



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 7171/1
File Number: 2016/000587-1
Duration of Permit: From 2 March 2018 to 2 March 2028

PERMIT HOLDER

Mario Michel Giacci

LAND ON WHICH CLEARING IS TO BE DONE

Lot 393 on Deposited Plan 159607, Gwindinup

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 31.5 hectares of native vegetation within the area hatched yellow on attached Plan 7171/1.

CONDITIONS

1. Period in which clearing is authorised

The Permit Holder shall not clear native vegetation unless actively mining within 1 month of the authorised clearing being undertaken.

2. Period in which clearing is authorised

The Permit Holder shall not clear any native vegetation after 22 February 2023.

3. 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*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared;
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

4. Black Cockatoo Management

The Permit Holder shall not clear any native vegetation during the breeding season for black cockatoos, being between 1 July and 28 February each year.

5. 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 3 months following completion of extractive industry, *revegetate* and *rehabilitate* the area(s) 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; and
 - (ii) ripping the pit floor and contour batters within the extraction site; and
 - (iii) laying the vegetative material and topsoil retained under condition 5(a) on the cleared area(s).

- (c) within 24 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 5(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 5(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 5(c)(ii) of this permit, the Permit Holder shall repeat condition 5(c)(i) and 5(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 5(c)(i) and (ii) of this permit, that determination shall be submitted to the *CEO*.

6. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit:

- (a) In relation to the clearing of native vegetation authorised under this Permit:
 - (i) the location where the clearing occurred, 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;
 - (ii) the date that the clearing commenced;
 - (iii) the date the extraction operations ceased; and
 - (iv) the size of the area cleared (in hectares).

- (b) In relation to the *revegetation and rehabilitation* of areas pursuant to condition 5 of this Permit:
 - (i) 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;
 - (ii) a description of the *revegetation* and *rehabilitation* activities undertaken;
 - (iii) the size of the area *revegetated* and *rehabilitated* (in hectares);
 - (iv) the species composition, structure and density of *revegetation* and *rehabilitation*, and
 - (v) a copy of the environmental specialist's report.

7. Reporting

- (a) The Permit Holder must provide to the *CEO* on or before 22 November of each year, a written report:
- (i) of records required under condition 6 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) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar a written report confirming that no clearing under this permit has been carried out, must be provided to the *CEO* on or before 22 November of each year.

Definitions

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

CEO means the Chief Executive Officer of the Department of Water and Environmental Regulation;

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

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

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;

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;

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.

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.



Mathew Gannaway
MANAGER
CLEARING REGULATION

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




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of the Environmental Protection Act 1986*

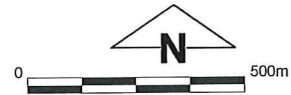
1 February 2018

Plan 7171/1



Legend

-  Imagery
-  Clearing Instruments Activities
-  Local Government Authority



1:16,629

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

Geocentric Datum of Australia 1994

 Date 11/02/2018
Mathew Gannaway

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



1. Application details

1.1. Permit application details

Permit application No.: 7171/1
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: Mr Mario Michele Giacci
Application received date: 08 July 2016

1.3. Property details

Property: Lot 393 on Deposited Plan 159607, Gwindinup
Local Government Authority: Capel, Shire of
Localities: Gwindinup

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	Purpose category:
31.5		Mechanical Removal	Extractive industry

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 1 February 2018
Reasons for Decision: The clearing permit application has been assessed against the clearing principles, planning instruments and other matters in accordance with section 51O of the *Environmental Protection Act 1986* (EP Act). It has been concluded that the proposed clearing is at variance to principle (h) and may be at variance to principles (b), (g), (i) and (j), and is not likely to be at variance to the remaining principles.

The applicant has avoided and minimised impacts through reducing the proposed clearing area from 34.2 hectares to 31.5 hectares, agreement to the rehabilitation of a 150 metre strip of the northern boundary and a 300 metre strip of the southern boundary to native vegetation suitable for wildlife habitat and to act as a corridor, development of a storm water management plan and staged clearing in accordance with Development Approval granted by Shire of Capel on 10 January 2018.

The Delegated Officer also took into consideration that the Shire of Capel has approved an extractive industry licence for the proposed sand extraction.

Given the above, the Delegated Officer decided to grant a clearing permit subject to staged clearing, weed and dieback management, Black Cockatoo Management and revegetation and rehabilitation conditions.

