



## 1. Application details

### 1.1. Permit application details

Permit application No.: 1400/1

Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Hovey Property Pty Ltd

### 1.3. Property details

Property: LOT 122 ON DIAGRAM 59932 (Lot No. 122 OLD COAST PARKFIELD 6233)  
LOT 120 ON DIAGRAM 59932 (Lot No. 120 OLD COAST PARKFIELD 6233)  
LOT 121 ON DIAGRAM 59932 (Lot No. 121 OLD COAST PARKFIELD 6233)

Local Government Area: Shire Of Harvey

Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
52.5		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
Heddlle Vegetation Type - Yoongarillup Complex: is dominated by the only extensive woodland of tuart in the Darling System. A characteristic feature of these woodlands is the large numbers of peppermint ( <i>Agonis flexuosa</i> ) in the second storey. On more restricted patches, this tuart woodland is replaced by an open forest of tuart-arrah-marri which has strong affinities with the Karakatta-Central and South complex. Understorey species include <i>Banksia attenuata</i> , <i>Hibbertia hypericoides</i> , <i>Macrozamia riedlei</i> , <i>Hypocalymma robustum</i> and <i>Jacksonia floribunda</i> .	The vegetation on Lot 120 121 and 122 is a <i>Eucalyptus calophylla</i> , <i>Agonis flexuosa</i> and <i>Eucalyptus marginata</i> Woodland over mixed Shrubland; <i>Agonis flexuosa</i> and <i>Banksia attenuata</i> Woodland over mixed Shrubland.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	Vegetation of the majority of the property appears to be in Good to Very Good condition with edges in Good to Degraded condition from historical grazing activities. The vegetation was observed through a site inspection by DEC officers undertaken on 8th November 2006 and another site inspection within January 2008.

## 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 at variance to this Principle

The area proposed to be cleared is in 'good - very good' condition (Keighery, 1994). Numerous site inspections conducted by DEC (2006), EPA (1999) and an environmental consultant (Bennett, 2007) have found the area proposed to be cleared diverse with healthy vegetation and varied habitat. A flora survey was undertaken on the 11th September 2007, this survey found that the vegetation condition varied from good to very good (Keighery, 1994). Seventy-five native species were identified during this survey. A recent site visit by DEC (2008) concurred with these previous inspections.

In assessing an area for regional significance six criteria are used. The area proposed to be cleared is likely to meet five of these criteria, including 'diversity'. Under EPA Guidance statement 10, diversity is considered to be 'areas of high diversity of landforms, flora and/or fauna or communities in close association' (EPA, 2006). As

the area is composed of several vegetation units and is likely to provide habitat to numerous species of fauna, the area under application is considered to contain high biological diversity. Vegetation within the proposed clearing area ranges from peppermint tree/ tuart woodland which is poorly reserved in the local and regional area, to banksia/marri woodland and jarrah/banksia woodland (Strategen, 2007). Within the lots under application there is also vegetation associated with wetlands including *Melaleuca raphiophylla* woodland with *Baumea* sedgeland.

The importance of the vegetation within the application area can not be assessed only on an individual basis but as a part of a larger consolidated area of native vegetation. The EPA have previously provided advice relating to clearing proposals for the property:

'Based on current knowledge it is now clear that the Kemerton area is of high conservation significance. The Kemerton area includes the largest continuous remnant of the Bassendean Complex-Central and South vegetation complex on the Swan Coastal Plain and is part of a larger area of diverse vegetation including Karrakatta Central and South and Yoongarillup vegetation complexes. The Kemerton area includes some of the most outstanding wetlands on the Swan Coastal Plain'. The EPA considers that within the Kemerton area a rich assemblage of significant fauna, which have declined elsewhere on the Swan Coastal Plain between Perth and Bunbury, are supported by the diverse and continuous vegetation found within the Kemerton buffer (EPA, 2005).

Lots 120, 121 and 122 are considered to be part of the North-South Ecological linkage in Bulletin 1108 of the Greater Bunbury Region Scheme – Appendix 4 (EPA, 2003). This ecological linkage is providing numerous functions including fauna corridors, maintenance of ecological processes and genetic transfer of flora and fauna and is therefore an essential part of retaining the diversity within the proposed clearing area.

