



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: CPS 6752/1

Duration of Permit: From 24 September 2016 to 24 September 2018

PERMIT HOLDER

Ms Sally Rae Nicholl

Mr Colin Jeffery Nicholl

LAND ON WHICH CLEARING IS TO BE DONE

LOT 1476 ON PLAN 204202, HYDEN

AUTHORISED ACTIVITY

1. Type of Clearing Authorised/Method

The Permit Holder shall not clear more than 28 hectares of native vegetation within the area cross-hatched yellow on attached Plan 6752/1.

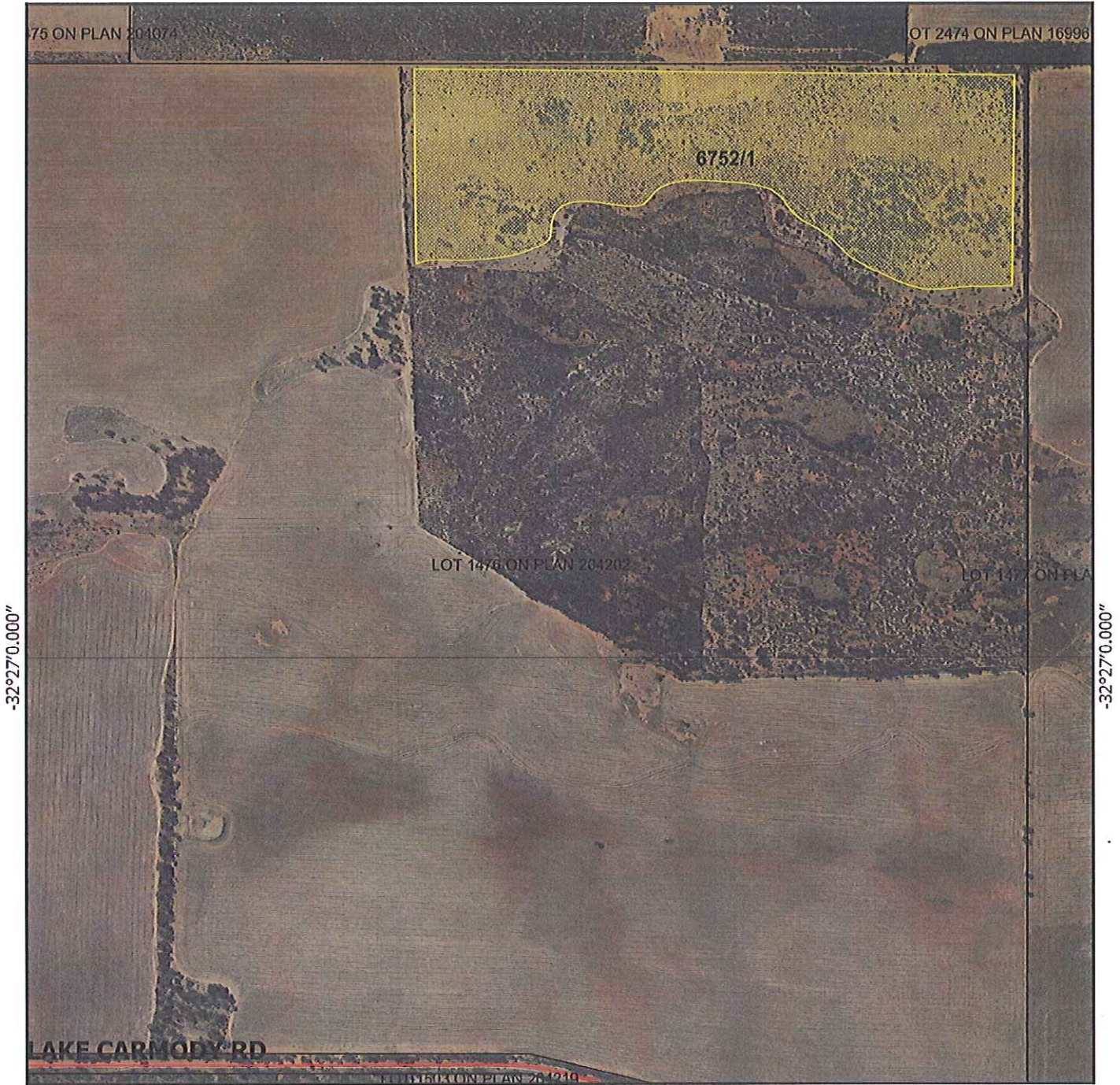
Anne Mathews

Anne Mathews
SENIOR MANAGER
CLEARING REGULATION

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

25 August 2016

Plan 6752/1



Legend

-  Areas approved to clear
-  Roads
-  LGA
-  Cadastre
- Virtual Mosaic



1:7,270

MGA 84
Geocentric Datum of Australia 1994

.....Date.....
A Mathews

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



GOVERNMENT OF
WESTERN AUSTRALIA

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1. Application details

1.1. Permit application details

Permit application No.: 6752/1
Permit type: Area Permit

1.2. Applicant details

Applicant's name: Ms Sally Rae Nicholl
Mr Colin Jeffery Nicholl

1.3. Property details

Property: LOT 1476 ON PLAN 204202, HYDEN
Colloquial name:
Local Government Authority: KONDININ, SHIRE OF
DER Region: Greater Swan
DPaW District: GREAT SOUTHERN
LCDC: KONDININ
Localities: HYDEN

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
55		Mechanical Removal	Cropping and grazing

1.5. Decision on application

Decision on Permit Application: Grant in part
Decision Date: August 2016
Reasons for Decision: The applicant has applied to clear 55 hectares of native vegetation.

The application area was considered as two sub-areas based on vegetation condition and composition:

- Area 1 (approximately 28 hectares) is predominantly in a degraded to completely degraded (Keighery, 1994) condition and comprises sparse shrubland with occasional areas of open mallee woodland and scattered eucalypts and sheoak over sparse low shrubland; and
- Area 2 (approximately 27 hectares) is predominantly in a good to very good (Keighery, 1994) condition and comprises low open shrubland and open mallee eucalypt woodland, and includes a mapped granite outcrop wetland and associated vegetation (DER, 2015).

The clearing application has been assessed against the clearing principles, planning instruments and other matters in accordance with section 51O of the *Environmental Protection Act 1986*, and it has been concluded that the proposed clearing:

- of Area 1 is not likely to be at variance to the Principles; and
- of Area 2 is at variance to Principles (a), (e) and (f), may be at variance with Principles (b), (h) and (i), and is not likely to be at variance to Principles (c), (d), (g) and (j).

The Delegated Officer considered that the proposed clearing of Area 2 will impact on native vegetation that comprises high biodiversity values, is significant as a remnant and is growing in association with a granite outcrop wetland, and may comprise significant habitat for fauna including for conservation-significant fauna species. The Delegated Officer determined that a permit could be granted for Area 1, being part of the clearing applied for, pursuant to section 51E(7)(a) of the *Environmental Protection Act 1986*.

State and other relevant policies have been taken into consideration in this decision.

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Beard Vegetation Association 519 is described as Shrublands; mallee scrub, <i>Eucalyptus eremophila</i> (Shepherd et al, 2001)	The applicant proposes to clear 55 hectares of native vegetation within Lot 1476 on Deposited Plan 204202, Hyden, for the purposes of cropping and grazing.	Very Good; Vegetation structure altered; obvious signs of disturbance (Keighery, 1994). To Completely Degraded; No longer intact, completely/almost completely without native species (Keighery, 1994).	The vegetation condition and description of the vegetation under application was determined via a site inspection undertaken by officers of the Department of Environment Regulation (DER, 2015). The application area has been assessed as two areas based on differences in the vegetation condition and composition: <ul style="list-style-type: none">Area 1 (approximately 28 hectares, northern portion): the vegetation is in a degraded to completely degraded (Keighery, 1994) condition, appears to have been previously parkland cleared, and comprises sparse shrubland with scattered areas of open mallee woodland and scattered eucalyptus and sheoak over sparse low shrubland (DER, 2015).Area 2 (approximately 27 hectares, southern portion): the vegetation ranges from good to very good (Keighery, 1994) condition with the majority in a good (Keighery, 1994) condition (DER, 2015), and contains a mixture of open low shrubland and mallee woodland over medium shrubland along with dense shrubland associated with approximately 22 hectares of wetland.

