



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 3376/1

File Number: DEC11695

Duration of Permit: From XX XXX XXXX to XX XXX XXXX

PERMIT HOLDER

Merilla Pty Ltd

LAND ON WHICH CLEARING IS TO BE DONE

LOT 47 ON PLAN 3217 (House No. 118 SHEFFIELD ROAD, WELSHPOOL 6106)

LOT 56 ON PLAN 6941 (WELSHPOOL 6106)

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 2.2 hectares of native vegetation, within the areas hatched yellow on attached Plan 3376/1.

CONDITIONS

1. Fauna management

- (a) Prior to undertaking any clearing authorised under this Permit, the area(s) shall be inspected by a *fauna specialist* in accordance with *Guidance Statement No 56* for the presence of *priority* listed fauna;
- (b) Prior to clearing, the Permit Holder shall ensure that any fauna identified by condition 1(a) shall be removed and relocated by a *fauna clearing person*, in accordance with a licence issued by the Department.

2. Wind erosion management

The Permit Holder shall apply soil stabiliser within the area hatched yellow on attached Plan 3376/1 where the Permit Holder has not commenced construction works within 14 days of the area being cleared in accordance with this Permit.

3. Records to be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit in relation to fauna management pursuant to condition 1 of this Permit:

- (a) the location and type of each habitat identified recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
- (b) the species name of fauna reasonably likely to utilise, or that have been observed utilising, the habitat/habitat tree(s); and
- (c) the location and date where relocated fauna was released, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings.

4. 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 3 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 xx xx xxxx, the Permit Holder must provide to the CEO a written report of records required under condition 3 of this Permit where these records have not already been provided under condition 4(a) of this Permit.

Definitions

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

fauna clearing person means a person who has obtained a licence from the *Department*, issued pursuant to the *Wildlife Conservation Regulations 1970* authorising them to take fauna;

fauna specialist means a person with training and specific work experience in fauna identification or faunal assemblage surveys of Western Australian fauna;

Guidance Statement No 56 means Guidance for the Assessment of Environmental Factors: Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia. Guidance Statement No 56, Environmental Protection Authority (2004);

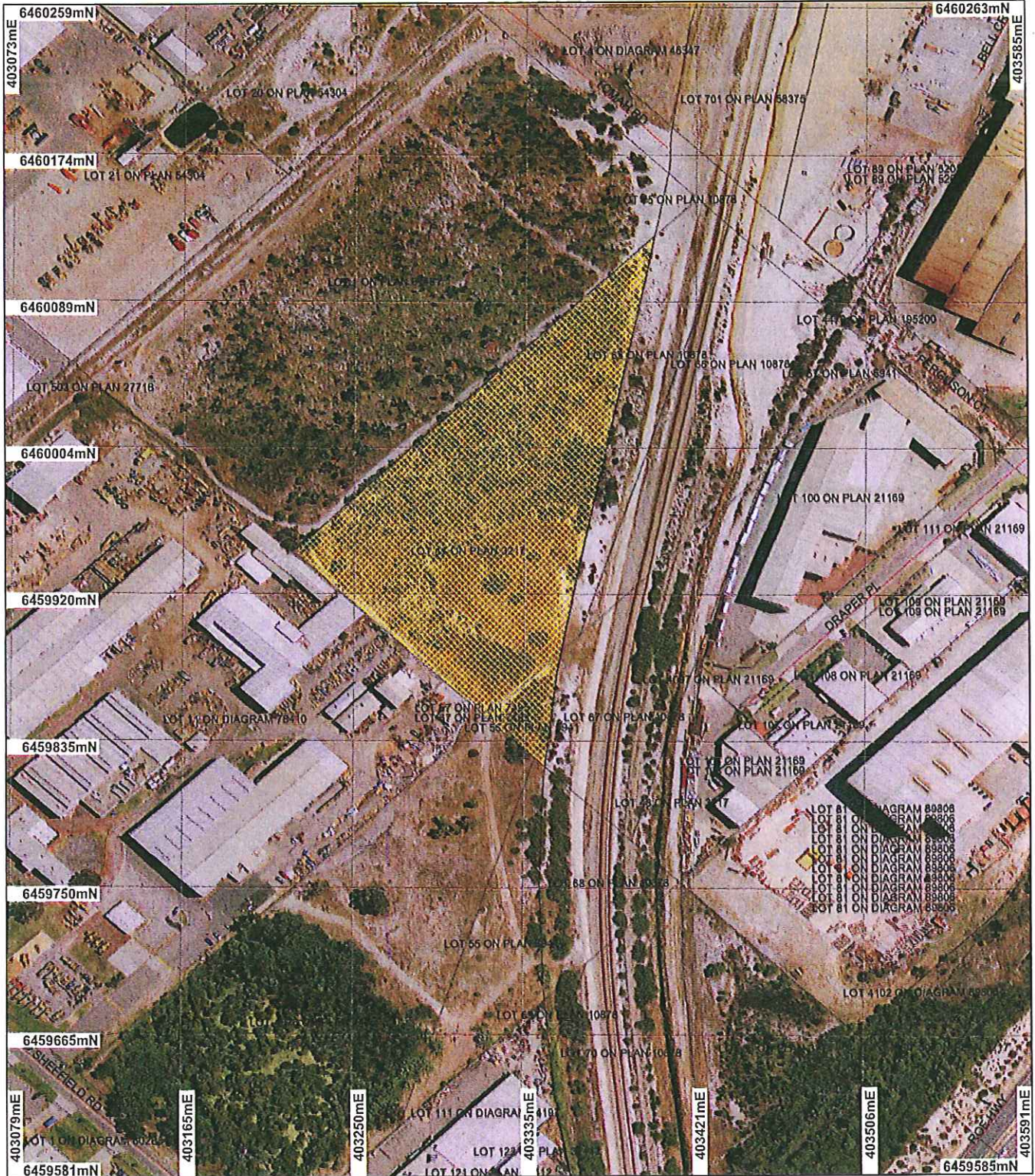
priority fauna means those fauna species described as priority fauna classes 1, 2, 3, 4 or 5 in the *Department's Declared Threatened, Other Specially Protected and Priority Fauna List for Western Australia* (as amended).

