



1. Application details

1.1. Permit application details

Permit application No.: 201/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Fajardo Pty Ltd

1.3. Property details

Property: LOT 5169 ON PLAN 229259 (MANJIMUP (S) 0)

Local Government Area: Shire Of Manjimup

Colloquial name: Churches Rd, Jardee

1.4. Application

| | | | |
|--------------------|-----------|--------------------|---------------------|
| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
| 25 | | Mechanical Removal | Cropping |

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 |
|--|--|--|--|
| <p>The proposed clearing is predominantly Beard Units 1144 and 3 and Mattiske Vegetation types PM1 and CRy. (Hopkins et al 2001, Shepherd et al. 2001, Mattiske Consulting 1989)</p> <p>The vegetation proposed for clearing is tall open forest of Marri and Karri. Jarrah is a key species of the vegetation types found on the property, however, extensive thinning has been carried out on the property and no large jarrah were evident. Many saplings were evident, particularly in the southern part of the block. Despite being thinned, there is not much weed encroachment in the forest block and the understorey is reasonable dense.</p> | <p>There has been extensive clearing carried out on other properties that are part of the holding: Nelson Locations 11218 and 11219. The properties have been planted with orchards towards the lower slopes, with grazing for cattle on the upper slopes. Three areas under Agreement to Reserve (ATR) total 9.1ha. The areas have been extensively thinned and have a reasonably sparse understorey. ATRs are appropriately fenced (site visit).</p> | <p>Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)</p> | <p>DoE representatives conducted a site visit on 6th May. There was no site visit undertaken by DAWA</p> |

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 area under application is considered to be in Very Good condition according to DoE site visit (2004).

There are two vegetation types identified by both Beard and Mattiske. There are high percentages of these vegetation types remaining.

Agreements to Reserve have been placed on this property and contiguous properties owned by the proponent (Nelson Locations 11218 and 11219) in the past, totalling 17.2 ha, ensuring representative vegetation on the property has been reserved.

Methodology Agreement to Reserve (2003); DoE site visits (2004).
GIS databases:
- Matiske Vegetation - CALM 24/3/98
- Heddle Vegetation Complexes - DEP 21/06/95
- Interim Biogeographic Regionalisation of Australia - EM 18/10/00
- Pre European Vegetation - DA 01/01.

(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

CALM (2004) advises:

There a medium probability of the proposed clearing to be at variance with this principle.

Clearing will further reduce connectivity between the State Forest and remanent vegetation to the east.

The clearing will create an incremental impact on the conservation of the fauna in the area, by reducing the size of remanent. The actual significance of this incremental loss is difficult to predict.

The Chuditch, Western Ringtail Possum, Quokka and Baudin's Black Cockatoo (all S1 species) are likely to occur within a 10km radius and are protected under the Wildlife Conservation Act and the Environment Protection and Biodiversity Conservation Act. A survey to demonstrate that these species will not be significantly impacted by the proposal is advised.

Additionally, all the S1 and S4 species listed on the database for this area are likely to occur in the local area, including the Numbat (S1) and the Peregrine Falcon (S4).

The area proposed for clearing is also potential habitat for one Priority 1 species, two Priority 2 species and five priority 4 species.

Methodology CALM (2004).

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

Comments Proposal is not likely to be at variance to this Principle

CALM (2004) advises a low probability of the proposed clearing to be at variance with this principle.

One specimen of Declared Rare Flora (*Caladenia christineae*) is known to occur in the local area (10km radius).

One specimen of Priority 1, four specimens of Priority 2, three specimens of Priority 3, one specimen of Priority 4 flora is known to occur in the local area.

One specimen of *Thomasia tenuivestita* (P3) and one specimen of *Hibbertia montana* (P4) were found on the same vegetation types as the area proposed to be cleared.

Given the above, there is a low likelihood of Declared Rare and/ or Priority flora occurring within the area to be cleared.

Methodology CALM (2004).

