



## **CLEARING PERMIT**

*Granted under section 51E of the Environmental Protection Act 1986*

### **PERMIT DETAILS**

Area Permit Number: 3739/1

File Number: 2010/003211-1

Duration of Permit: From 29 October 2010 to 29 October 2012

### **PERMIT HOLDER**

Alcoa of Australia Limited

### **LAND ON WHICH CLEARING IS TO BE DONE**

LOT 60 ON DEPOSITED PLAN 228592 (RILEY ROAD, HAMEL 6215)

### **AUTHORISED ACTIVITY**

The Permit Holder shall not clear more than 0.65 hectares of native vegetation within the area hatched yellow on attached Plan 3739/1.

### **CONDITIONS**

Nil.

Kelly Faulkner  
MANAGER  
NATIVE VEGETATION CONSERVATION BRANCH

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

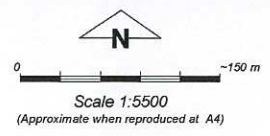
29 September 2010

# Plan 3739/1

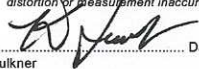


## LEGEND

-  Cadastre for labelling Clearing Instruments
-  Areas Approved to Clear
-  Local Government Authorities
-  Pinjarra 50cm Orthomosaic -

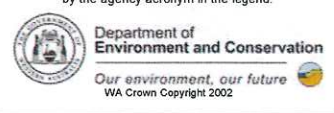


Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

 Date 29/7/20

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.





## 1. Application details

### 1.1. Permit application details

Permit application No.: 3739/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Alcoa of Australia Limited

### 1.3. Property details

Property: LOT 60 ON PLAN 228592 (RILEY ROAD, HAMEL 6215)  
Local Government Area: SHIRE OF WAROONA

### 1.4. Application

Clearing Area (ha)	Method of Clearing	For the purpose of:
0.65	Mechanical Removal	Horticulture

## 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: 968 - Medium woodland; jarrah, marri and wandoo (Hopkins et al, 2001).	The vegetation under application is approximately 0.65ha of two rows of vegetation comprising planted Eucalyptus rudis, Corymbia calophylla and non-indigenous tree species over sedges including Juncus pallidus. There is also one individual Corymbia calophylla in the south eastern corner of the property requiring removal.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	The condition of the vegetation was confirmed through photographs of the vegetation (Alcoa of Australia Limited, 2010) and through aerial photography (Pinjarra 50cm Orthomosaic - Landgate 2008).
	The vegetation is in a 'completely degraded' (Keighery, 1994) condition and was originally planted for the purposes of shelter belts for livestock (Alcoa of Australia Limited, 2010a).		
Heddle Vegetation Complex: Dardanup Complex - Mosaic of vegetation types characteristic of adjacent vegetation complexes such as Serpentine River, Southern River and Guildford (Hedde et al, 1980).	As above.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	As above.

## 3. Assessment of application against clearing principles

### Comments

The proposal to clear up to 0.65ha of native vegetation is for the purpose of the installation of market garden irrigation infrastructure. The vegetation is in a 'completely degraded' (Keighery, 1994) condition and comprises both native (*Corymbia calophylla* (Marri) and *Eucalyptus rudis* (Flooded Gum)) and non-indigenous tree species which have been planted for shelter belts over sedges, including *Juncus pallidus*, and non-native pasture grasses (Alcoa of Australia Limited, 2010a).

The applied clearing area lies within a multiple use, palusplain wetland and although the vegetation under application does comprise wetland dependant species including *Eucalyptus rudis* and *Juncus pallidus*, and therefore is at variance to principle (f), as the tree species have been planted, the clearing is unlikely to significantly impact upon the values of the wetland.

Given the 'completely degraded' (Keighery, 1994) condition of the applied clearing area and that the majority of the vegetation comprises planted native and non-indigenous tree species with regrowth sedges (*Juncus pallidus*) comprising the understorey, it is concluded that the vegetation is unlikely to comprise significant habitat for indigenous flora and fauna. Given also the small scale of the clearing and the isolated nature of the planted trees, which are not representative of mapped vegetation complexes, it is concluded that the proposed clearing is not likely to be at variance to any of the other clearing principles.

The proposed clearing area lies within the Peel Inlet - Harvey Estuary Environmental Protection Policy (EPP) Area which was created for the rehabilitation and protection of the estuary from further degradation through the reduction of nutrient enrichment of the estuary (EPA, 1992). To reduce the risk of nutrient export from the proposed market garden into the Samson Brook North Drain, which bisects the property, it is a condition of Shire planning consent that a landscaping plan for revegetation along the watercourse is to be approved by Council and implemented prior to the commencement of horticultural farming (Shire of Waroona, 2010c).

#### Methodology

##### References:

- Alcoa of Australia Limited (2010a)
- Keighery (1994)
- Shire of Waroona (2010c)

##### GIS Databases:

- EPP, Areas - DEP
- Geomorphic wetlands (Mgt categories), Swan Coastal Plain - DEC
- Heddl Vegetation Complexes - DEP
- SAC Biodatsets - Accessed 3 June 2010

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

##### Comments

Lot 60 on Plan 228592, Hamel is zoned 'Rural 2 - Irrigated agriculture' under the Town Planning Scheme and 'Rural' under the Peel Region Scheme.