In considering the above information, the vegetation under application is considered to comprise a high level of biological diversity and is therefore at variance to this principle.

**Methodology** DEC 2008  
Bennett 2007  
Strategen 2007  
DEC Site Report 2006  
EPA 2006  
EPA Advice 2005  
EPA 2003  
EPA 1999  
Keighery, 1994  
GIS Database:  
- Bunbury 50cm Orthomosaic DLI04

**(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 area proposed for clearing is 52.5 hectares within the Swan Coastal Plain and contains vegetation ranging from good to very Good condition (Keighery, 1994). EPA Guidance Statement 56 (2004) states that areas proposed for clearing above 50 ha in the Swan Coastal Plain are considered high impact proposals in relation to fauna.

The property (Lots 120, 121 and 122) falls within the Kemerton Buffer Zone. Within the Muir (1999) Report of a Biological Survey it states that 'The vertebrate fauna of the Kemerton region is rich and distinctive. This distinctiveness comes from the number of species present which have declined elsewhere on the Swan Coastal Plain between Perth and Bunbury, and the number of species that are of national conservation significance'.

The vegetation under application is considered to be habitat and a foraging site for a number of native fauna species including species protected under the Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act) or the Wildlife Conservation Act 1950 (WC Act).

A site visit (DEC, 2008) found the remains of a long-necked turtle (*Chelodina oblonga*) nearby the wetland on Lot 122. This species requires dryland habitat with soft sandy soils for aestivation and a surrounding of vegetation cover to protect the young when making their way into the wetlands. This indicates a need to retain dryland buffers around wetland areas.

The wetland and associated dryland habitat is also required for the survival of many wetland avifauna species. These species will often nest in habitat adjacent to the wetland and walk their young to the water. The area is possible habitat for significant species such as the Freckled Duck (*Stictonetta naevosa*), Little Bittern (*Ixobrychus minutus*) and Australasian Bittern (*Botaurus poiciloptilus*), however these species have not been observed or recorded within the lots under application.

Numerous mature or dead trees and logs contained hollows that were possible habitat for other local fauna species (Site Inspections, 2007 and 2008). Chuditch are known to exist within the area and a recent discovery

of a brush-tailed phascogale was documented within the Kemerton bushland. The leaf litter, vegetative debris and decaying logs are also considered to provide optimum reptile habitat, including the carpet python (*Morelia spilota imbricate*).

During the DEC site inspection conducted in November 2006, *Calyptorhynchus banksii* subspecies *naso* (red-tailed black cockatoo) were observed within the vegetation and a field survey in 2007 (Strategen) recorded *Calyptorhynchus latirostris* (Carnaby's cockatoo) foraging on Marri within the notified area. The red-tailed cockatoo observed at the site is known to nest in jarrah and marri trees and also feeds on the woody fruits of these two tree species. Carnaby's black cockatoo feeds on a variety of native species including *Banksia* and *Eucalyptus* species, both of which are present at the site. A further DEC site inspection (2008) also noted flocks of Carnaby's black cockatoo's feeding amongst the *Banksia* woodlands within the property. These recurring observations during site visits signify that a species which is listed as Endangered within both the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) and on the International Union of Conservation of Nature and Natural Resources (IUCN) Red List, is utilising the un-fragmented vegetation as a feeding, and possibly nesting, habitat.

The area proposed to be cleared is considered to be conservation significant for the species *Pseudocheirus occidentalis* (Western Ringtail Possum). The area contains peppermint woodlands which comprise 90-95% of the diet and habitat of this species (DEWHA, 2007). Peppermint woodlands connected with corridors of vegetation allow movement between bush areas. This is listed as being of prime importance, as long term survival of the western ringtail is linked to the protection of habitat (DEWHA, 2007). A report provided by Strategen (2007) advised that 3 dreys were located on the property during a site inspection. Within this local area Western Ringtail Possums are the only species to create dreys indicating that the area under application is used for habitat.

