



## Decision Report

### 1. Application details

#### 1.1. Permit application details

Permit application No.: 8184/1  
Permit type: Area Permit

#### 1.2. Applicant details

Applicant's name: Withheld  
Application received date: 31 August 2018

#### 1.3. Property details

Property: Lot 148 On Deposited Plan 411514  
Local Government Authority: Shire of Gingin  
Localities: Breera

#### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	Purpose category:
0.25012		Mechanical Removal	Building or structure

#### 1.5. Decision on application

Decision on Permit Application: Refuse  
Decision Date: 24 July 2020

**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 with principles (e) and (f), may be at variance with principles (a), (c) and (d), is not at variance with principle (j) and is not likely to be at variance with the remaining principles.

Through the assessment it was determined that the application area may support populations of conservation significant flora species, is situated within a Conservation Category Wetland (CCW) identified as 'UFI-15110', may contain an occurrence of the 'Communities of Tumulus Springs (Organic Mound Springs, Swan Coastal Plain)' or 'Forests and woodlands of deep seasonal wetlands of the Swan Coastal Plain' threatened ecological community (TEC) and is likely a significant remnant of native vegetation in an extensively cleared area. The applicant has not provided flora and vegetation surveys to confirm the presence or absence of the aforementioned values.

The proposed construction of a dwelling within Lot 148 on Deposited Plan 411514 requires Development Approval to be obtained from the Shire of Gingin. It is understood that an application for Development Approval has been made but to date has not been approved.

The Delegated Officer noted that the siting of a dwelling within a vegetated area of land would likely require additional clearing to maintain a level of bushfire prevention beyond the area applied for and as such, additional clearing and impacts to the surrounding vegetation may occur.

The Delegated Officer considers that the proposed clearing is likely to result in unacceptable environmental impacts to flora species of conservation significance, a CCW and may result in impacts to a TEC. The Delegated Officer has therefore determined to refuse the application.

## 2. Site Information

### Clearing Description

The application seeks approval to clear 0.25 hectares of native vegetation within Lot 148 on Deposited Plan 411514, for the purpose of constructing a dwelling. An inspection of the application area, undertaken by officers of the Department of Water and Environmental Regulation (DWER) on 6 December 2018, determined that part of the application area has previously been cleared for the creation of firebreaks.

### Vegetation Description

The application area is mapped as occurring within the Yanga Complex (Hedde et al. 1980). This complex is defined as predominantly a closed scrub of *Melaleuca* species and low open forest of *Casuarina obesa* (Swamp Sheoak) on the flats subject to inundation (Hedde et al. 1980). On drier sites the vegetation reflects the adjacent vegetation complexes of Bassendean and Coonambidgee (Hedde et al. 1980).

The 2018 DWER inspection of the application area and the surrounding vegetation identified the vegetation community in this area as mixed *Melaleuca* sp. woodland with *Eucalyptus rudis* (Flooded Gum) over *Acacia saligna* (Orange wattle), *Pteridium esculentum* (Bracken) over mixed herbs and sedges.

### Vegetation Condition

The 2018 DWER inspection determined that the vegetation in the application area ranges from Excellent to Degraded (Keighery 1994) condition, described as follows:

- Excellent: Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species (Keighery 1994).
- Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994).
- Good: Vegetation structure significantly altered by very obvious signs of multiple disturbance; retains basic structure or ability to regenerate (Keighery 1994).
- Degraded: Basic vegetation structure severely impacted by disturbance; scope for regeneration but not to a state approaching Good condition without intensive management (Keighery 1994).

The outer edges of the application area (western and southern edges) appeared to be in a Good to Degraded (Keighery 1994) condition. Moving towards the north and east of the application area, the vegetation condition transitions from Very Good to Excellent (Keighery 1994) condition.

### Soil type

The application area is mapped as occurring within the Yanga 8x phase (Department of Primary Industries and Regional Development, 2017). This land system is defined as a flat plain with occasional low dunes, subject to seasonal inundation, deep white and pale yellow sands interspersed with swamp and generally underlain by siliceous / humic pans at depth (Department of Primary Industries and Regional Development 2017).