The Shire of Waroona (2010a) advised in correspondence dated 25 May 2010 that they had no objections to the proposal however, planning consent was required from Council prior to the commencement of the proposed use, as intensive agriculture is an 'AA' or discretionary land use in the Rural 2 - Irrigated Agriculture zone (Shire of Waroona, 2010b). The Shire recommended that revegetation occur along the banks of the Samson Brook North Drain, which bisects the property, to help reduce the export of chemicals and nutrients used on the market garden from entering the drain which leads to the Harvey River and the Harvey Estuary (Shire of Waroona, 2010a). On the 27 July 2010, the applicant received planning consent subject to conditions including no horticultural farming is to occur within 15m of the watercourse (Samson Brook North Drain) and that a landscaping plan for revegetation along the watercourse is to be approved by Council and implemented prior to the commencement of horticultural farming (Shire of Waroona, 2010c).

A submission was received on the 25 May 2010 expressing concerns as to the potential for modification or filling in of the existing drain as part of the proposal which in turn could prevent surface water run-off onto neighbouring lands (Submission, 2010). The submission also recommended the revegetation of at least the same or a larger area of native vegetation at a nearby location within 12 months to mitigate the loss of the vegetation (Submission, 2010). The Samson Brook North Drain has been fenced, with the proposed horticultural areas and associated infrastructure to occur in the two separate paddocks and therefore the drain will not be modified for the proposal.

The proposed clearing area lies within the Peel Inlet - Harvey Estuary Environmental Protection Policy (EPP) Area which was created for the rehabilitation and protection of the estuary from further degradation through the reduction of nutrient enrichment of the estuary (EPA, 1992). Due to the small scale of the proposed clearing and the 'completely degraded' (Keighery, 1994) condition of the vegetation under application, it is unlikely that the clearing itself will result in significant amounts of nutrient leaching into the catchment.

The proposed clearing is related to the end land use of expansion of a market garden. It is likely that the application of fertilisers on the property could result in the leaching of nutrients into the Samson Brook North Drain. This is a relevant matter for consideration and information on the management of nutrient loss from the proposed market garden expansion was requested of the applicant on the 22 June 2010. The leasee and applicant have advised that an area of 0.65ha of native vegetation will be planted along the Samson Brook North Drain, a 15m buffer outside the stock exclusion fence will not be used for horticultural purposes as per Shire planning consent and soil testing and soil moisture probes will be used to ensure that appropriate application of fertilisers and water will be applied to reduce potential excess run-off and leaching (Alcoa of Australia, 2010c & B.J. Melons, 2010).

The property lies within the Murray Groundwater Area and the Waroona Irrigation District managed under the Rights in Water and Irrigation Act 1914 administered by the Department of Water. The applicant has advised that a water entitlement exists for use on the property which can be used as part of the lease agreement with the leasee for the proposed market garden expansion (Alcoa of Australia Limited, 2010b). In addition, the leasee has advised that the business has available water allocations within four share certificates issued by Harvey Water - South West Irrigation Asset Cooperative Limited for use on the property (B.J. Melons, 2010 & Alcoa of Australia Limited, 2010c).

- Methodology**    **References:**
- Alcoa of Australia Limited (2010b)
  - Alcoa of Australia (2010c)
  - B.J. Melons (2010)
  - EPA (1992)
  - Keighery (1994)
  - Shire of Waroona (2010a)
  - Shire of Waroona (2010b)
  - Shire of Waroona (2010c)
  - Submission (2010)
- GIS Databases:
- EPP, Areas - DEP
  - Hydrography, linear - DoW
  - Hydrography, linear (hierarchy) - DoW
  - Peel Region Scheme - DPI
  - RiWI Act, Groundwater Areas - DoW
  - RiWI Act, Irrigation Districts - DoW
  - Town Planning Scheme Zones - MFP

#### 4. References

- Alcoa of Australia Limited (2010a) Application for a clearing permit (area permit) and supporting documentation for Lot 60 McClure Road, Hamel. Alcoa of Australia Limited, Waroona, Western Australia. DEC ref A302983.
- Alcoa of Australia Limited (2010b) Email correspondence: Advice to Department of Environment and Conservation on proposed lease arrangement and water entitlements. Alcoa of Australia, Waroona. DEC ref A308266.
- Alcoa of Australia Limited (2010c) Response to Department of Environment and Conservation Correspondence dated 22 June 2010 - Nutrient Management Plan and Shire Planning Consent. Alcoa of Australia, Waroona, Western Australia. DEC ref A335542.
- B.J. Melons (2010) Nutrient Management Plan for Application to Clear Native Vegetation under the Environmental Protection Act 1986 (CPS 3739/1). B.J. Melons, Waroona, Western Australia. DEC ref A335542.
- EPA (1992) Environmental Protection (Peel Inlet-Harvey Estuary) Policy 1992. Western Australian Government Gazette, 11 December, 1992, pp 1-9.
- 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.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Shire of Waroona (2010a) Direct Interest Submission for Application to Clear Native Vegetation - Environmental Protection Act 1986, Lot 60 Riley Road, Hamel. Shire of Waroona, Waroona, Western Australia. DEC ref A306953.
- Shire of Waroona (2010b) Email Correspondence: Requirement for Planning Consent - Application to Clear Native Vegetation from Lot 60 on Deposited Plan 228592, Hamel. Shire of Waroona, Waroona, Western Australia. DEC ref A308827.
- Shire of Waroona (2010c) Town Planning Scheme No. 7 - Decision on Application for Council's Planning Consent: Lot 60 (57) Riley Road, Hamel WA 6215. Shire of Waroona, Waroona, Western Australia. DEC ref A335542.
- Submission (2010) Application to Clear Native Vegetation - CPS 3739/1. DEC ref A306787.

#### 5. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now DEC)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DoW	Department of Water
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
MFP	Ministry for Planning
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DoW)