



1. Application details

1.1. Permit application details

Permit application No.: 6728/1
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: Mr Matthew Paul Swainston

1.3. Property details

Property: LOT 6628 ON PLAN 208576, TORBAY
Local Government Authority: ALBANY, CITY OF
DER Region: South Coast
DPaW District: ALBANY

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
12.1		Mechanical Removal	Grazing & pasture

1.5. Decision on application

Decision on Permit Application: Refused

Decision Date: 19 April 2017

Reasons for Decision: The clearing application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the *Environmental Protection Act 1986*, and it has been concluded that the proposed clearing is at variance to clearing principle (b), may be at variance to principles (e) and (i) and is not likely to be at variance to the remaining clearing principles.

The Delegated Officer determined that the proposed clearing will lead to the loss of 12.1 hectares of native vegetation in very good to excellent (Keighery, 1994) condition that provides significant fauna habitat for the forest red-tailed black-cockatoo (*Calyptorhynchus banksii* subsp. *naso*), Baudin's cockatoo (*Calyptorhynchus baudinii*) and Carnaby's cockatoo (*Calyptorhynchus latirostris*) and provides habitat for the western ringtail possum (*Pseudocheirus occidentalis*). A targeted fauna survey undertaken within the application area identified the following:

- a total of eight trees containing hollows that were potentially suitable for black cockatoos were identified;
- evidence of feeding on marri nuts within the application area by all three species of black cockatoos was identified;
- western ringtail possum (WRP) scats were identified within the application area; and
- the proposed clearing is likely to have a significant impact on three black cockatoo species pursuant to the *Environmental Protection and Biodiversity Act 1999* referral guidelines for black cockatoos.

Parks and Wildlife (2017) also advised that the application area contains high quality foraging habitat, likely breeding and potentially roosting habitat for the black cockatoo species and provides habitat for the WRP.

Through assessment it was determined that the proposed clearing may cause deterioration in the quality of surface and ground water within the Torbay and Marbellup Brook Catchment Areas. The applicant advised that formal protection will be provided of the existing fenced riparian buffer along the waterway (including any other existing associated remnant vegetation along the waterway) to mitigate impacts to water quality. This management action is likely to be adequate to mitigate impacts to water quality.

The Delegated Officer took into account available information including expert advice from Parks and Wildlife and the results of the targeted fauna in the decision to refuse to grant a clearing permit.

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
The vegetation under application is mapped as: Beard vegetation association 51 which is described as sedgeland; reed swamps, occasionally with heath (Shepherd et al., 2001). Beard vegetation association 978 which is described as low forest; jarrah, <i>Eucalyptus staeri</i> & <i>Allocasuarina fraseriana</i> (Shepherd et al., 2001).	The application is for the clearing of 12.1 hectares of native vegetation within Lot 6628 on Deposited Plan 208576, Torbay for the purpose of pasture.	Excellent; Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994). To Very Good; Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).	The condition and description of the vegetation under application was determined through a site inspection undertaken by the Department of Environment Regulation (DER, 2015). The vegetation under application represented jarrah/marri closed woodland with scattered <i>Banksia</i> sp. and <i>Allocasuarina</i> sp. over black sandy soils (DER, 2015). A targeted fauna survey undertaken in October and November 2016 identified the vegetation under application as consisting of a canopy of mature and mixed aged jarrah (<i>Eucalyptus marginata</i>) and sheoak (<i>Allocasuarina fraseriana</i>) trees, up to 25 metres high, with small patches of marri (<i>Corymbia calophylla</i>). <i>Banksia grandis</i> is present as a significant tall shrublayer. The understorey is relatively open though structurally diverse with shrub, sedge and herb layers well developed. <i>Xanthosia rotundifolia</i> is a common species of the understorey (Gilfillan, 2016). Gilfillan (2016) advised that the vegetation is generally in excellent (Keighery, 1994) condition.

