



## CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

<b>Purpose Permit number:</b>	CPS 3598/1
<b>Permit Holder:</b>	Mirvac (WA) Pty Ltd
<b>Duration of Permit:</b>	30 April 2010 – 30 April 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 replacing a water supply pipeline.

**2. Land on which clearing is to be done**

Pechey Road reserve (Swan View)

**3. Area of Clearing**

The Permit Holder must not clear more than 1.04 hectares of native vegetation within the area shaded yellow on attached Plan 3598/1.

**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. Avoid, minimise etc clearing**

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

- avoid the clearing of native vegetation;
- minimise the amount of native vegetation to be cleared; and
- reduce the impact of clearing on any environmental value.

**7. Dieback and weed control**

(a) When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds* and *dieback*:

- clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- shall only move soils in *dry conditions*;
- ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

**Definitions**

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


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

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

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

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

*weed/s* means 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*

31 March 2010

# Plan 3598/1



## LEGEND

### Clearing Instruments

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

Perth Metropolitan Area  
Central 20cm Orthomosaic -  
Landgate 2007

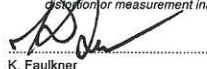


Scale 1:8911

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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

 Date 31/3/10

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

Our environment. our future  
WA Crown Copyright 2002



## 1. Application details

### 1.1. Permit application details

Permit application No.: 3598/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Mirvac (WA) Pty Ltd

### 1.3. Property details

Property: ROAD RESERVE (SWAN VIEW 6056)  
Local Government Area: Shire of Mundaring  
Colloquial name: Pechey Road reserve

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.04		Mechanical Removal	Water/gas pipeline installation

## 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
Mapped Beard (1980) vegetation association 4 has been described as Medium woodland; marri & wandoo.	The proposed clearing comprises 1.04 hectares of native vegetation within Pechey Road reserve for the purpose of replacing a water supply pipeline. The native vegetation present on the road verge is a combination of adult trees and shrubs over a weed-dominated understorey (360 Environmental Pty Ltd, 2008).	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Vegetation condition was determined from digital imagery (Perth Metropolitan Area Central 20cm Orthomosaic - Landgate 2007) and from consultants Flora and Vegetation Survey (360 Environmental Pty Ltd, 2008).

## 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 at variance to this Principle**

The proposed clearing comprises 1.04 hectares of native vegetation on the western side of Pechey Road reserve, Swan View for the purpose of replacing a water supply pipeline.

The vegetation condition has been assessed as degraded to completely degraded (Keighery, 1994). The majority of the vegetation along Pechey Road is garden vegetation or bare ground with only a few remnant patches remaining towards the southern end. The areas which have been assessed as cleared/garden vegetation have been included in the application as there are a few individual natives remaining and it is unknown whether they were planted or if they are remnant natives (360 Environmental Pty Ltd, 2010)

Given the degraded nature of the vegetation under application it is unlikely that it will comprise a high level of biological diversity.

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

**Methodology** 360 Environmental (2010)  
Keighery (1994)

GIS database:  
- DEC Tenure - CALM 01/06/05  
- Perth Metropolitan Area Central 20cm Orthomosaic - Landgate 2007  
- Pre European Vegetation - DA 01/01  
- SAC Biodatasets - accessed 23/02/10

**(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**

Within the local area (10km radius) nine fauna species were recorded. Recorded closest to the application area were; Chuditch (*Dasyurus geoffroii*), Quenda (*Isodon obesulus fusciventer*) and Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*).

Given the degraded nature of the vegetation and consequently low habitat values it is unlikely that the vegetation under application is or comprises of significant fauna habitat.

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

**Methodology** GIS database:  
- SAC Biodatasets - accessed 23/02/10

**(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 7 records of Priority and Rare flora found on the same vegetation and soil type in the local area:

- Anthocercis gracilis (Declared Rare Flora)
- Darwinia pimelioides (Priority 4)
- Dipolaena andrewsi (Priority 2)
- Thysanotus anceps (Priority 3)
- Persoonia sulcata (Priority 4)
- Pithocarpa corymbulosa (Priority 3)
- Lasiopetalum bracteatum (Priority 4)

The area under application is considered degraded to completely degraded (Keighery, 1994). The majority of the area has been historically cleared and is now bare ground or garden vegetation. The native vegetation present on the road verge is a combination of adult trees and shrubs over a weed-dominated understorey (360 Environmental Pty Ltd, 2009).

The last remaining patch of native vegetation on the western side of Pechey Road is located in the most southern section and has been described as "Low shrubland of *Daviesia longifolia*, *Petrophile Squamata*, *Hemigena incana* over mostly native herb species (e.g. *Agrostocrinum scabrum*, *Comesperma calymega*)" (360 Environmental Pty Ltd, 2009).

Flora survey conducted by 360 Environmental Pty Ltd (2009) found no Declared Rare or Priority flora within the application area.

It is unlikely that the proposed clearing is at variance to this principle.

**Methodology** 360 Environmental Pty Ltd (2009)  
Keighery (1994)

GIS database:  
- Pre European Vegetation - DA 01/01  
- SAC Biodatasets - accessed 23/02/10  
- 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 are no known occurrence of TEC's within the area under application, however there are known occurrences within the local area (10km radius).

Given the degraded nature of the area under application and the vegetation known to occur within this area the proposed clearing is unlikely to be at variance to this principle.

