



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 6701/1
Permit Holder:	AMG (WA) Pty Ltd
Duration of Permit:	14 November 2015 to 14 November 2025

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I – CLEARING AUTHORISED

1. Purpose for which clearing may be done

Clearing for the purpose of sand extraction.

2. Land on which clearing is to be done

Lot 3 on Diagram 35920, Waroona

3. Area of Clearing

The Permit Holder must not clear more than 6.2 hectares of native vegetation within the area hatched yellow on attached Plan 6701/1.

4. Period in which clearing is authorised

The Permit Holder shall not clear any native vegetation after 14 November 2020.

5. Application

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

PART II – MANAGEMENT CONDITIONS

6. Avoid, minimise etc clearing

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

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

7. Dieback and weed control

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds* and *dieback*:

- clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared;
- restrict the movement of machines and other vehicles to the limits of the areas to be cleared; and
- only move soils in *dry conditions*.

8. Retain vegetative material and topsoil, revegetation and rehabilitation

The Permit Holder shall:

- (a) retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil in an area that has already been cleared.
- (b) within 6 months following completion of extractive activities, *revegetate* and *rehabilitate* the areas that are no longer required for the purpose for which they were cleared under this Permit by:
 - (i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land;
 - (ii) ripping the ground on the contour to remove soil compaction;
 - (iii) ripping the pit floor and contour batters within the extraction site;
 - (iv) laying the vegetative material and topsoil retained under condition 8(a) on the cleared area(s);
 - (v) deliberately *planting* and/or *direct seeding* native vegetation that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area; and
 - (vi) ensuring only *local provenance* seeds and propagating material are used to *revegetate* and *rehabilitate* the area.
- (c) within 24 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 8(b) of this Permit:
 - (i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
 - (ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 8(c)(i) of this Permit will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, *revegetate* the area by deliberately *planting* and/or *direct seeding* native vegetation that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area and ensuring only *local provenance* seeds and propagating material are used.
- (d) Where additional planting or direct seeding of native vegetation is undertaken in accordance with condition 8(c)(ii) of this permit, the Permit Holder shall repeat condition 8(c)(i) and 8(c)(ii) within 24 months of undertaking the additional planting or direct seeding of native vegetation.
- (e) Where a determination by an *environmental specialist* that the composition, structure and density within areas *revegetated* and *rehabilitated* will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, as determined in condition 8(c)(i) and 8(c)(ii) of this permit, that determination shall be submitted for the CEO's consideration. If the CEO does not agree with the determination made under condition 8(c)(ii), the CEO may require the Permit Holder to undertake additional *planting* and *direct seeding* in accordance with the requirements under condition 8(c)(ii).

PART III - RECORD KEEPING AND REPORTING

9. Records to be kept

The Permit Holder must maintain the following records in relation to the *revegetation* and *rehabilitation* of areas pursuant to condition 8 of this Permit:

- (a) the location of any areas *revegetated* and *rehabilitated*, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
- (b) a description of the *revegetation* and *rehabilitation* activities undertaken;
- (c) the size of the area *revegetated* and *rehabilitated* (in hectares); and
- (d) the species composition, structure and density of *revegetation* and *rehabilitation*.

10. Reporting

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
 - (i) of records required under condition 8 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding calendar year.
- (b) Prior to 14 August 2025, the Permit Holder must provide to the CEO a written report of records required under condition 9 of this Permit where these records have not already been provided under condition 10(a) of this Permit.

DEFINITIONS

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

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

direct seeding means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

dry conditions means when soils (not dust) do not freely adhere to rubber tyres, tracks, vehicle chassis or wheel arches;

environmental specialist: means a person who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit, or who is approved by the CEO as a suitable environmental specialist;

fill means material used to increase the ground level, or fill a hollow;

local provenance means native vegetation seeds and propagating material from natural sources within 50 kilometres and the same Interim Biogeographic Regionalisation for Australia (IBRA) subregion of the area cleared;

mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

optimal time means the period from April to June;

planting means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;

regenerate/ed/ion means re-establishment of vegetation from in situ seed banks and propagating material (such as lignotubers, bulbs, rhizomes) contained either within the topsoil or seed-bearing mulch;

rehabilitate/ed/ion means actively managing an area containing native vegetation in order to improve the ecological function of that area;

revegetate/ed/ion means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as natural *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area;

soil disease status means soil types either infested, not infested, uninterpretable or not interpreted with a pathogen; and

weed/s means any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
- (b) published in a Department of Parks and Wildlife Regional Weed Rankings Summary, regardless of ranking; or
- (c) not indigenous to the area concerned.



