



Application for a clearing permit (purpose permit)

Environmental Protection Act 1986 s 51E

FORM C2

Clearing of native vegetation is prohibited in Western Australia except where a clearing permit has been granted or an exemption applies. A person who causes or allows unauthorised clearing commits an offence.

CPS No.
6498/1
2011/6893
A877956
Date stamp

Part 1 Assessment under the EPBC bilateral agreement

The native vegetation clearing processes under Part V of the *Environmental Protection Act 1986* (EP Act) have been accredited by the Commonwealth of Australia under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and can be assessed under an assessment bilateral agreement.

To be assessed under the assessment bilateral agreement, the proposed clearing action must be referred to the Commonwealth under the EPBC Act prior to submitting this application form and Annex C7 must also be completed.

For further information see Annex C7 and *A guide to native vegetation clearing processes under the assessment bilateral agreement* available at www.der.wa.gov.au.

Do you want your proposed clearing action assessed in accordance with, or under, an EPBC Act Accredited Process such as the assessment bilateral agreement?

Yes No Proceed to Part 2

Has the proposed clearing action been referred to the Commonwealth of Australia under the EPBC Act?

Yes EPBC Number EPBC 2015/7441

No It cannot be assessed under an Accredited Process until it has been referred to the Commonwealth. Proceed to Part 2.

Has a decision been made under the EPBC Act as to whether or not the proposed clearing action is a controlled action?

Yes No Proceed to Part 2

Is the proposed clearing action a controlled action under the EPBC Act?

No It cannot be assessed under an Accredited Process, proceed to Part 2

Yes Complete and attach the requirements of Annex C7 to this completed form

List the controlling provisions identified in the notification of the controlled action decision

Annex C7 is complete and the required supporting information is attached

Part 2 Land details

The location of the land where clearing is proposed must be accurately described.

Land description: volume and folio number, lot or location number(s), Crown lease or reserve number, pastoral lease number or mining tenement number of all properties.

Various Lots Abernethy Road Byford

Lot	Lot Type	Plan/Lot Number	Lot	Lot Type	Plan/Lot Number	Lot	Lot Type	Plan/Lot Number
1	FHOLD	D009644 15	25	FHOLD	P009526 40	49	ROAD	P ROAD
2	FHOLD	D065664 2	26	FHOLD	P009526 44	50	ROAD	P ROAD
3	FHOLD	D075562 4	27	FHOLD	P009526 45	51	ROAD	P ROAD
4	FHOLD	D085188 122	28	FHOLD	P402315 9050	52	ROAD	P ROAD
5	FHOLD	D082920 5	29	FHOLD	D085188 116	53	ROAD	P ROAD
6	FHOLD	D087936 151	30	FHOLD	P009526 49	54	ROAD	P ROAD
7	FHOLD	D087936 150	31	FHOLD	D065664 1	55	ROAD	P ROAD
8	FHOLD	D095657 235	32	FHOLD	D085188 117	56	ROAD	P ROAD
9	FHOLD	D095657 234	33	FHOLD	D087936 152	57	ROAD	P ROAD
10	FHOLD	D095657 239	34	FHOLD	P009526 38	58	ROAD	P ROAD
11	FHOLD	P009526 47	35	FHOLD	P016845 23	59	ROAD	P ROAD
12	FHOLD	P009526 42	36	FHOLD	D085188 118	60	ROAD	P ROAD
13	FHOLD	P009526 39	37	FHOLD	P009526 43	61	ROAD	P ROAD
14	FHOLD	P009526 48	38	FHOLD	P073082 8001	62	ROAD	P ROAD
15	FHOLD	P009526 46	39	FHOLD	D089805 51	63	ROAD	P ROAD
16	FHOLD	P016845 22	40	FHOLD	P072610 282	64	ROAD	P ROAD
17	FHOLD	P072802 446	41	FHOLD	D085188 120	65	ROAD	P ROAD

FILE REFERENCE

Department of Environment Regulation

- 9 MAR 2015

Clearing Regulation

18	FHOLD	P073458 8006	42	FHOLD	D095657 233	66	ROAD	P ROAD
19	FHOLD	P072017 281	43	FHOLD	P401762 9047	67	ROAD	P ROAD
20	FHOLD	P401762 9051	44	FHOLD	D085188 119	68	ROAD	P ROAD
21	FHOLD	D095657 238	45	FHOLD	P074069 1153	69	ROAD	P ROAD
22	FHOLD	P009526 41	46	FHOLD	D085188 121	70	ROAD	P ROAD
23	FHOLD	P401762 9048	47	RESVE	R 51240	71	ROAD	P ROAD
24	FHOLD	D095657 232	48	RESVE	R 51161			

