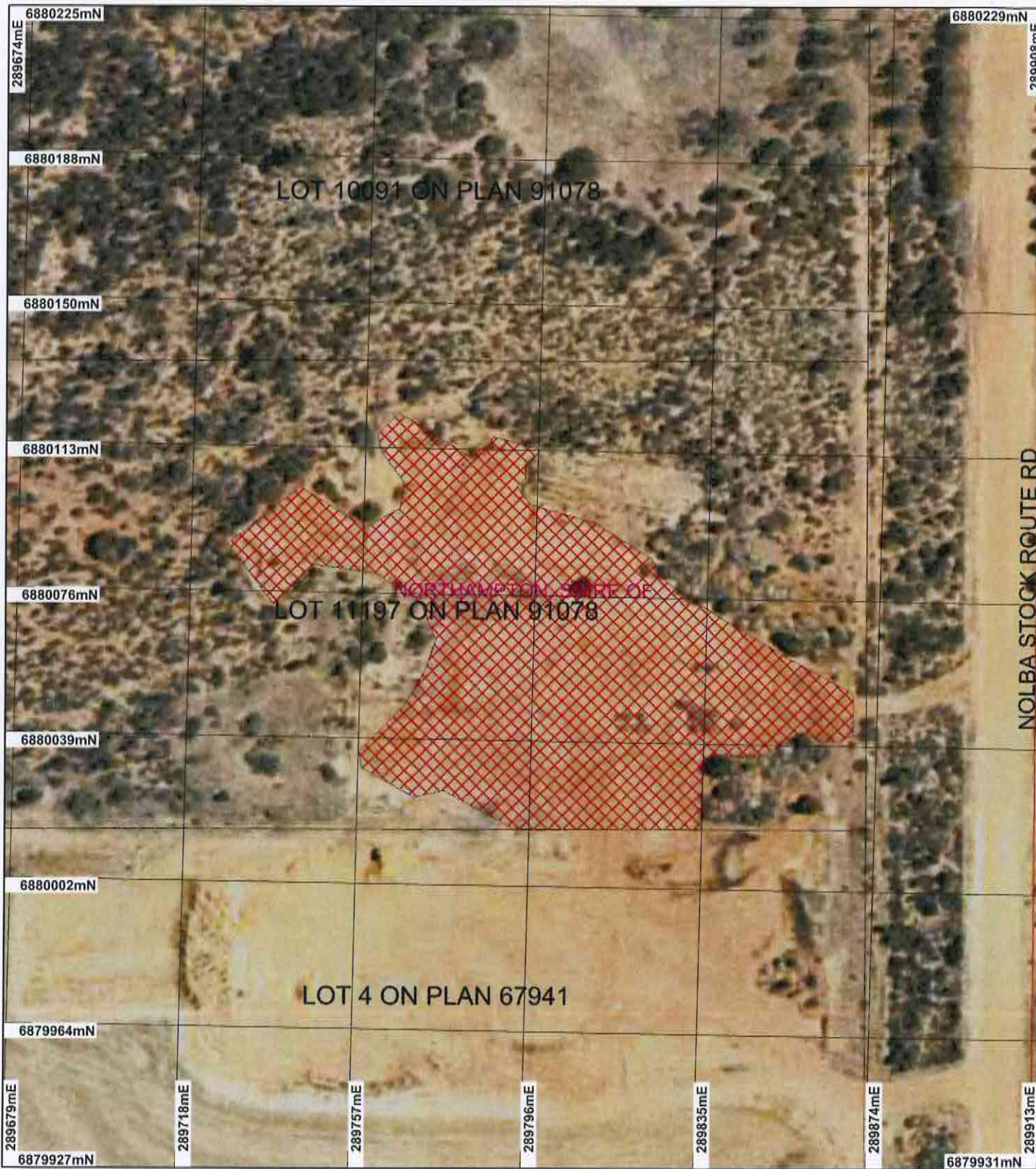


Government of Western Australia
Department of Environment Regulation

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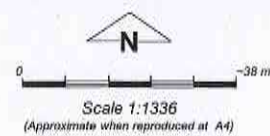
* Project Data is denoted by asterisk. This data has not been quality assured. Please contact map author for details.

Plan 5477/1b



LEGEND

- Road Centrelines
- Cadastre
- Local Government Authorities_1
- Clearing Instruments
- Areas Subject to Conditions (cont)
- Areas Approved to Clear
- Northampton 50cm Orthomosaic - Landgate 2006



Geocentric Datum Australia 1994
 Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

M Warnock Date 12/9/13
 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 acknowledged by the agency acronym in the legend.