3. 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 application is for the clearing of 12.1 hectares of native vegetation within Lot 6628 on Deposited Plan 208576, Torbay for the purpose of pasture.

A site inspection undertaken by Department of Environment Regulation officers identified that the application area is in a very good (Keighery, 1994) condition and represented jarrah/marri closed woodland with scattered *Banksia* sp. and *Allocasuarina* sp. over black sandy soils (DER, 2015).

A targeted fauna survey undertaken in October and November 2016 identified the application area as consisting of a canopy of mature and mixed aged jarrah (*Eucalyptus marginata*) and sheoak (*Allocasuarina fraseriana*) trees, with small patches of marri (*Corymbia calophylla*). *Banksia grandis* is present as a significant tall shrublayer. The understorey is relatively open though structurally diverse with shrub, sedge and herb layers well developed. *Xanthosia rotundifolia* is a common species of the understorey and is generally in excellent (Keighery, 1994) condition (Gilfillan, 2016).

Fifteen priority flora species have been recorded within the local area (10 kilometre radius), including one Priority 1 flora species and one Priority 2 flora species. Suitable habitat for the Priority 1 and Priority 2 flora species is not likely to be located within the application area. The remaining priority flora species are listed as either Priority 3 or Priority 4. Priority 3 species are known from several locations, and do not appear to be under imminent threat, and Priority 4 species are considered to have been adequately surveyed, and are considered not currently threatened or in need of special protection, but could be if present circumstances change. Therefore the proposed clearing is not likely impact on the conservation status of any Priority 3 or Priority 4 flora species.

Five priority ecological communities (PEC) have been recorded within the local area. The closest is located approximately six kilometres south west of the application area and is described as 'Melaleuca spathulata/Melaleuca viminea Swamp Heath'. The vegetation under application is not representative of this PEC. Given the distance to the closest PEC, the clearing as proposed is not likely to impact upon the conservation status of any PECs located within the local area (10 kilometre radius).

Twelve fauna species listed as rare or likely to become extinct under the *Wildlife Conservation Act 1950* have been recorded within the local area (Parks and Wildlife, 2007-). As assessed under Principle (b) the vegetation under application contains significant habitat for the forest red-tailed black-cockatoo (*Calyptorhynchus banksii*

subsp. *naso*), Baudin's cockatoo (*Calyptorhynchus baudinii*) and Carnaby's cockatoo (*Calyptorhynchus latirostris*) and provides habitat for the western ringtail possum (*Pseudocheirus occidentalis*).

The Albany Regional Vegetation Survey (ARVS) has identified the application area as vegetation Unit 12, Jarrah, Marri, Sheoak Laterite Forest. Vegetation Unit 12 retains approximately 29.8 per cent vegetation within the surveyed area and is the most common vegetation type within the ARVS area (Sandiford and Barrett, 2010).

The local area and vegetation associations mapped within the application retain equal to or marginally above the recommended 30 per cent threshold. However, the application area contains significant habitat for forest red-tailed black-cockatoo, Baudin's Cockatoo and Carnaby's cockatoo and contain habitat for the western ringtail possum and therefore is considered to be a significant remnant.

ARVS provides a local and regional overview of the native vegetation of the area to assist land use and conservation planning in the region by describing, mapping and assessing the conservation status of the vegetation within the ARVS area. The ARVS area encompasses 124,415 hectares that extends some 30 kilometres east and west of Albany and 20 kilometres north (Sandiford and Barrett, 2010).

The application area contains vegetation in very good (Keighery, 1994) condition and contains significant foraging habitat for black cockatoo species and habitat for the western ringtail possum. However the area under application is mapped as the most common vegetation type within the ARVS survey area, is not likely to contain priority flora, rare flora, PECs or TECs and therefore is not likely to comprise a high level of biological diversity.

Therefore the clearing as proposed is not likely to be at variance to this Principle.