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 at variance to this Principle

The applicant proposes to clear 55 hectares of native vegetation within Lot 1476 on Deposited Plan 204202, Hyden, for the purposes of cropping and grazing. The condition of the vegetation within the application area transitions from north to south and ranges from completely degraded (mostly within the upper northern portion) to very good (Keighery, 1994; DER, 2015).

The application area has been assessed as two areas based on differences in the vegetation condition and composition. Generally the application area increases in quality and density towards the centre portion and southern extent of the application area (DER, 2015).

- Area 1 (approximately 28 hectares) is predominantly in a degraded to completely degraded (Keighery, 1994) condition and comprises sparse shrubland with occasional areas of open mallee woodland and scattered eucalypts and sheoak over sparse low shrubland (DER, 2015). This area shows signs of significant historical disturbance and appears to have been previously parkland cleared (DER, 2015). Area 1 is located between Area 2 and Crown Reserve R26661 (414 hectares for the purpose of conservation of flora and fauna) and may facilitate fauna movement between these areas, although owing to the sparseness of the vegetation its value as a corridor is limited.
- Area 2 (approximately 27 hectares) is predominantly in a good to very good (Keighery, 1994) condition and comprises low open shrubland and open mallee eucalypt woodland (DER, 2015). The vegetation type transitions to dense shrubland particularly within the southern extent of the application area (DER, 2015). The change in vegetation type is likely due to the presence of a mapped wetland comprising the majority of Area 2. This wetland is identified in the 'Basin Wetlands of the Wheatbelt' dataset as a granite outcrop (Department of Parks and Wildlife (Parks and Wildlife), 2015c). Granite outcrops are assigned to their own wetland group as they are a unique category of wetland that has distinctive flora and fauna (Jones et al, 2008). Granite outcrops may have an increasingly important conservation role in providing freshwater habitat for aquatic invertebrate fauna as the Wheatbelt becomes more saline (Pinder et al, 2000).

The local area (20 kilometre radius) has been extensively cleared and retains approximately 15 per cent native vegetation.

One rare flora species and 30 records of priority flora species have been recorded within the local area (20 kilometre radius). Noting the habitat requirements of the rare flora species, it is unlikely that this species occurs within the application area. Noting the condition of the vegetation within Area 1, it is unlikely that this vegetation includes or is necessary for the maintenance of priority flora species. However noting the condition of the vegetation within Area 2, there is the potential for priority flora species to occur within Area 2. Prior to any clearing within Area 2, a targeted flora survey for conservation-significant flora known to occur in the local area would be required. The survey should be appropriately timed to detect the presence of targeted conservation significant taxa and be conducted by a suitably qualified botanist. If conservation-significant taxa are recorded, the extent of the local population should be recorded to enable an assessment of the proportional impact of the proposed clearing to the local population.

According to available databases, no threatened or priority ecological communities occur within the local area. Noting the mapped vegetation and soil types within the application area and local area, it is considered that the application area is unlikely to contain conservation-significant floristic communities.

There are five recent (2000 onwards) records of conservation-significant fauna species within the local area (Parks and Wildlife, 2007-). Noting the condition of the vegetation within Area 1, it is unlikely that this vegetation comprises significant habitat for these species. However noting the condition of the vegetation within Area 2, there is the potential that Area 2 comprises significant habitat for some conservation-significant species.

