



## 1. Application details

### 1.1. Permit application details

Permit application No.: 2580/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Bonthorpe Pty Ltd

### 1.3. Property details

Property: LOT 1 ON PLAN 6250 (GREAT SOUTHERN HIGHWAY, GILGERING 6302)  
Local Government Area: Shire Of York  
Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
40		Mechanical Removal	Extractive Industry

## 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>Beard Vegetation Associations:</p> <ul style="list-style-type: none"> <li>- 4: Medium woodland; marri &amp; wandoo;</li> <li>- 25: Low woodland; Allocasuarina huegeliana &amp; York gum; and</li> <li>- 352: Medium woodland; York gum (Shepherd 2006).</li> </ul> <p>Mattiske Vegetation Complexes:</p> <ul style="list-style-type: none"> <li>- Yalanbee (Y6): Woodland of Eucalyptus wandoo-Eucalyptus accedens, less consistently open forest of Eucalyptus marginata subsp. thalassica-Corymbia calophylla on lateritic uplands and breakaway landscapes in arid and perarid zones; and</li> <li>- Michibin (Mi): Open woodland of Eucalyptus wandoo over Acacia acuminata with some Eucalyptus loxophleba on valley slopes, with low woodland of Allocasuarina huegeliana on or near shallow granite outcrops in arid and perarid zones (Mattiske Consulting 1998).</li> </ul>	<p>The proposal is to clear 40 hectares (ha) of native vegetation from three areas over a 10 year period, for the extraction of gravel.</p> <p>The areas of vegetation under application are located within a large (~81ha) remnant of native vegetation on a ~1,393ha property, which has ~10% native vegetation cover remaining.</p> <p>The three areas can be identified as:</p> <ul style="list-style-type: none"> <li>- Area 1: being is the largest of the applied areas, totalling ~31ha in size. This area is 'c' shaped to follow a large gravel ridge and is located within the southern portion of the large remnant;</li> <li>- Area 2: Located in the northeast corner of the large remnant, and ~7ha in size.</li> <li>- Area 3: Located within the top portion of the remnant on a single gravel 'hill' and is ~2ha in size.</li> </ul> <p>Overall the areas under application comprised open, mature Eucalyptus wandoo woodland with an understorey of herbs, shrubs and sedges including, but not limited to, Xanthorrhoea drummondii,</p>	<p>Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)</p>	<p>The vegetation condition and clearing description were obtained from aerial orthomosaics and a site inspection undertaken 3 September 2008 (DEC 2008).</p>

Banksia sp., Acacia pulchella, Hibbertia sp., Stylidium sp., Gastrolobium sp., Dillwynia sp. And Neurachne alopecuroides (Foxtail Mulga Grass).

Understorey vegetation within Area 1 was observed to be sparser, and generally lacking in shrub height, compared to that observed in Areas 2 and 3. This may be due to the areas accessibility to grazing sheep, edge effects adjacent to the open pasture areas and other areas of localised disturbance (i.e. historic gravel pits and tracks).

Areas 2 and 3 comprised denser stands of understorey, particularly of Gastrolobium sp., as well as sedge species on the crests and hill tops.

The vegetation under application ranged from very good to degraded condition, with an overall average of good condition. Areas in degraded condition were located adjacent to the open pasture and easily accessed by grazing sheep. considered to be in a degraded condition. Overall the vegetation within the applied areas is considered to be in good condition.

A number of passerine birds were heard and observed during the site inspection, with several large Wandoo within the applied areas comprising suitable nesting hollows for a range of bird species from small insectivores to the larger parrot species.

### 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 may be at variance to this Principle

The proposal is to clear ~40ha of native vegetation across three areas within a large ~81ha remnant of native vegetation, on a ~1,393ha lot of which only 10% remains vegetated. The local area (10km) has been extensively cleared with only ~20% vegetation cover remaining.