Methodology References:
DER (2015)
Keighery (1994)
Parks and Wildlife (2007-)
Sandiford and Barrett (2010)
Western Australian Herbarium (1998-)

GIS Databases
SAC Bio Datasets – accessed February 2016

(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 is at variance to this Principle

Twelve 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: noisy scrub-bird (*Atrichornis clamosus*), woylie (*Bettongia penicillata subsp. ogilbyi*), Australasian bittern (*Botaurus poiciloptilus*), forest red-tailed black-cockatoo (*Calyptorhynchus banksii subsp. naso*), Baudin's cockatoo (*Calyptorhynchus baudinii*), Carnaby's cockatoo (*Calyptorhynchus latirostris*), chuditch (*Dasyurus geoffroi*), western mud minnow (*Galaxiella munda*), western ringtail possum (*Pseudocheirus occidentalis*), quokka (*Setonix brachyurus*), Atlantic yellow-nosed albatross (*Thalassarche chlororhynchos*) and western archaetid spider (*Zephyrarchaea mainae*) (Parks and Wildlife, 2007-).

The application area ranges from excellent to very good (Keighery, 1994) condition and is representative of a jarrah/marri closed woodland with scattered *Banksia* sp. and *Allocasuarina* sp. over black sandy soils (DER, 2015).

Black cockatoos have a preference for feeding habitat that includes jarrah and marri woodlands and forest heathland and woodland dominated by proteaceous plant species such as *Banksia* sp. *Hakea* sp. and *Grevillea* sp. (Commonwealth of Australia, 2012). Noting this is it considered that the application area may contain significant foraging habitat for the abovementioned black cockatoo species.

The Department of Parks and Wildlife (Parks and Wildlife) advised that there is potential for the native vegetation to provide habitat for the threatened Carnaby's, Baudin's and/or forest red-tailed black cockatoos and western ringtail possum. Parks and Wildlife noted that the application is part of the largest area of remnant vegetation remaining in the immediate vicinity, and that it has some vegetation linkage to other remnants and therefore has the potential to provide intermediate habitat for black cockatoos flying between more significant habitat areas to the south east and north west of the site (Parks and Wildlife, 2016).

A targeted fauna survey undertaken by Gilfillan (2016) within the application area identified a total of eight trees containing hollows that were potentially suitable for black cockatoos. None of the black cockatoo species were observed on the site during the day survey or at dusk on the night survey (Gilfillan, 2016). One hollow had visible wear marks indicating possible recent or current occupancy by a cockatoo species, western ringtail possum or brushtail possum. Another hollow had a small number of down feathers on the trunk below. These trees were trapped, but no animals emerged (Gilfillan, 2016). Two hollows identified contained feral bees, which renders them unsuitable for habitation by native fauna (Gilfillan, 2016).

The targeted fauna survey identified evidence of feeding on marri nuts within the application area by all three species of black cockatoos. *Banksia grandis* a high value food source for Carnaby's cockatoo, was present as a significant mid-storey species throughout the remnant, however no evidence of feeding by the Carnaby's Cockatoo was observed on banksia cones of this species (Gilfillan, 2016).

Gilfillan (2016) advised that the proposed clearing is likely to have a significant impact on three black cockatoo species pursuant to the *Environmental Protection and Biodiversity Act 1999* referral guidelines for black cockatoos including clearing of any part or degradation of breeding habitat and clearing of more than one hectare of quality foraging habitat.

Parks and Wildlife has advised that the plant species recorded, vegetation structure indicated and presence of hollows suggests the remnant is suitable foraging, breeding and potentially roosting habitat for the three black cockatoo species. Foraging evidence was recorded for all three threatened black cockatoo species, confirming the use as foraging habitat (Parks and Wildlife, 2017).

Parks and Wildlife notes that the fauna survey states that two potential hollows contained feral bees, which renders them unsuitable for habitation by native fauna, however the hollows are only unsuitable while the bees are present, the unsuitability is not a permanent state (Parks and Wildlife, 2017).