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a significant ecological community.

Comments Proposal is not likely to be at variance to this Principle

There were no Threatened Ecological Communities identified within the local area.

Methodology GIS databases:
- Threatened Ecological Communities - CALM 15/7/03.

(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 at variance to this Principle

The Bioregion and Shire are classed as Conservation status Least Concern with 86.6% and 83.9% remaining respectively (Shepherd et al. 2001). All the vegetation types in the area under application are largely uncleared. The property has approximately 41.1 hectares (52%) of native vegetation remaining, and if implemented, this clearing proposal will leave 20% remaining.

| | Pre - European (ha)* | Current Extent (ha)* | Remaining (%)* | Conservation** status | % In reserves/CALM managed land* |
|------------------------------|-------------------------|-------------------------|-------------------|--------------------------|-------------------------------------|
| IBRA Bioregion -Warren*** | 836 270 | 724 014 | 86.6 | Least Concern | |
| Shire- Manjimup | 705 670 | 591 748 | 83.9 | Least Concern | |
| Beard Unit 1144 | 201 257 | 140 235 | 69.7 | Least Concern | 0 |
| Beard Unit 3 | 3 046 385 | 2 197 837 | 72.1 | Least Concern | 67.9 |
| Mattiske Consulting | | | | | |
| CRy Crowea | 337 605 | 236 268 | 70 | Least concern | |
| PM1 Pemberton | 258 061 | 169 317 | 65.6 | Least concern | |

* (Shepherd et al. 2001)

** (Department of Natural Resources and Environment 2002)

*** Within the Intensive Landuse Zone

The proponent owns three properties within the vicinity, being Nelson Locations 5169, 11219 and 11218). Over the three locations approximately 47.7 hectares (24%) of native vegetation remains, and if this clearing is implemented, this clearing proposal will leave 11.4% remaining. Agreements to Reserve have been placed on the properties in the past and total 17.2 ha. If the proposed clearing proceeds there will be 5.5 ha of vegetation remaining on the property that is not under an ATR.

Methodology Agreement to Reserve (2003); Hopkins et al. (2001); Shepherd et al. 2001.
GIS databases:
- Mattiske Vegetation - CALM 24/3/98
- Heddle Vegetation Complexes - DEP 21/06/95
- Interim Biogeographic Regionalisation of Australia - EM 18/10/00
- Pre European Vegetation - DA 01/01.

(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 at variance to this Principle

There are three minor perennial watercourses (1st order) in the vicinity of the proposed clearing. They are located 80m south, 240m west and 150m north of the proposed clearing.

Methodology GIS databases:
- Hydrography Linear - DoE 1/2/04.

(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

DAWA (2004) advises that there are two soil types within the proposed clearing, CRy and PM. The risk of water erosion is generally very low to moderate. Approximately 12% of CRy is assessed as having a high risk and 4% as having a very high risk. On the PM unit 26% has a high risk, 14% has a very high risk and 1% has an extreme risk. Areas with a high risk are on slopes with gradients exceeding 10%, those with a very high risk are on slopes with gradients exceeding 15%.

Using a slope map created by a digital elevation model (DEM), it has been estimated that approximately 2 ha of the area proposed for clearing has slopes in excess of 10% gradient, and no slopes in excess of 15% are present. Steeper land is present on areas previously cleared.

Most of the area is assessed as having a low to moderate risk of wind erosion, with 30% of CRy having a high risk. Land with a high risk is still considered suitable for agricultural uses such as horticulture, cropping and grazing. If the guidelines for preventing erosion described by Rose (1997) were adopted, the risk of erosion would be minimal.

The risk of waterlogging on the CRy unit is generally nil to very low. Only the valley floor of PM is assessed as having a very high waterlogging risk, and this does not appear to be included in the proposal. Tipping (2002) concluded that waterlogging was unlikely to be a hazard.

All map units are described as being currently non-saline with no risk of salinity developing.