The areas of vegetation under application comprise an open, mature Eucalyptus wandoo woodland with an understorey of herbs, shrubs and sedges (DEC 2008). The vegetation under application is considered to range from degraded to very good condition, with an average condition rating of good.

A number of passerine birds were observed within the areas of vegetation under application at the time of the site inspection, with the vegetation under application comprising mature hollow-bearing Eucalypts suitable for nesting by a range of bird species from small insectivores to the larger parrots (DEC 2008). In addition the vegetation under application may comprise habitat for a number of local ground-dwelling fauna, including



species of conservation significance, due to the presence of suitable habitat and foraging areas.

An appropriately timed flora survey over the entire area under application, did not identify any rare flora or priority flora species (Ekologica Pty Ltd, 2007).

The areas of vegetation under application are considered to comprise significant habitat including nesting hollows and stepping stone linkages for a range of local fauna, given the extensive level of clearing in the local area (~20% vegetation remaining).

Therefore, the proposed clearing is considered to may be at variance to this Principle.

- Methodology**
- References:**
- DEC (2008)
  - Ekologica Pty Ltd (2007)
  - Western Australia Herbarium (1998-)
- GIS Databases:**
- CALM Managed Lands and Waters
  - Hydrography, linear (hierarchy)
  - NLWRA, Current Extent of Native Vegetation
  - Northam 1m Orthomosaic - Landgate 2003
  - SAC Bio Datasets, Date accessed 10/09/2008

**(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 at variance to this Principle**

The proposal is to clear ~40ha of native vegetation across three areas within a large ~81ha remnant of native vegetation, on a ~1,393ha lot of which only 10% remains vegetated. The local area (10km) has been extensively cleared with only ~20% vegetation cover remaining.

The areas of vegetation under application comprise an open, mature Eucalyptus wandoo woodland with an understorey of herbs, shrubs and sedges (DEC 2008). The majority of the vegetation under application is considered to be in good condition, with the condition ranging from good to very good (DEC 2008).

Nine conservation significant fauna species are known to occur within the local area (20km radius). Of these the following four species are considered likely to inhabit or utilise the areas of vegetation under application given the presence of suitable habitat, hollows and foraging conditions:

- Numbat (*Myrmecobius fasciatus*) (Vulnerable);
- Bush Stonecurlew (*Burhinus grallarius*) (P4);
- Crested Shrike-tit (*Falcunculus frontatus leucogaster*) (P4); and
- Chuditch (*Dasyurus geoffroyi*) (Vulnerable)

The area under application is located within the distribution range of the Carnaby's Black-Cockatoo (*Calyptrorhynchus latirostris*) (EPBC Act Endangered), which breed in the wheatbelt, nesting in large hollows of Eucalyptus wandoo and other Eucalyptus species (Burbidge 2004). The vegetation within the applied areas comprises mature hollow-bearing Eucalypts, with some trees observed to contain up to seven hollows (DEC 2008). Hollows observed during the site inspection within the applied areas also varied in size, and were considered to provide nesting opportunities for a number of species ranging from small insectivorous birds species through to the larger parrot species, including the 's Black-Cockatoo (DEC 2008).

During a fauna survey, Western Wildlife (2009) identified 10 trees as having the potential to provide suitable hollow habitat for the Carnaby's Black-Cockatoo. Although there was no evidence of breeding activity on site, Western Wildlife (2009) considered that the Carnaby's Black-Cockatoo is likely to be present in the area and may utilise the site for breeding purposes.

The applied areas are located within a large (~81ha), locally significant vegetation remnant in an extensively cleared agricultural area, with the areas under application considered to comprise part of significant habitat for indigenous fauna. Western Wildlife (2009) has identified that the wandoo woodland on site could also be utilised by other fauna species of conservation significance, such as the Carpet Python (*Morelia spilota imbricata*), Peregrine Falcon (*Falco peregrinus*) and Chuditch (*Dasyurus geoffroyi*). Although the Chuditch is highly mobile, the proposed clearing of approximately 40ha of vegetation within this large remnant is considered likely to significantly impact on the habitat values of the remaining vegetation due to fragmentation of the large remnant and subsequent indirect impacts of edge effects, such as increased predation on small birds and mammals.