2. Site Information

Clearing Description

The application is for the clearing of up to 31.5 hectares of native vegetation for the purpose of extractive industry.

Vegetation Description

Two Beard vegetation associations (Shepherd et al., 2001) are mapped within the application area:

968: Medium woodland; jarrah, marri and wandoo;
1181: Medium woodland, jarrah and Eucalyptus haematoxylon (Whicher Range).

Two Matiske vegetation complexes (Matiske and Havel, 1998) are mapped within the application area:

Whicher (WC): Open forest of Eucalyptus marginata subsp. marginata-Corymbia calophylla on escarpment with some Corymbia haematoxylon, Banksia attenuata and Xylomelum occidentale in the humid zone; and
Cartis (CSs): Low open forest to open forest of Eucalyptus marginata subsp. marginata-Corymbia calophylla-Corymbia haematoxylon with some Banksia attenuata and Xylomelum occidentale on slopes of escarpment in the humid zone.

Vegetation Condition

Completely Degraded;
No longer intact, completely/almost completely without native species (Keighery, 1994).

To

Degraded; Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).

Comment

The condition of the vegetation was determined through a site inspection of the application area by the former Department of Environment Regulation (DER, 2016).

3. Minimisation and mitigation measures

The applicant has advised of the following minimisation and mitigation measures (DER ref. A1189136):

- Staged clearing and subsequently extraction.
- All water runoff will be contained within the approved operational stages. Each stage is limited to 2 hectares with a maximum of two stages operational at any one time.
- Rehabilitation will be done as soon as practicable after the completion of the extraction of the stage to minimise spread of weeds.
- Rehabilitation of a vegetated buffer to facilitate fauna movement across the landscape.

Assessment of application against clearing principles

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

Comments

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

The applicant proposes to clear 31.5 hectares of native vegetation within Lot 393 on Deposited Plan 159607, Gwindinup, for the purpose of extractive industry.

A site inspection undertaken by the former DER officers identified that the vegetation within the application area is in completely degraded to degraded (Keighery, 1994) condition (DER, 2016). The site inspection identified that the application area comprises non-native *Eucalyptus* spp. with scattered *Corymbia calophylla* (marri), *Eucalyptus marginata* (jarrah), *Eucalyptus gomphocephala* (tuart), *Xylomelum occidentale* (woody pear) and *Agonis flexuosa* (peppermint) trees over *Xanthorrhoea* sp. and *Nuytsia floribunda* (WA Christmas tree) over weeds (DER, 2016).

According to available datasets, the application area is located within 50 metres of the priority ecological community (PEC) 'Whicher Scarp Paluslope Wetlands' (P1). A survey of the Whicher Scarp undertaken in 2008 identified that the application area did not retain remnant native vegetation (Keighery et al., 2008). It is considered that the proposed clearing is unlikely to significantly impact on this PEC, however there is a risk of spread of weeds into this area.

There are 11 rare flora and 30 priority flora species recorded within the local area (defined as a 10 kilometre radius around the application area). One priority flora species (P3) is known from the application area. The former Department of Parks and Wildlife (Parks and Wildlife) advised that 'the applied vegetation appears to have been previously cleared and/or heavily grazed, as such it is unlikely that any specific floristic values of the Whicher Scarp will remain within the applied area' (Parks and Wildlife, 2016).

There are 10 fauna species that are listed as rare or likely to become extinct under the *Wildlife Conservation Act 1950* (WC Act) and seven otherwise listed conservation significant fauna within the local area (Parks and Wildlife, 2007-). Of these species, the proposed clearing has the potential to impact on Baudin's cockatoo (*Calyptorhynchus baudinii*) and Carnaby's cockatoo (*Calyptorhynchus latirostris*), as potential habitat for these species was identified within the application area (DER, 2016). These species are listed as rare or likely to become extinct under the WC Act. Parks and Wildlife advised that the application area will include jarrah, marri and mountain marri trees and is highly likely to be important for both foraging and roosting black cockatoo species (Parks and Wildlife, 2016).