Given the above, Area 1 is unlikely to comprise a high level of biodiversity, however Area 2 is considered to comprise a high level of biodiversity.

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

Methodology

References:

DER (2015)
Jones et al (2008)
Keighery (1994)
Parks and Wildlife (2007-)
Parks and Wildlife (2015a)
Parks and Wildlife (2015b)
Parks and Wildlife (2015c)
Pinder et al (2000)

GIS Databases:

- SAC Bio Datasets (Accessed December 2015)
- NLWRA, Current Extent of Native Vegetation
- Wheatbelt Significant Wetlands

(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

The Commissioner of Soil and Land Conservation described the vegetation within the application area as mallee, distinctive granitic communities, Proteaceous heath on gravelly sandplain and casuarinaceous scrub (mainly tamma) on yellow gravelly sands and earths (CSLC, 2016).

Digital imagery indicates that the local area retains approximately 15 per cent vegetation cover.

The application area has been assessed as two areas based on differences in the vegetation condition and composition:

- Area 1 is predominantly in a degraded to completely degraded (Keighery, 1994) condition and is not likely to provide significant habitat for fauna. Area 1 is located between Area 2 and Crown Reserve R26661 (414 hectares for the purpose of conservation of flora and fauna) and may facilitate fauna movement between these areas, however noting the sparseness of the vegetation present within Area 1 its value as a fauna corridor is limited.
- Area 2 is predominantly in a good to very good (Keighery, 1994) condition, includes a mapped granite outcrop wetland and associated vegetation. Although no visible signs of water were found during the site inspection (DER, 2015), a change in vegetation type from mallee woodland to dense shrubland was evident, indicating that portions of this area may retain some water post rainfall.

There are five relatively recent (2000 onwards) records of conservation-significant fauna within the local area (20 kilometre radius), being threatened species Carnaby's cockatoo (*Calyptorhynchus latirostris*), malleefowl (*Leipoa ocellata*) and chuditch (*Dasyurus geoffroyi*) listed as 'rare or likely to become extinct' under the *Wildlife Conservation Act 1950*, migratory species rainbow bee-eater (*Merops ornatus*) listed under an International Agreement, and priority (P) species water flea (*Daphnia jollyi*) (P1) (Parks and Wildlife, 2007-).

Carnaby's cockatoo is endemic to Western Australia's south west. Carnaby's cockatoo opportunistically forages in proteaceous woodlands and kwongan heath, with a preference for hakea, grevillea, banksia and eucalypt species, and typically nest in the hollows of large salmon gum and wandoo eucalypts (Parks and Wildlife, 2015b). A site inspection did not identify any trees with hollows within the application area (DER, 2015). One record (2007) of Carnaby's cockatoo occurs within 10 kilometres of the application area, and a number of other records occur within 20 kilometres, including a confirmed breeding site 17 kilometres north of the application area. Based on knowledge of the preferred foraging habits of Carnaby's cockatoo, it is possible that the application area is opportunistically used by this species for foraging and roosting.

Malleefowl is found in the Wheatbelt region in semi-arid shrublands and low woodlands dominated by mallee eucalypts and acacias, and feed opportunistically on a variety of flora, fungi and invertebrates (Parks and Wildlife, 2015b). Malleefowl often require sandy substrate and abundant leaf litter for breeding (Parks and Wildlife, 2015b). One malleefowl record (2003) occurs within 10 kilometres of the application area, and a number of other records occur within 20 kilometres. Considering the proximity of these records to the

application area, it is possible that malleefowl forage and/or breed within Area 2. A survey for malleefowl and malleefowl mounds (both active and inactive) within Area 2 would be required to determine potential impacts on the species and individuals that may occur.