XXX
XXXX
XXXX

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

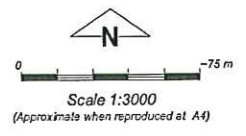
XX XXX XXXX

Draft Plan 3376/1



LEGEND

- | | |
|-------------------------|-----------------------------|
| Clearing Instruments | Towns |
| Areas Approved to Clear | Swan Coastal Plain Central |
| Road Centrelines | 30cm Orthometric - Landgate |
| Cadastre | 2008 |



Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

..... Date

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



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1. Application details

1.1. Permit application details

Permit application No.: 3376/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Merilla Pty Ltd

1.3. Property details

Property: LOT 47 ON PLAN 3217 (House No. 118 SHEFFIELD ROAD, WELSHPOOL 6106)
LOT 56 ON PLAN 6941 (WELSHPOOL 6106)
Local Government Area: CITY OF CANNING

1.4. Application

| | | | |
|--------------------|-----------|--------------------|-----------------------|
| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
| 2.2 | | Mechanical Removal | Building or Structure |

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: 1009 - Medium woodland; Marri and River Gum. | The vegetation is considered overall to be in 'very good' (Keighery, 1994) condition. A portion towards the southern end of the applied clearing area and a small patch on the north-eastern boundary are in 'completely degraded' (Keighery, 1994) condition dominated by non-native grasses while the northern and north-western half of the vegetation ranges from 'good' to 'excellent' (Keighery, 1994) condition, including a conservation category wetland. | Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994) | The condition of the vegetation was confirmed during a site visits undertaken by DEC Officers on the 13th July 2009 and 21 October 2009 (DEC, 2009a & DEC, 2009d). |

Both wetland and upland vegetation was recorded onsite with the wetland areas classed as 'good' to 'excellent' (Keighery, 1994) condition. The vegetation consists of *Melaleuca preissiana* and *Nuytsia floribunda* with scattered *Banksia menziesii* over heath of mixed shrubs, sedges, grasses and herbs such as *Adenanthos cygnorum*, *Stirlingia latifolia*, *Banksia (dallanneyi / nivea)*, *Banksia illicifolia*, *Banksia grandis* (seedling), *Jacksonia floribunda*, *Jacksonia fuercellata*, *Patersonia occidentalis*, *Hypolaena exsulca*, *Allocasuarina humilis*, *Lepidosperma sp.*, *Lomandra sp.*, *Gompholobium tomentosum.*, *Acacia pulchella.*, *Alexgeorgea nitens.*, *Desmocladius fasciculatus*, *Dasyopogon bromelliifolius*, *Xanthorrhoea preissii* and *Drosera sp.*

The western corner of the applied clearing area retains a small area of *Corymbia calophylla* (Marri).

A number of weed species have also encroached into the applied clearing area including *Briza minor*, *Ehrharta calycina*, *Gladiolus caryophyllaceus*, *Hypochaeris glabra*, *Ursinia anthemoides*, *Avena* sp., *Pelargonium capitatum* and *Euphorbia terracina*.

