



## CLEARING PERMIT

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

<b>Purpose permit number:</b>	CPS 2577/1
<b>Permit holder:</b>	Forest Products Commission
<b>Duration of permit:</b>	18 January 2009 – 18 January 2014

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 plantation establishment.

**2. 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.

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

ESPERANCE LOCATION 679 (CROWN RESERVE 23527, GIBSON 6448)

**4. Area of Clearing**

The permit holder must not clear more than 50 hectares of native vegetation within the area hatched yellow on attached Plan 2577/1.

**5. Clearing not authorised**

This Permit does not authorise the Permit Holder to clear *Nuytsia floribunda* (Christmas tree).

**6. 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

**7. 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.

## 8. Weed and Dieback

- (a) When undertaking any clearing, the Permit Holder must take the following steps to minimise the risk of introduction and spread of *dieback*:
- (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
  - (ii) avoid the movement of soil in wet conditions;
  - (iii) ensure that no *dieback*-affected *mulches* or *fill* are brought into an area that is not affected by *dieback*; and
  - (iv) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.
- (b) When undertaking any clearing or other activity pursuant to this Permit the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds*:
- (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
  - (ii) ensure that no *weed*-affected *mulch*, *fill* or other material is brought into the area to be cleared; and
  - (iii) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.
- (c) At least once in each 12 month period for the term of this Permit, the Permit Holder must remove or kill *weeds* growing within areas cleared under this Permit

## PART III - RECORD KEEPING AND REPORTING

### 9. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit in relation to the clearing of native vegetation authorised under this Permit:

- (a) the species composition, structure and density of the cleared area;
- (b) 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;
- (c) the date that the area was cleared; and
- (d) the size of the area cleared (in hectares).

### 10. Reporting

- (a) The Permit Holder must provide to the CEO, on or before 30 June of each year, a written report of records required under condition 9 of this Permit and activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.
- (b) Prior to 18 October 2008, the Permit Holder must provide to the CEO a written report of records required under condition 9 of this Permit where these records have not already been provided under condition 10(a) of this Permit.

### Definitions

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

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

*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* 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 Agricultural and Related Resources Protection Act 1976.



---

Keith Claymore  
A/ DIRECTOR  
NATURE CONSERVATION DIVISION

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

18 December 2008

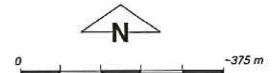
# Plan 2577/1



## LEGEND

- Clearing Instruments
- Areas Approved to Clear
- Road Centrelines
- Cadastral

Esperance 1.4m Orthomosaic - Landgate 2002



Scale 1:13234  
(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.

*K Claymore* Date 18/1/08

K Claymore

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

WA Crown Copyright 2002





**1. Application details**

**1.1. Permit application details**

Permit application No.: 2577/1  
 Permit type: Purpose Permit

**1.2. Proponent details**

Proponent's name: Forest Products Commission (FPC)

**1.3. Property details**

Property: ESPERANCE LOCATION 679 ( GIBSON 6448)  
 Local Government Area: Shire Of Esperance  
 Colloquial name:

**1.4. Application**

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
50		Mechanical Removal	Plantation

**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
Pre European Vegetation Association 6048: Shrublands; banksia scrub-heath on sandplain in the Esperance Plains Region	The vegetation proposed to be cleared was previously grazed and has been left untouched to regrow. The land is covered with veldt grass, the occasional <i>Nuytsia floribundia</i> , self sown <i>Pinus radiata</i> and the occasional sparse self sown <i>Acacia cyclops</i> and <i>Adenanthos cuneatus</i> (DEC, 2008).  The majority of vegetation proposed to be cleared was recorded as being in degraded (Keighery 1994) condition.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Condition of the vegetation was assessed through a site visit (DEC, 2008) and aerial photography.

**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**

The application is to clear 50 hectares for establishing a Sandalwood plantation in regrowth area of Helm's Forestry Reserve. The vegetation proposed to be cleared was previously grazed and has been left untouched to regrow. The land is covered with veldt grass and other weeds, the occasional *Nuytsia floribundia*, self sown *Pinus radiata* and the occasional sparse self sown *Acacia cyclops* and *Adenanthos cuneatus* (DEC, 2008). *Nuytsia floribundia* specimens will be left untouched (DEC, 2008). The majority of vegetation proposed to be cleared was recorded as being in degraded (Keighery 1994) condition.