Parks and Wildlife advised that from the information provided and taking into consideration the survey limitation, the site contains high quality foraging habitat, likely breeding and potentially roosting habitat, for the three threatened black cockatoo species (Parks and Wildlife, 2017).

Within the South Coast near Albany, the western ringtail possum is found in coastal heath, jarrah/marri woodland and forest, peppermint tree woodland, myrtaceous heaths and shrublands, bullich (*Eucalyptus megacarpa*) dominated riparian zones and karri forest (Parks and Wildlife, 2014). Given this, the application area may provide suitable habitat for this species. Parks and Wildlife advised that the Albany area is important for the conservation of the western ringtail possum. Habitat loss and fragmentation is identified as one of the principle factors threatening western ringtail possum populations (Parks and Wildlife, 2016).

The targeted fauna survey undertaken by Gilfillan (2016) identified western ringtail possum scats within the application area. A number of hollows potentially suitable for possums were observed in both marri and jarrah trees, no dreys were observed. No possums were observed during the night survey, however this does not indicate that they were not present, just that they may have been in low enough numbers to avoid detection (Gilfillan, 2016).

Gilfillan advised that the application area may only be used intermittently or by a low number of individuals with large home ranges. More extensive survey of the surrounding remnant and larger area is needed to establish densities and connectivity requirements to determine the significance of remnants located in the local area for this species (Gilfillan, 2016). The application area is currently connected to surrounding vegetation via blue gum plantations, however the removal of these blue gum plantations is planned in the near future (Gilfillan, 2016).

Gilfillan advised that the application area represents a section of the species range that is not well surveyed and therefore understood in terms of this species distribution and density and therefore its importance to the Albany Region population. As densities of this species is suspected to be low, based on the initial survey, and that the remnant will become isolated with the removal of the surrounding blue gums and that the primary food tree (jarrah) is heavily infested with Jarrah leaf miner, the value of this remnant to the western ringtail possums may be reduced in the long term irrespective of clearing (Gilfillan, 2016).

Parks and Wildlife advised that the western ringtail possum was confirmed as being present in the application area, and while they are present, the remnant is of value to the species. It is currently considered that all areas of remnant vegetation where the western ringtail possum is known to occur naturally are critical and worthy of protection and that all remnant habitat in the Albany management zone is important. Even though the Jarrah leaf miner may be reducing the quality of the Jarrah trees, it still may be high quality habitat for the western ringtail possum (Parks and Wildlife, 2017).

Little is known of the relative abundance of the western ringtail possum within and between vegetation types, including the vegetation types where they have been recorded in the broader Denmark to Mt Manypeaks area. As such the habitat critical to survival in the south coast management zone cannot currently be clearly defined so all remnant habitat is considered important. The milder climate of the South Coast is likely to become increasingly important or critical to the survival of the species in a warming and drying climate trend and the sensitivities this species has to drought and heat and the anticipated climate change effects on the forage and shelter quality of vegetation upon which this species depends (Parks and Wildlife, 2017).

The chuditch currently inhabit most kinds of wooded habitat within its current range including eucalypt forest (especially jarrah), dry woodland and mallee shrublands (Department of the Environment, 2016a). Only one record of this species has been recorded within the local area in 1965. Given the age of the record and that only one sighting has been recorded within the local area, the application area is not likely to contain significant habitat for this species.

The quokka's main habitat for mainland populations is dense riparian vegetation (Department of the Environment, 2016b). Riparian vegetation was not identified on site (DER, 2015) and significant habitat for this species is not likely to be located within the area under application.

The woylie's distribution has been reduced to three locations in Western Australia being the Perup forest, Tutanning Nature Reserve and Dryandra woodland (Department of the Environment, 2016c). Given this species limited distribution the clearing as proposed is not likely to impact upon this species.

The western archaeid spider is found in suspended leaf litter in low, dense vegetation, especially in coastal Agonis heathland or wet eucalypt forest (Atlas of Living Australia, 2016). Although the application area may contain suitable habitat for the western archaeid spider, the habitat for this species is widespread and varied and therefore the clearing as proposed is not likely to have a significant impact on the conservation status of this species.