Lot 56 is degraded consisting of *Banksia attenuata* over non-native grasses and *Macrozamia* sp.

Hedde Vegetation
Complex: Southern River
Complex -

'Open woodland of
Corymbia calophylla
(Marri) - *Eucalyptus*
marginata (Jarrah) -
Banksia sp. with fringing
woodland of *Eucalyptus*
rudis - *Melaleuca*
raphiophylla along creek
beds'

Very Good: Vegetation
structure altered; obvious
signs of disturbance
(Keighery 1994)

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 vegetation under application overall is in 'very good' (Keighery, 1994) condition (DEC, 2009a). The vegetation ranges from 'completely degraded' in the southern end of the applied clearing area which consists mainly of non-native grasses and has been highly impacted by previous clearing and surrounding industry, to 'excellent' condition along the north-western boundary incorporating the Conservation Category Wetland (CCW) (DEC, 2009a).

Approximately half of the applied clearing area along the north-western boundary is deemed to be an environmentally sensitive area, associated with the palusplain CCW and a 50m buffer. The vegetation that is within the CCW is in 'excellent' condition, highly diverse and encompasses approximately 0.78ha of the applied clearing area (DEC, 2009a). This wetland is also the only remaining intact wetland in the locality of Welshpool (DEC, 2009d).

The vegetation is a component of the Southern River Complex (Open woodland of *Corymbia calophylla* (Marri) - *Eucalyptus marginata* (Jarrah) - *Banksia* species with fringing woodland of *Eucalyptus rudis* (Flooded Gum) - *Melaleuca raphiophylla* (Swamp Paperbark) along creek beds) and the Beard Vegetation Association 1009 (Medium woodland; marri & river gum) both of which are poorly reserved (EPA, 2006a, Hedde et al, 1980 & Shepherd, 2007). The City of Canning has less than 10% of its pre-European vegetation remaining and therefore is below the accepted 10% threshold for the Perth Metropolitan Region (EPA, 2000).

The understorey vegetation is dense and in 'very good' condition across approximately half of the vegetation under application (DEC, 2009a). It may provide habitat for ground-dwelling indigenous fauna including but not limited to the Black striped snake (*Neelaps calanotos*, Priority 3), Lined skink (*Lerista lineata*, Priority 3) and Quenda (*Isodon obesulus fusciventer*, Priority 5) which have all been recorded within the local area as well as a stepping stone for small birds, reptiles and invertebrates. Given the dense understorey, the overall 'very good' condition of the vegetation on Lot 47 and the fact that there is very little remnant vegetation within the area left, the applied clearing area may be locally significant as habitat for indigenous fauna and as a stepping stone for fauna movement through the local area.

Based on this information it is concluded that the proposal is at variance to this Principle. DEC has reviewed an offset provided by the applicant of 21.2ha within the Shire of Chittering containing four Conservation Category Wetlands, including one of the same Mungala Consanguineous Suite as the wetland which existed on Lot 46 and within Lot 47, which has been protected by a conservation covenant. This offset mitigates the loss of the wetland and conserves habitat for indigenous fauna species, such as the Quenda.

Methodology

References:

- DEC (2009a)
- DEC (2009d)
- EPA (2000)
- EPA (2006a)

- Heddle et al (1980)
- Keighery (1994)
- Shepherd (2007)
- GIS Databases:
 - Geomorphic wetlands (Mgmt Categories) - Swan Coastal Plain
 - Heddle Vegetation Complexes - DEP
 - Perth Metropolitan Area Central 20cm Orthomosaic - Landgate 2007
 - SAC Biodatasets - Accessed 7/07/2009, 11/08/2009 & 12/08/2009
 - Soils, Statewide - DA

(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

104 records of 21 species of threatened and priority fauna have been recorded within the local area (10km radius) of the applied clearing area, with the closest record being the Quenda (*Isoodon obesulus fusciventer*, Priority 5) approximately 970m north east of the applied clearing area.

The Quenda prefers habitat consisting of dense scrubby understorey vegetation up to one metre high, particularly around swamps and adjacent to watercourses (DEC Fauna Habitat Notes, 2007 and DEC, 2007).

The understorey vegetation is dense and in overall 'very good' condition (DEC, 2009a) and therefore is likely to provide habitat for ground-dwelling indigenous fauna including but not limited to Black -striped snake (*Neelaps calonotos*, Priority 3), Lined skink (*Lerista lineata*, Priority 3) and Quenda (*Isoodon obesulus fusciventer*, Priority 5), which have all been recorded within the local area.

Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*, Endangered), the Forest Red-tailed Black-Cockatoo (*Calyptorhynchus banksii naso*, Vulnerable) and Baudin's Black-Cockatoo (*Calyptorhynchus baudinii*, Endangered) have all been recorded within the local area (10km radius). Although the vegetation contains some species on which Black-Cockatoos are known to feed (Burbidge, 2004, Nevill, 2005 & Johnstone and Storr, 1998), the dominance of the *Melaleuca* sp. at this location and the minimal and scattered nature of the *Banksia* and *Marri*, means the area is unlikely to be significant for the Carnaby's Cockatoo (DEC, 2009b) and therefore is unlikely to provide significant habitat for either of the forest black-cockatoo species.

A survey was undertaken by GHD on the 21 September 2009 to assess the potential for the site for fauna habitat. Minimal fauna activity was noted, attributed to the wet and windy weather conditions, however, scratchings possibly from Quenda were noted as well as evidence of introduced animals including rabbit scratchings, one fox den and domesticated dogs (GHD, 2009b).

Given that the site is small (2.2ha), industrial development surrounds the vegetation and there is evidence of introduced animals at the site the ability for indigenous fauna to persist at this location is low. However, the site does contain preferred habitat types of priority fauna species and given the dense understorey, the overall 'very good' condition of the vegetation on Lot 47, and the fact that there is very little remnant vegetation within the local area, the applied clearing area may provide habitat for indigenous fauna and a stepping stone for fauna movement through the local area.

As there is no adjoining native vegetation to this property, it is a condition of the permit that a fauna clearing person be onsite to check for and where required appropriately remove and relocate priority fauna prior to the commencement of clearing.

Methodology

References:

- Burbidge (2004)
- DEC (2009a)
- DEC (2009b)
- DEC Fauna Habitat Notes (2007) - Accessed 17/08/2009
- DEC (2007)
- GHD (2009b)
- Johnstone & Storr (1998)
- Nevill (2005)
- GIS Databases:
 - SAC Biodatasets - Accessed 7/07/2009 & 11/08/2009
 - Perth Metropolitan Area Central 20cm Orthomosaic - Landgate 2007

(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

Eighty flora species of conservation significance have been recorded within the local area (10km radius) with twenty two of these species being recorded within similar vegetation and soil types to the area under application. The closest record of declared rare flora is *Conospermum undulatum*, approximately 600m east and the closest priority species is *Verticordia lindleyi* subsp. *lindleyi* (Priority 4) approximately 220m east of the applied clearing area.

A site visit was conducted by GHD in December 2008 to determine if the vegetation under application would be habitat for flora of conservation significance, with a flora survey being conducted on the 29th May 2009 (GHD, 2009a). Although there were no significant issues highlighted or flora of conservation significance recorded during the flora survey, the survey is limited due to the fact that some of the flora species known to occur within the local area (10km radius) within similar soil and vegetation types to the applied clearing area may not be able to be identified in May including *Macarthuria keigheryi*, *Caladenia huegellii*, *Diuris purdiei* and *Lepidosperma rostratum*.

Macarthuria keigheryi (Endangered) inhabits areas of low-lying winter damp sands with *Banksia* sp. and *Kingia australis*, *Caladenia huegellii* (Endangered) is known to grow in deep sandy soil in areas of lush undergrowth below a mixed woodland of *Eucalyptus marginata* and *Banksia* sp. and *Diuris purdiei* grows in "sand to sandy clay soil amongst scattered shrub in areas subject to winter inundation" (Brown et al, 1998). *Lepidosperma rostratum* (Endangered) is known to occur in low heath in winter wet-swamps and sandy soils and *Banksia mimica* (Endangered) grows in grey-white sands in low open *Banksia* woodland over heath (Brown et al, 1998).

A second flora survey was undertaken by GHD on the 17 September 2009 to target the rare flora species listed above with the exception of *Diuris purdiei* which would only have been able to be recorded post fire if it inhabits the site. None of the rare flora species known to occur within the local area were recorded within the applied clearing area (GHD, 2009b).

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

Methodology

References:

- Brown et al (1998)
 - DEC (2009a)
 - GHD (2009a)
 - GHD (2009b)
- GIS Databases:**
- SAC Biodatasets - Accessed 11/08/2009 and 12/08/2009
 - Soils, Statewide - DA
 - Heddl Vegetation Complexes - DEP

(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

Nine threatened (TEC) and three priority ecological communities (PEC) are known to occur within a 5km radius of the applied clearing area. Of these, four of the TEC's have been found within a 5km radius on the same vegetation and soil types as that mapped for the applied clearing area, with the closest being the floristic community SCP02, Southern wet shrublands, Swan Coastal Plain (Endangered).