The Shire of Capel advised that the application area is located 'between two properties with extensive populations of threatened and priority fauna, with the most northern half of Lot 393 considered a major wildlife corridor' (Shire of Capel, 2016a). The Shire of Capel recommended 'the rehabilitation of the northern section back to a landscape suitable as a wildlife corridor to allow free movement of wildlife from the rehabilitation site next door to the west, across Lot 393 to the adjacent Crown Land Lot 477 to the east.' (Shire of Capel, 2016a). This measure is a requirement of the Development Approval grant by the Shire of Capel on the 10 January 2018.

The local area retains approximately 38 per cent native vegetation cover. Portions of the application area that appear to be native vegetation on aerial imagery were determined through the site inspection to be predominately non-native eucalypt species.

Based on the condition of the vegetation, the presence of non-native eucalypt species and taking into account the extent and condition of native vegetation in the local area, it is considered that the application area is unlikely to comprise a high level of biological diversity.

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

Weed management would assist in mitigating the risk of spread of weeds into adjacent vegetation.

(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 Proposed clearing may be at variance to this Principle

As discussed in Principle (a), the vegetation within the application area is in completely degraded to degraded (Keighery, 1994) condition (DER, 2016). The application area comprises of mainly non-native *Eucalyptus* spp. with scattered native trees over weeds (DER, 2016).

As discussed in principle (a), of the 17 listed conservation significant fauna within the local area (10 kilometre radius) (Parks and Wildlife, 2007-), the proposed clearing has the potential to impact on Baudin's cockatoo and Carnaby's cockatoo as potential habitat for these species was identified within the application area (DER, 2016).

The former Parks and Wildlife advised that the application area will include jarrah, marri and mountain marri trees and is highly likely to be important for both foraging and roosting black cockatoo species, and should be subject to black cockatoo surveys with maps produced showing the location of trees greater than 500 millimetre diameter at breast height and trees with suitable roosting hollows (Parks and Wildlife, 2016).

The applicant provided a report of a black cockatoo survey conducted within the application area on 30 November and 3 December 2016 (Harewood, 2016). This survey identified nine habitat trees with hollows suitable for black cockatoo species, one of which had evidence of recent activity (Harewood, 2016). No roost trees were identified during the survey (Harewood, 2016). A review of available data revealed no documented breeding records from within the local area (10 kilometre radius) (Harewood, 2016).

The survey identified that introduced bluegums are the most common tree species and is present in various densities across almost the entire survey area (Harewood, 2016). Bluegums are densest in the northern half of the property where native trees (mostly jarrah) are absent or present as widely scattered specimens only (Harewood, 2016). In the south bluegums are more scattered with native trees more common. The sparse open woodland of native trees at the southern half of the property is dominated by Jarrah (*Eucalyptus marginata*) with a small number of Marri (*Corymbia calophylla*) (Harewood, 2016). Very little evidence of black cockatoo foraging was observed within the survey area (Harewood, 2016).

The Shire of Capel advised that the application area is located 'between two properties with extensive populations of threatened and priority fauna, with the most northern half of Lot 393 considered a major wildlife corridor' (Shire of Capel, 2016a). The Shire of Capel recommended 'the rehabilitation of the northern section back to a landscape suitable as a wildlife corridor to allow free movement of wildlife from the rehabilitation site next door to the west, across Lot 393 to the adjacent Crown Land Lot 477 to the east.' (Shire of Capel, 2016a). This measure is a requirement of the Development Approval grant by the Shire of Capel on the 10 January 2018.

The local area retains approximately 38 per cent native vegetation cover, the large majority of which is contained in State Forest 27 to the south and east of the application area.

On the basis of the above and noting the extent of the proposed clearing, the application area may provide significant habitat for indigenous fauna, and includes suitable foraging and breeding habitat for black cockatoos. However noting the condition of the vegetation within the application area, the extent of State Forest within the local area, the dominance of bluegums and that only one tree within the application area appeared to have been used by black cockatoos, the proposed clearing is unlikely to have any significant impacts on black cockatoos.

Given the above, the proposed clearing may be at variance to this Principle.

Avoiding clearing during the breeding season of black cockatoos will assist in mitigating any impacts to black cockatoos and other fauna using the hollows.

(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

There are 11 rare flora species recorded within the local area (10 kilometre radius). The former Parks and Wildlife advised that 'the applied vegetation appears to have been previously cleared and/or heavily grazed, as such it is unlikely that any specific floristic values of the Whicher Scarp will remain within the applied area' (Parks and Wildlife, 2016).