Chuditch have a preference for eucalypt forest (especially *Eucalyptus marginata*), dry woodland and mallee shrublands and utilise horizontal hollow logs or earth burrows as dens or refuge. To be suitable as den sites, logs must have a diameter of at least 30 centimetres but usually greater than 50 centimetres, a hollow diameter of 7 to 20 centimetres and generally 1 metre long (DotE, 2014). Suitable den sites were not found during the site inspection (DER, 2015). The native vegetation under application is not likely to comprise significant habitat for this species.

The rainbow bee-eater is a highly-mobile avian species with a large home range. The native vegetation under application is not likely to comprise significant habitat for this species.

As a genus, *Daphnia* species typically have a short lifecycle of several months, and produce eggs that can withstand periods of extreme conditions (including drought) and hatch in favourable conditions (Ebert, 2005). Some species, including *Daphnia jollyi*, are associated with shallow freshwater pools occurring on granite. The mapped granite outcrop wetland within Area 2 may comprise significant habitat for this species.

Noting the extent of vegetation within the local area, the proximity of the overall application area to the Crown Reserve, the condition of the vegetation and variety of habitats present within Area 2, and the potential for threatened fauna, Area 2 of the application area may comprise significant habitat for indigenous fauna. Further, Area 2 comprises approximately a third of a contiguous remnant of native vegetation located approximately 200 metres from the Crown Reserve, and the proposed clearing of Area 2 would result in reduced connectivity between the remaining portion of this remnant and the Crown Reserve.

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

Methodology References:
CSLC (2015)
DER (2015)
DotE (2014)
Ebert (2005)
Keighery, B.J. (1994)
Parks and Wildlife (2007-)
Parks and Wildlife (2015b)

GIS Databases:
- Wheatbelt Significant Wetlands

(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

One rare flora species has been recorded within the local area (20 kilometre radius), approximately 3.5 kilometres west of the application area. This species is known to occur on saline flats (Parks and Wildlife, 2015a). This habitat was not identified during a site inspection of the application area (DER, 2015) which occupies the upper slope positions in the landscape. Therefore this species is not likely to occur within the application area.

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

Methodology References:
DER (2015)
Parks and Wildlife (2015a)

GIS Databases:
- SAC Bio Datasets (Accessed December 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

According to available databases, no threatened ecological communities (TEC) occur within the local area (20 kilometre radius). Noting the mapped vegetation and soil types within the application area and local area, 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.

Methodology GIS Databases:
- SAC Bio Datasets (Accessed December 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 at variance to this Principle

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 is located within the Mallee Interim Biogeographic Regionalisation for Australia (IBRA) bioregion and Shire of Kondinin, which retain approximately 56.5 and 53.6 per cent of their pre-European vegetation extents respectively (Government of Western Australia, 2015). The application area is mapped as Beard vegetation association, which retains approximately 59.4 per cent of its pre-European extent within the Mallee IBRA bioregion (Government of Western Australia, 2015).

Although the above vegetation extents are greater than the abovementioned 30 per cent threshold, the local area (20 kilometre radius) surrounding the application area has been extensively cleared and retains approximately 15 per cent native vegetation.

The application area has been assessed as two areas based on differences in the vegetation condition and composition:

- Area 1 is predominantly in a degraded to completely degraded (Keighery, 1994) condition. Area 1 is located between Area 2 and Crown Reserve R26661 (414 hectares for the purpose of conservation of flora and fauna) and may facilitate fauna movement between these areas, although owing to the sparseness of the vegetation its value as a corridor is limited.
- Area 2 is predominantly in a good to very good (Keighery, 1994) condition, includes a mapped granite outcrop wetland and associated vegetation, may comprise significant habitat for fauna including conservation-significant species, and may contain priority flora species. Further, Area 2 comprises approximately a third of a contiguous remnant of native vegetation located approximately 200 metres from the Crown Reserve, and the proposed clearing of Area 2 would result in fragmentation of this remnant in an extensively cleared landscape.

On this basis it is considered that the application area is located within an area that has been extensively cleared, and that Area 2 is significant as a remnant of native vegetation.