The other three community types are SCP20a - *Banksia attenuata* woodland over species rich dense shrublands (Endangered), SCP3b - *Corymbia calophylla* - *Eucalyptus marginata* woodlands on sandy clay soils of the southern Swan Coastal Plain (Vulnerable) and SCP3a - *Corymbia calophylla* - *Kingia australis* woodlands on heavy soils, Swan Coastal Plain (Critically Endangered).

Information gathered from the neighbouring Lot 46, which is now cleared, states that the upland vegetation may have been of the floristic community type SCP20a (EPA, 2008 & Submission, 2009a) and the vegetation complex mapped for the applied clearing area is the same as the neighbouring property, being the Heddl Southern River Complex.

The vegetation observed during the site visit (DEC, 2009a) however, is not indicative of the 20a floristic community type as the majority of the vegetation under application consists of wetland vegetation species. It is also unlikely that the vegetation comprises the floristic community type SCP02, as this community type is normally found in wetter areas on heavier soils with an impervious substrate and normally shows more diversity than what appears at this site (DEC, 2009c). *Pericalymma ellipticum* and *Kingia australis* are also dominant indicator species of this community type, normally growing around the edges of the depression, neither of which were recorded on site (DEC, 2009a, DEC, 2009c & GHD, 2009a).

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

- Methodology** References:
- DEC (2009a)
 - DEC (2009c)
 - EPA (2008)
 - GHD (2009a)
 - Submission (2009a)
- GIS Databases:
- Heddle Vegetation Complexes - DEP
 - Perth Metropolitan Area Central 20cm Orthomosaic - Landgate 2007
 - SAC Biodatasets - Accessed 17/08/2009
 - Soils, Statewide - DA

(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 may be at variance to this Principle

The vegetation under application is located within an extensively cleared industrial and urban area. The proposed clearing area is mapped within the Beard Vegetation Association 1009 - Medium woodland; Marri and River Gum, of which there is 14.8% of the pre-European extent within the Swan Coastal Plain IBRA Region remaining (Shepherd, 2007).

The vegetation is also mapped as the Heddle Southern River Complex, described as predominantly open woodland of *Corymbia calophylla* (Marri) - *Eucalyptus marginata* (Jarrah) - *Banksia* species with fringing woodland of *Eucalyptus rudis* (Flooded Gum) - *Melaleuca raphiophylla* (Swamp Paperbark) along creek beds (Heddle et al, 1980).

The property lies within the City of Canning in the Swan Coastal Plain IBRA Region which have 7.3% and 38.8% of their pre-European extent remaining respectively (Shepherd, 2007).

The Beard Vegetation Association 1009 and the current extent of the Heddle Southern River Complex are both less than 30% of their pre-European extent. However, the EPA recognises the Perth Metropolitan Region as a 'constrained area' providing for the reduction of vegetation complexes to a minimum of 10% of their pre-European extent (EPA, 2000 & EPA, 2006a). According to 1998 Bush Forever (BF) data, 17.2% of the Southern River Complex remains within the Perth Metropolitan Region Scheme (PMRS) constrained area (Government of Western Australia, 2000), however, due to increased development within this area this value has decreased within the last 11 years.

The vegetation associations and complexes, for which this vegetation is a part, all have very low percentages remaining within secure tenure.

The local area (10km radius) is extensively cleared for industry and urban development (with less than 10% of the pre-European extent remaining within the City of Canning) and therefore the vegetation under application may be considered significant as a remnant in the local area due to it's importance as a stepping stone within the landscape.

| | Pre-European (ha) | Current Extent (ha) | Remaining (%) | In secure tenure (%) |
|---|----------------------|------------------------|------------------|-------------------------|
| IBRA Bioregion* | | | | |
| Swan Coastal Plain Shire* | 1,501,209 | 583,141 | 38.8 | 32.55 |
| City of Canning | 6,416 | 466 | 7.3 | 0.00 |
| Beard Vegetation Association* 1009 (within SCP IBRA Region) | 18,185 | 2,697 | 14.8 | 2.16 |
| Heddle Vegetation Complexes** | | | | |
| Southern River Complex | 57,979 | 11,501 | 19.8 | 1.50 |
| Southern River Complex*** (within PMRS constrained area in 1998) | 31,148 | 5,370 | 17.2 | 10.10 (BF) |