### Comment

The local area referred to in the below assessment is defined as the area within a ten kilometre radius of the application area.



**Figure 1: The application area (depicted in blue) against lot boundaries (depicted in yellow).**

**3. Minimisation and mitigation measures**

The applicant has positioned the application area within an area which has already been partially cleared to support the establishment of firebreaks. The applicant has advised that they have reduced their rural setbacks to between five and ten metres, though it is noted that this is likely to be subject to the approval of the Shire of Gingin.

**4. Assessment of application against clearing principles, planning instruments and other relevant matters**

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

**Proposed clearing may be at variance with this Principle**

As discussed in Section 2, the vegetation found in the application area varies in condition from Excellent to Degraded (Keighery 1994) condition. A review of available databases determined that 26 flora species of conservation significance have been recorded in the local area, comprising of five Threatened flora species, one Priority 1 flora species, five Priority 2 flora species, ten Priority 3 flora species and five Priority 4 flora species (Western Australian Herbarium 1998-). Noting the vegetation within the application area is in Excellent to Degraded (Keighery, 1994) condition, it was considered the vegetation may support the following priority flora based on similarities between the mapped vegetation and soil types the known habitat requirements of the following species:

- *Grevillea evanescens* (Priority 1) is known from 15 records from the Swan Coastal Plain Interim Biogeographic Regionalisation of Australia (IBRA) region (Western Australian Herbarium 1998-). Advice received from the Department of Biodiversity, Conservation and Attractions (DBCA;2019a) indicates that there is the potential for this species to occur in the application area as it has been recorded from sites where flora species reflect higher water retention for longer periods of time
- *Tetraria* sp. Chandala (G.J. Keighery 17055) (Priority 2) is known from four records within the Swan Coastal Plain IBRA region (Western Australian Herbarium 1998-). Advice received from the DBCA (2019a) states that this species occurs within winter-wet sites and swamps and therefore it is likely that this species occurs within the application area (DBCA 2019a). The DBCA (2019a) also advised that since *Tetraria* sp. Chandala (G.J. Keighery 17055) is only known from four locations, any impacts to individuals of this species are likely to be significant to the conservation status of this species; and
- *Isotropis cuneifolia* subsp. *glabra* (Priority 3) is known from 17 records from the Avon Wheatbelt and Swan Coastal Plain IBRA regions. Advice received from the DBCA (2019a) states that this species occurs within winter-wet sites and swamps and suitable habitat for this species appears to be present in the application area (DBCA 2019a).

DWER's assessment and DBCA's advice (2019a) also indicate that three Threatened flora species have the potential to occur in the application area. These species are discussed further under Principle (c).

A review of available databases determined that the application area is situated the following distances from recorded occurrences of priority ecological communities (PEC):

Approximately 157 metres north-west from the nearest recorded occurrence of the Priority 3 '*Banksia* Dominated Woodlands of the Swan Coastal Plain IBRA Region' PEC. This ecological community is also listed as an 'Endangered' TEC under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act);

- Approximately 157 metres north-west from the nearest recorded occurrence of the Priority 3 '*Banksia* Dominated Woodlands of the Swan Coastal Plain IBRA Region' PEC. This ecological community is also listed as an 'Endangered' TEC under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act);
- Approximately 5.6 kilometres north-west from the nearest recorded occurrence of the Priority 2 'Wooded wetlands which support colonial waterbird nesting areas' PEC; and
- Approximately 1.2 kilometres south west from the nearest recorded occurrence of the Priority 2 '*Banksia* woodland of the Gingin area restricted to soils dominated by yellow to orange sands' PEC.

Noting the species observed during the DWER (2018) site inspection, the proposed clearing area is not likely to represent the abovementioned PEC's. Given the extent of the proposed clearing and the separation distances between the application area and the above PEC's, no impacts to these PEC's are anticipated to result from the clearing activities. A review of aerial photography of the local area found the clearing of the application area will not result in the loss of ecological linkages promoting species diversity and recruitment within the above PEC's. However, it is noted that the application area is within a mapped proposed ecological linkage (Government of Western Australia, 2009) as part of the Gngangara Sustainability Strategy as discussed Principle (b) below.