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 Department of Environment Regulation

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Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5477/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Shire of Northampton

1.3. Property details

Property: ROAD RESERVE (OGILVIE 6535)
Local Government Area: Shire of Northampton
Colloquial name:

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 12 September 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
The area under application has been mapped as Beard Vegetation Associations:	The application is to clear up to 0.473 hectares of native vegetation within Ogilvie Road reserve, Ogilvie, Shire of Northampton, for the purpose of road construction.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The clearing description and vegetation condition were determined through aerial photography (Northampton 50cm Orthomosaic - Landgate 2006).
35: Shrublands; jam scrub with scattered York gum.		To	The application area runs for approximately three kilometres and the road reserve is roughly 20 metres wide.
353: Shrublands; mallee & acacia scrub with scattered York gum (Shepherd et.al, 2001).		Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	

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 at variance to this Principle**
The vegetation under application is comprised of 0.473 hectares of native vegetation in a degraded to good (Keighery, 1994) condition. The majority of the application area is in degraded (Keighery 1994) condition.

The applicant will clear in close proximity to two rare flora species. Species one has been recorded from four separate locations within the application area and a further two locations are within 25 metres. This species is listed as Endangered under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC) and Critically Endangered under the Wildlife Conservation Act 1950 (WC Act). Species two has been recorded from two locations within the application area and is listed as Endangered under both the EPBC Act and WC Act.

Clearing within close proximity of rare flora may result in a loss of seeds and propagative material from the soil and alter the hydrology of the area, impacting on the integrity and long term survival of the population. Clearing within 50 metres of rare flora requires a licence to take rare flora from the Department of Parks and Wildlife (DPaW).

Seven Priority flora species have been recorded within 10 kilometres of the application area. However, given the presence of rare flora the application area has been thoroughly surveyed in the past and no priority flora species are known to occur within the application area.

The local area (20 kilometre radius) is extensively cleared for agriculture and supports approximately 5 percent native vegetation cover. No conservation managed lands exist in the local area. The application area has been mapped as Beard vegetation associations 35 and 353, of which there is approximately 17 percent and 7 percent of their pre-European extent remaining in the Geraldton Sand plains bioregion respectively (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). As both vegetation associations are below this level and the local area is highly cleared, clearing vegetation representative of these associations may impact on the biodiversity values of the local area.

As the application area falls within highly cleared vegetation communities and contains rare flora, it comprises a high level of biodiversity and is at variance to this Principle.

The applicant intends on minimising the identified impacts by (Shire of Northampton, 2013a):

- Demarcating the threatened plants for avoidance,
- Clearing predominantly on the North side of the road, and
- Inducting all Shire staff and contractor to the conditions of the clearing permit prior to works commencing.

Methodology

References:

- Keighery (1994)
- EPBC Act 1999
- WC Act 1950
- Government of Western Australia (2013)
- Commonwealth of Australia (2001)
- DEC (2007-)
- Shire of Northampton (2013a)

GIS Data Sets

- SAC Bio datasets (Accessed March 2013)
- Pre-European vegetation
- Hydrography Linear

(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

Approximately five percent of the pre-European vegetation extent remains in the local area. Given the extensively cleared and highly fragmented nature of native vegetation within the landscape, all remaining remnant vegetation in a good or better condition (Keighery, 1994) may be important as wildlife habitat and linkages between patches of remnant vegetation.

The application area forms part of a larger remnant and ranges in condition from degraded to good (Keighery, 1994) with a majority of the vegetation in a degraded condition.

One fauna species of conservation significance has been recorded from within 10 kilometres of the application area, being *Calyptorhynchus latirostris* (Carnaby's cockatoo) (DEC, 2007-). This species is listed as 'rare or likely to become extinct' under the Wildlife Conservation Act, 1950 and 'endangered' under the Environment Protection and Biodiversity Conservation Act, 1999. Large trees suitable as roosting and nesting habitat for this species are not present within the application area. Given the relatively small area proposed to be cleared and as it is in a predominantly degraded condition, the application will not remove a substantial amount of foraging habitat. Therefore, it is not likely that the proposed clearing will impact on significant habitat for this species.

As the majority of the application area is in a degraded (Keighery, 1994) condition and the clearing is linear in nature, removing degraded vegetation from the road shoulder, the vegetation under application is not likely to form significant habitat for indigenous fauna. The proposed clearing is not likely to be at variance to this Principle.