Local government area

Shire of Serpentine Jarrahdale

Part 3 Proposal

An aerial photograph or map with a north arrow must be attached, clearly marking the area proposed to be cleared *or* if you have the facilities, a digital map on CDROM of the area to clear as an ESRI shapefile with the following properties:

- Geometry type: polygon shape
- Coordinate system: GDA 1994 (Geographic latitude/longitude)
- Datum: GDA 1994 (Geocentric Datum of Australia 1994).

Total area of clearing proposed (hectares)

1.70 ha

Proposed method of clearing or final land use

Lopping, mechanical removal

Period within which clearing is proposed to be undertaken, e.g. May 2013 – June 2018

Clearing will be conducted on a staged basis commencing mid-2015

Purpose of clearing

Road construction

Has this clearing application or any related matter been referred to the Environmental Protection Authority (EPA) Yes No

Part 4 Applicant

To apply for a permit you must either be:

- the landowner *or*
- have the authority of the landowner to access the land and undertake the clearing.

Are you applying as an individual, a company or an incorporated body? Enter details for one only (please print).

Local government

Ownership of land

A landowner can be:

- a person who holds the Certificate of Title
- a person who is the lessee of Crown land *or*
- a public authority that is responsible for care of the land.

Form of ownership:

- Certificate of Title (please attach a copy of the certificate and all associated encumbrances with the application, available from the Western Australian Land Information Authority – Landgate)
- Pastoral lease (please attach a copy of the lease and all associated encumbrances with the application)
- Mining lease
- Public authority that has care, control or management of the land
- Other form of lease, land tenure or specific arrangement. Please state:

Our Ref: 736AB

4 March 2015



Matt Warnock
Senior Manager
Clearing Regulation
Department of Environment Regulation
Level 7, the Atrium
168 St Georges Terrace
Perth WA 6000

Dear Mr Warnock

Submission of Application for a Clearing Permit – Abernethy Road Upgrade, Byford

The Shire of Serpentine Jarrahdale proposes to upgrade Abernethy Road in Byford from two lanes to four lanes. The application area extends from between Kardan/Tourmaline Boulevard to Soldiers Road, a section approximately 2.78 kilometres (km) in length. To facilitate the widening and associated works, 1.70 ha of remnant native vegetation within the road verge will need to be cleared. Please find enclosed an application for a clearing permit (and associated documentation) required to facilitate clearing of the 1.70 ha of native vegetation.

The proposal has recently been referred to the Commonwealth Department of the Environment under the *Environment Protection and Biodiversity Conservation Act 1999*. The EPBC number received on referral is EPBC 2015/7441. Our assessment against the Matters of National Environmental Significance Guidelines suggests that the residual impact may not be significant, however if the proposal is deemed a controlled action, it is expected that the proposed action will be assessed under bilateral agreement.

Abernethy Road Upgrade, Byford, Flora, Vegetation and Fauna Report Addendum

1. Background

360 Environmental Pty Ltd (360 Environmental) was commissioned by Shire of Serpentine Jarrahdale to undertake a flora, vegetation and fauna survey of the refined alignment of Abernethy Road, Byford (the Survey Area). The purpose of the assessment was for the proposed upgrade and duplication of Abernethy Road, between the future Tonkin Highway extension and South Western Highway. The original Survey Area was approximately 20.5 hectare (ha), the refined alignment area is now 9.88 ha. The Survey Area is located approximately 33 kilometres (km) south-east of Perth, Western Australia (WA).

The Survey Area is a linear transect that runs along a 2.8 km section of Abernethy Road.

The original survey was undertaken on the 15th October 2014 (360 Environmental 2014) which included the surveying of four relevés and recording of field observations. The Survey Area was then refined in January 2015 and therefore the vegetation and condition mapping had to be updated and additional areas surveyed on 2nd February 2015.

1.2 Objective of the Survey

The primary objective of the flora, vegetation and fauna survey was to amend the results of the previous survey to reflect the updated road alignment.

2. Results

An additional relevé (R5) was surveyed within a Resource Enhancement Wetland (UFI 15713) (See Attachment A). Due to the change in the Survey Area boundary the original four relevés are no longer in the current survey boundary. The data in the relevés is still able to be used to extrapolate the vegetation along the rest of the road alignment.