The areas of vegetation under application and larger areas of remnant vegetation are also located approximately 6.5km to the west, and are positioned approximately half way between the Wandoo National Park and the Avon River. Given the extensive level of clearing on a local level, its central position to the Avon River and Wandoo National Park and large size (40ha), the areas under application are considered likely to be

utilised as part of a larger stepping stone for fauna migration across the landscape.

Given the large size (~40ha) and significance of the vegetation as a remnant in an area which has been extensively cleared for agriculture; and the presence of suitable habitat and hollows for a number of local native fauna species, including those of conservation significance, it is considered that the area under application is at variance to this Principle.

- Methodology**
- References:
- DEC (2008)
- GIS Databases:
- CALM Managed Lands and Waters
  - Hydrography, linear (hierarchy)
  - NLWRA, Current Extent of Native Vegetation
  - Northam 1m Orthomosaic - Landgate 2003
  - SAC Bio Datasets, Date accessed 10/09/2008

**(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**
- Eight rare flora species are known to occur within the area local to the areas of vegetation under application (20km radius) with only one of these species, *Thomasia montana*, known to occur within the same vegetation communities and soil units as the vegetation proposed to be cleared. The closest known occurrence of *Thomasia montana* is ~15km from the areas of vegetation under application.
- Thomasia montana* is known to prefer sites high in the landscape on a range of different soils types, and is generally found with *Eucalyptus wandoo* (Wandoo), *Corymbia calophylla* (Marri) and *Allocasuarina huegeliana* (Sheoak) (Brown et al. 1998).
- An appropriately timed flora survey conducted by Ekologica Pty Ltd (2007) did not identify any rare flora within the areas under application.
- Given the distance to *T. montana* and given that no rare flora were identified during the appropriately timed flora survey of the applied areas, it is not considered likely that the vegetation under application includes, or is necessary for the continued existence of, rare flora.

- Methodology**
- References:
- Brown et al. (1998)
  - DEC (2008)
  - Ekologica Pty Ltd (2007)
- GIS Databases:
- Mattiske Vegetation
  - SAC Bio Datasets, Date accessed 28/08/2008
  - Soils, Statewide

**(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 occurrences of threatened ecological communities within the local area (20km radius), with the closest known occurrence being a perched wetland and associated vegetation community located ~23km from the vegetation under application.
- In addition the vegetation under application comprises open, mature *Eucalyptus wandoo* woodland (DEC 2008), and is not considered to comprise a floral composition or structure representative of a threatened ecological community.
- Given the description of the vegetation under application and distance to the closest known occurrence, the vegetation under application is not considered likely to comprise the whole or a part of, or be necessary for the maintenance of a threatened ecological community.

- Methodology**
- Reference:
- DEC (2008)
- GIS Database:
- SAC Bio Datasets, Date accessed 28/08/2008



**(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 at variance to this Principle**

The vegetation under application is located within the Intensive Land Use Zone (Shepherd et al. 2001) within the area defined in EPA Position Statement No. 2 (EPA 2000), and is associated with Beard Vegetation Associations 4, 25 and 352 which have 24.24%, 12.63% and 14.02% pre-European vegetation extent remaining within the respective bioregion (Hopkins et al. 2001, Shepherd 2006). The vegetation under application is also associated with Mattiske Michibin and Yalanbee vegetation complexes, which have 26.5% and 51.4% pre-European vegetation extent remaining respectively (Mattiske Consulting 1998).