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

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Pre-European Extent in Parks and Wildlife Managed Lands (%)
IBRA Bioregion*				
Mallee	7,395,894	4,180,977	56.5	18
Shire*				
Shire of Kondinin	741,935	398,041	53.6	3.9
Beard Vegetation Association in Bioregion*				
519	2,100,314	1,248,661	59.4	10.8

Methodology References:
Commonwealth of Australia (2001)
DER (2015)
*Government of Western Australia (2015)
Keighery (1994)

GIS Databases:
- NLWRA, Current Extent of Native 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 at variance to this Principle

Approximately 22 hectares of Area 2 of the application area is identified in the 'Basin Wetlands of the Wheatbelt' dataset as a granite outcrop wetland. Due to the scale of the mapping, all granite outcrops were delineated regardless of whether basins were visible (Jones et al, 2008). The methodology supporting the dataset assumes that each mapped granite outcrop has the capacity to hold water in the form of one to many pools (even if for only very brief periods), and therefore function as a basin wetland (Parks and Wildlife, 2015c). Granite outcrops are assigned to their own wetland group as they are a unique category of wetland that has

distinctive flora and fauna (Jones et al, 2008). Granite outcrops may have an increasingly important conservation role in providing freshwater habitat for aquatic invertebrate fauna as the Wheatbelt becomes more saline (Pinder et al, 2000).

Another aquatic habitat found on granite outcrops are the ephemeral streams that drain from vernal pools into marshy areas around the perimeter of the outcrop or into surrounding streams (Pinder et al, 2000). The pools and streams on granite outcrops support a diverse array of aquatic invertebrates and contribute significantly to endemism in the aquatic fauna of the inland south-west with particular conservation value for about 50 species (Pinder et al, 2000).

Whilst there was no visible signs of water on site, there was a change in vegetation type from mallee woodland to dense shrubland progressing south within Area 2 (DER, 2015), which indicates that portions of this area may retain some water post rainfall and account for the change in vegetation type. The mapped wetland extends into the southern portion of Lot 1746 (south of Area 2), which is lower lying and is the most likely place that water would be retained for any length of time during winter months.

The Department of Parks and Wildlife conducted a site visit during May 2016 to clarify the wetlands mapping, and subsequently advised that the mapped wetland contains granite outcrops and pools suggesting that the wetland mapping is reasonably accurate (Parks and Wildlife, 2016). Parks and Wildlife advised that for this particular wetland a smaller buffer of 20-30 metres would be adequate from the base of the granite outcrop rather than the 50 metres normally applied for other high conservation value wetlands, and recommended that the applicant retain an uncleared corridor on the eastern side of the application area to provide a linkage between the mapped wetland and nearby Crown reserve R26661 (Parks and Wildlife, 2016).

Noting that approximately 22 hectares of the vegetation under application (within Area 2) is within a mapped wetland, it is considered that Area 2 includes native vegetation growing in, and in association with, an environment associated with a watercourse or wetland.

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

Methodology References:
DER (2015)
Jones et al (2008)
Keighery (1994)
Parks and Wildlife (2015c)
Parks and Wildlife (2016)
Pinder et al (2000)

GIS Databases:
- Wheatbelt Significant Wetlands

(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 (CSLC) advised that the soil types within the application area are mapped as Hyden 3 G – Granite Phase (Map unit 250Hy_3g), Hyden 3 G – Granite Rock Phase (Map unit 250Hy_3r) and to a lesser extent Hyden Sandplain Subsystem (Map unit 250Hy_2) (CSLC, 2015):

- Map unit 250Hy_3g is the dominant soil type and occurs within both Areas 1 and 2. This map unit is described as irregularly undulating granite country with rock outcrops on moderately weathered granites and siliceous gneisses. It is characterised by grey and brown alkaline sandy duplexes, brown and red sandy earths, red and brown loamy earths, loamy duplexes and patches of ironstone gravelly soils.
- Map unit 250Hy_3r occurs within Area 2 only and is described as granitic country around granite outcrops.
- Map unit 250Hy_2 occurs within the north western portion of Area 1 and is described as undulating sandplain with occasional rock outcrops on moderately weathered mantle over granitic rocks.