Lots 120, 121 and 122 are considered to be part of the North - South Ecological linkage outlined in Bulletin 1108 of the Greater Bunbury Region Scheme - Appendix 4 (EPA, 2003). This ecological linkage is providing numerous functions including fauna corridors, maintenance of ecological processes and genetic transfer of flora and fauna. It is therefore an essential area of habitat for native species, including two species listed within Commonwealth statutes (EPBC Act, 1999) and internationally on the IUCN Red List. The proposed clearing is therefore considered to be at variance with this principle.

**Methodology** DEC Site Report 2008  
Strategen, 2007  
DEWHA 2007  
Bennett, 2007  
DEC 2006  
EPA 2006  
EPA 2004  
EPA 2003  
Muir Environmental 1999  
Keighery, 1994  
GIS Database:  
- Bunbury 50cm Orthomosaic - DLI04  
- SACbi datasets, accessed 7 Jan 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 (10 km radius) there are numerous known populations of Priority 2, 3, and 4 species. Five Declared Rare Flora (DRF) populations have been recorded in the local area, the closest existing 2.7km east from the area proposed for clearing. Two of these DRF species, *Drakaea micrantha* and *Drakaea elastica*, both tuberous perennial herbs, exist on white or grey sand, with *Drakaea elastica* generally found in areas adjoining winter wet swamps. Linkages between the area proposed for clearing and the known DRF populations of these species exist.

A survey carried out, within the proposed clearing area by Bennett Environmental Consulting (2007) found no Declared Rare Flora.

**Methodology** DEC 2008  
BCS Advice 2007  
Strategen Report 2007  
Bennett 2007  
DEC Site Report 2006  
GIS Database:  
- Bunbury 50cm Orthomosaic DLI04  
- SAC Bi datasets, accessed 7 Jan 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 likely to be at variance to this Principle**

Two Threatened Ecological Communities (TECs) exist within the local area, the closest found 7.1km East north east of the area under application.

The area proposed for clearing is not found within the same vegetation complex as the above mentioned TEC and no linkages exist between the two sites. A Survey by Bennett Environmental Consulting (2007) considered that the predominant floristic community if the area under application to be Type 21a which is not classified as a TEC. The clearing is therefore not likely to be at variance to this principle.

**Methodology      Bennett, 2007**

GIS Database:

- Bunbury 50cm Orthomosaic DLI04

- SACBiodatasets, accessed 7 Jan 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 at variance to this Principle**

The vegetation proposed for clearing is a component of Heddle Yoongarillup complex (Heddle et al, 1980) of which there is 45% of the pre-European extent remaining, 13.9% of this complex is reserved in secure tenure with 1% reserved within a 15km radius (Shepherd et al 2006).

The area proposed to be cleared lies within the North western section of the Kemerton Industrial Buffer. This area has been identified in the Greater Bunbury Region Scheme (GBRS) as SCA No.2 (Special Control Area). The EPA (2003) has mapped selected areas within SCA No.2 as having high conservation and vegetation significance, and recommends that these areas be zoned as Regional Open Space (ROS). The area under application is within these mapped areas of high conservation significance. Although this recommendation has not been initially adopted in the GBRS, the EPA is recommending to the West Australian Planning Commission an amendment to convert these areas to ROS.

The environmental overview of the Kemerton Industrial Park (Coffey, 2007) states that the western area, in which the application area lies, is associated with Yoongarillup Vegetation complex which is dominated by Tuart and Peppermint with Baumea fringed wetlands. A site visit (DEC, 2008) confirmed that the lots under application contained this vegetation, in addition to Marri/Jarra/Banksia woodland. The environmental overview also states that much of this area has been cleared or heavily grazed. The application area has had historical grazing within the eastern section of the block, however this vegetation is still in good condition. Due to other local areas of Peppermint/Tuart bushland being cleared or degraded this large remnant of vegetation is highly significant.