M Warnock
SENIOR MANAGER
CLEARING REGULATION

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

15 October 2015

Plan 6701/1



Legend

-  Cadastre
-  Imagery
-  Clearing Instruments Activities
-  Local Government Authority



1:9,273

(Approximate when reproduced at A4)
GDA 94 (Lat/Long)

Geocentric Datum of Australia 1994

M. Warnock Date *15/10/15*
M. Warnock

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986



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1. Application details

1.1. Permit application details

Permit application No.: 6701/1
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: AMG (WA) Pty Ltd

1.3. Property details

Property: LOT 3 ON DIAGRAM 35920, WAROONA
Colloquial name:
Local Government Authority: Shire of Waroona
DER Region: Swan
Localities: Waroona

1.4. Application

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

1.5. Decision on application

Decision on Permit: Granted
Application:
Decision Date: 15 October 2015

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
<p>The area under application has been mapped as the following vegetation types:</p> <p>Beard Vegetation Association 1000: Mosaic: Medium forest; jarrah-marri / Low woodland; banksia / Low forest; teatree (<i>Melaleuca</i> spp.) (Shepherd et al. 2001).</p> <p>Heddle Vegetation Complex, Southern River Complex: open woodland: Open woodland of <i>Corymbia calophylla</i> (Marri) - <i>Eucalyptus marginata</i> (Jarrah) - Banksia species with fringing woodland of <i>Eucalyptus rudis</i> (Flooded Gum) - <i>Melaleuca raphiophylla</i> (Swamp Paperbark) along creek beds (Hedde et al, 1980).</p>	<p>The application proposes to clear 6.2 hectares of native vegetation within Lot 3 on Diagram 35920, Buller Road, Waroona, for the purpose of sand extraction.</p>	<p>Degraded; Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).</p>	<p>The vegetation description and condition was determined from a site visit conducted by Department of Environment Regulation officers on 17 July 2015 (DER, 2015) and from a flora survey conducted in May 2015 by MBS Environmental.</p>

3. Assessment of application against clearing principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments	<p>Proposed clearing is not likely to be at variance to this Principle</p> <p>The applicant proposes to clear 6.2 hectares of native vegetation within Lot 3 on Diagram 35920, Buller Road, Waroona for the purpose of sand extraction.</p> <p>The area under application has previously been used for sand extraction and is in a degraded to completely degraded (Keighery, 1994) condition. Species opportunistically recorded within the application area include; <i>Acacia huegelii</i>, <i>Acacia pulchella</i>, <i>Acacia saligna</i>, <i>Daviesia divaricata</i>, <i>Jacksonia furcellata</i>, <i>Jacksonia sternbergiana</i>, <i>Kennedia prostrata</i>, <i>Conostylis aculeata</i>, <i>Juncus pallidus</i>, <i>Corymbia calophylla</i>, <i>Eucalyptus marginata</i>, <i>Eucalyptus rudis</i> and <i>Kunzea ericifolia</i> (MBS Environmental, 2015).</p> <p>A combined total of 45 priority and rare flora species have been recorded in the local area (10 kilometre radius). Given the degraded to completely degraded (Keighery, 1994) condition of the area under application, it is unlikely to support rare or priority flora.</p> <p>No threatened or priority ecological communities have been mapped within the application area.</p> <p>The area under application is not likely to provide significant habitat for indigenous fauna due to the condition of the vegetation.</p> <p>An ecological linkage, defined by the South West Regional Ecological Linkage (SWREL) Report (Molloy et al, 2009) is mapped approximately 200 metres west of the application area which connects Buller Nature Reserve (240 metres south), Myalup State Forest (8.8 kilometres west) and Hamel State forest (7.3 kilometres east).</p> <p>The SWREL report defines an ecological linkage as "A series of (both contiguous and non-contiguous) patches of native vegetation which, by virtue of their proximity to each other, act as stepping stones of habitat which facilitate the maintenance of ecological processes and the movement of organisms within, and across, a landscape". Given the degraded to completely degraded (Keighery, 1994) condition of the area under application the proposed clearing is not likely to negatively impact upon the function of this linkage.</p> <p>A phytophthora dieback occurrence assessment of Lot 3 reports that the application area has previously been used for sand mining, and no records or evidence of hygiene practices for this operation were identified during the assessment. This is supported by the presence of infested areas in the surrounding vegetation, where the evidence suggests that the pathogen has spread from the operational area into the vegetation (Glevan Consulting, 2015).</p> <p>The application area is situated adjacent to areas of vegetation in very good (Keighery, 1994) condition. Disturbance caused by clearing will increase the risk of weeds being spread into the adjacent area. Appropriate management conditions will help to ensure that weeds and dieback are not spread into adjacent areas.</p>
Methodology	<p>The proposed clearing is not likely to be at variance to this principle.</p> <p>References:</p> <ul style="list-style-type: none">Glevan Consulting (2015)Keighery (1994)MBS Environmental (2015)Molloy et al. (2009) <p>GIS Datasets:</p> <ul style="list-style-type: none">Sac Bio Datasets - accessed July 2015