The CSLC advised that the application area is located on the upper slope position (CSLC, 2015). The CSLC advised that these soils comprise brown/yellow and grey sandy earths, ironstone gravelly soils and alkaline and lateritic duplexes (CSLC, 2015). A land degradation assessment report provided by the CSLC indicates that the risk of salinity, eutrophication, water erosion, waterlogging and flooding causing land degradation is low, and the application area has a moderate capability for the intended agricultural land use (CSLC, 2015).

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

Methodology References:
CSLC (2015)

(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 may be at variance to this Principle

The application area is located approximately 20 metres south of a Crown Reserve (R26661) vested with the

Conservation Commission of Western Australia and managed by Parks and Wildlife for the purpose of the conservation of flora and fauna. This reserve comprises approximately 414 hectares of native vegetation.

Area 1 is highly degraded, and is thus not considered significant habitat for fauna, however, some of the remaining vegetation in this section potentially provides a fauna corridor between the wetland vegetation in the southern portion, Area 2, the vegetation further south (within Lot 1746) and the abovementioned Reserve. This may be significant as it provides a linkage between wetland and dryland vegetation within a highly cleared landscape.

The proposed clearing of Area 2 would further hinder fauna movement between the Crown Reserve and wetland vegetation as it involves the removal of 22 hectares of vegetation mapped as a granite outcrop wetland and would result in the segregation of the remaining lower lying vegetation within the southern portion of Lot 1746.

Therefore, the proposed clearing of Areas 1 and 2 may result in limitations in fauna dispersal between wetland and dryland habitats, which may indirectly impact on the environmental values of the nearby conservation area.

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

Methodology GIS Databases:
- Parks and Wildlife Tenure
- Wheatbelt Wetlands

(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

Approximately 22 hectares of Area 2 is mapped as a granite outcrop wetland, which is identified in the 'Basin Wetlands of the Wheatbelt' dataset. Due to the scale of the mapping, all granite outcrops were delineated regardless of whether basins were visible (Jones et al, 2008). The methodology supporting the dataset assumes that each mapped granite outcrop has the capacity to hold water in the form of one to many pools (even if for only very brief periods), and therefore function as a basin wetland (Parks and Wildlife, 2015c).

There was no surface water identified on site (DER, 2015), however, given the above description of granite outcrop wetlands, there is the potential for the southern portion of Area 2 to hold water for brief periods post rainfall. The application area occupies the upper slope positions in the landscape, with the lower lying areas within the southern portion of Lot 1746 (south of Area 2). These lower lying areas have the greatest capacity to hold water for any length of time.

The CSLC advised that the application area is located on the upper slope position (CSLC, 2015). A land degradation assessment report provided by the Commissioner of Soil and Land Conservation (CSLC) indicates that the risk of water erosion, wind erosion or waterlogging causing appreciable land degradation is low (CSLC, 2015). The land degradation assessment report indicates that no hydrogeological information specific to the property, however the risk of salinity causing land degradation as a result of the proposed clearing is low (CSLC, 2015).

While the risk of appreciable land degradation is low, there is the potential for the proposed clearing of Area 2 to result in some soil erosion (particularly immediately post clearing) and elevated sediment levels associated with post rainfall runoff moving downslope into the lower lying wetland areas south within Lot 1746. This may result in the deterioration of surface water of any streams that may occur on site after rainfall, or within the southern lower lying areas with the potential to hold water.

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

Methodology References:
CSLC (2015)
DER (2015)
Jones et al (2008)
Parks and Wildlife (2015c)

(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

Approximately 22 hectares of Area 2 of the application area is identified in the 'Basin Wetlands of the Wheatbelt' dataset as a granite outcrop wetland. Whilst there was no visible signs of water on site, there was a change in vegetation type (DER, 2015) indicates that portions of this area may retain some water post rainfall.