*(Shepherd, 2007)

** (EPA, 2006a)

*** (Government of Western Australia, 2000)

- Methodology** References:
- DEC (2009a)
 - EPA (2000)
 - EPA (2006a)
 - Government of Western Australia (2000)
 - Heddle et al (1980)
 - Shepherd (2007)

GIS Databases:

- Heddlu Vegetation Complexes - DEP
- Metropolitan Region Scheme - DPI
- Perth Metropolitan Area Central 20cm Orthomosaic - Landgate 2007
- SAC Biodatasets - Accessed 17/08/2009

(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

The closest watercourse to the applied clearing area is Woodlupine Brook, approximately 700m south, however, there is also a major drain approximately 45m east of the applied clearing area which leads into this brook.

Approximately 0.78ha (EPA, 2008) along the north-western boundary of the applied clearing area is a Conservation Category Wetland (CCW) which is part of the Mungala Consanguineous Suite of Wetlands (Submission 2009a). The condition of the wetland and associated vegetation is considered to be 'excellent' (DEC, 2009a) The rest of the vegetation under application is within a multiple use (palusplain) wetland.

CCWs are wetlands with high ecological values; are the highest priority wetlands for protection (Water and Rivers Commission 2001); and are recognised under objective one of the Wetlands Conservation Policy for Western Australia as valuable (Government of Western Australia 1997). EPA Position Statement No. 9 defines Conservation Category Wetlands as critical assets (EPA, 2006b). Based on wetland mapping, there is only approximately 3.7% of palusplain wetlands remaining on the Swan Coastal Plain and only 4% of palusplain wetlands located within the Mungala Consanguineous Suite are of the Conservation management category (DEC, 2009d).

GHD (2009b) undertook further investigations on the 17th September 2009 to map the boundary of the Conservation Category Wetland represented by the extent of the *Melaleuca preissiana* and determined the wetland to be approximately 0.38ha on Lot 47. Further assessment of the site using Bulletin 686, also concluded that the wetland should be reclassified as 'Resource Enhancement.'

A site visit undertaken by DEC Officers on the 21 October 2009 was undertaken to further assess the wetland. The wetland has been noted as having value through providing fauna habitat, being remnant bushland in a cleared landscape, being the only remaining intact wetland in the locality of Welshpool, containing dense and intact native vegetation and provides aesthetic value (DEC, 2009d). Within the wetland assessment from GHD it was recorded that the wetland is greater than 40% modified (GHD, 2009b) however, wetlands advice has stated that "as the wetland is only a portion of a palusplain, only the wetland area on Lot 47 should be considered during the evaluation and therefore the wetland is not commensurate with 'Resource Enhancement' management category" on this basis, as well as the wetland supporting a number of important values commensurate with Conservation management category, it has been concluded that the wetland as delineated by Biota (2005) should be referred to as 'high conservation significance' (DEC, 2009d).

This Conservation Category Wetland was once a portion of a larger 1.82ha CCW which extended onto Lot 46, this has since been cleared and therefore removing further vegetation under the current proposal will result in the removal of the whole CCW. As the whole 2.2ha of native vegetation is within the palusplain wetland (either a Conservation Category or a Multiple Use) it is concluded that the proposal is at variance to this principle.

DEC generally does not support the clearing or development of any wetlands of high conservation significance including those mapped as Conservation. However, the Department also recognises that the CCW as delineated by Biota (2005) is small, isolated from other remnant bushland and wetlands and is surrounded by industrial development (DEC, 2009d). For this reason, without the implementation of a 50m buffer around this wetland, the wetland is not considered sustainable in the long term (DEC, 2009d).

A 21.2ha offset within the Shire of Chittering has been provided by the landowner to offset a large portion of this Conservation Category Wetland that existed on Lot 46 and within Lot 47. This offset contains 4 CCW's, one of which is of the same Mungala Consanguineous Suite as the wetland remaining on Lot 47 Sheffield Road, Welshpool and has been protected by a conservation covenant. The conservation of this offset area will mitigate the loss of this wetland.

Methodology

References:

- Biota (2005)
- DEC (2009a)
- DEC (2009d)
- EPA (2006b)
- EPA (2008)
- Government of Western Australia (1997)
- Submission (2009a)
- Water and Rivers Commission (2001)

- GIS Databases:
- EPP, Lakes
 - Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
 - Hydrography, linear - DoW
 - Hydrography, linear (hierarchy) - DoW
 - RAMSAR Wetlands

(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 vegetation under application occurs on white sands and clayey sands, consistent with the mapped soil type "sandy dunes with intervening sandy and clayey swamp flats: chief soils are leached sands, sometimes with a clay D horizon below 5ft, on the dunes and sandy swamps" (Northcote et al., 1960-68).