The State Government is committed to the National Objectives and Targets for Biodiversity Conservation which includes a target that prevents a clearance of ecological communities with an extent below 30% of that present pre-European settlement (Commonwealth of Australia 2001). In addition, EPA Position Statement No. 2 (EPA 2000) states that significant clearing of native vegetation has already occurred on agricultural land, leading to a reduction in biodiversity and increase in land salinisation. Therefore the EPA would only consider supporting clearing proposals in the agricultural area in exceptional circumstances where the area proposed to be cleared is relatively small, and the proposed land use addresses alternative mechanisms for protection biodiversity (EPA 2000).

Beard Vegetation Associations 4, 25 and 352 in there respective bioregions, and Mattiske Michibin vegetation complex are all below the State Government's 30% biodiversity target. In addition, the area of vegetation under application is considered to comprise a large component (~40ha) of a locally significant remnant of native vegetation, totalling ~81ha in size, in an extensively cleared agricultural area of which only ~20% (6,439ha) vegetation cover remains. The property is also extensively cleared, with only ~10% vegetation remaining on the 1,393ha lot and the removal of this vegetation would result in further fragmentation of remnant vegetation.

Given low representations of three of the vegetation communities mapped on site (~36.2ha Beard Association 4, ~1.4ha Beard Association 352 and 2ha Michibin vegetation complex ) and local area remnant vegetation cover, as well as the proposals (~40ha) location within a large, locally significant remnant (~81ha), the vegetation under application is considered to be significant as a remnant of native vegetation in an extensively cleared area.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	% In reserves/ DEC managed land
IBRA Bioregions**:				
Jarrah Forest	4,506,674	2,426,079	53.8	
Avon Wheatbelt	9,517,117	1,468,711	15.4	
Shire of York*	214,963	66,264	30.8	
Local area (10km radius)****	31,400	6,439	20.5	
Beard Vegetation Associations**:				
Avon Wheatbelt Bioregion				
- 25	8, 925	1, 126	12.63	2.54
- 352	630, 581	88, 397	14.02	
Jarrah Forrest				
- 4	1,022, 712	247,941	24.24	25.76
Mattiske Vegetation Complexes***:				
- Michibin (Mi)	1,345,524	356,512	26.5	
- Yalanbee (Y6)	1,583,884	814,609	51.4	

\* (Shepherd et al. 2001)

\*\* (Shepherd 2007)

\*\*\* (Mattiske Consulting 1998)

\*\*\*\* (Approximately)

**Methodology**

**References:**

- Commonwealth of Australia (2001)
  - EPA (2000)
  - Hopkins et al. (2001)
  - Mattiske et al. (1998)
  - Shepherd et al. (2001)
  - Shepherd (2006)
- GIS Databases:**
- EPA Position Paper No 2 Agriculture Region



- Interim Biogeographic Regionalisation of Australia
- Local Government Authorities
- NLWRA, Current Extent of Native Vegetation
- Northam 1m Orthomosaic - Landgate 2003
- SAC Bio Datasets, Date accessed 28/08/2008

**(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**

The closest surface hydrological features to the areas of vegetation under application are Talbot Brook and the Avon River, which are respectively located approximately 3.8km southwest and 4.6km east of the applied areas. In addition 5 minor non-perennial watercourses are located in the immediate vicinity of the areas under application.

The areas of vegetation under application comprise open, mature Eucalyptus wandoo woodland, and are located high in the local landscape on a gravel ridge (DEC 2008).

Eucalyptus wandoo is known to occur within granite rises and on lateritic soils, and is generally associated with upland vegetation communities.

Given the high elevation of the areas proposed to be cleared, distance to the Avon River and the vegetations resemblance to an upland vegetation community, the vegetation under application is not considered to be growing in, or in association with, an environment associated with a watercourse or wetland.

**Methodology**      Reference:  
 - DEC (2008)  
 GIS Databases:  
 - Geodata, Lakes  
 - Hydrography, linear (hierarchy)

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

**Comments      Proposal may at variance to this Principle**

The areas of vegetation under application are identified as containing two main soil types. The majority of the applied area is associated with an undulating terrain with ridges, spurs and lateritic mesas and buttes, with the chief soils defined as sandy, yellow mottled soils containing ironstone gravels (Northcote et al, 1968). In addition, the soils in Area 2 and in the eastern extent of Area 1 are associated with gneissic rock outcrops, with the chief soils identified as hard red soils (Northcote et al, 1968) which generally have a low risk of land degradation in the form water logging.

