



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

| | |
|-------------------------------|-----------------------------------|
| Purpose permit number: | CPS 2802/1 |
| Permit holder: | Richard Firth Walker |
| Duration of permit: | 18 January 2009 – 18 January 2018 |

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 *thinning* and grazing.

2. Land on which clearing is to be done

LOT 1731 ON PLAN 123504 (WILGA WEST 6243)

3. Area of Clearing

- The permit holder must not clear more than 260 hectares of native vegetation for the purpose of *thinning* within the area hatched red on attached Plan 2802/1.
- The Permit holder must not clear more than 22 hectares of native vegetation for the purpose of grazing within the area hatched yellow on attached Plan 2802/1.

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. Type of Clearing Authorised

The Permit Holder may undertake the following activities:

- (a) clearing of *understorey* within the areas cross-hatched red on Plan 2802/1;
- (b) *thinning* of Jarrah (*Eucalyptus marginata*), Blackbutt (*Eucalyptus patens*) and Marri (*Corymbia calophylla*) trees;
- (c) *culling* of unsaleable trees;
- (d) burning of cleared *understorey* and *culled* trees; and
- (e) clearing of up to 22 hectares for the purpose of grazing within the area hatched yellow on Plan 2802/1.

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:

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

8. Dieback and weed control

- (a) 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* and *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* or *weed*-affected soil, or other material is brought into the area to be cleared; and
 - (iv) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.
- (b) At least once in each 12 month period for the *term* of this Permit, the Permit Holder must remove or kill any *weeds* growing within areas cleared under this Permit.

9. Watercourse management

The Permit Holder shall not clear *native vegetation* within 30 metres of the *riparian vegetation* of any first order *watercourse* within the area cross-hatched yellow on Plan 2802/1.

10. Vegetation management

- (a) Prior to clearing of *native vegetation* authorised under this Permit within the area cross hatched red on Plan 2802/1, an *environmental specialist* must determine the species composition, structure and density of the *understorey* of areas proposed to be *thinned*.
- (b) A minimum retention rate of 15m²/ha *basal area* is required within the area authorised under this Permit cross hatched red on Plan 2802/1.
- (c) Prior to clearing of *native vegetation* authorised under this Permit cross hatched red on Plan 2802/1, the Permit Holder must exclude all *stock* from the areas subject to *thinning* activities.

- (d) Within twelve months of completing clearing of *native vegetation* authorised under this Permit cross hatched red on Plan 2802/1, the Permit Holder must:
- (i) determine the species composition, structure and density of the *understorey* of areas subject to *thinning*; and
 - (ii) where, in the opinion of an *environmental specialist*, there is evidence that *understorey* will not recover and develop towards its pre-clearing composition, structure and density determined under condition 10(d)(i), the Permit Holder must undertake *remedial action* at an *optimal time* within the next 12 months to ensure re-establishment of *understorey* prior to expiry of this Permit.

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, as relevant:

In relation to vegetation management pursuant to condition 10 of this Permit:

- (a) prior to clearing native vegetation authorised under this Permit, the species composition, structure and density of *understorey*;
- (b) monitoring undertaken to ensure that the specified minimum *basal area* is retained;
- (c) photographs of the *understorey* taken at 12 months, two years and three years after completing clearing authorised under this Permit; and
- (d) a detailed description of the nature and extent of any *remedial actions* undertaken.