The location of the proposed clearing has a topography of approximately 20m AHD and a low relief. The mapped salinity risk across the applied clearing area ranges from low to high risk, with the high risk being close to the conservation category wetland. The groundwater salinity risk is between 500 - 1000mg/L total dissolved solids.

Due to the presence of a palusplain (seasonally inundated wetland) across the properties under application, the area is known to become inundated with water, however due to the sandy profile of the soils at this site the infiltration of water would be high and the risk of waterlogging will be minimal.

Due to the sandy soils at this site, the removal of native vegetation may result in wind erosion, which may cause appreciable land degradation. If however, the appropriate measures are detailed and implemented to control dust and subsequently wind erosion, which would also be implemented through the Local Government development approval, then the impacts of the clearing will be manageable. It is also a condition of the permit that a soil stabiliser be used post clearing and prior to the commencement of construction to reduce the risk of wind erosion.

Methodology

References:

- DEC (2009a)
 - Northcote et al (1960-1968)
- GIS Databases:
- Groundwater Salinity, Statewide - DoW
 - Salinity Risk LM 25m - DOLA
 - Soils, Statewide - DA
 - Topographic Contours, Statewide - DOLA
 - Perth Metropolitan Area Central 20cm Orthomosaic - Landgate 2007

(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

Eight different DEC managed lands are located within the local area (10km radius) of the applied clearing area, with the closest being an un-named nature reserve approximately 1.7km north east of the applied clearing area.

The closest Bush Forever site is the Tomah Road Bushland in Wattle Grove on the opposite side of the Roe Highway approximately 370m south-east of the applied clearing area.

Given the distance of the vegetation to the conservation areas, it is unlikely that the proposed clearing will impact on the environmental values of the nearby conservation areas and therefore it is not likely to be at variance to this principle.

Methodology

References:

GIS Databases:

- Bush Forever
- CALM Managed Lands and Waters
- Register of National Estate
- System 6 Conservation Reserves
- Perth Metropolitan Area Central 20cm Orthomosaic - Landgate 2007

(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

The applied clearing area lies within the Swan Avon - Canning River Catchment in the Swan Coastal Basin. The closest watercourse to the applied clearing area is Woodlupine Brook, approximately 700m south, however, there is also a major drain approximately 45m east of the applied clearing area which leads into this brook.

The mapped groundwater salinity for the area ranges between 500 - 1000mg/L total dissolved solids, with the salinity risk for the area ranging from low to high risk across the applied clearing area.

The removal of this vegetation may increase surface water run-off within Lot 47. However, due to the low relief of the site, the distance of the applied clearing area to the nearby drain and the sandy soils, it is unlikely that the clearing will result in a deterioration of surface and underground water sources in the local area.

Methodology References:

GIS Databases:

- Geomorphic wetlands (Mgmt Categories), Swan Coastal Plain
- Groundwater Salinity, Statewide - DoW
- Hydrographic Catchments - Basins - DoW
- Hydrographic Catchments - Catchments - DoW
- Salinity Risk LM 25m - DOLA
- Topographic Contours, statewide - DOLA

(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 closest watercourse to the applied clearing area is Woodlupine Brook approximately 700m south of the applied clearing area, however a major drain approximately 45m east leads into this brook. The site has a low relief with a topography of approximately 20m AHD.

Approximately 0.78ha (EPA, 2008) of the vegetation along the north-western boundary of the applied clearing area is within a palusplain conservation category wetland, with the rest being a multiple use wetland. Therefore the properties proposed to be cleared are prone to become seasonally inundated and therefore the removal of the vegetation may increase the amount of water retained on site.

The soils at this site are described as "sandy dunes with intervening sandy and clayey swamp flats" with chief soils being "leached sands, sometimes with a clay D horizon below 5ft, on the dunes and sandy swamps" (Northcote et al, 1960-68). Sandy soils across much of the site will assist in the infiltration of water at this location, however, the clayey wetland areas may still be prone to some increased waterlogging with the removal of the vegetation.

Due to the small scale of the clearing, the distance of the vegetation to watercourses in the local area and the sandy soils associated with much of this site (DEC, 2009a), it is concluded that although waterlogging may occur onsite as a result of the clearing it is unlikely to cause, or exacerbate, the incidence or intensity of flooding.