The data suggests that the Shire and Bioregion are reasonably well vegetated. Though, only 15.5% of 6048 vegetation complex (Shrublands; banksia scrub-heath on sandplain in the Esperance Plains Region) remains. The property is with the EPA Position Statement No. 2 (2000) agricultural area that has been extensively cleared. The position statement does not support broad scale clearing, such as proposed in this application.

The application area falls within the boundary of a priority ecological community (scrub heath on Esperance Sandplain heath on deep sand with *Banksia* and *Lambertia*, and *Banksia* scrub heath on sandplain. While Helm's Timber Reserve lies within a PEC the area proposed to be cleared will not impact upon this listing (DEC, 2008).

Given the application area has been previously cleared and contains numerous weeds it is unlikely that it is representative of vegetation complex 6048. Weed and dieback conditions will be placed on the permit to minimise the effects the clearing will have on biodiversity within Helm's Arboretum.

**Methodology** DEC (2008)  
Keighery (1994)  
EPA (2000)  
GIS database:  
- CALM Managed Lands and Waters - CALM 01/06/05  
- Esperance 1.4m Orthomosaic - DOLA 02  
- SAC Biodatasets - accessed 18 Sep 08

**(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**  
There were no observations of fauna within the application area during a site visit (DEC, 2008), though the site is occasionally used by Kangaroos, no evidence of fauna habitat were observed (DEC, 2008).

One species of conservation significance was recorded 1km northwest of the application area. The Hooded Plover (*Thinornis rubricollis tregellasi*) favours wetland (inland) - permanent freshwater lakes (over 8ha), wetlands (inland) - permanent freshwater marshes/ pools (under 8ha) and marine coastal/ supratidal - coastal brackish/ saline lagoons/ marine lakes (BirdLife International 2007). The closest wetland system (Suite sixteen) is located 900m north of the application area and is more likely to be used by Hooded plovers than the proposed clearing area.

Given the vegetation under application is regrowth native and non-native species in a degraded (Keighery, 1994) condition, it is unlikely that the 50 hectares is significant habitat for fauna.

**Methodology** BirdLife International (2007)  
DEC (2008)  
Keighery (1994)  
  
GIS database:  
- CALM Managed Lands and Waters - CALM 01/06/05  
- Esperance 1.4m Orthomosaic - DOLA 02  
- Ramsar wetlands - DEC 03  
- SAC Biodatasets - accessed 18 Sep 08

**(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**  
Within the local area (5km radius) there are no known records of rare flora. Additionally, no rare flora species were recorded during the site visit (DEC, 2008).

Given the application area was previously cleared and used for grazing it is unlikely that the vegetation under assessment is necessary for the continued existence of rare flora.

**Methodology** DEC(2008)  
GIS database:  
- Esperance 1.4m Orthomosaic - DOLA 02  
- Pre European Vegetation - DA 01/01  
- SAC Biodatasets - accessed 18 Sep 08  
- 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 records of threatened ecological communities within the local area (5km radius). Therefore, it is unlikely to be at variance to this principle.

**Methodology** DEC (2008)  
GIS Database:  
- Esperance 1.4m Orthomosaic - DOLA 02  
- SAC Biodatasets - accessed 18 Sep 08

**(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 not likely to be at variance to this Principle**

The property in question has approximately 32.5 ha (47%) of native vegetation remaining on the property. After the proposed clearing there will be 14.5 (21%) of vegetation remaining. There is 25% of vegetation remaining in the local area (10km radius).

	Pre-European (ha)	Current extent (ha)	Remaining (%)
IBRA Bioregions* Esperance Plains <sup>^</sup>	2 899 949	1 482 950	51.1
Shire* Esperance	4 242 884	3 011 033	71
Beard Vegetation Complex* 6048	114,135	17,649	15.5

\* (Shepherd et al. 2007)

<sup>^</sup> Area within Intensive Land Use Zone

Beard Vegetation Complex 6048 is described as shrublands of banksia scrub-heath on sandplain. The 50 hectares vegetation to be cleared has been previously cleared and grazed, and left to regenerate. This has led to regrowth of native and non-native species, especially weed species veldt grass. Given this, it is unlikely that the vegetation under application is representative of complex 6048.