Methodology

References:

- Wildlife Conservation Act (1950)
- DEC (2007-)

GIS Data Sets

- SAC Bio datasets (Accessed March 2013)
- Pre-European vegetation

Officer - Northampton 50cm Orthomosaic.
- NWLRA, extent of vegetation
Jaren Hart

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

Comments Proposal is at variance to this Principle

The application as proposed will clear in close proximity to two rare flora species. Species one has been recorded from four locations within the application area and a further two within 25 metres of the application area. This species is listed as 'endangered' under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC) and 'critically endangered' under the Wildlife Conservation Act 1950 (WC Act). Species one is confined to the Northampton area and is known from only five populations, the application area being one of these. Major threats to the long term survival of this species and its population include road maintenance activities and a lack of supportive habitat (Department of Sustainability, Environment, Water, Population and Communities, 2013).

Species two has been recorded from two locations within the application area and is listed as 'endangered' under the EPBC Act and the WC Act. This species is known from six populations in the Watheroo area and one population near Goomalling (Brown et. al. 1998). Due to its tendency to be found within degraded road verges, major threats to the long term survival of this species and its populations include clearing for road maintenance activities (Department of Sustainability, Environment, Water, Population and Communities, 2013).

The proponent has indicated that they do not intend on clearing any rare flora however, clearing will take place in close proximity. The applicant has submitted maps and images showing the extent of clearing in relation to the two species of rare flora.

Clearing within close proximity of rare flora may result in a loss of seeds and propagative material from the surrounding soil and alter the hydrology of the area, impacting on the integrity of the population. It is for this reason that clearing within 50 metres of rare flora requires a licence to take rare flora from the Department of Parks and Wildlife (DPaW).

Given the above the application is at variance to this Principle.

The applicant intends on minimising the identified impacts by (Shire of Northampton, 2013a):

- Demarcating the threatened plants for avoidance,
- Clearing predominantly on the North side of the road, and
- Inducting all Shire staff and contractor to the conditions of the clearing permit prior to works commencing.

The applicant has submitted a rehabilitation offset proposal for the proposed clearing (Shire of Northampton, 2013b). The site is a disused gravel pit adjacent to a nature reserve, approximately 12 kilometres east of the clearing. These works would involve spreading vegetative material and topsoil retained from clearing over the site and may result in more secure populations of the rare flora species.

Methodology References:

- Brown et. al. (1998)
- Keighery (1994)
- Department of Sustainability, Environment, Water, Population and Communities (2013)
- Shire of Northampton (2013a)
- Shire of Northampton (2013b)

GIS Data Sets

- SAC Bio datasets (Accessed March 2013)
- Pre-European vegetation
- Soils, statewide
- Hydrography linear (Heirachical)

(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

The closest recorded Threatened Ecological Community is over 100 kilometres from the application area. Therefore, the application is not likely to be at variance to this clearing Principle.

Methodology GIS Data Sets

- SAC Bio datasets (Accessed April 2013)
- Pre-European vegetation

(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 at variance to this Principle

The local area (20 kilometre radius) is approximately 5 percent vegetated with the majority of this vegetation occurring within small isolated remnants on privately owned land.

The application area has been mapped as Beard vegetation associations 35 and 353, of which there is approximately 17 percent and 7 percent of their pre-European extent remaining in the Geraldton Sand plains bioregion respectively (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).

Two rare flora species have been mapped directly adjacent to the application area and as such, the application area may be necessary for the continued existence of these species.

As the vegetation under application represents significant flora habitat and falls within an extensively cleared landscape, it is at variance to this Principle.

The applicant has submitted a rehabilitation offset proposal for the proposed clearing (Shire of Northampton, 2013b). The site is an approximately one hectare disused gravel pit adjacent to a nature reserve, approximately 12 kilometres east of the clearing. These works would involve spreading vegetative material and topsoil retained from clearing over the site. Rehabilitation of this site may result in more secure populations of the rare flora species and a net gain of vegetation at a ratio of approximately 2:1 held within more secure land tenure.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion*				
Geraldton Sand plains	3,136,025.91	1,408,069.82	44.90	40.18
Shire*				
Shire of Northampton	1,258,431.45	929,080.29	73.83	24.87
Beard Vegetation Association in Bioregion*				
35	184,501.78	31,396.60	17.02	2.44
353	96,823.77	7,650.60	7.90	6.84

Methodology References

- *Government of Western Australia (2013)
- Commonwealth of Australia (2001)
- Keighery (1994)
- Shire of Northampton (2013a)
- Shire of Northampton (2013b)

GIS Databases

- Geraldton 50cm Orthomosaic - Landgate 2006
- SAC Biodatasets (accessed December 2012)
- Pre European Vegetation
- NLWRA Current Extent of Native Vegetation
- Interim Biogeographic Regionalisation of Australia

(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

A minor non-perennial watercourse has been mapped within the application area. The presence of this watercourse has been confirmed by aerial imagery (Northampton 50cm Orthomosaic - Landgate 2006). As the application will impact on vegetation associated with a watercourse it is at variance to this Principle.