Advice received from the DBCA (2019b) stated that the application area may be representative of the 'Communities of Tumulus Springs (Organic Mound Springs, Swan Coastal Plain)' TEC. This is discussed further under Principle (d).

The application area occurs within CCW 'UFI-15110'. A wetland mapping review undertaken in 2017 identified this wetland as one of the highest value wetlands within the Swan Coastal Plain Mapping Area (DBCA 2019b). This matter is discussed further under Principle (f).

As discussed under Principle (b), a review of available databases found that nine fauna species of conservation significance have been recorded in the local area. The proposed clearing is not likely to impact on significant habitat for any conservation significant species. The impact of the proposed clearing on habitat for these species is discussed further under Principle (b).

Based on the presence of a CCW, and the potential presence of Priority flora, Threatened flora and a TEC, the Delegated Office considers that the application area may comprise a high level of biodiversity and the clearing may therefore be at variance with this Principle.

**(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.**

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

A review of available databases determined that nine fauna species of conservation significance have been recorded in the local area (Department of Biodiversity, Conservation and Attractions -2007 - onwards). These species are listed below:

- *Calidris melanotos* (Pectoral Sandpiper) (listed as 'Migratory birds protected under an international act' under the *Biodiversity Conservation Act 2016* (BC Act) and 'Marine, Migratory' under the EPBC Act);
- *Calyptorhynchus latirostris* (Carnaby's Cockatoo) (listed as 'Endangered' under the BC Act and the EPBC Act);
- *Galaxiella munda* (Western Dwarf Galaxias) (listed as 'Vulnerable' under the BC Act);
- *Neelaps calonotos* (Black-striped Snake) (Priority 3);
- *Oxyura australis* (Blue-billed Duck) (Priority 4);
- *Plegadis falcinellus* (Glossy Ibis) (listed as 'Migratory birds protected under an international act' under the BC Act and 'Marine, Migratory' under the EPBC Act);

- *Tringa glareola* (Wood Sandpiper) (listed as 'Migratory birds protected under an international act' under the BC Act and 'Marine, Migratory' under the EPBC Act);
- *Tringa nebularia* (Common Greenshank) (listed as 'Migratory birds protected under an international act' under the BC Act and 'Marine, Migratory' under the EPBC Act); and
- *Westralunio carteri* (Carter's Freshwater Mussel) (listed as 'Vulnerable' under the BC Act and the EPBC Act).

The site inspection undertaken by Officers from DWER (2018) did not identify tree species comprising nesting habitat for the Carnaby's Cockatoo. Some species suitable as foraging habitat were observed but overall it is considered that the application area provides minimal foraging habitat. The application area is therefore unlikely to comprise significant habitat for this species.

The Black-striped Snake is known to occur within *Banksia* woodlands and sandy areas of the Perth region (Western Australian Museum 2019). Whilst sandy soils was observed within the application area during the site inspection, the application area did not contain *Banksia* woodlands and is therefore not considered suitable habitat for this species.

The remaining conservation significant fauna habitat types include:

- In Australasia, the Pectoral Sandpiper prefers shallow fresh to saline wetlands and is found in coastal lagoons, estuaries, bays, swamps, lakes, inundated grasslands, saltmarshes, river pools, creeks, floodplains and artificial wetlands (Department of the Environment and Energy 2018a).
- The Blue-billed Duck is found in temperate wetlands where it leads an almost wholly aquatic lifestyle and is seldom seen on land (Birdlife Australia 2019). The Glossy Ibis's preferred habitat comprises fresh water marshes at the edges of lakes and rivers, lagoons, flood plains, wet meadows, swamps, reservoirs, sewage ponds, rice fields and cultivated areas under irrigation (Department of the Environment and Energy 2018b).
- The Wood Sandpiper occurs within well-vegetated, shallow, freshwater wetlands including swamps, billabongs, lakes, pools and waterholes (Department of the Environment and Energy 2019c). This species is typically associated with emergent aquatic plants or grass, dominated by taller fringing vegetation, such as dense stands of rushes or reeds, shrubs, or dead or live trees, especially *Melaleuca* sp. and River Red Gums (*Eucalyptus camaldulensis*) and often with fallen timber (Department of the Environment and Energy 2019c).
- The Common Greenshank is typically found in a wide variety of inland wetlands and sheltered coastal habitats of varying salinity, including swamps, lakes, dams, rivers, creeks, billabongs, waterholes and inundated floodplains, claypans and saltflats (Department of the Environment and Energy 2019d).
- The Western Dwarf Galaxias prefers swift-flowing streams near submerged vegetation (Fishes of Australia 2019). The water in these streams is usually acidic (pH 3.0 - 6.0) and darkly tannin-stained with wide temperature fluctuations during the seasons (Fishes of Australia 2019). This species also occurs occasionally in ponds, swamps and roadside drains (Fishes of Australia 2019).
- The current distribution of Carters Freshwater Mussel includes freshwater streams, rivers, reservoirs and lakes within 50 – 100 kilometres of the coast of South Western Australia, from Gingin Brook southward to the Kent River, Goodga River and Waychinicup River (Klunzinger et al. 2015).