The majority of vegetation proposed to be cleared was recorded as being in degraded (Keighery 1994) condition.

The data suggests that the Shire and Bioregion are also reasonably well vegetated. Although the local area vegetation remaining is low, the application area has been previously cleared and vegetation within is considered to be in a degraded (Keighery, 1994) condition. The purpose of clearing is a plantation of native Sandalwood species with other native species as hosts. Given this, clearing is not likely to be at variance to this principle.

This vegetation is situated within the Helms Forestry Reserve and is surrounded by dense vegetation. The clearing of 50 hectares for a Sandalwood plantation is not likely to adversely impact on the connectivity of vegetation in the local area (5km radius).

Although the application area is within an intensive land use zone as the vegetation is in a degraded (Keighery, 1994) condition and clearing will not effect vegetative connectivity it is unlikely that the proposal is at variance to this Principle.

**Methodology**

EPA (2000)  
Shepherd (2007)  
Keighery (1994)  
GIS Databases:  
- Esperance 1.4m Orthomosaic - DOLA 02  
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00  
- Local Government Authorities - DLI 8/07/04  
- Pre European Vegetation - DA 01/01  
- SAC Biodatasets - accessed 18 Sep 08

**(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 is one wetland located 900m north of the application area. Suite sixteen is an intermittent saline lake system, important for maintenance of ecological processes. It is in good condition and requires little anthropological intervention (ANRA, 2008). There is no riparian vegetation associated with this wetland within the application area.

As the vegetation with the application area is already in a degraded (Keighery, 1994) condition and consists of only sparse individual self sown endemic species, it is unlikely that clearing of native vegetation within the proposed area will be at variance to this principle.

**Methodology ARNA (2008)**

DEC (2008)

Keighery (1994)

GIS Databases:

- ANCA wetlands - Environment Australia 26/3/99
- CALM Managed Lands and Waters - CALM 01/06/05
- Esperance 1.4m Orthomosaic - DOLA 02
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06
- Ramsar wetlands - DEC 03
- Register of National Estate - Environment Australia, Australian and world heritage division 12 Mar 02

**(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 Bandy Creek, Esperance coast catchment (of which this application is a part) is highly cleared (~75%). The groundwater salinity is mapped at 3000 to 7000 TDS/mg/L. The annual rainfall is 600mm and evaporation is 1800mm. The area under application is low lying and flat, containing low regrowth vegetation (predominately of veldt grass) with shallow root systems. The clearing of this vegetation is for a Sandalwood plantation, which may require the use of phosphorus fertiliser and therefore, incrementally contribute to the high salinity levels already affecting the area.

The soil type mapped for the property is Xd1 which is described as sandy neutral yellow mottled soils (Northcote, 1960-68), therefore there is minimal chance of waterlogging. Short term localised inundation has been previously observed in a few small pockets within the areas - this may be attributed to water repellent soils, and a lack of depth to the clay layer below (DEC, 2008).

As the vegetation proposed to be cleared occurs on sands there is a risk of wind erosion following clearing. Though as the application area is buffered on three sides by the Helms Forestry Reserve and Arboretum, risk is minimal.

Given the above, it is unlikely that the proposal is at variance to this principle.

**Methodology**

DEC (2008)

Northcote et al. (1960-1968)

GIS database:

- Annual Evaporation Contours (Isopleths) - WRC 29/09/98
- Average Annual Rainfall Isohyets - WRC 29/09/98
- Esperance 1.4m Orthomosaic - DOLA 02
- Hydrographic catchments, catchments - DoW 01/06/07
- Hydrographic catchments, subcatchments - DoW 01/06/07
- Hydrography, linear - DOW 13/7/06
- Salinity Risk LM 25m - DOLA 00
- Topographic contours statewide - DOLA and ARMY 12/09/02
- 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 may be at variance to this Principle**

The application area is situated within the Helm's Forestry Reserve and 900m south of the Suite Sixteen wetland system.

The immediate area to the north and south forms part of Helms Arboretum which is planted with local and exotic species. The adjacent property to the east is private property, cleared agricultural grazing land and to the west is remnant Esperance sandplain vegetation which covers and comprises most of the vegetation found within Helms Forestry Reserve (DEC, 2008). Regional advice (DEC, 2008) states that the vegetation within the application area is of a high environmental concern. This is due to the presence of grasses and an increasing number of weed species. It also is a fire hazard to the adjoining arboretum.