The EPA identified sequences of ecological linkages throughout this region and stated that the proposed clearing area contained vegetation of regional significance. They stated that larger intact remnants of native vegetation were priorities for retention and protection. These remnants meet at least two criteria for regional significance, which is 'representation of ecological communities' and 'maintaining ecological processes' (EPA, 2006). The application area meets the criteria of 'diversity', 'rarity' and 'protection of wetland vegetation'. The importance of the vegetation of the area under application is not considered only on an individual basis but as a part of a larger consolidated area of native vegetation. In EPA Guidance Statement No.10 (2006) it is stated that in conserving regionally significant vegetation certain attributes need to be considered. The application area is considered to be large, compact, linked to other vegetation and in good - very good condition (Keighery, 1994), therefore meets the EPA criteria of regionally conservation significant vegetation. Areas containing both upland and wetland habitats are known to 'support the highest biodiversity and are a focus for protection' (EPA, 2006). Given these factors it is considered that vegetation within the area under application is of high regional significance.

Additionally, the property is within the area being surveyed for the Swan Bioplan project (State Government funded) which aims to identify floristic units within regionally significant bushland. Surveys to date suggest the vegetation is of high regional significance.

Given the above information it is concluded the vegetation under application is a locally and regionally significant remnant and is therefore considered to be at variance to this principle.

**Methodology      DEC, 2008**

Coffey, 2007

Shepard et al. 2006

EPA 2006

EPA Advice 2005

EPA 2003

Keighery, 1994

Heddle et al. 1980

GIS Database:

- Bunbury 50cm Orthomosaic DLI04

- Heddle Vegetation Complexes - DEP 21/06/95
- Interim Biogeographic Regionalisation of Australia - EM 18/10/00
- Pre European Vegetation - DA 01/01
- Local Government Authorities - DLI 8/07/04

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

There are over 20 Environmental Protection Policy (EPP) Lakes in the local area (10km radius) with the closest lake situated approximately 130 metres east of proposed clearing. This wetland is part of a chain that runs north and south of the property, and comprises of 4 EPP Lakes in total. An uninterrupted vegetated corridor exists between the area proposed for clearing and the nearest EPP Lake. A RAMSAR wetland, the Peel Yalgorup System is located 5.5km north west of the clearing proposal.

The mapping of geomorphic wetlands identifies over 20 Conservation Category Wetlands (CCW), approximately 10 Resource Enhancement Wetlands (REW), and a large number of continuous Multiple Use Wetlands in the local area.

Two of the CCWs are located within close proximity to the proposed clearing, one being 300m north east and the other 630m south east. An REW exists 120m east of the proposed clearing, within Lot 122. DEC considers, following a more detailed inspection of the site, that it contains values consistent with a CCW classification. The wetland has therefore been recommended for upgrading of its status.

The proposed clearing area provides an ecological linkage between vegetation and conservation category wetlands to the north and the south. The dryland buffer will be impacted which may disrupt fauna movement between dryland and wetland areas and between other wetlands. Additionally, the benefits provided by dryland buffers such as, upland habitat for aestivation, barrier to weed invasion and source of food resources will be negatively impacted. During the DEC site inspection (2008) the remains of a Long-necked Tortoise (*Chelodina oblonga*) was found in habitat adjacent to the wetland, establishing that vegetation outside of the wetland is providing important functions in association with the wetland. Furthermore, within EPA Guidance Statement 10 (2006) it is stated that 'natural areas containing both uplands and wetlands support the highest biodiversity and are a focus for protection'.

In establishing whether the proposed clearing falls within an environment associated with a wetland, the DEC site visit (2008) took into account the landforms surrounding the nearest wetland (120m east of proposed clearing). The topography in this area was observed to contain an upland ridge to the west of the wetland. As surface flows are a crucial part of seasonally inundated wetlands it was determined that the area, up to and including the ridge, was associated with the wetland due to the hydrological functions that area is performing. As the clearing is proposed to extend over this ridge it is considered that the clearing may be at variance to this principle.