A site inspection identified that the vegetation within the application area is in completely degraded to degraded (Keighery, 1994) condition (DER, 2016). The site inspection identified that the application area comprises non-native *Eucalyptus* spp. with scattered *Corymbia calophylla* (marri), *Eucalyptus marginata* (jarrah), *Eucalyptus gomphocephala* (tuart), *Xylomelum occidentale* (woody pear) and *Agonis flexuosa* (peppermint) trees over *Xanthorrhoea* sp. and *Nuytsia floribunda* (WA Christmas tree) over weeds (DER, 2016).

Based on the condition of the vegetation, it is considered that the application area is unlikely to include, or be necessary for the continued existence of, rare flora.

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

(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**
According to available datasets, there are no known occurrences of threatened ecological communities (TEC) within the local area (10 kilometre radius).

A site inspection identified that the vegetation within the application area is in completely degraded to degraded (Keighery, 1994) condition (DER, 2016). The site inspection identified that the application area comprises non-native *Eucalyptus* spp. with scattered *Corymbia calophylla* (marri), *Eucalyptus marginata* (jarrah), *Eucalyptus gomphocephala* (tuart), *Xylomelum occidentale* (woody pear) and *Agonis flexuosa* (peppermint) trees over *Xanthorrhoea* sp. and *Nuytsia floribunda* (WA Christmas tree) over weeds (DER, 2016).

Based on the condition of the vegetation and the distance to the closest known TEC, it is considered that the application area is unlikely to comprise the whole or part of, or be necessary for the maintenance of, a TEC.

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

(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 application area is located at the boundary of the Jarrah Forest and Swan Coastal Plain Interim Biogeographic Regionalisation of Australia (IBRA) bioregion, which retain approximately 54 and 39 per cent (respectively) of their pre-European vegetation extent (Government of Western Australia, 2015). The Shire of Capel retains approximately 33 per cent of its pre-European vegetation extent (Government of Western Australia, 2015). The local area (10 kilometre radius) retains approximately 38 per cent native vegetation cover, the large majority of which is contained in State Forest 27 to the south and east of the application area.

The application area is mapped as Beard vegetation association 968 and 1181, which retain approximately 49 and 53 per cent of their pre-European vegetation extents within the Jarrah Forest IBRA bioregion respectively and 7 and 39 per cent of their pre-European vegetation extents within the Swan Coastal Plain IBRA bioregion respectively. The application area is also mapped as Mattiske vegetation complexes Cartis (CSs) and Whicher (WC), which retain approximately 18 and 73 per cent of their pre-European vegetation extents, respectively.

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). Cartis (CSs) Mattiske vegetation complex and Beard Vegetation Association 968 has a remnant vegetation extent below the recommended 30 per cent threshold.

A site inspection identified that the vegetation within the application area is in completely degraded to degraded (Keighery, 1994) condition (DER, 2016). The site inspection identified that the application area comprises non-native *Eucalyptus* spp. with scattered *Corymbia calophylla* (marri), *Eucalyptus marginata* (jarrah), *Eucalyptus gomphocephala* (tuart), *Xylomelum occidentale* (woody pear) and *Agonis flexuosa* (peppermint) trees over *Xanthorrhoea* sp. and *Nuytsia floribunda* (WA Christmas tree) over weeds (DER, 2016).

Based on the condition of the vegetation, it is considered that the vegetation within the application area is unlikely to be representative of the mapped vegetation associations, and that the application area is unlikely to contain a highly cleared vegetation association/complex and to be considered as significant as a remnant.

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

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DPaW Managed Lands (%)
IBRA Bioregion				
Jarrah Forest	4,506,660	2,422,783	54	69
Swan Coastal Plain	1,501,222	579,162	39	37
Local Government Authority				
Shire of Capel	55,945	18,653	33	45
Beard Vegetation Association in Bioregion				
Jarrah Forest bioregion				
1181	9,978	5,322	53	69
968	140,823	68,796	49	51
Swan Coastal Plain bioregion				
1181	9,239	3,606	39	42
968	136,188	9,052	7	19
Mattiske Vegetation Complexes				
CSs	1,458	264	18	3
WC	4,065	2,978	73	58

(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 at variance to this Principle

There are no mapped wetlands or watercourses within the application area. A site inspection of the application area did not identify any vegetation growing in, or in association with, a wetland or watercourse (DER, 2016).