(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	<p>Proposed clearing is not likely to be at variance to this Principle</p> <p>Five fauna species listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 have been recorded within the local area (10 kilometre radius), being Carnaby's cockatoo (<i>Calyptorhynchus latirostris</i>), forest red-tailed black cockatoo (<i>Calyptorhynchus banksii naso</i>), Baudin's cockatoo (<i>Calyptorhynchus baudinii</i>), numbat (<i>Myrmecobius fasciatus</i>) and southern brush-tailed phascogale (<i>Phascogale tapoatafa</i> subsp. <i>tapoatafa</i>) (Parks and Wildlife, 2007-).</p> <p>The application area is in a completely degraded to degraded (Keighery, 1994) condition consisting of scattered native vegetation and weeds, and therefore is not likely to provide significant habitat for indigenous fauna.</p> <p>A fauna survey of a 36.8 hectare area, within the southwest of Lot 3, was conducted by Terrestrial Ecosystems in May 2015. This survey recorded 114 potential cockatoo breeding trees (trees of species known to support breeding within the range of the species which either have a suitable nest hollow or are of a suitable diameter at breast height to develop a nest hollow. For most tree species, suitable DBH is 500 millimetres. For salmon gum and wandoo, suitable DBH is 300 millimetres). Nineteen trees contained a hollow that could be suitable as a nesting site for black cockatoos. No evidence of nesting (e.g. chewed bark around hollow entrances) was</p>
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observed (Terrestrial Ecosystems, 2015).

An ecological linkage, defined by the South West Regional Ecological Linkage (SWREL) Report (Molloy et al, 2009) is mapped approximately 200 metres west of the application area which connects Buller Nature Reserve (240 metres south), Myalup State Forest (8.8 kilometres west) and Hamel State forest (7.3 kilometres east).

The SWREL report defines an ecological linkage as "A series of (both contiguous and non-contiguous) patches of native vegetation which, by virtue of their proximity to each other, act as stepping stones of habitat which facilitate the maintenance of ecological processes and the movement of organisms within, and across, a landscape". The area under application has previously been cleared and used for sand extraction, therefore the landform has been altered and the area is in a completely degraded to degraded (Keighery, 1994) condition. Considering this, it is unlikely that the proposed clearing will impact upon the function of this ecological linkage.

Given the condition of the vegetation under application is not likely to be significant habitat for indigenous fauna and therefore, the proposed clearing is not likely to be at variance to this principle.

Methodology References:
KD.1 Pty Ltd (2015)
Keighery (1994)
Molloy et al. (2009)
Parks and Wildlife (2007-)
Terrestrial Ecosystems (2015)

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

Comments **Proposed clearing is not likely to be at variance to this Principle**
Four rare flora species have been recorded in the local area (10 kilometre radius). The closest mapped rare flora species has been recorded within approximately 1300 metres of the application area.