**Methodology** DEC, 2008  
EPA, 2006  
Water and Rivers Commission: Wetlands Position Statement 2001  
GIS Database:  
- RAMSAR, Wetlands - CALM 21/10/02  
- EPP Lakes - DEP 28/07/03  
- Geomorphic Wetlands (Mgt Categories) Swan Coastal Plain - DoE 15/9/04

**(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 proposed clearing of 52.5 hectares of land within the above Lots is unlikely to cause appreciable land degradation. Therefore, this clearing is unlikely to be at variance with principle (g). This assessment is based on the mined area being rehabilitated and returned to native vegetation.

It is therefore concluded the proposal is not likely to be at variance to this principle.

**Methodology** DAFWA 2006  
Department of Water 2005  
GIS Database:  
- Acid Sulfate Soil Risk Map, SCP - DoE 01/02/04  
- Geomorphic Wetlands (Mgt Categories) Swan Coastal Plain - DoE 15/9/04  
- EPP Lakes - DEP 28/07/04

**(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 at variance to this Principle**

DEC managed land is found approximately 400m south east and Myalup State Forest is found 4.8km north from the area proposed to be cleared, with a vegetated ecological linkage existing between these areas. Lots 120, 121 and 122 are considered to be part of the North - South Ecological linkage outlined in Bulletin 1108 of the Greater Bunbury Region Scheme. This ecological linkage is providing numerous functions including fauna corridors, maintenance of ecological processes and genetic transfer of flora and fauna. Given these factors the application area is considered an essential area in maintaining the environmental values of the DEC managed land.

An EPP wetland is located approximately 130m east of the application area. Advice from DEC (Species and Communities Branch, Wetlands Program, 2007) stated that the proposed clearing area was providing an ecological linkage between vegetation and EPP Wetlands to the north and the south. They also advised that the dryland buffer will be impacted which may disrupt fauna movement between dryland and wetland areas and between other wetlands. Additionally, the benefits provided by dryland buffers such as, upland habitat for aestivation, barrier to weed invasion and source of food resources will be negatively impacted.

There is land covenanted by the National Heritage Trust of WA located 2.3km east of the proposed clearing. This conservation area is connected to the proposed clearing by a vegetation corridor which would be negatively impacted by any clearing.

The Yalgorup National Park is located 5.6km north west of the application area, Byrd Swamp Nature Reserve is found 8.6km east north east of the proposed clearing and the Bengier Swamp Nature Reserve exists 9.1km east of the property. It is unlikely these reserves will be impacted by the proposed clearing.

The proposed clearing will result in a loss of fauna corridors and ecological linkages that currently exist between the area under application and local conservation areas. It is therefore concluded the proposal is at variance to this principle.

**Methodology**

Species and Communities Branch, 2007  
Stratagen Report, 2007  
EPA, 2003  
GIS Database:  
- CALM Managed Lands and Waters - 01/07/05  
- Bunbury 50cm Orthomosaic DLI04  
- EPP Lakes - DEP 28/07/03  
- Geomorphic Wetlands (Mgt Categories) Swan Coastal Plain - DoE 15/9/04  
- SAC Biodatasets, accessed 8th January 2008

**(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**

The proposed clearing is located approximately 130m west of an EPP lake and there are numerous Conservation Category Wetlands (CCW) nearby. Two of the CCWs are located within close proximity to the proposed clearing, one being 300m north east and the other 630m south east. A Resource Enhancement Wetland (REW) exists 130m east of the proposed clearing, within Lot 122. DEC considers, following a more detailed inspection of this REW, that it contains values consistent with a CCW classification. The wetland has therefore been recommended for upgrading of its status.

During the site visit (DEC, 2008) the landforms surrounding the wetland were observed. To the western edge there is a ridgeline approx 10-15 metres above the height of the wetland. This topography was identified as providing important hydrological flows into the wetland. Clearing of vegetation along and below this ridgeline will result in an increase of sedimentation into the wetland. An increase of sedimentation is linked to an excess of nutrients within wetlands, thereby affecting the water quality of the wetland.