12. 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 11 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 November 2017, 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:

basal area is the method of expression of tree cover density in an area where the total area of tree trunk, measured at average adult human breast height, is expressed as square metres per hectares of land area;

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

environmental specialist means a person who is engaged by the Permit Holder for the purpose of providing environmental advice, 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;

riparian vegetation has the meaning given to it in Regulation 3 of the Environmental Protection (Clearing of Native Vegetation) Regulations 2004;

stock means the horses, cattle, sheep, pigs and other non-indigenous grazing animals kept or bred on a property;

term means the duration of this Permit, including as amended or renewed;

thinned/ing describes a silvicultural activity to promote the growth of selected trees by removing competing trees;

understorey means, for the purpose of this Permit, all *native vegetation* that does not include trees to be *culled* or subject to harvest;

watercourse has the same meaning as it has in the *Rights in Water and Irrigation Act 1914*;

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 Agricultural and Related Resources Protection Act 1976; and

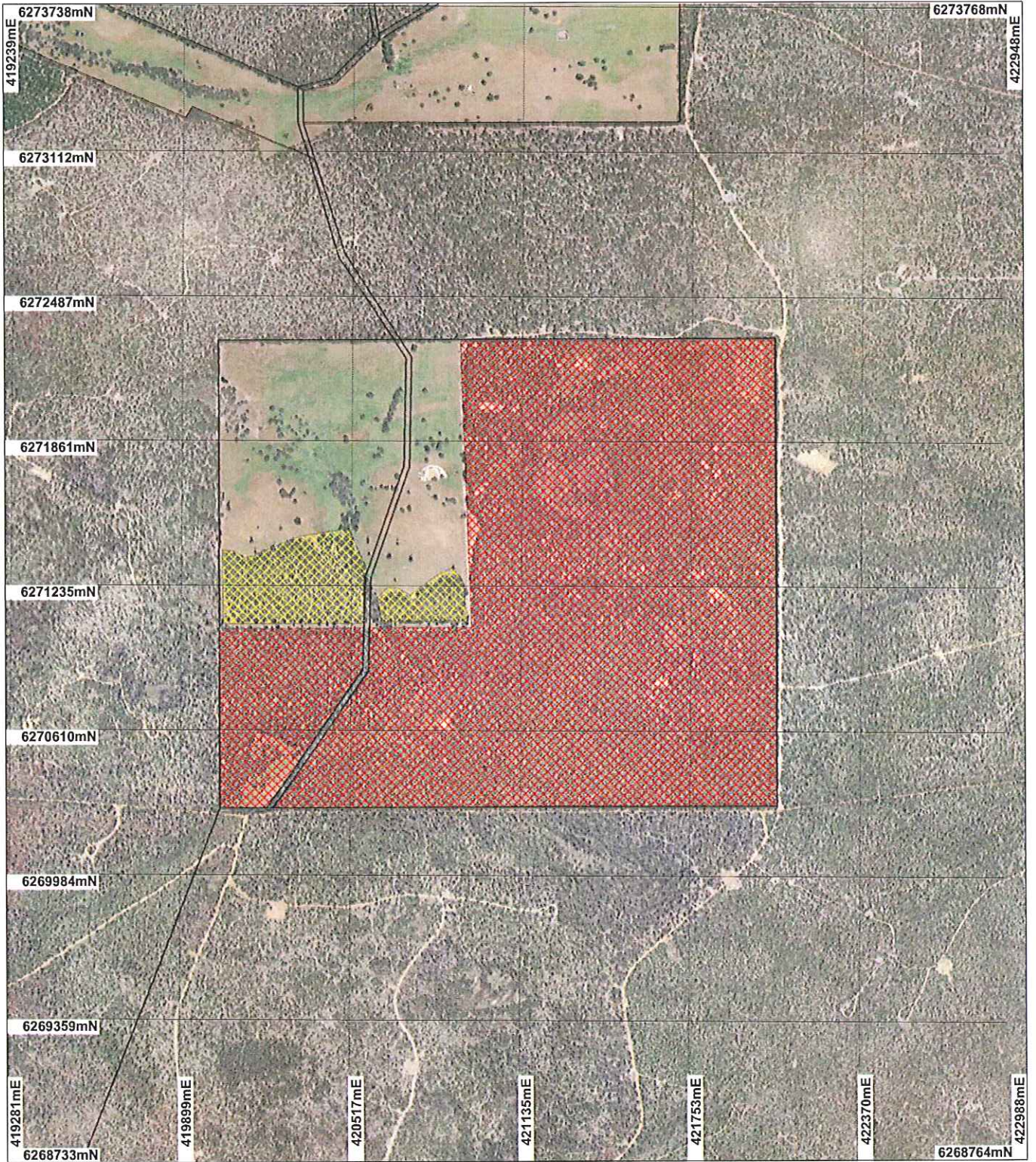


Keith Claymore
A / DIRECTOR
NATURE CONSERVATION DIVISION

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

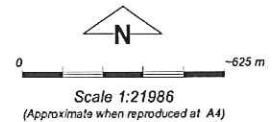
18 December 2008

Plan 2802/1



LEGEND

- Clearing Instruments
- Cadastre
- Bridgetown 60cm
- Orthomosaic - Landaote



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 *8/2/08*
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

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1. Application details

1.1. Permit application details

Permit application No.: 2802/1
 Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Richard Firth Walker

1.3. Property details

Property: LOT 1731 ON PLAN 123504 (WILGA WEST 6243)
 LOT 1731 ON PLAN 123504 (WILGA WEST 6243)
 LOT 1731 ON PLAN 123504 (WILGA WEST 6243)
 LOT 1731 ON PLAN 123504 (WILGA WEST 6243)
 Local Government Area: Shire Of Donnybrook-Balingup
 Colloquial name:

1.4. Application

| | | | |
|--------------------|-----------|--------------------|---------------------|
| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
| 282 | | Mechanical Removal | Timber Harvesting |

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 (3): Medium forest; jarrah-marri Shepherd et al. (2001) | It is proposed to selectively clear and thin 282ha of native vegetation. The proponent intends to clear 22ha of native vegetation for the purpose of grazing. | Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994) | The area under application has been described from aerial imagery. |