The application area occurs within conservation category wetland 'UFI-15110' with both standing and flowing water observed approximately 60 metres north of the application area during the site inspection undertaken by DWER Officers (DWER 2018). Therefore the application area may provide supporting habitat for the abovementioned species. However, the application area occurs on the outer edges of the wetland which has undergone disturbance in the past to support the establishment of firebreaks. Given this and the fact that the application area only represents approximately 0.3 per cent of the wetland's overall mapped extent, it is considered that the application area is unlikely to comprise significant habitat for these fauna species.

As noted in Principle (a) above, the application is within a mapped proposed ecological linkage (Government of Western Australia, 2009) as part of the Gnarara Sustainability Strategy which aims to design ecological linkages that allow for landscape-level connectivity and to design ecological linkages of importance at sub-regional level that are focussed around key assets. It is considered that the proposed clearing of 0.25 hectares is not likely to impact the ecological linkage values determined by the strategy.

Based on the above, the clearing under application is not likely to be at variance with this Principle.

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

**Proposed clearing may be at variance with this Principle**

Advice received from the DBCA (2019a) outlines that the threatened flora species *Grevillea curviloba*, which is known from 19 records within the Swan Coastal Plain IBRA Region, has the potential to occur in the application area (DBCA 2019a). This species has been recorded from sites where flora species reflect higher water retention for longer periods of time (DBCA 2019a).

The DBCA (2019a) also advised that an additional two threatened flora species (*Chamelaucium lullfitzii* and *Ptychosema pusillum*) are known to occur within five kilometres of the application area. The first threatened flora species is known from 17 records within the Swan Coastal Plain IBRA Region. The second threatened flora species is known from 7 records from the Geraldton Sandplains and Swan Coastal Plain IBRA Regions. The DBCA (2019a) advised that the preferred habitat for these species is *Corymbia calophylla* (Marri), *Banksia attenuata* (Slender Banksia), *Eucalyptus todtiana* (Coastal Blackbutt), *Jacksonia sternbergiana* (Stinkwood), *Xanthorrhoea preissii* (Grass Tree) and *Banksia sessilis* (Parrot Bush) over low mixed shrubs and sedges on grey to yellow sands. If this habitat type is present within the application area, it is likely that these species could occur in this area (DBCA 2019a). The DWER site inspection did not identify the preferred species for *Chamelaucium lullfitzii* and *Ptychosema pusillum* within the application area (DWER 2018).

Given the potential for threatened flora species *Grevillea curviloba* to occur within the application area, the proposed clearing activities may be at variance with 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.**

**Proposed clearing may be at variance with this Principle**

A review of available databases determined that the application area is situated the following distances from recorded occurrences of the following state listed TEC's:

- Approximately 3.7 kilometres south-east from the nearest recorded occurrence of the 'Herb rich saline shrublands in clay pans' TEC, listed as 'Vulnerable' by the Western Australian Minister for Environment and 'Critically Endangered' under the EPBC Act;
- Approximately 4.1 kilometres northwest from the nearest recorded occurrence of the '*Banksia attenuata* woodlands over species rich dense shrublands' TEC, listed as 'Endangered' by the Western Australian Minister for Environment and under the EPBC Act;
- Approximately 1.1 kilometres east from the nearest recorded occurrence of the 'Perth to Gingin Ironstone Association' TEC, listed as 'Critically Endangered' by the Western Australian Minister for Environment and 'Endangered' under the EPBC Act; and
- Approximately 3.7 kilometres south east of the nearest recorded occurrence of the 'Forests and woodlands of deep seasonal wetlands of the Swan Coastal Plain' TEC, listed as 'Vulnerable' by the Western Australian Minister for Environment.