The water table within the local area is known to be quite shallow (around 5mbgl) and it is considered that clearing 52.5ha of deep-rooted vegetation may further raise the groundwater levels. Salinity levels in the area are known to be generally fresh to marginal (250 to 1500 mg/L Total Dissolved Solids (TDS)) however an environmental overview on the Kemerton Industrial Park (Coffey, 2007) stated that groundwater salinity increased in the direction of groundwater flow, which is from the darling range to the west. Due to this it is considered that clearing within the proposed area may also increase groundwater salinity levels.

Given the above factors it is concluded that the proposal is at variance to this principle.

**Methodology**

DEC 2008  
Coffey, 2007  
DAFWA 2006  
GIS Database:  
- Acid Sulfate Soils Risk Map, SCP - DoE 01/02/04

- EPP Lakes - DEP 28/07/03
- Geomorphic Wetlands (Mgt Categories) - Swan Coastal Plain - DoE 15/9/04
- 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 area proposed to be cleared consists of porous soils which are well drained (DAFWA, 2006). The clearing will result in an increase of surface runoff, however given the soil type it is unlikely that this increase will be significant. Therefore the proposal is not likely to be at variance to this principle.

**Methodology** DAFWA Report 2006

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

**Comments**

DEC received advice from the EPA (2006):

"The land in question, being Lots 120, 121 and 122 has a history of several development proposals submitted by previous proponents. In line with past advice, the EPA will not support proposals that will result in the destruction of this high conservation area. Therefore, the EPA will not support further land clearing on Lot 120, 121 and 122." The EPA has considered for a number of proposals, that the proposed clearing area is regionally significant vegetation of a high conservation value. The EPA has recommended to the West Australian Planning Commission an amendment to the Greater Bunbury Region Scheme to have the areas identified as conservation significant, zoned as Regional Open Space (ROS).

The clearing proposal is within the buffer zone of the Kemerton Industrial Park. The Shire has not received an application for an extractive industry licence from the proponent.

A submission received by the Department also highlighted the fact the clearing proposal is within the Swan Coastal Plain which is currently being surveyed. The State Government has allocated funding for the project (effectively an extension of Perth's Bush Forever Initiative) known as the Swan Bioplan Project which is currently being undertaken. The projects aim is to identify floristic units within regionally significant bushland. The submission asks that the Department be cautious in its approach to clearing applications until such time as the Bioplan project is complete.

A submission was also received detailing the rich and distinctive vertebrate fauna found within the Kemerton area. The submission also mentions the apparently uncoordinated approach to sand extraction within the south west and states that while it is acknowledged that sand as a resource is required, extractive industry planning for this region should look to the Statement of Planning Policy no. 2.4 Basic Raw Materials.

Predominantly, the proposed clearing falls within the Kemerton Industrial Park Buffer. Essentially the purpose of the buffer is to reduce off-site impacts caused by the Kemerton Industrial Park (KIP). This buffering capacity will be diminished by the removal of a large area (52.5ha) of vegetation. Visual and light amenity in particular may be impacted by the removal of this vegetation.

The Kemerton Industrial Park Strategy Plan identified areas of significant vegetation within which conservation of vegetation should be a high priority. However, the Strategy Plan goes on to say that 'Where the need for limited additional clearing is justified (eg for quarry purposes) re-vegetation or offsets of additional protected areas should be considered' (Strategy Plan, 2007). The landscape assessment plan also states that limited sand extraction within the buffer area is considered allowable. This strategy plan has not been endorsed by the Western Australian Planning Commission and the Department for Planning and Infrastructure.

**Methodology**

**4. Assessor's comments**

Purpose	Method	Applied area (ha)/ trees	Comment
Extractive Industry	Mechanical Removal	52.5	Principles (a), (b), (e), (h) and (i) to be at variance Principle (f) to be maybe at variance Principles (c), (d), (g) and (j) to be not likely to be at variance

**5. References**

- Bennett Environmental Consulting, 2007, Flora and Vegetation survey of 120, 121 and 122 Old Coast Rd, Western Australia, unpublished.
- Coffey, 2007, Kemerton Industrial Park Environmental Overview for the KIP Strategy Plan, Unpublished.
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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)