The Atlantic yellow-nosed albatross, noisy scrub-bird, Australasian bittern and western mud minnow habitats are associated with the coast, wetlands or watercourses and therefore the vegetation under application is not likely to contain significant habitat for these species.

Parks and Wildlife advised that the remnant area supports four species of threatened fauna, including the western ringtail possum that has been recently up listed to critically endangered due to the extent of land clearing and population decline due to other factors such as feral animal predation. The cumulative effects of land clearing is thus having a significant impact on this species. Maintenance of this area of habitat and its proximity to other areas of habitat is a high priority (Parks and Wildlife, 2017).

Given the above, the application area contains significant foraging habitat, potential breeding and roosting habitat for the black cockatoo species and provides habitat for the western ringtail possum.

The clearing as proposed is at variance to this Principle.

Methodology

References:

Atlas of Living Australia (2016)
Commonwealth of Australia (2012)
Department of the Environment (2016a)
Department of the Environment (2016b)
Department of the Environment (2016c)
DER (2015)
Gilfillan (2016)
Parks and Wildlife (2007-)
Parks and Wildlife (2014)
Parks and Wildlife (2016)
Parks and Wildlife (2017)

GIS Databases
SAC Bio Datasets – accessed February 2016

(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

Two rare flora species have been recorded within the local area (10 kilometre radius), the closest record (species 1) being located approximately seven kilometres north west of the application area. This species grows in peaty soils in seasonally wet swamps (Brown et al., 1998).

Species 2 has been recorded approximately 8.5 kilometres north west of the area under application. This species is found on sand over laterite, in areas of low, open sheoak and jarrah woodland over *Agonis flexuosa* heath (Brown et al., 1998). This species occurs in a number of small isolated populations over a range of approximately 90 km from the Stirling Range, south to Cheyne Beach. Species 2 grows in a range of habitats from mountain tops and slopes, in thicket, and mallee heath on rocky sand clay loam soils in the Stirling Range; and in mallee heath shrubland and woodland communities in sandy clay soils on lateritic ridges or granite in southern populations (Gilfillan and Barrett, 2008).

Suitable habitat is not likely to be located within the area under application for the above mentioned rare flora species.

Given the above, the vegetation under application is not likely to be necessary for the continued existence of rare flora.

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

Methodology

References:

Brown et al (1998)
Gilfillan and Barrett (2008)

(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

No threatened ecological communities (TEC) have been recorded within the local area (10 kilometre radius).

Given the above, the vegetation under application is not likely to be necessary for the maintenance of a TEC.

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

Methodology GIS Databases
SAC Bio Datasets – accessed February 2016

(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 may be at variance to this Principle

The area under application is located within the Jarrah Forest Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion has approximately 54 per cent of its pre-European vegetation extent remaining (Government of Western Australia, 2015).

The vegetation under application is mapped as Beard vegetation associations 51 and 978 of which there is approximately 36 per cent of their pre-European vegetation extents remaining within the Jarrah Forest bioregion (Government of Western Australia, 2015).

The area under application is located within the City of Albany, within which there is also approximately 36 per cent pre-European vegetation extent remaining (Government of Western Australia, 2015).

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 local area (10 kilometre radius) retains approximately 30 per cent native vegetation.

The Albany Regional Vegetation Survey (ARVS) provides a local and regional overview of the native vegetation of the area to assist land use and conservation planning in the region by describing, mapping and assessing the conservation status of the vegetation within the ARVS area. The ARVS area encompasses 124,415 hectares that extends some 30 kilometres east and west of Albany and 20 kilometres north (Sandiford and Barrett, 2010).

ARVS has identified the application area as vegetation Unit 12, Jarrah, Marri, Sheoak Laterite Forest. Vegetation Unit 12 retains approximately 29.8 per cent vegetation within the surveyed area (Sandiford and Barrett, 2010).