Installation of culverts will assist in mitigating the impacts to this watercourse.

Methodology GIS Data Sets

- Hydrography linear
- Hydrography linear (Hierarchical)
- Northampton 50cm Orthomosaic ? Landgate 2006

(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

Considering the proposed clearing is relatively small in size, linear in shape, and the land will be compacted and maintained as a road, the proposed clearing is unlikely to result in appreciable land degradation and is not likely to be at variance to this clearing Principle.

Methodology GIS Databases
- Northampton 50cm Orthomosaic - Landgate 2006

(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

The application area is over 10 kilometres from the nearest conservation area and does not form a direct ecological linkage between areas of conservation.

The application is not likely to be at variance to this Principle.

Methodology GIS Data Sets
- DEC Tenure
- Town Planning Scheme (Regional)

(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

Ground water salinity levels in the local area have been mapped as moderate at between 1000 - 3000 milligrams of total dissolved solids per litre. The limited clearing (0.473 hectares) is not likely to increase the risk of salinity and is not likely to measurably affect the quality of groundwater.

Although the application area crosses a minor watercourse, it is unlikely that its flow regime will be impacted as there is drainage infrastructure related to the existing gravel road already in place. The application is not likely to have further detrimental impact on the quality of surface water.

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

Methodology GIS Data Sets
- Salinity Statewide
- Hydrography linear (Hierarchical)

(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 clearing area lies within an area with an evaporation rate of approximately 1,500 millimetres and a mean annual rainfall of 500 millimetres.

Although the application crosses a minor watercourse, it is not likely that the application will cause or exacerbate the incidence or intensity of flooding as the movement of water through the landscape will not be altered. The application is not likely to be at variance to this clearing Principle.

Methodology GIS Data Sets
- Evaporation Isopleths
- Rainfall, Mean Annual

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

Comments The application is to clear 0.473 hectares of native vegetation in order to seal a gravel intersection, improving local road safety.

A licence to take Declared Rare Flora within the application area has been granted by the Department of Parks and Wildlife as the delegate for the Minister for Environment.

The Shire of Northampton was sent a letter on 18 April 2013 highlighting the identified environmental impacts, requesting more information on the locations of rare and priority flora and ways in which identified impacts would be managed and offset. A response was received on 16 May stating (Shire of Northampton, 2013a):

- Clearing cannot be contained to one side of the road
- All staff and contractors will be inducted onto site prior to clearing and
- All threatened plants will be Demarcated for avoidance.

The response also contained maps and images of the application area and proposed works. Further consultation in conjunction with these maps allowed for the refinement and reduction of the application area.

The applicant has submitted a rehabilitation offset proposal for the proposed clearing (Shire of Northampton, 2013b). The site is a disused gravel pit adjacent to a nature reserve, approximately 12 kilometres east of the clearing. These works would involve spreading vegetative material and topsoil retained from clearing over the site and may result in more secure populations of the rare flora species. The proposed rehabilitation area is currently vested with the Shire of Northampton for the purpose of gravel extraction.

The applied area is located within the agricultural area defined in the Environmental Protection Authority's (EPA) Position Statement No.2 (EPA, 2000). EPA Position Statement No. 2 states that significant clearing of native vegetation has already occurred on agricultural land, leading to a reduction in biodiversity and increase in land salinisation, and therefore any further reduction in native vegetation through clearing for agriculture cannot be supported. While the proposed clearing is for road construction, not for agricultural purposes, the EPA (2000) recommends that all existing native vegetation be protected from passive clearing through, for example, grazing by stock or clearing by other means.

There are no Aboriginal sites of significance recorded within the application area.

Methodology

References

- EPA (2000)
- Shire of Northampton (2013a)
- Shire of Northampton (2013b)

4. References

- Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.
- 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 5/3/2013
- Department of Sustainability, Environment, Water, Population and Communities (2013) Conservation advice for rare flora URL: <http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies>. Accessed April 2013.
- EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority, Western Australia.
- Government of Western Australia (2011); 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, Perth.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- 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.
- Shire of Northampton (2013a) Response to request for further information. CPS 5477/1. May 2013. Shire of Northampton.
- Shire of Northampton (2013b) Offset Proposal – Rehabilitation Management Plan. Proposal submitted in support of CPS 5477/1. August 2013. Shire of Northampton.
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed 5/April/2013).

5. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
DAFWA	Department of Agriculture and Food
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DRF	Declared Rare Flora
EPP	Environmental Protection Policy