Apart from the swampy valley floors of the PM unit (which does not occur in the area proposed for clearing), the limitations for these land uses are mainly related to the risk of water erosion. This is limiting for market gardens

and cropping on slopes in excess of 10% gradient, and for perennial horticulture on slopes in excess of 15% gradient.

Methodology DAWA (2004).

(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

CALM (2004) advises that the proposed clearing is located about 300m to the east of Donnelly State Forest (CALM managed). The proposed area to be cleared connects to the State Forest via another privately owned property. The clearing as proposed will further reduce the size of this remnant, and reduce the east-west corridor linkage.

There are four Registered National Estates within the local area (10km radius). Fontys pool and garden is 1.5km north west, Karri Management Priority Area in 3km north west, Smith Brook Area is 8.2km south west and Gibblett Hawke Area in 9.5km west of the proposed clearing.

Methodology CALM (2004).
GIS database:
- CALM Managed Lands and Waters - CALM 1/06/04
- Register of National Estate - EA 28/01/03.

(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

Department of Environment. Hydrogeological Report (2004) notes that the proposed clearing is within Lefroy Brook Catchment Area (CAWS) and the Warren River Hydrographic Catchment.

Nearby groundwater salinities are slightly elevated as a result of previous clearing so the proposed clearing will also mobilise salt into groundwater. This is not acceptable as the Lefroy is a low salinity tributary of the salt-affected Warren River Water Resource Recovery Catchment.

The clearing is considered contrary to Principle I and could only be permitted with stringent conditions on both the extent and subsequent landuse.

The 17.2ha of vegetation currently under ATR (11.2% on all properties owned by the proponent) is over the recommended 10% for this zone (D) within CAWS areas. This minimum retention of 10% of vegetation in this zone will decrease the risk of salinity problems occurring.

Methodology Department of Environment. Hydrogeological Report (2004)
GIS database:
- Hydrographic Catchments, Catchments - DoE 3/4/03
- PDWSA, Gazetted - WRC 01/11/02.

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding.

Comments Proposal is not at variance to this Principle

Due to scale, flooding impacts are unlikely to occur as a result of the proposed clearing.

Methodology Department of Environment. Hydrogeological Report (2004)

Planning instrument or other matter.

Comments nil

Methodology

4. Assessor's recommendations

| Purpose | Method | Applied area (ha)/ trees | Decision | Comment / recommendation |
|----------|--------------------|--------------------------|----------|--|
| Cropping | Mechanical Removal | 25 | Grant | The proposal may be at variance with Principles (b), (g) and (h). - Principle (b): The area proposed for clearing is potential habitat for five S1 species, one Priority 1 species, two Priority 2 species and five priority 4 species. - Principle (g): There is a high risk of wind and water erosion occurring. - Principle (h): The clearing as proposed will further reduce the size of this remnant, and reduce the east-west corridor linkage. |

However, areas under ATR (17.2 hectares)(set from past dealings with the proponent), on contiguous properties owned by the proponents, have been taken into consideration with respect to Principle (b) and (h).
The Department of Agriculture have provided advice to the proponents to manage the potential land degradation risks associated with Principle (g).

Given the above considerations, the Department recommend that the permit is granted.

5. References

- Agreement to Reserve (2003) ATR Soil and Land Conservation Act Section 30B. DoE TRIM ref SWB1030.
- CALM (2004) Land clearing proposal advice. Advice to A/Director General, Department of Environment (DoE). Department of Conservation and Land Management, Western Australia. DoE TRIM ref SWO22334.
- DAWA (2004) Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia. DoE TRIM ref SWO22560.
- Department of Environment. Hydrogeological Report (2004) Fajardo, Lot 51 on Plan 229259. DoE TRIM ref SWO22802.
- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales ; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.
- 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, BJ (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Mattiske Consulting (1998) Mapping of vegetation complexes in the South West forest region of Western Australia, CALM.
- 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.