| Mattiske Vegetation Association (CC1), (D1) & (WG): Catterick (CC1) is described as open forest of Eucalyptus marginata subsp. marginata-Corymbia calophylla mixed with Eucalyptus patens on slopes, Eucalyptus rudis and Banksia littoralis on valley floors in the humid zone. Dwellingup (D1) is described as open forest of Eucalyptus marginata subsp. marginata-Corymbia calophylla on lateritic uplands in mainly humid and subhumid zones. Wilga (WG) is described as woodland of Eucalyptus marginata subsp. marginata-Corymbia calophylla on sandy-gravels on low divides in the subhumid zone. Mattiske Consulting (1998) | The vegetation under application is considered to be in a very good (Keighery, 1994) condition, with obvious signs of disturbance. | | |
| Hedde Vegetation Complex (Catterick Complex & Dwellingup and | | | |

Hester Complex)

No information.

As above

The proponent intend to clear 260ha for the purpose of silviculture. The vegetation under application is considered to be in an excellent (Keighery 1994) condition, with little to no weed disturbance. The area under application consists of dense under storey, with good quality Jarrah/marri trees.

Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)

As above.

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 proponent intends to clear 22ha of native vegetation for the purpose of grazing. The area is considered to be in a very good (Keighery, 1994) condition. The proponent additionally proposes to selectively thin 260ha of Jarrah/marri forest; the area is described as being in excellent (Keighery 1994) condition, with little to no weed disturbance. The area under application consists of dense under storey, with good quality Jarrah/marri trees.

There two records of priority flora species recorded within the local area (10km radius), however these species are primarily associated with different soil (Northcote, 1968) and vegetation types.

The proposed clearing of the applied area is not likely to be at variance to this Principle as the vegetation is well represented in the local area (90% remnant vegetation) and 260 ha involves thinning only.

Methodology Keighery (1994)
Northcote et al. (1968)
GIS Database:
- Bridgetown 50cm ORTHOMOSIAC - Landgate04
- CALM Managed Lands and Waters - CALM 01/06/05
- DEFL, SAC Biodataset (6/11/08)
- TEC Database, SAC Biodatasets - accessed 6/11/08

(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 may be at variance to this Principle**

Within the local area (10km radius from the proposed clearing) there is 1 record of threatened fauna and 2 records of priority species.