Given the above, the proposed clearing is not at variance to this Principle.

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

Comments Proposed clearing may be at variance to this Principle

The application area has been mapped predominately as soil landscape map unit 214Ws. This unit comprises slopes of 3 to 10 per cent. The north west corner of the application area is mapped as soil landscape map unit 213Fo which has a very low relief (1-5 per cent) foot slopes with rapidly drained deep bleached sands and occasionally deep yellow brown sands (minor occurrence of gravels). The soils within this landform unit comprise neutral red earths and neutral yellow earths (Mu11), block laterite and lateritic gravels and hard yellow mottled soils (Tc5) and sandy acidic yellow mottled soils some of which contain ironstone gravel (Wd6) (Northcote et al., 1960-68).

Risk mapping undertaken by the former Department of Agriculture and Food Western Australia (DAFWA) indicates that the application area has a high risk of sub-surface compaction and a moderate risk of phosphorus export, water repellence and wind erosion over its majority, and a high risk of phosphorus export, water repellence and wind erosion in the north-west corner. The application area slopes from 96 metres AHD at the south-east corner to 45 metres AHD at the north-west corner.

Based on the risk of wind erosion, water repellence and phosphorus export within the application area, it is considered that the proposed clearing may cause appreciable land degradation.

Given the above, the proposed clearing may be at variance to this Principle.

Development approval granted by the Shire of Capel on 10 January 2018 requires a staged approach to extraction comprising 17 stages commencing from the south-east corner to the north-west corner of Lot 393. The risk of land degradation in the form of wind and surface water erosion will be managed through staged clearing and the requirement of the Development Approval for the applicant to develop a storm water management plan involving surface runoff detention to mitigate risks associated with water repellence and phosphorus export from the application area.

(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 at variance to this Principle

A site inspection identified that the vegetation within the application area is in completely degraded to degraded (Keighery, 1994) condition (DER, 2016). The site inspection identified an understory of weeds throughout the application area (DER, 2016).

The Boyanup State Forest is located approximately 500 metres south-west and 1.5 kilometres north-west of the application area. Crown Reserve (18237) is adjacent to the eastern side of the application area and is managed by the Shire of Capel for the purpose of Landscape Protection. A number of land parcels located between the application area and the Boyanup State Forest are managed by the Shire of Capel for the same purpose.

A submission received from the Capel Land Conservation District Committee (Capel LCDC) states that 'the section of the property fronting Lowrie Road was previously mined some years ago and rehabilitated with pasture ... the property has not been well managed for weed control since that time and some serious weed infestation is evident. Of particular concern throughout the length of the property is *Phytolacca octandra*, commonly referred to as Inkweed. ... This weed from this property is now at risk of spreading into the adjoining quality bushland ...' (Capel LCDC, 2016).

Based on the extent of weeds within the application area and the proximity of the application area to areas managed for purposes including conservation, it is considered that the proposed clearing is likely to impact on the environmental values of adjacent and nearby conservation reserves through the spread of weeds.

Given the above, the proposed clearing is at variance to this Principle.

Weed management would assist in mitigating the risk of environmental impacts to conservation areas.

(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 may be at variance to this Principle

As discussed in principle (g) the application area has a high risk of sub-surface compaction and a moderate risk of phosphorus export, water repellence and wind erosion over its majority, and a high risk of phosphorus export, water repellence and wind erosion in the north-west corner.

The risk of surface water erosion will be managed through staged clearing and the requirement for the applicant to develop a storm water management plan involving surface runoff detention to mitigate risks associated with water repellence and phosphorus export from the application area.

Based on the risk of wind erosion, water repellence and phosphorus export within the application area it is considered that the proposed clearing may cause deterioration in the quality of surface water.

Given the above the proposed clearing may be at variance to this Principle.

(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 may be at variance to this Principle

As discussed in principle (g) the mapped soil unit within the application area has a moderate risk of water repellence over its majority, and a high risk of water repellence in the north-west corner. The risk mapping indicates that the application area has a low risk of flooding, however it is considered that surface water flow off-site may result in increased recharge into a sumpland/palusplain located approximately 100 metres north-west of the application area.

Based on the risk of water repellence, it is considered that the proposed clearing may cause or exacerbate localised flooding. Given the above the proposed clearing may be at variance to this Principle.