The local area and vegetation associations mapped within the application retain equal to or marginally above the recommended 30 per cent threshold and therefore may not be considered to be located within an extensively cleared area.

However, the application area contains vegetation in very good to excellent (Keighery, 1994) condition, contains significant foraging habitat, potential breeding and roosting habitat for forest red-tailed black-cockatoo, Baudin's cockatoo and Carnaby's cockatoo and contains habitat for the western ringtail possum. Parks and Wildlife noted that the application is part of the largest area of remnant vegetation remaining in the immediate vicinity, and that it has some vegetation linkage to other remnants and therefore has the potential to provide intermediate habitat for black cockatoos flying between more significant habitat areas to the south east and north west of the site (Parks and Wildlife, 2016). Given this the application area is considered to be a significant remnant.

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

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in Parks and Wildlife Managed Lands (%)
IBRA Bioregion				
Jarrah Forest	4,506,660	2,422,783	54	69
Shire				
City of Albany	431,369	156,394	36	26
Beard Vegetation Association in Bioregion				
51	19,962	7,284	36	32
978	53,017	18,912	36	27

Methodology References:
Commonwealth of Australia (2001)
*Government of Western Australia (2015)
Keighery (1994)
Sandiford and Barrett (2010)

GIS Databases:
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 watercourses or wetlands have been recorded within the area under application. A minor river is located approximately 80 metres from the area under application. An area subject to inundation (marsh area) is located within 40 metres of the area under application.

A site inspection undertaken within the application area did not identify any riparian vegetation within the area under application (DER, 2015).

Given the above the vegetation under application is not likely to be growing in association with a watercourse or wetland.

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

Methodology References:
DER (2015)

GIS Databases:
Hydrology, linear

(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**
The Commissioner of Soil and Land Conservation has advised that soils are a mix of sand gravel duplex, deep sand duplex and shallow gravels. The wet and semi-wet soils that typically occur within this area were not evident within the application area (Commissioner of Soil and Land Conservation, 2016).

The Commissioner of Soil and Land Conservation has advised that the risk of wind and water erosion is unlikely within the application due to the soil types and land slope present (Commissioner of Soil and Land Conservation, 2016).

The Commissioner of Soil and Land Conservation has advised that the likelihood of land degradation occurring as a result of the intended land clearing was assessed to be low (Commissioner of Soil and Land Conservation, 2016).

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

Methodology References:
Commissioner of Soil and Land Conservation (2016)

GIS Databases:
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

A number of conservation areas occur within the local area (10 kilometre radius). The closest conservation area is an un-named nature reserve located approximately 1.5 kilometres south west of the area under application.

No significant ecological linkages between the area under application and nearby conservation areas are apparent.

Given the distance to the closest conservation area the clearing as proposed is not likely to impact upon the environmental values of any conservation areas.

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

Methodology GIS Databases:
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 may be at variance to this Principle

No watercourses or wetlands have been recorded within the area under application. A minor river is located approximately 80 metres from the area under application. An area subject to inundation (marsh area) is located adjacent to this minor river and is located within 40 metres of the area under application. Given the distance to the marsh area the clearing as proposed may indirectly impact the marsh area and associated watercourse through increased runoff.

The application area is located within a Priority 2 area within the Marbellup Brook Catchment Area proclaimed under the *Country Areas Water Supply Act 1947* (CAWS Act) (DoW, 2016a). The Department of Water advised that perennial vegetation provides protection to the water source. The removal of native vegetation and the expansion of agricultural practices will increase the risk of contamination to the water resource. While the Marbellup Brook Catchment is not an operating water resource, it is possible that the source will be harnessed in the future, and therefore land use in the catchment is managed as though it is an active source (DoW, 2016a).

DoW advised that the subject site is located within the Torbay Catchment Area which contains high value waterways that are at risk of degradation from land use in the catchment (DoW, 2016a).