2.1 Vegetation Associations

The vegetation associations present within the refined road alignment differs from the original Survey Area, See Table 1 for the updated calculations and Figures 1a and 1b.

Table 1: Vegetation Association Descriptions and Extent in the Refined Survey Area

VEGETATION ASSOCIATION CODE	DESCRIPTION	AREA (HA)
MpRc	Low Open Woodland of <i>Melaleuca preissiana</i> and <i>Actinostrobilus pyramidalis</i> over Open Shrubland of <i>Regelia ciliata</i> , <i>Jacksonia furcellata</i> , <i>Hakea sulcata</i> over Very Open Sedgeland of <i>Meeboldina cana</i> and <i>Meeboldina coangustata</i> over Grassland of <i>*Eragrostis curvula</i> , <i>Avena barbata</i> and <i>Briza maxima</i> .	No longer in the boundary of refined Survey Area
Mp	Mature isolated <i>Melaleuca preissiana</i>	0.01
Mr	Mature isolated <i>Melaleuca raphiophylla</i>	No longer in the boundary of refined Survey Area
CcXp	Open Woodland of <i>Corymbia calophylla</i> over Low open Shrubland of <i>Xanthorrhoea preissii</i> and <i>Hibbertia hypericoides</i> .	0.33
Cc	Isolated Mature trees of <i>Corymbia calophylla</i> .	0.99
Ne	Non-endemic species and/or Garden species.	0.83
As	Isolated <i>Acacia saligna</i> .	0.01
Er	Mature isolated <i>Eucalyptus rudis</i> .	0.08
CcKa	Isolated Mature <i>Corymbia calophylla</i> with <i>Kingia australis</i> .	0.06

VEGETATION ASSOCIATION CODE	DESCRIPTION	AREA (HA)
CcBa	Open woodland of <i>Corymbia calophylla</i> over Low Open Shrubland of <i>Banksia armata</i> , <i>Kingia australis</i> and <i>Hibbertia hypericoides</i> .	0.16
CcTd	Open Forest of <i>Corymbia calophylla</i> over Shrubland of <i>Thysanotus dichotomus</i> , <i>Jacksonia sternbergiana</i> , <i>Tricoryne elatior</i> , <i>Lomandra micrantha</i> and <i>Lepidosperma pubisquameum</i> .	No longer in the boundary of refined Survey Area
Cc*Wm	Woodland of <i>Corymbia calophylla</i> over * <i>Watsonia meriana</i> var. <i>bulbilifera</i>	0.03

2.2 Vegetation Condition

The original Survey Area included vegetation that ranged in condition from very Good to Completely Degraded. The reduction in the Survey Area size has excluded vegetation that ranged from Very Good to Degraded, subsequently vegetation in the refined Survey Area is now considered to be in a Completely Degraded condition (9.88 ha inclusive of road). Vegetation condition mapping is presented in Figures 2a and 2b.

2.3 Geomorphic Wetlands

The DPaW Geomorphic Wetlands Dataset identifies four wetlands as occurring within the original Survey Area (Figure 3). The refinement of the Survey Area resulted in an additional wetland being included in the Survey Area (UFI 15713). The unique identification numbers (UFI), type and management category of the wetlands occurring in the refined Survey Area are provided in Table 2.

The additional wetland (UFI 15713) is a Resource Enhancement Wetland which is in Completely Degraded condition. The portion of the wetland inside of the Survey Area is 0.02 ha and consists of only two *Corymbia calophylla* with no native understorey species (98% of the understorey was comprised of **Watsonia meriana* var. *bulbilifera*).

Table 2: Geomorphic Wetlands in the Project Area

MANAGEMENT CATEGORY	WETLAND UFI	NAME	LOCATION
Multiple Use Wetland	15797	Armadale Palusplain	Within
Multiple Use Wetland	15426	Unknown	Within

MANAGEMENT CATEGORY	WETLAND UFI	NAME	LOCATION
Multiple Use Wetland	14159	Unknown	Within
Resource Enhancement Wetland	14538	Unknown	Within
Resource Enhancement Wetland	15713	Unknown	Within

2.4 Black Cockatoo Assessment

The alteration in the Survey Area boundary, resulted in two further mature *Corymbia calophylla* being included in the Survey Area. Both of these trees were located at the outer edge of the REW (UFI 15713) (Figure 4). One of these trees had a diameter at breast height (DBH) of >500 mm and so can be considered as a potential Black Cockatoo breeding tree in accordance with the DSEWPaC (2011) *EPBC Act referral guidelines for three threatened black cockatoo species* (GPS co-ordinate: 406216 / 6434535). No hollows or any feeding evidence was recorded.