The main land degradation risk associated with the removal of vegetation on gravelly soils is generally considered to be wind erosion and water erosion. However, the risk of wind erosion could be managed and minimised by excavating then rehabilitating small, staggered areas, and by maintaining a vegetated buffer zone around the site to reduce wind velocity.

Salinity mapping has identified high salinity levels (14,000 - 35,000 mg/L) within the areas under application and the proponent has indicated that a lateritic duricrust was intersected at 6m below a sandy gravel level, which suggests a high salt store on site (DAFWA, 2008).

DAFWA (2008) advise that the proposed clearing of 40 hectares of native vegetation, in particular the removal of deep rooted trees, is likely to also result in an increase in ground water recharge on the property with the potential to result in appreciable land degradation in the form of salinity and water erosion. In addition, higher recharge rates may potentially result in an increase in ground water seepage, and evaporation from shallow ground water seepage will result in the accumulation of surface salt causing further land degradation.

Whilst the additional tree planting proposed by the proponent may reduce the potential salinity impact, given the high salt store in the soil and absence of any detailed management and rehabilitation plans, it is considered that the current proposal may result in land degradation in the form of salinity (DAFWA, 2009)

Furthermore, during the DEC site inspection (2008) erosion gullies were observed emanating from the remnant vegetation on site and hydrographical mapping indicates that there appears to be an association with minor non-perennial watercourses. Given that the areas under application are located in the upper slopes in the landscape at an elevation of between 300 - 370metres, the proposed clearing may result in an increase in surface water run-off causing erosion gullies and rills. However, if appropriate measures were to be put in place by the proponent, the risk of water erosion could be reduced.

Given the above, it is considered that proposed clearing is likely to lead to appreciable land degradation and therefore may be at variance to this Principle.



- Methodology**    **References:**
- DAFWA (2008)
  - DEC (2008)
  - Northcote et al. (1960-68)
- GIS Databases:**
- Groundwater Salinity, Statewide
  - Soils, Statewide
  - Topographic Contours, Statewide

**(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**

There is one area reserved for conservation purposes within a 10km radius of the areas under application, being Wandoo National Park, which is located approximately 6.5km west of the applied areas.

The areas under application are situated within a large ~81 hectare remnant of native vegetation which is located within a landscape that has been extensively cleared for agricultural purposes, of which there is approximately 20% of pre- European vegetation extent remaining within the local area (10 km radius). The proposed clearing of 40 hectares within this large remnant will result in further fragmentation of vegetation in a previously cleared agricultural landscape.

During the DEC site inspection (2008) several indigenous passerine and non-passerine bird species were observed within the areas under application, including the Australian Ringneck parrots, Pink and Grey Galahs and pardalotes. The vegetation under application is likely to provide significant habitat for local avian fauna species and provide an ecological linkage to other limited patches of remnant vegetation on privately owned land in the local area.

Given the proposed clearing will reduce this large remnant ability to act as a stepping stone for avian fauna species migration across in such extensively cleared landscape and that this may have an impact on fauna within nearby conservation reserves it is considered that proposed clearing may be at variance to this Principle.

- Methodology**    **GIS Databases:**
- CALM Managed Lands and Waters
  - Hydrography, linear (hierarchy)
  - NLWRA, Current Extent of Native Vegetation
  - Northam 1m Orthomosaic - Landgate 2003

**(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 nearest watercourses are Talbot Brook, Avon River and the Dale River which are respectively located approximately 3.6km southeast, 4.6km east and 6.4km southeast of the areas under application. In addition 5 minor non-perennial watercourses are located in the immediate vicinity of the areas under application. The applied area is situated within the Swan Avon Catchment, but is not located within a Public Drinking Water Source Area.