Annual average rainfall of the region is low (400 millimetres per annum). A land degradation assessment report provided by the Commissioner of Soil and Land Conservation indicates that the risk of flooding on site is low (CSLC, 2015).

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

Methodology References:
CSLC (2015)
DER (2015)

GIS Databases:
- Rainfall, Mean Annual

Planning instruments and other relevant matters.

Comments The applicant proposes to clear 55 hectares of native vegetation within Lot 1476 on Deposited Plan 204202.

The application was advertised in *The West Australian* newspaper for a period of 21 days. No public submissions have been received in respect to the proposed clearing.

The application area is zoned 'rural' under the Town Planning Scheme. The Shire of Kondinin (Shire) advised that planning approval for the proposed clearing is required under the Shire's Town Planning Scheme No.1, and that it has received an application for planning approval but will defer a decision on that application until an environmental assessment of the application has been undertaken (Shire of Kondinin, 2015). The Shire subsequently advised that the Council at its Ordinary Meeting of 16 March 2016 approved the application for planning consent to clear Lot 1476 South Sharp Road, Hyden, for the purpose of cropping and livestock subject to a clearing permit being granted and compliance with conditions of planning approval (DER ref. A1072471).

No Aboriginal Sites of Significance have been mapped within the application area.

On 12 January 2016 a Delegated Officer of the Department of Environment Regulation (DER) wrote to the applicant (DER ref. A1034534) 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 the Delegated Officer's letter, proposing an offset to address the significant environmental impacts, and advising that the proposed clearing involves solely regrowth vegetation (DER ref A1065416). The applicant also advised that in order to achieve agricultural viability they require the ability to clear the entirety of the application area therefore they are unable to avoid and minimise the environmental impacts.

Environmental offsets are not appropriate in all circumstances, however may be used to address significant residual impacts after the mitigation hierarchy (avoid and minimise) has been applied. Assessment of the application, including the additional information provided by the applicant, determined that the proposed clearing in its entirety may have an unacceptable environmental impact, and that the environmental offset proposed is not appropriate.

Pursuant to section 51E(7)(a) of the *Environmental Protection Act 1986* it is open to the CEO to grant a permit for all or some of the clearing applied for. Noting that the assessment of this application has considered two distinct areas based on vegetation quality and identified that the proposed clearing within Area 1 is not likely to be at variance to the clearing principles, it is considered that a clearing permit could be granted for Area 1.

On 6 May 2016 DER officers met with the applicant to discuss the application (DER ref. A1098114).

On 12 May 2016 a Delegated Officer of DER wrote to the applicant (DER ref. A1098107), advising of the intent to grant a permit for part of the clearing applied for, being Area 1 of the application area.

In May 2016 the Department of Parks and Wildlife (Parks and Wildlife) conducted a site visit to clarify the wetlands mapping; this is discussed in more detail under clearing principle (f). Parks and Wildlife advised (among other things) that a wetland buffer of 20-30 metres would be adequate in this instance (Parks and Wildlife, 2016). Parks and Wildlife's wetlands advice was provided to the applicant for review in preparing a response to the Delegated Officer's letter of 12 May 2016.

On 9 August 2016 the applicant advised that the Delegated Officer's intent to grant a permit for part of the clearing applied for, being Area 1 of the application area, was generally accepted subject to a reduced wetland buffer of 20 metres consistent with Parks and Wildlife advice that a 20-30 metre buffer would be adequate in this instance.

Methodology References:
Keighery (1994)
Parks and Wildlife (2016)
Shire of Kondinin (2016)

4. References

Commissioner of Soil and Land Conservation (CSLC) (2015) Land Degradation Advice and Assessment Report for clearing permit application CPS 6752/1. Department of Agriculture and Food Western Australia

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
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