The proposal is to clear 282ha of native vegetation, with 260 ha of this vegetation being in an excellent (Keighery, 1994) condition. This vegetation provides a significant habitat for fauna; therefore the proposed clearing may be at variance with this principle. To mitigate any potential impacts on fauna habitats within the area to be thinned a minimum retention rate of 15m²/ha basal area for trees will be a condition of the permit.

Methodology GIS Database:
- Bridgetown 50cm ORTHOMOSIAC - Landgate04
- CALM Managed Lands and Waters - CALM 01/06/05
- Threatened Fauna, SAC Bio Dataset (6/11/08)

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

Comments **Proposal is not at variance to this Principle**

There is no known rare flora (DRF) within a 10km radius of the proposed clearing site. Therefore is not at variance to this principle.

Methodology GIS Database:
- Bridgetown 50cm ORTHOMOSIAC - Landgate04
- DEFL, SAC Bio Dataset (6/11/08)

(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 at variance to this Principle

There are no known Threatened Ecological Communities (TEC) within a 10km radius of the proposed clearing site. Therefore is not at variance to this principle.

Methodology GIS Database:
- Bridgetown 50cm ORTHOMOSIAC - Landgate04
- TEC Database, SAC Biodatasets - accessed 29/10/08

(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 area under application is located in the Jarrah Forest Bioregion and is in the Shire of Donnybrook-Balingup. The extent of Jarrah Forest is 54.16%. The extent of the pre-European vegetation (3) is 70.03% (Shepherd et al. 2001) and within the Shire of Donnybrook-Balingup is 58.44% (Shepherd et al. 2001). The extent of the Mattiske Vegetation Complex, Wilga (WG) is 71.5%, Dwellingup (DI) is 93% and Catterick (CCI) is 70.1%. Beard and Mattiske vegetation has not been extensively cleared within this region, and is higher than the desirable 30% threshold level target identified by the EPA (2000).

The local area (10km radius) is approximately 90% vegetated and 95% of the native vegetation is managed by DEC. Due to the amount of surrounding vegetation present, the proposed clearing is not likely to be at variance to this principle.

Methodology EPA (2000)
Mattiske Consulting (1998)
Shepherd (2006)
Shepherd et al. (2001)
GIS Database:
- Bridgetown 50cm ORTHOMOSIAC - Landgate04
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Mattiske Vegetation (01/03/1998)
- Pre European Vegetation, SAC Bio Dataset (6/11/08)

(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 at variance to this Principle

There are a few perennial watercourses (first order streams) which run through the area under application.

The area under application is in association with watercourses and therefore is at variance to this principle. A 30m buffer (WRC, 1996; DoW, 2005) will be placed on the permit to mitigate any impacts on watercourses and riparian vegetation.

Methodology GIS Database:
- Country Area Water Supply Act (Part IIA) Clearing Control Catchments 29/06/2006
- Hydrography linear (hierarchy) - DoW 13/7/06

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments Proposal may be at variance to this Principle

The topography of the site is between 240 to 270m AHD (Australian Height Datum). The soil type is described as, ironstone gravels with sandy and earthy matrices; soils blanket the slopes and ridges extending down into the upper ends of the minor valleys. They overlie duricrusts comprising recemented ironstone gravels, and/or vesicular laterite, and/or mottled-zone and/or pallid-zone material. Some soils containing ironstone gravels in the surface horizons may occur on some of the steeper slopes. Yellow loams soils, all overlying pallid-zone clays and/or ironstone gravels at shallow depths (12-18 in.), occupy the swampy valley floors. Gravelly yellow earths are found downslope from granite bosses (Northcote et al. 1960-68).

The mean annual rainfall is 900mm per annum and the evapotranspiration rate is 700mm. Given the high rainfall and high relief in topography, water erosion and water logging is likely to occur on the site (grazing and pasture area). However, in the silvicultural area, the proposal is for thinning a proportion of vegetation will remain after clearing making erosion unlikely to occur.