Given the vegetation types observed during the 2018 site visit (DWER, 2018) it is considered that vegetation within the application is not representative of the above listed mapped occurrences of TEC's. Therefore, no impacts to these mapped TEC's are anticipated to result from the clearing activities. A review of aerial photography of the local area found the clearing of the application area will not result in the loss of ecological linkages promoting species diversity and recruitment within the above TEC's.

The DBCA (2019a) advised that the inspection of the application area and its surrounds undertaken by DWER Officers identified specific characteristics that may be indicative of the 'Communities of Tumulus Springs (Organic Mound Springs, Swan Coastal Plain)' TEC, listed as 'Critically Endangered' by the Western Australian Minister for Environment and 'Endangered' under the EPBC Act. The DBCA recommended that surveys be undertaken to ascertain the presence of this TEC within the application area and advised that inspection by Species and Communities Program specialists is likely to be required to verify the presence or absence of this TEC within the application area (DBCA 2019a).

The presence of *Melaleuca raphiophylla* (swamp paperbark) as a dominant species noted in the site inspection (DWER, 2018) may also indicate the presence of 'Forests and woodlands of deep seasonal wetlands of the Swan Coastal Plain' TEC.

Given the potential for the application area to comprise the whole or part of, or be necessary for the maintenance of a TEC, the proposed clearing may be at variance with 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.**

**Proposed clearing is at variance with 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 (i.e. pre-European settlement) (Commonwealth of Australia 2001). This is the threshold level below which species loss appears to accelerate exponentially at an ecosystem level.

As indicated in Table 1, the Swan Coastal Plain IBRA region retains approximately 38.5 per cent of its pre-European extent (Government of Western Australia 2018a). The vegetation complex mapped over the application area (Yanga Complex) currently retains approximately 16 per cent of its pre-European vegetation extent (Government of Western Australia 2018b). The local area retains approximately 52.7 per cent of its pre-European extent.

As discussed under Principles (a), (c) and (d), the application area may comprise a high level of biodiversity, may be necessary for the maintenance of threatened flora species and may comprise or be necessary for the maintenance of a TEC. As discussed under Principle (f), the application area comprises part of Conservation Category Wetland 'UFI-15110', which is identified as one of the highest value wetlands within the Swan Coastal Plain Mapping Area (DBCA 2019b).

When the above is considered alongside the highly cleared nature of the Yanga Complex, the application area likely represents a significant remnant of native vegetation. Based on the above, the proposed clearing is at variance with this Principle.

**Table 1: Vegetation extents**

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Current Extent in DBCA Managed Lands (ha)	(%)
<b>IBRA Bioregion*</b>					
Swan Coastal Plain	1,501,221.93	578,997.37	38.57	222,766.51	14.84

**Swan Coastal Plain Vegetation Association**

38: Yanga Complex	26,176.45	4,245.98	16.22	520.68	1.99
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**(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.**

**Proposed clearing is at variance with this Principle**

The inspection of the application area and its surrounds undertaken by DWER Officers determined there are no watercourses in the application area (DWER 2018). The DWER Officers identified vegetation that is growing in association with a wetland (DWER 2018).