Given the above, the clearing of perennial vegetation is likely to increase runoff into the adjacent marsh area and increase groundwater discharge and therefore the clearing as proposed may impact upon the quality of surface and underground water.

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

DER wrote to the applicant on 7 April 2016 and 5 September 2016 advising that the proposed clearing may deteriorate surface water quality within the Marbellup Brook Catchment Area and Torbay Catchment Area and requested advice on planting carried on the property to determine if this will address any impact on the Marbellup Brook Catchment Area should clearing of native vegetation be carried out.

On 8 December 2016 DoW (2016b) advised the applicant that subject to no objections to clearing on other grounds, DoW recommends the following 'offsets' for protection of water in Marbellup Brook Catchment Area:

1. Formal protection of the existing fenced riparian buffer along the waterway (including any other existing associated remnant vegetation along the waterway);
- Or
2. Formal protection of the existing fenced riparian buffer along the waterway - plus an additional buffer both sides of the waterway (e.g. 15 to 30 metres both sides) along its length once the blue gums are harvested (this would require fencing and revegetation of a buffer 12 to 30 metres either side of the drainage lines); and

Formal protection of the minor drainage line (approximately 500m long) on eastern side of the brook after the blue gums are harvested (this would require fencing and revegetation of a buffer 15 to 30 metres either side of the drainage line).

The applicant has advised that he is willing to commit to an offset as outlined in option 1. This management action is likely to be adequate to mitigate impacts to water quality.

Methodology References:
DoW (2016a)

DoW (2016b)
GIS Databases:
Hydrology, linear
Groundwater salinity

(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**
No watercourse or wetlands have been identified within the application area. Given the highly permeable sandy soils present within the area under application the clearing as proposed is not likely to cause or exacerbate the incident or intensity of flooding.

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

Methodology GIS Databases:
Hydrology, linear
Soils, statewide

Planning instruments and other relevant matters.

Comments The Department of Water (DoW) advised that it does not support this proposal and that the removal of native vegetation and the expansion of agricultural practices will increase the risk of contamination to the Marbellup Brook Catchment water resource (a Priority 2 area proclaimed under the CAWS Act). It is possible that the source will be harnessed in the future (DoW, 2016a).

DoW also advised that the subject site is located within the Torbay Catchment Area. This catchment area has high value waterways that are at risk of degradation from land use in the catchment. DoW has been supporting the restoration of the catchment over the last 15 years, and considerable government funding has been spent in the catchment in research, planning, monitoring and on-ground works. The removal of native vegetation in this catchment area would be contrary to the aims of catchment restoration (DoW, 2016a).

The City of Albany has advised that Lot 6628 is zoned 'General Agriculture' as per the City of Albany Local Planning Scheme 1 (City of Albany, 2015). Objectives of the General Agriculture zone as per Town Planning Scheme include:

- Provide for the sustainable use of land for agricultural and rural activities;
- Support complementary land uses where those land uses do not detract from adjoining agricultural and rural activities and are compatible with the character and amenity of the area;
- Prevent land uses and development within the zone that may adversely impact on the continued use of the zone for agricultural and rural purposes; and
- Provide for value-adding opportunities to agricultural and rural products on-site; and provide for tourism experiences where those developments do not impact upon adjoining agricultural and rural land uses (City of Albany, 2015).

The City of Albany advised that there are no planning approvals applicable to the proposed clearing (City of Albany, 2015).

The Commissioner of Soil and Land Conservation has assessed the area under application to have a moderate capability for the intended use of pasture (Commissioner of Soil and Land Conservation, 2016).

One submission has been received in relation to this application which raised concerns that the area under application contains vegetation in excellent condition, comprises high biological diversity, contains significant habitat for the western ringtail possum and black cockatoo species, is a significant remnant and that the application area is located immediately adjacent to a Priority 2 Drinking Water Area. These issues have been discussed above within Clearing Principles (a), (b), (e), (f) and (i) (Submission, 2015).