Suitable habitat for these flora species is likely to occur within Lot 3, in areas of better condition vegetation, especially areas associated with wetlands.

A level 1 reconnaissance survey of "Jackson Block" was undertaken by MBS Environmental on 5 May 2015. This survey did not identify any rare flora within the survey area (MBS Environmental, 2015). The timing of this survey in Autumn was a significant constraint in identifying any conservation significant taxa, in particular orchid taxa (Parks and Wildlife, 2015a). However, given the completely degraded to degraded (Keighery, 1994) condition of the application area it is unlikely to include or be necessary for the continued existence of rare flora.

The proposed clearing is not likely to be at variance to this clearing principle.

Methodology References:
Keighery (1994)
MBS Environmental (2015)
Parks and Wildlife (2015a)

GIS Datasets:
Sac Bio Datasets - accessed July 2015

(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 **Proposed clearing is not likely to be at variance to this Principle**
Thirteen Threatened Ecological Communities (TEC) have been recorded within the local area (10 kilometre radius). The closest TEC, 'Shrublands on dry clay flats' has been mapped approximately five kilometres west of the application area.

A flora survey of the application area did not record any vegetation units consistent with TECs (MBS Environmental, 2015).

The proposed clearing is not likely to be at variance to this clearing principle.

Methodology References:
MBS Environmental (2015)

GIS Datasets:
Sac Bio Datasets - accessed July 2015

(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

Proposed clearing is not likely to be at variance to this Principle

The area under application is located within the Swan Coastal Plain Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion has approximately 39 per cent of its pre-European vegetation extent remaining (Government of Western Australia, 2014).

The application area is mapped as Beard Vegetation Association 1000. This vegetation association has approximately 25 per cent of its pre-European extent remaining in the Swan Coastal Plain bioregion (Government of Western Australia, 2014). Approximately 19 per cent of this vegetation association is managed within conservation estate.

The application area has also been mapped as Heddle Vegetation Complex 'Open Woodlands' which retains approximately 18 per cent of its pre-European extent. Approximately two per cent of this complex is managed in conservation estate (Parks and Wildlife, 2015b).

Digital aerial imagery indicates that the local area (ten kilometre radius) retains approximately 10 per cent native vegetation.

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

The application area is located within an area which has been extensively cleared, however due to the degraded to completely degraded (Keighery, 1994) condition of the vegetation, it is not considered to be a significant remnant.

The proposed clearing is not likely to be at variance to this principle.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in Parks and Wildlife Managed Lands (%)
IBRA Bioregion*				
Swan Coastal Plain	1 501 222	586 975	39	36
Shire*				
WAROONA, SHIRE OF	41 481	35 380	50	79
Beard Vegetation Association in Bioregion*				
1000	94 175	23 873	25	19
Heddle Vegetation Complex **				
Southern River Complex: open woodland	57 970	10 698	18	2

Methodology

References:
Commonwealth of Australia (2001)
Government of Western Australia (2014)
Keighery (1994)
Parks and Wildlife (2015b)

GIS Datasets:
Pre European Vegetation

(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

Proposed clearing is not likely to be at variance to this Principle

No wetlands or watercourses are located within the application area, however wetland areas including Resource Enhancement Category, Conservation Category and Multiple Use wetlands are located in other parts of Lot 3 Buller Road.

Conservation Category Wetlands support a high level of ecological attributes and functions. The objective for these wetlands is preservation of wetland attributes and functions through various mechanisms (Water and Rivers Commission, 2001).

Resource Enhancement Category Wetlands are considered priority wetlands which may have been partially modified but still retain substantial ecological attributes and functions. The ultimate objective is for management, restoration and protection towards improving their conservation value (Water and Rivers Commission, 2001).

Multiple Use Category Wetlands are wetlands with few important ecological attributes and functions remaining. Use, development and management should be considered in the context of ecologically sustainable development and best management practice catchment planning through landcare (Water and Rivers Commission, 2001).