The DBCA (2019b) advised that the area under application occurs within Conservation Category Wetland (CCW) 'UFI-15110', which is part of an extensive palusplain system which connects to the Breera Brook (situated approximately 757 metres from the application area) and flows into Chandala Brook (situated approximately 1.5 kilometres from the application area). The wetland is part of the 'Mungula consanguineous suite' (DBCA 2019b). Only 12.6 per cent of these CCW's currently remain, of which only 4.1 per cent are palusplain wetlands (DBCA 2019b). A wetland mapping review undertaken in 2017 identified this wetland as one of the highest value wetlands within the Swan Coastal Plain Mapping Area (DBCA 2019b). The wetland is valued for its vegetation buffer, vegetation composition, proximity to both priority and threatened ecological communities, threatened fauna habitat value, hydrological connection and its value as a site of indigenous significance (DBCA 2019b). The proposed clearing of 0.25 hectares of vegetation within the buffer of the CCW may impact the values of the wetland.

Given the application area includes vegetation growing in, or in association with, an environment associated with a wetland, the proposed clearing under application is at variance with this Principle.

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

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

No significant land degradation impacts were visible in historically disturbed portions of the application area or adjacent firebreaks during the inspection of this area undertaken by DWER Officers (DWER 2018).

Given the extent and nature of the clearing under application, the most likely land degradation impact which would result from the clearing activities would be anticipated to be surface erosion. While the proposed clearing may result in land degradation impacts through erosion, these impacts would be expected to be temporary in nature, with the establishment of the dwelling and its associated infrastructure expected to stabilise the application area and mitigate any long term land degradation impacts. It is therefore not anticipated that the clearing under application would result in long-term land degradation impacts which would impact the ecological values of the surrounding vegetation on an enduring basis.

Based on the above, the clearing under application is not likely to be at variance with this Principle.

**(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.**

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

A review of available databases determined that the application area is situated approximately 4.6 kilometres east south-east of the Yeal Nature Reserve, approximately 4.5 kilometres south south-east of the Nullilla Nature Reserve, approximately 2.5 kilometres south east of the Bambanup Nature Reserve, approximately 9.3 kilometres north east of the Gngara-Moore River State Forest, 5.2 kilometres north north-west of the Chandala Nature Reserve, approximately 2.6 kilometres west of the Breera Road Nature Reserve, approximately 1.4 kilometres north east of the Timaru Nature Reserve and approximately 4.2 kilometres north west of unnamed conservation reserve R 50678. When consideration is given to the separation distances between the application area and the above conservation reserves, no impacts to the ecological values of the above conservation reserves are anticipated to result from the proposed clearing activities. A review of aerial photography of the local area found the clearing of the application area will not result in the loss of ecological linkages promoting species diversity and recruitment within the above conservation reserves or have a significant impact on the mapped linkage and values identified as within the Gngara Ecological Linkages (Government of Western Australia, 2009). The proposed clearing is not likely to be at variance with this Principle.

**(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.**

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

The assessment of Principle (g) determined the clearing activities under application could result in temporary surface erosion impacts. These land degradation impacts could result in the sedimentation of local surface water resources within conservation category wetland 'UFI-15110'. However these land degradation impacts, as discussed under Principle (g), would be expected to be temporary in nature and mitigated through the establishment of the dwelling and its associated infrastructure, which would be

expected to stabilise the application area. Therefore, any impacts to surface water quality resulting from the clearing activities would not be expected to be ongoing.

A review of available databases determined the groundwater resources underlying the application area are mapped as having a total dissolved solids content of 500 – 1000 milligrams per litre. Given the extent of the application area and the knowledge that the local area retains approximately 52.7 per cent of its pre-European clearing extent, the clearing under application is not anticipated to adversely impact the quality of local groundwater resources.

Based on the above, the proposed clearing is not likely to be at variance with 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.**

**Proposed clearing is not at variance with this Principle**

The Yanga 8x land system shows a high potential for flooding in response to disturbance (Department of Primary Industries and Regional Development 2017). A review of available databases determined the application area is situated within the Swan Avon – Lower Swan catchment area. This catchment has an area of approximately 3,966 square kilometres.

As discussed in Principle (f), the application area is associated with a mapped CCW and but is devoid of any mapped watercourses. DWER's site inspection (2018) noted the application area contains vegetation growing in association with a wetland. It is possible that the application area may be seasonally inundated which would not have been visible during the inspection in summer. A review of the topographical contours of the local area also determined that the application area is situated within a low-lying flat plain environment which only varies 5 metres in elevation over a distance of approximately 1.3 kilometres. These factors are expected to limit both surface water accumulation within the application area and the potential for surface water runoff out of the application area as a result of the proposed clearing.