The risk of flooding will be managed through staged clearing and the requirement of the Development Approval for the applicant to develop a storm water management plan involving surface runoff detention. These measures will mitigate the risk of localised off-site flooding as a result of the proposed clearing.

Planning instruments and other relevant matters.

Comments The application is for the purpose of extractive industry. The application was received by DER on 8 July 2016 and advertised in *The West Australian* on Monday 25 July 2016 for a period of 21 days. No public submissions were received.

A direct interest submission was received from the Capel LCDC (Capel LCDC, 2016). The environmental issues raised in this submission are addressed under the assessment against the clearing principles.

The application area is zoned as Rural under the Shire of Capel Town Planning Scheme No. 7 and under the Greater Bunbury Region Scheme. Use of the property for an extractive industry requires planning consent from the Shire of Capel and an EIL.

Development approval has been granted on 10 January 2018 for extractive industry by the Shire of Capel. Conditions of the development approval include;

- a restriction on clearing during breeding season of black cockatoo species and the requirement to install two nesting boxes in remaining trees for each tree with a cockatoo nesting hollow that is removed,
- staged clearing condition,
- development of a rehabilitation plan to include revegetation of 150 metre strip on the northern boundary and a 300 metre strip on the southern boundary to native vegetation,
- all native vegetation to be mulched and stockpiled for rehabilitation,
- development of a dieback management plan,
- development of a stormwater management plan and
- development of a dust management plan (Shire of Capel, 2018).

The application area is located within the Busselton-Capel Goundwater Area and the Capel River System Surface Water Area proclaimed under the *Rights in Water Irrigation Act 1914* (RIWI Act). The former Department of Water (DoW) advised that 'As the subject lot is located within the Busselton-Capel Goundwater Area, a licence would be required to construct bores or take groundwater.' (DoW, 2016).

4. Applicant's Submissions

A DER Delegated Officer wrote to the applicant on 20 October 2016, advising of the environment impacts of the proposed clearing including the risk of weed and dieback spread into adjacent and nearby conservation areas, the likely presence of significant habitat for black cockatoos, the potential for wind erosion and increased surface water runoff (DER ref. A1184240).

In response to the Delegated Officer's letter, the applicant advised (DER ref. A1189136):

- 'By staging the clearing and subsequently extraction (should it be approved), the potential for spreading of weeds will be minimised. As part of the EIL management all water runoff will be contained within the approved operational stages. Each stage is limited to 2ha with a maximum of two stages operational at any one time.'
- 'Rehabilitation will be done as soon as practicable after the completion of the extraction of the stage to minimise spread.'
- 'The owners are happy to take advice/instruction in relation to a vegetated buffer.'
- 'A fauna study will be commissioned to be done by a third party with the final report made available to DER on receipt. An assessment will be done across the proposed clearing area.'
- 'It is understood that a condition of the EIL will contain a requirement to contain water within the approval area. The staging of clearing, extraction and rehabilitation should control any potential for land degradation.'
- 'An application for an EIL was submitted to the Shire of Capel and on their advice withdrawn. Since the application withdrawal also on advice from the Shire two (2) piezometers have been installed on the property and water level monitoring has begun.'

On 12 December 2016, the applicant provided a report of a black cockatoo survey (DER ref A1342545). This survey was conducted within the application area on 30 November and 3 December 2016 and identified nine habitat trees with hollows of suitable size for black cockatoos, one of which had evidence of recent activity (Harewood, 2016). Noting this, and the condition of the vegetation within the application area, and the extent of State Forest within the local area, the proposed clearing is unlikely to have any significant impacts on black cockatoos.

A DER Delegated Officer wrote to the applicant on 9 January 2017 requesting for a copy of Extractive Industry Licence from the Shire of Capel.

On 11 January 2018, the applicant provided a copy of Development Approval from the Shire of Capel for extractive industry.

5. References

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Shire of Capel (2016a) Advice from the Shire of Capel to the Department of Environment Regulation in relation to clearing permit application CPS 7171/1. July 2016. DER Ref A1138736.

Shire of Capel (2016b) Advice from the Shire of Capel to the Department of Environment Regulation in relation to clearing permit application CPS 7171/1 - extractive industry licence application . July 2016. DER Ref A1170999.

Shire of Capel (2018) Development Approval – Lot 393 Lowrie Road, Gwindinup, January 2018. DWER ref A1592507