The groundwater salinity is 500-1000mg/L (low salinity risk). Given the catchment area has not been highly cleared salinity is not considered a risk. In addition to this a portion of ground-cover and understorey will remain

on the silvicultural applied area it is not likely that the clearing as proposed will cause appreciable land degradation in the silvicultural area. However as water logging and water erosion is likely to occur within the pasture and grazing area the clearing may be at variance to this principle.

Methodology Northcote et al. (1968)
GIS Database:
- Country Area Water Supply Act (Part IIA) Clearing Control Catchments 29/06/2006
- Evapotranspiration Isopleths - WRC 29/09/98
- Groundwater Salinity Statewide DoW 13/07/06
- Hydrographic catchments, catchments - DoW 01/06/07
- Hydrogeology, statewide DOW 13/07/06
- Mean Annual Rainfall Isohytes (1975 - 2003) DEC 02/08/05
- Topographic Contours, Statewide - DOLA 12/09/02

(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 proposed clearing is surrounded by the Wilga State Forest.

The local area (10km radius) is approximately 90% vegetated and 95% of the native vegetation is managed by DEC. The area under application is within a dieback risk area and is surrounded by State Forest. Therefore, there is a risk of the phytophthora disease spreading. Additionally, there is a risk of weeds spreading into the State Forest via the clearing disturbance. Dieback and weed conditions will be placed on the Permit to mitigate these potential impacts. The proposed clearing is not likely to be at variance to any of the principles.

Methodology GIS Databases:
- Bridgetown 50cm ORTHOMOSIAC - Landgate04
- CALM Managed Lands and Waters - CALM 01/06/05

(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 at variance to this Principle**

There are a few perennial watercourses (first order streams) which run through the application area. The streams are first order, which the Department of Water recommends a 30m buffer on each side of the stream be maintained for water quality purposes (WRC 1996; DoW, 2005). The native vegetation buffers provide environmental benefits to the waterways, as they act as a filter to help protect waters from pathogens, turbidity, nutrient-enriched run-off and spreading of waterborne weed species (DoE, 2005).

The clearing as proposed includes riparian vegetation and erosion of the watercourse banks is likely to cause increased sedimentation of these watercourses. The clearing as proposed is at variance to this principle as the removal of riparian vegetation is likely to result in increase sedimentation of water within the minor watercourses in the north and east of the site. A 30m buffer (WRC, 1996; DoW, 2005) from either side of streams will be placed on the permit to mitigate any impacts on water quality to the streams, any connecting watercourses and riparian vegetation.

Methodology GIS Database:
- Evapotranspiration Isopleths - WRC 29/09/98
- Hydrographic catchments, catchments - DoW 01/06/07
- Hydrogeology, statewide DOW 13/07/06
- Mean Annual Rainfall Isohytes (1975 - 2003) DEC 02/08/05

(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**

It is proposed to selectively clear and thin 282ha of native vegetation. The proponent intends to clear 22ha of native vegetation for the purpose of grazing. The 22ha area may cause low level localised flooding as a section of the area is within a valley. However, there is 90% remnant vegetation remaining within local area (10km radius), reducing this risk.

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

Methodology Northcote et al. (1968)
GIS Database:
- Evapotranspiration Isopleths
- WRC 29/09/98
- Groundwater Salinity Statewide DoW 13/07/06

- Hydrographic catchments, catchments - DoW 01/06/07
- Hydrogeology, statewide DOW 13/07/06
- 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

The Town Planning Scheme for the area under application is zoned as General Farming Pastoral.

Methodology

GIS Database:
- 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, and the proposed clearing is at variance to Principles (f) & (i), Principles (c) & (g) may be at variance, Principles (a), (e), (h) & (j) and the remaining principles are not at variance.

5. References

- 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.
- 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.
- 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.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.

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) |