The wetland areas closest to the application area are:

1. UFI 5004 Multiple Use sumpland (seasonally inundated basin) – 100 metres north
2. UFI 4807 Conservation Category sumpland – 174 metres west
3. UFI 4363 Conservation Category sumpland – 405 metres west

Surrounding these three wetlands is an area of sumpland (UFIs 4801 and 4646) that has been mapped but not evaluated into a management category (i.e. Not Assessed). The Department of Parks and Wildlife (Parks and Wildlife, 2015c) has advised that it is not clear whether the wetland areas are part of one larger sumpland system or are discrete wetlands, however the proximity of the wetland areas may indicate hydrological connectivity.

Given the separation distance to the mapped wetlands, the vegetation under application is not likely to be growing in, or in association with these wetlands.

The proposed clearing is not likely to be at variance to this clearing principle.

Methodology References:
Parks and Wildlife (2015c)
Water and Rivers Commission (2001)

GIS Datasets:
Hydrography linear
Geomorphic Wetlands (Classification), Swan Coastal Plain
Topographic contours statewide

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

Comments Proposed clearing is not likely to be at variance to this Principle

Soils in the application area have been mapped as soil type Cb38 which Northcote et al. (1960-68) describes as sandy dunes with intervening sandy and clayey swamp flats: chief soils are leached sands.

Given the porous nature of the soils within the application area water erosion is unlikely to occur.

The main land degradation risk associated with the removal of vegetation on-site is wind erosion due to the sandy nature of the soil. Without appropriate vegetation cover, windbreaks or adequate dust suppression on exposed surfaces, the proposed clearing is likely to result in wind erosion. However, given the completely degraded to degraded (Keighery, 1994) condition of the vegetation under application the clearing is unlikely to result in appreciable land degradation.

The proposed clearing is not likely to be at variance to this principle.

Methodology References:
DoW (2015)
Northcote et al. (1960-68)

GIS Datasets:
Soils, 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 Proposed clearing is not likely to be at variance to this Principle

The application area is located approximately 375 metres north west of Buller Nature Reserve. Myalup State Forest is located approximately 8.8 kilometres west and Hamel State Forest is located approximately 7.3 kilometres east.

An ecological linkage, defined by the South West Regional Ecological Linkage (SWREL) Report (Molloy et al, 2009) is mapped approximately 200 metres west of the application area which connects Buller Nature Reserve, Myalup State Forest and Hamel State Forest.

The SWREL report defines an ecological linkage as "A series of (both contiguous and non-contiguous) patches of native vegetation which, by virtue of their proximity to each other, act as stepping stones of habitat which facilitate the maintenance of ecological processes and the movement of organisms within, and across, a landscape". Given the degraded to completely degraded (Keighery, 1994) condition of the area under application the proposed clearing is not likely to measurably negatively impact upon the function of this linkage.

A phytophthora dieback occurrence assessment for Lot 3 reports that the application area has previously been used for sand mining, and no records or evidence of hygiene practices for this operation were identified during the assessment. This is supported by the presence of infested areas in the surrounding vegetation, where the evidence suggests that the pathogen has spread from the operational area into the vegetation (Glevan Consulting, 2015). Appropriate weed and dieback management practices are likely to be sufficient to ensure that Buller Nature Reserve is not impacted from the proposed clearing.

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

Methodology References:
Glevan Consulting (2015)
Keighery (1994)
Molloy et al. (2009)

GIS Datasets:
Parks and Wildlife Tenure

(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 Proposed clearing is not likely to be at variance to this Principle

No wetlands or watercourses are located within the application area. However, Lot 3 Buller Road supports wetland areas including Resource Enhancement Category, Conservation Category and Multiple Use wetlands.

The wetland areas closest to the application area are:

1. UFI 5004 Multiple Use sumpland (seasonally inundated basin) – 100 metres north
2. UFI 4807 Conservation Category sumpland – 174 metres west
3. UFI 4363 Conservation Category sumpland – 405 metres west

Groundwater salinity in the application area is mapped in the range of 500-1000 total dissolved solids (DoW, 2015). This range is considered to be marginal. The proposed clearing of 6.2 hectares within a larger remnant (whole of Lot 3) of approximately 220 hectares is not likely to measurably increase ground water salinity.

The proposed clearing is not likely to be at variance to this principle.