Salinity mapping has identified high salinity levels (14,000 - 35,000 mg/L) within the areas under application and the proponent has indicated that a lateritic duricrust was intersected at 6m below a sandy gravel level, which suggests a high salt store on site (DAFWA, 2008).

Furthermore, DAFWA (2008) advise that the proposed clearing of 40 hectares of native vegetation, in particular the removal of deep rooted trees, is likely to result in an increase in ground water recharge on the property with the potential to result in appreciable land degradation in the form of salinity.

DAFWA (2008) advise that the proposed clearing of 40 hectares of native vegetation is likely to result in an increase in groundwater recharge on site, increasing the risk of salinity. The removal of deep rooted trees from this gravely upland location may impact on recharge of groundwater systems downstream and on non-perennial watercourses within the local area, causing deterioration in the quality of surface and underground water.

Additional tree planting proposed by the proponent may reduce the potential salinity impact. However, given the high salt store in the soil and without any detailed management and rehabilitation plans, it is considered that the current proposal may still result in land degradation in the form of salinity (DAFWA, 2009).

The other land degradation risk associated with the removal of vegetation on the identified gravely soil type is considered to be water erosion. Given that the area under application is located on the upper slopes in the



landscape and that erosion gullies were observed in this locality, it is considered that the proposed clearing may cause water erosion resulting in the deterioration in the surface water quality. If appropriate measures are put in place by the proponent the risk of water erosion could be reduce.

Given the above, it is therefore considered that the proposed clearing may be at variance to this Principle.

- Methodology**
- References:**
- DAFWA (2008)
  - DAFWA (2009)
  - DEC (2008)
- GIS Databases:**
- Hydrographic Catchments - Catchments - DOW
  - Hydrography, linear (hierarchy) - DOE 13/4/05
  - Public Drinking Water Source Areas (PDWSA's) - DOE 09/08/05
  - Groundwater Salinity, Statewide
  - Soils, Statewide
  - Topographic Contours, Statewide

**(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 majority of the vegetation under application is associated with an undulating terrain with ridges, spurs, and lateritic mesas and buttes, with chief soils on the broad undulating ridges and spurs being hard, and also sandy, neutral, and also acidic, yellow mottled soils, all containing ironstone gravels (Northcote et al. 1968). The vegetation within Area 2 and the eastern extents of Area 1 are associated with gneissic rock outcrops and chief soils of hard neutral red soils (Northcote et al. 1968).

The soils associated with the areas of vegetation under application are known to have a low waterlogging and flooding risk due to their high resistance to structural breakdown by water and generally low infiltration of rainwater (Wells 1988). In addition the areas under application are positioned high in the local landscape, with drainage most likely to be in an easterly direction towards the Avon River.

Whilst the area of vegetation proposed to be cleared is relatively large (40ha), given the geology of the soils on site, high elevation of the areas proposed to be cleared and direction of drainage, the proposed clearing is not considered likely to cause, or exacerbate, the incidence or intensity of flooding.

- Methodology**
- References:**
- Northcote et al. (1960-68)
  - Wells (1988)
- GIS Databases:**
- Hydrographic Catchments - Subcatchments
  - Hydrography, linear (hierarchy)
  - Northam 1m Orthomosaic - Landgate 2003
  - Soils, Statewide

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

**Comments**

The proposal is to clear ~40ha of native vegetation, over three areas and over a period of 10 years for the purposes of gravel extraction (DEC 2008). The areas of vegetation under application are located within a large (~81ha) remnant of native vegetation on a ~1,393ha property, which has ~10% native vegetation cover remaining.