Following the alteration to the Survey Area boundary, the overall number of foraging and potential breeding trees in the Survey Area has been reduced. In the original report 70 potential breeding trees were recorded. This number has now been reduced to 52 potential breeding trees (Attachment G and Attachment H). All of these trees are considered to be foraging habitat for all three species of Black Cockatoo including Carnaby's Black Cockatoo (*Calypthohynchus latirostris*), Baudin's Black Cockatoo (*C.baudinii*) and the Forest Red-tailed Black Cockatoo (*C. banksia naso*).

3. Conclusions

The Survey Area was surveyed sufficiently and to a high standard, and as such the following conclusions can be drawn from the survey: a:

- Vegetation associations Mr, MpRc and CcTd are no longer in the Survey Area;
- An additional vegetation association was surveyed, Cc*Wm, which is within a REW;
- The vegetation association, MpRc, which was inferred as TEC FCT SCP08 - Herb rich Shrublands in clay pans in the original Survey Area is no longer in the refined Survey Area boundary;
- Two REW wetlands and three MUWs occur within the Survey Area. The two REWs consist of scattered mature trees with no native understorey; and

- The number of Black Cockatoo potential breeding and foraging habitat trees has been reduced from 69 to 52.

Site ABR05

Described by NW
 Date 2/02/2015
 Type R
 Location Adjacent to Abernethy Road
 MGA Zone 50 406216mE 6434535mN
 Habitat Woodland
 Soil Sandy Clay
 Vegetation Woodland of *Corymbia calophylla*
 over Herbland of **Watsonia*
meriana var. *bulbilifera*
 Veg Condition Completely Degraded
 Fire Age Very old



SPECIES LIST:

Name	Cover	Height
<i>Briza maxima</i>	4	35
<i>Briza minor</i>	2	30
<i>Corymbia calophylla</i>	5	1200
<i>Watsonia meriana</i> var. <i>bulbillifera</i>	98	160



LEGEND

- Survey Area
- Survey Area Addendum
- Perth Regional Ecological Linkages
- DPAW Managed Lands

Geomorphic Wetlands

- Conservation
- Resource Enhancement
- Multiple Use
- Not Assessed

DATA SOURCES

WATERWAYS DATA: DPAW
 GEOMORPHIC WETLANDS: DPAW
 ECOLOGICAL LINKAGES: WALGA 2014
 DPAW MANAGED LANDS: DPAW 2014
 AERIAL PHOTOGRAPHS: Google Earth
 © Western Australian Land Information Authority 2014

SLIP ENQUIRY

360 10 Berrymore St, West Perth, WA 6007
 100 years since 1906 until 2006
 Shire of Serpentine Jarrahdale

REVISION	DATE	BY	SCALE	PROJECT
1	14/08/2015	SLIP	AS SHOWN	758

PROJECT NUMBER: 758 DRAWING NO.: 3

Shire of Serpentine and Jarrahdale
 Abernethy Road, Byford
 Flora, Vegetation and Fauna Report Addendum

Figure 3 - Wetlands, Bush Forever, DPAW Managed Lands and Perth Regional Ecological Linkages

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LEGEND

- Survey Area
- Survey Area Addendum
- *Corymbia calophylla*
- *Eucalyptus rudis*
- *Eucalyptus wandoo*

DATA SOURCES

LOCALITY MAP LANDSCAPE 2005
 AERIAL IMAGES LANDSCAPE 2005-2014
 © 2014 Geospatial Information Authority 2014

SLIP ENABLER

360 Aerial Imagery, 3D View, Landmarks, 4000 WA
 0001 0001 0001 0001 0001 0001 0001 0001 0001 0001
 www.360aerial.com.au

Shire of Serpentine Jarrahdale

PROJECTIONS	SCALE	PROJECTION	VERT. DATUM
MAP	1:5000	MAD 2011	ASPD
PLAN	1:5000	MAD 2011	ASPD
CS	1:5000	MAD 2011	ASPD

PROJECT CS NUMBER: 758 DRAWING NO: 7

Shire of Serpentine and Jarrahdale
 Abernethy Road, Byford

Flora, Vegetation and Fauna Report Addendum

Figure 4 -
Black Cockatoo Significant Trees