Wetlands that are to be conserved require a buffer to protect them from potential adverse impacts, and are a minimum of 50m (DEC, SC, 2008), as suite sixteen is 900m from the proposed clearing site, it falls outside this buffer requirement.

This vegetation is situated within the Helm's forestry reserve and is surrounded by dense vegetation. The clearing of 50 hectares for a Sandalwood plantation is not likely to adversely impact on the connectivity of vegetation in the local area (5km radius).

Weed and Dieback conditions will be placed on the permit to protect the conservation level of Helms Forestry



Reserve.

- Methodology** DEC (2008)  
DEC, SC (2008)  
GIS Databases:  
- ANCA wetlands - Environment Australia 26/3/99  
- CALM Managed Lands and Waters - CALM 01/06/05  
- Esperance 1.4cm Orthomosaic - DOLA 02  
- Ramsar wetlands - DEC 03  
- 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

**(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 may be at variance to this Principle**

The Bandy Creek, Esperance coast catchment (of which this application is a part) is highly cleared (~75%). The groundwater salinity is mapped at 3000 to 7000 TDS/mg/L. The annual rainfall is 600mm and evaporation is 1800mm. The area under application is low lying and flat. The property is mapped at having a high salinity risk. This is likely to occur in the low lying areas, containing low regrowth vegetation (predominately of veldt grass) with shallow root systems. The clearing of this vegetation is for a Sandalwood plantation, which may require the use of phosphorus fertiliser and therefore, incrementally contribute to the high groundwater salinity levels already affecting the area.

The application area is 900m from surface water, which is located to the north. The wetland is buffered from the proposed clearing area by Helms Arboretum.

The application may be at variance to this principle.

- Methodology** DEC (2008)

GIS database:  
- Annual Evaporation Contours (Isopleths) - WRC 29/09/98  
- Average Annual Rainfall Isohyets - WRC 29/09/98  
- Esperance Townsite 20cm Orthomosaic - Landgate 07  
- Hydrographic catchments, catchments - DoW 01/06/07  
- Hydrographic catchments, subcatchments - DoW 01/06/07  
- Salinity Risk LM 25m - DOLA 00  
- Soils, Statewide DA 11/99

**(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 soil type mapped for the property is Xd1 which is described as sandy neutral yellow mottled soils (Northcote, 1960-68), therefore there is minimal chance of waterlogging. Short term localised inundation has been previously observed in a few small pockets within the areas - this may be attributed to water repellent soils, and a lack of depth to the clay layer below (DEC, 2008).

Given the dense vegetation surrounding the application area it is unlikely that the clearing of 50 hectares of regrowth and shallow rooted vegetation will cause or exacerbate the incidence of flooding.

- Methodology** DEC (2008)  
GIS database:  
- Esperance 1.4m Orthomosaic - DOLA 02  
- Topographic Contours, Statewide - DOLA 12/09/02

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

**Comments**

The proponent has received Development approval from the Shire of Esperance (DOC70353).

The property is currently zoned for Parks and Recreation (CRN160452).

Helms Forestry Reserve (23527) is vested in the Conservator of the Forests. Department of Environment Esperance have no objections to the clearing of native vegetation within the 50 hectares applied for or with the plan to establish a sandalwood plantation (DEC TRIM Ref: DO56831).

- Methodology** GIS database:  
- Environmental Impact Assessments - EPA 22/2/07

## 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, and the proposed clearing may be at variance to Principle (h) and is not likely to be at variance to the remaining clearing Principles.

## 5. References

- ARNA (2008) Australian Natural Resource Atlas. Downloaded from <http://www.anra.gov.au> on 22/9/2008
- BirdLife International (2007) Species factsheet: *Calyptorhynchus latirostris*. Downloaded from <http://www.birdlife.org> on 18/3/2008
- DEC (2008) Site Inspection Report for Clearing Permit Application CPS 2577/1, Part of Eperance Location 619, being part of Helms Timber Reserve 23527. Site inspection undertaken 30/08/2008. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC58564).
- DEC, SC (2008). Standard Wetlands Advice for Native Vegetation Conservation Branch. Department of Environment and Conservation, Species and Communities Branch dated 17 July 2008.
- 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.
- 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. (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
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 DEC)