The vegetation under application is located within the agricultural area defined in EPA Position Statement No. 2 (EPA 2000). EPA Position Statement No. 2 (EPA 2000) states that significant clearing of native vegetation has already occurred on agricultural land, leading to a reduction in biodiversity and increase in land salinisation. Therefore the EPA would only consider supporting clearing proposals in the agricultural area in exceptional circumstances where the area proposed to be cleared is relatively small, and the proposed land use addresses alternative mechanisms for protection biodiversity (EPA 2000).

Whilst the proposal is to remove ~40ha of native vegetation over three areas and a 10yr timeframe (~4ha per year), the local area is extensively cleared with only 20% (~6,439ha) remnant vegetation remaining. In addition the three areas proposed to be cleared are located within one of the largest remaining areas of remnant vegetation in the local area (~81ha). The proposed clearing of ~40ha of native vegetation within this larger remnant is considered likely to adversely impact on the remaining remnants ability to function as a stepping stone for fauna migration and area of significant fauna habitat, due to habitat fragmentation and increased edge effects (weed invasion and increased fauna predation).

A Rehabilitation Management Plan (Land insights 2008) states that "the owners and operators of the proposed



gravel pit "intend" to offset their environmental impacts by rehabilitating and revegetating the site." However, it is noted that the purpose of the rehabilitation, as stated in this Plan, is to return the species composition and density of vegetation to that present on site and in surrounding vegetation, to facilitate the future rural use (grazing) of the site (Land insights 2008).

The Shire of York (2008) has issued planning consent for the proposed extractive activity. An Extractive Industries Licence (EIL) is required for the proposed extractive activity. The applicant has advised that an EIL application will be submitted to Council once the requirements of the Councils notice have been met. Therefore, a current EIL for this proposal has not been obtained at this stage.

The applicant may also require a Prescribed Premises Licence from the Department of Environment and Conservation (DEC). As the proposal is in the preliminary stages and an extraction amount is not known at this stage, the requirements for a Licence have not been confirmed by the applicant.

Whilst not located within Area 1 of the applied areas, an Aboriginal Site of Significance (Swan River) borders the northern portion of Area 1. It is the responsibility of the applicant to ensure that no sites are damaged through the clearing process.

A submission was received from Land inSights (Consultant, 2009) in response to correspondence from DEC dated 23 October 2008. Land inSights stated that the flora survey had been conducted over the entire area under application and that the vegetation was not significant as a remnant and did not comprise significant habitat for the Carnaby's Black-Cockatoo; and that the proposed clearing would not cause further land degradation through salinity or land erosion. It should be noted that the land capability assessment report conducted by Ruthmac Pty Ltd for Lot 1 Great Southern Highway, Gilgaring, was for rural subdivision purposes and not for gravel extraction.

#### Methodology

##### References:

- DEC (2008)
- EPA (2000)
- Land inSights (2008)
- Shire of York (2008)

##### GIS Databases:

- Aboriginal Sites of Significance
- EPA Position Paper No 2 Agriculture Region
- Local Government Authorities
- NLWRA, Current Extent of Native Vegetation
- Northam 1m Orthomosaic - Landgate 2003

## 4. Assessor's comments

#### Comment

The assessable criteria have been addressed and the proposed clearing may be at variance to Principles (a), (h) and (i); and is at variance to Principles (b), (e) and (e).

## 5. References

Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.

Commonwealth of Australia (2001) National Targets and Objectives for Biodiversity Conservation 2001-2005, AGPS, Canberra.

DAFWA (2008) Land Degradation Advice for clearing permit application CPS 2580/1. Received 17/09/2008. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia (TRIM Ref. DOC63013).

DAFWA (2009) Land Degradation Advice for clearing permit application CPS 2580/1. Received 10/03/2009. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia (TRIM Ref. DOC78834).

DEC (2007) DEC Fauna Habitat Notes.xls. February 2007. Department of Environment and Conservation, Western Australia.

DEC (2008) Site Inspection Report for Clearing Permit Application CPS 2580/1, Lot 1 Gt Southern Hwy, Gilgaring. Site inspection undertaken 03/09/2008. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC62306).

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## 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)