**Methodology** GIS Database:  
- SAC Biodatasets - accessed 23/02/10

**(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	<b>Proposal is not at variance to this Principle</b>		
	Pre-European (ha)	Current extent (ha)	Remaining (%)
IBRA Bioregions* Jarrah Forest	4 671 007.81	2 601 026.44	55.68
Shire* Shire of Mundaring	78 087.18	57 403.88	73.51
Beard Vegetation Association* 4	1 061 062.07	261 315.49	24.63
Beard Vegetation Association with Bioregion* 4	1 029 494.71	254 600.11	24.73
Mattiske Vegetation Complex** DS	3 035.46	2 105.89	69.38

\* (Shepherd et al. 2007)

\*\* (Mattiske Consulting 1998)

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 local area has approximately 55% of vegetation remaining (10km radius).

Given the degraded condition of the vegetation and the amount of remaining vegetation in the local area, the proposed clearing is not considered a significant remnant in a highly cleared landscape.

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

**Methodology** Commonwealth of Australia (2001)  
EPA (2000)  
Mattiske Consulting (1998)  
Shepherd (2007)

GIS database:

- Local Government Authorities - DLI 8/07/04
- Pre European Vegetation - DA 01/01
- SAC Biodatasets - accessed 23/02/10

**(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**

Three minor, perennial watercourses intersect the application area, Christmas Tree Creek, Jane Brook and Priest Creek. Where these intersections occur there is road side infrastructure, such as culverts and bridges in place to divert the water.

Given the description of the vegetation under application the proposed clearing is not likely to be associated with a watercourse or wetland.

Therefore the proposed clearing is unlikely to be at variance to this principle.

**Methodology** GIS Databases:  
- SAC Biodatasets - accessed 23/02/10  
- ANCA wetlands - Environment Australia 26/3/99  
- EPP Lakes Policy Area - DEP 14/05/97  
- EPP, Wetlands 2004 (DRAFT) - EPA 21/7/04  
- Hydrography linear - DOW 13/7/06  
- Hydrography linear (hierarchy) - DoW 13/7/06  
- Ramsar wetlands

**(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**

Mapped soil type Mw31 is described as deeply incised, steep scarp and valley side slopes of the Darling scarp and its more deeply incised tributary valleys: chief soils of the steep scarp and valley side slopes, on which massive rock outcrops are a feature, seem to be acid red earths (Gn2.14) on the colluvial slope deposits. Associated are (Dr2.21) and (Dy3.21) soils on moderate to steep upper slopes with some (Uc4.11) soils containing ironstone gravel on spurs and ridge tops (Northcote et al. 1968).

Given the soil types and linear shape of the areas under application the proposed clearing is not likely to cause appreciable land degradation.

Therefore the proposed clearing is unlikely to be at variance to this principle

**Methodology Northcote et al. (1968)**

GIS database:

- Hydrography, linear - DOW 13/7/06
- 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**

The eastern side of Pechey Road borders John Forrest National Park. Greenmount National Park and Talbot Road Nature reserve lie within 2km south of the proposed clearing area. Beelu National Park is 4.69km South and there is a bush Forever site 1.2km to the east.

Due to the narrow linear application area, the condition of the vegetation and the percentage of vegetation remaining in the local area (10km radius) the removal of this vegetation is unlikely to impact on the ecological values of the neighbouring national parks.

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

**Methodology GIS Databases:**

- DEC Tenure - DEC Sept 08
- 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
- System 6 Conservation Reserves

**(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**

The area under application is adjacent to Pechey Road, which already includes road side infrastructure, such as table drains and culverts, to prevent water erosion. Therefore, it is unlikely that the proposal will result in water erosion causing deterioration in surface water quality.

**Methodology GIS database:**

- Hydrography, linear - DOW 13/7/06

**(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 clearing as proposed is not likely to cause an increase in the incidence or intensity of flooding.

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

**Methodology GIS database:**

- Hydrographic catchments, catchments - DoW 01/06/07
- Hydrography, linear - DoW 13/7/06
- Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
- Topographic Contours, Statewide - DOLA 12/09/02

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

### Comments

West Australian Planning Commission has advised that subdivision approval for Lot 502 Jane Brook Drive is at present being finalised.

The area under application falls within an area of Aboriginal significance. The proponent has advised that Section 18 approval to disturb an aboriginal site under the Aboriginal Heritage Act 1972 has been granted.

The proposed clearing is located within an area proclaimed under the Rights in Water and Irrigation Act (Swan River and Tributaries). Department of Water has advised that if the proponent intends to interfere with or obstruct bed and banks of a watercourse a permit will be required.

Advice received from the Roadside Conservation Committee raised issues in regards to land degradation and weed control. A weed control/ dieback condition has been added to the permit to mitigate the risk weed invasion and dieback.

Advice received from the Shire of Mundaring has recommended that the proponent keep the footprint to a minimal, avoid the spread of noxious weeds and has asked that the area be rehabilitated. Conditions added to the permit should abate the first two concerns and in reference to rehabilitation a paragraph has been added to the cover letter asking thproponent to liaise with the Shire.

### Methodology

GIS database:

- Aboriginal Sites of Significance 26 April 2007
- RIWI Act, Groundwater Areas - DoW 13/07/06
- Town Planning Scheme Zones - MFP 31/08/98

- RIWI Act, Groundwater Areas - DoW 13/07/06
- Town Planning Scheme Zones - MFP 31/08/98

## 4. Assessor's comments

### Comment

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, it was found that the proposed clearing is not at variance to Principles A or E and not likely to be at variance to the remaining clearing Principles.

## 5. References

- 360 Environmental Pty Ltd (2009) Pechy Road, Swan View. Level 1 Flora and Vegetation Report, TRIM Ref: DOC110580.
- 360 Environmental Pty Ltd (2010) Email advice, TRIM Ref: DOC123458.
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, 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.
- Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment 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.
- RCC (2010). Road Conservation Committee Advice, TRIM Ref: DOC121164
- 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. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.

## 6. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now BCS)
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)
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)