DER wrote to the applicant on 7 April 2016 (DER Ref: A1080100), advising that the preliminary assessment had identified a number of significant environmental impacts associated with the proposed clearing and inviting the applicant to provide further information in respect to these matters.

The applicant responded to DER's letter on 5 May 2016 (DER1093400) providing a response in respect to the reasons given for the levels of variance to clearing principles (b), (e) and (i) as stated in the preliminary assessment report outlined in DER's letter. The applicant has advised that he has never seen any black cockatoos or western ringtail possums within the native vegetation proposed to be cleared, nor did DER staff identify any during a site inspection.

The applicant noted that with 36 per cent bush land within the City of Albany and 30 per cent vegetation within a 10 kilometre radius, the proposed clearing is only a small percentage.

The applicant has advised that the proposed clearing will not affect the quality of water in the Marbellup Brook as there is a thick dense buffer of native vegetation along each side of the creek. DoW advised that perennial vegetation provides protection for the Marbellup Brook Catchment Area and the removal of native vegetation within the catchment and expansion of agriculture practices will increase the risk of contamination to this water resource.

The applicant's response raised concerns regarding the negative impacts to his enterprise if a clearing permit was not granted.

On 29 August 2016 a meeting was held to discuss the identified issues. The applicant advised that he is willing to undertake a fauna survey and provide additional information relating to DoW's concerns.

DER wrote to the applicant on 5 September 2016 and advised that as a result of the meeting held on 29 August 2016 it is understood that the applicant would:

- Engage a consultant to undertake a survey of the area proposed to be cleared to determine the habitat values; and
- Provide advice on plantings carried out on your property to determine if this will address any impact on the Marbellup Brook Catchment Area should clearing of native vegetation be carried out.

On 8 December 2016 DoW (2016b) advised the applicant that subject to no objections to clearing on other grounds, DoW recommends the following 'offsets' for protection of water in Marbellup Brook Catchment Area:

1. Formal protection of the existing fenced riparian buffer along the waterway (including any other existing associated remnant vegetation along the waterway);

Or

2. Formal protection of the existing fenced riparian buffer along the waterway - plus an additional buffer both sides of the waterway (e.g. 15 to 30 metres both sides) along its length once the blue gums are harvested (this would require fencing and revegetation of a buffer 12 to 30 metres either side of the drainage lines); and

Formal protection of the minor drainage line (approx. 500m long) on eastern side of the brook after the blue gums are harvested (this would require fencing and revegetation of a buffer 15 to 30 metres either side of the drainage line).

In response to DER's letter of the 5 September 2016 the applicant provided a targeted fauna survey of vegetation remnant on 225 Corio Rd, Marbellup on 24 December 2016. On 25 January 2016 the applicant advised that he was willing to agree and commit to option 1 as recommended by DoW to provide protection of water in Marbellup Brook Catchment Area.

On 15 March 2017 a meeting was held with the applicant to discuss the identified issues, further information provided by the applicant and additional Parks and Wildlife advice received.

On 15 March 2017 the applicant telephoned a DER Delegated Officer after the meeting on 15 March 2017, indicating a potential reduction of the application area and a proposed offsetting of the significant residual environmental impacts by protecting other vegetated areas located within the property.

DER wrote to the applicant on 21 March 2017 to follow up the meeting held on 15 March 2017. The applicant was advised that taking into consideration the information available, expert advice from Parks and Wildlife and the results of the targeted fauna survey, DER was of the view that the vegetation under application contains significant habitat for fauna indigenous to Western Australia. Therefore DER intends to refuse to grant a clearing permit. DER requested the applicant provide any additional information demonstrating their ability to avoid or minimise the impacts identified, such as reducing the application area, by 7 April 2017. No further advice has been received by DER.

Methodology

References:

Commissioner of Soil and Land Conservation (2016)
City of Albany (2015)
DoW (2016a)
DoW (2016b)
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