Methodology References:

- DEC (2009a)
 - EPA (2008)
 - Northcote et al (1960-68)
- GIS Databases:
- Hydrography, linear - DoW
 - Hydrography, linear (hierarchy)- DoW
 - Soils, Statewide - DA
 - Topographic Contours, Statewide - DOLA
 - Geomorphic Wetlands (Mgmt Categories), Swan Coastal Plain

Planning Instrument, Native Title, Previous EPA decision or other matter.

Comments

The properties under application are zoned 'General Industry' under the Metropolitan Region Scheme and under the City of Canning Town Planning Scheme No. 40 (Submission, 2009a).

The application to clear for this property was originally submitted under Clearing Application CPS3181/1 on the 22 June 2009 by the current landowners of the property, Main Roads Western Australia, as per a condition of sale to Merilla Pty Ltd, the prospective purchasers of Lots 56 and 47, Welshpool. As Main Roads were not wishing to undertake the clearing themselves, clearing application CPS3181/1 was withdrawn on the 14 October 2009. Merilla Pty Ltd have a contract of sale with Main Roads and submitted an application to DEC on the 20 October 2009 for the purpose of the expansion of the transport depot and warehouse construction which is to be constructed on the neighbouring Lot 46 (GHD, 2009a & Merilla Pty Ltd, 2009a).

A portion of the area under application is a Conservation Category Wetland. EPA Position Statement No. 9 defines conservation category wetlands as critical assets and therefore requires an environmental offset should the wetland be impacted. The position statement however, also states that the future of the asset retaining its environmental values in the medium to long term needs to also be taken into consideration (EPA, 2006b).

In 2008, Merilla Pty Ltd were given approval subject to conditions set out in Ministerial Statement 766 to clear 3.88ha of native vegetation (including 1.04ha of a 1.82ha Conservation Category Wetland) on the neighbouring Lot 46 Tomah Road. The clearing of this vegetation was granted in conjunction with an offset of 21.2ha of significant wetland and native vegetation in the Shire of Chittering (EPA, 2008). This offset includes four Conservation Category Wetlands, one 3.9ha wetland is of the same Mungala Consanguineous Suite as the portion of CCW remaining at Lot 47 (EPA, 2008). The conservation of this area will mitigate the loss of the remaining wetland at Lot 47.

The City of Canning has stated in their submission that their records show this site may have previously been used as a landfill site. They have also stated that due to the presence of the Conservation Category Wetland, the City recommends that if it is a condition of the permit to offset the loss of the Conservation Category Wetland that the offset be located within the City of Canning (Submission, 2009a). The applicant has provided a 21.2ha offset in the Shire of Chittering and while not in the City of Canning, which has limited scope for wetland offsets, the site contains a wetland of the same consanguineous suite as that under application and the conservation of this site is therefore considered an appropriate offset.

A public submission received by the Department on the 21st July 2009 opposes the clearing of native vegetation at this site. The submission raises the following concerns -

1. The larger 5.6ha block (Lot 46 and 47) was nominated "for inclusion in the Bush Forever initiative" and although it did not result in formal recognition there was "no justification for this omission" and we "still took the view that the site was important and that it should be protected;"
2. The significance of remnant vegetation in the Welshpool/ Kewdale area has not been recognised and there has been a failure to retain native vegetation in this area causing "unsatisfactory pattern of habitat destruction" and vegetation clearing;
3. The remaining vegetation in the local area is important as they provide "refuges and stopovers and feeding and nesting areas they (native fauna) need to survive." "The smaller pockets and strips of bridging habitat that can facilitate natural genetic exchange for flora and fauna and even basic access to" the larger remaining blocks of vegetation "for many species of fauna" is being lost.
4. This patch of Banksia woodland and emergent paperbarks over dampland heath provides habitat for indigenous fauna such as Southern Brown Bandicoot and Western Heath Dragon and significant feeding habitat for Carnaby's Black-Cockatoo. It also provides habitat for "fauna moving along the railway and drain reserves nearby to bushland areas further afield" and is important as an ecological link.

These concerns have been addressed within the relevant clearing principles.

Methodology

References:

- EPA (2008)
- GHD (2009a)
- Merilla Pty Ltd (2009a)
- Merilla Pty Ltd (2009b)
- Submission (2009a)
- Submission (2009b)

GIS Databases:

- Metropolitan Region Scheme - DPI
- Town Planning Scheme

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 (a) and (f), may be at variance to Principles (b) (e) and (g) and is not likely to be at variance to Principles (c), (d), (h), (i) and (j).

5. References

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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 (now DEC) |
| DMP | Department of Mines and Petroleum (ex DoIR) |
| 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 DoW) |