Methodology References:
DoW (2015)

GIS Datasets:
Hydrography linear
Geomorphic Wetlands (Classification), Swan Coastal Plain
Groundwater Salinity, 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 Proposed clearing is not likely to be at variance to this Principle

The chief soils in the application area are leached sands (Northcote et al. 1960-68). Given the sandy nature of the soils within the application area the proposed clearing is unlikely to cause, or exacerbate, the incidence or intensity of flooding.

The proposed clearing is not likely to be at variance to this principle.

Methodology References:
Northcote et al. (1960-68)

GIS Datasets:
Soils, Statewide

Planning instruments and other relevant matters.

Comments AMG (WA) Pty Ltd holds a ten year lease over a portion of Lot 3 Buller Road. The lease expires on 31 April 2025.

The area under application is within the area subject to the Environmental Protection (Peel Inlet-Harvey Estuary) Policy 1992 (EPP). The purpose of this policy is to set out the environmental quality objectives for the Peel Inlet and Harvey River and outline the means by which these objectives are to be achieved and maintained. The EPP environmental quality objectives relate to limiting the median load (mass) of total phosphorous flowing into the Estuary so that excessive growth of algae can be prevented (OEPA, 2013).

Achievement and maintenance of the environmental quality objectives is to occur primarily through the planning process. To this end, Statement of Planning Policy 2.1 (SPP 2.1) was gazetted in 2003. SPP 2.1 contains specific policy provisions that relate to different land uses, including a requirement that SPP 2.1 shall be implemented through the local planning schemes operating within the Peel-Harvey Coastal Plain Catchment (OEPA, 2013).

On 31 July 2015 a direct interest letter was sent to the Peel Harvey Catchment Council (PHCC, 2015) as the proposed clearing is situated within its area of interest. A response to the direct interest letter was received on 28 August 2015. PHCC's response outlined a number of environmental issues related to this application and to clearing permit application CPS 6620/1. The matters relating specifically to this application include;

1. It will likely be at variance to a number of the clearing principles, namely (b), (c), (e), and (h)
2. It will increase disturbance to an area of vegetation in Good or Better condition, and further fragment the area of vegetation in Very Good to Good condition in the south-west corner of the site;
3. It will decrease the fauna habitat value of the south-west portion of the site due to increased disturbance, fragmentation and the associated increase in weeds;
4. It will disturb an area which provides habitat for threatened species, such as black cockatoos;
5. It will lower the ecological values of Lot 3 and the superblock by opening up a new area of sand extraction, with associated issues of embankment stabilisation, re-contouring and long-term land use;
6. It will prejudice the outcomes of the Strategic Assessment of the Perth and Peel Regions process, the Draft Southern Metropolitan Peel Subregional Framework and any future strategic planning for conservation and basic raw materials.

Issues one to five have been addressed in the clearing principles above.

In relation to the final matter it is noted that the Strategic Assessment of the Perth and Peel Regions has identified Lot 3 Buller Road as a site that the Department of Parks and Wildlife considers suitable for retention in conservation protection. However, the reasons for Lot 3 being considered for retention include high biodiversity and significant fauna habitat which the area subject to this application does not contain.

The area under application is mapped within the Murray groundwater area which is an area proclaimed under the Rights in Water and Irrigation Act 1914 (RIWI Act). Under the RIWI Act, if a bore is to be drilled and water taken for the purposes other than the exemption criteria, a licence application must be made to the Department of Water (DoW). The DoW has advised that its records indicate that there are no current groundwater licences or applications pending with relation to Lot 3 Buller Road (DoW, 2015). The applicant has advised that groundwater abstraction is not required and extraction will not occur to a depth lower than two metres above groundwater levels.

On 29 September 2015 the Shire of Waroona issued Planning Consent and an Extractive Industry Licence to AMG (WA) Pty Ltd for the extraction of sand from Lot 3 Buller Road, Waroona (Shire of Waroona, 2015).

Methodology References:
DoW (2015)
OEPA (2013)
PHCC (2015)
Shire of Waroona (2015)

4. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DER (2015) Site Inspection Report for Clearing Permit Application CPS 6620/1. Site inspection undertaken 17 July 2015. Department of Environment Regulation, Western Australia (DER Ref: A967999).
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