While the high potential of the Yanga 8x land system for flooding is acknowledged and the value of wetlands in providing flood mitigation, consideration is given to the extent of the vegetation within application area and the extent of vegetation remaining within the immediate vicinity. The proposed clearing is unlikely to alter the flooding regime of the local area.

Based on the above, the proposed clearing is not at variance with this Principle.

**Planning instruments and other relevant matters.**

A review of available databases determined that the application area is situated within the 'Gingin Brook Waggy' (FID-22575) Aboriginal Heritage Site of Significance. This Aboriginal Site of Significance is recognised for its historical and mythological value, its uses as a camp site and a hunting place and its value for both plant and water resources. The applicant is advised that any clearing undertaken within the above Aboriginal Heritage Site of Significance will be subject to the requirements of the *Aboriginal Heritage Act 1972*. The applicant is advised to contact the Department of Planning, Lands and Heritage for more information on this matter.

The construction of a dwelling within the application area requires a Development Approval (DA) from the Shire of Gingin. A DA has been lodged with the Shire of Gingin but to date has not been approved.

The assessment above is for the proposed clearing of 0.25012 ha which is inclusive of a dwelling and cleared areas around the dwelling including a driveway, gravelled area, shed and landscaped area, some of which may constitute a Building Protection Zone (BPZ). The BPZ is described by Department of Fire and Emergency Services (DFES) as an area for managing and reducing fuel loads for a minimum of 20 meters around a building to increase its likely survival from a bushfire. Under Regulation 5, Item 15 of the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* clearing to create or maintain a BPZ may be exempt from requiring a permit. The Delegated Officer considers that the siting of the residence in this location, close to vegetated areas, makes it highly likely that additional clearing beyond the assessed clearing footprint will be required to manage long-term bushfire risk.

**5. Applicants submissions**

To address the impacts identified through DWER's assessment of the application, a request for more information was sent to the applicant on 15 March 2019. The correspondence noted the environmental values identified within the preliminary assessment and requested the applicant provide information on avoidance and minimisation efforts to reduce the likely impacts and to provide any additional information addressing the findings of the preliminary report. The correspondence also noted that a large portion within Lot 148 was already cleared and should be considered as an alternative location for the proposed dwelling.

The applicant provided a response on 14 April 2020 noting the following:

- The original proposed clearing area remains preferred due to anticipated costs of running services to the cleared area at the rear of the property and planning for fire events.
- The original proposed clearing area contains rubbish within the vegetation which would be removed at a later date regardless and may damage vegetation.
- A request should be sent to DBCA noting the comparison of the two sites and noting funding should be requested if DWER maintains its position (of not granting a permit and requiring surveys).
- A building envelope could be re-shaped to improve the chance of a permit being granted.

In response to the above comments provided and a discussion with the applicant, it was determined that commissioning consultants to undertake biological surveys within the application area may resolve some of the concerns raised by DWER. It is



noted however that concerns for potential impacts on the CCW and the TEC considered to be potentially associated with this wetland may not be able to be addressed. It was noted that the reduction of the application area may also mitigate DWER's concerns for environmental impacts but would still need to meet Shire of Gingin development requirements.

## 6. References

- Birdlife Australia (2019) Blue-billed Duck, *Oxyura australis*. Available from: <http://www.birdlife.org.au/bird-profile/blue-billed-duck>. Accessed February 2019.
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
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### GIS Databases:

- Aboriginal Sites of Significance
- DAFWA\_Subsystems\_V5
- Department of Biodiversity, Conservation and Attractions, Managed Tenure
- Environmentally Sensitive Areas 2015
- Geomorphic Wetlands Management Category
- Groundwater Salinity - Statewide
- Hydrography Linear – Linear
- Remnant Vegetation all regions
- SAC bio datasets
- SAPPR Interim Measures – High Value Wetlands
- Swan Coastal Plain – Vegetation Complex Mapping
- TPFL Data December 2018
- WAHerb Data December 2018
- WA TEC PEC Boundaries