



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 8749/1  
Permit type: Area Permit

### 1.2. Applicant details

Applicant's name: Telstra Corporation Limited  
Application received date: 6 December 2019

### 1.3. Property details

Property: Lot 801 on Plan 404579, Cullacabardee  
Local Government Authority: City of Swan  
Localities: Cullacabardee

### 1.4. Application

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

### 1.5. Decision on application

Decision on Permit Application: Granted  
Decision Date: 25 February 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 principle (f), may be at variance with principle (h), and is not likely to be at variance with the remaining clearing principles.

Through the assessment it was identified that the proposed clearing includes vegetation growing in association with a wetland, however, no significant impacts to the environmental values of the wetland are expected given the minimal extent of clearing proposed.

The application area is located within Bush Forever site 196 and the proposed clearing will impact this conservation area through the loss of vegetation and the potential spread of weed and dieback. Weed and dieback management practices will assist in managing potential impacts to adjacent vegetation and the proposed clearing is not likely to significantly impact this Bush Forever site.

In determining to grant a clearing permit subject to conditions, the Delegated Officer considered that the proposed clearing is not likely to lead to an unacceptable risk to the environment.

## 2. Site Information

**Clearing Description** The application is to clear 1.455 hectares of native vegetation within Lot 801 on Deposited Plan 404579, Cullacabardee (the application area), for the purpose of installing antenna's for communications purposes.

**Vegetation Description** The application area occurs within the 'Swan Coastal Plain' Interim Biogeographic Regionalisation for Australia (IBRA) bioregion, and is mapped as the following Swan Coastal Plain vegetation complex (Hedde, 1980):

- Bassendean Complex-Central And\South which is described as Vegetation ranges from woodland of *Eucalyptus marginata* (Jarrah) - *Allocasuarina fraseriana* (Sheoak) - Banksia species to low woodland of Melaleuca species, and sedgelands on the moister sites. This area includes the transition of *Eucalyptus marginata* (Jarrah) to *Eucalyptus todtiana* (Pricklybark) in the vicinity of Perth.

Based on the photographs provided by Telstra Corporation Limited (2019) it appears that the vegetation within the proposed clearing has been severely impacted by previous clearing activities and comprises heath with occasional emergent trees (*Meleleuca* sp., *Eucalyptus* sp. and *Nuytsia floribunda*) and *Xanthorrhoea preissii* (grass tree) (Figure 2a-d) (Telstra Corporation Limited, 2020a, 2020c).

**Vegetation Condition** The condition of the vegetation within the application area is considered to be in degraded condition, described as structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).

The condition of the vegetation was determined based on aerial imagery and supporting information provided by Telstra Corporation Limited (2020a; 2020c).

**Soil type**

The application area is mapped as the following land system (Schoknecht et al., 2004):

- Bassendean, Joel Phase, which is described as poorly drained depressions. Humus podzols. Scattered *M. preissiana*, *E. rudis* and *Banksia ilicifolia* with a dense shrub layer.

**Comments**

The local area is considered a 10 kilometre radius from the perimeter of the application area.

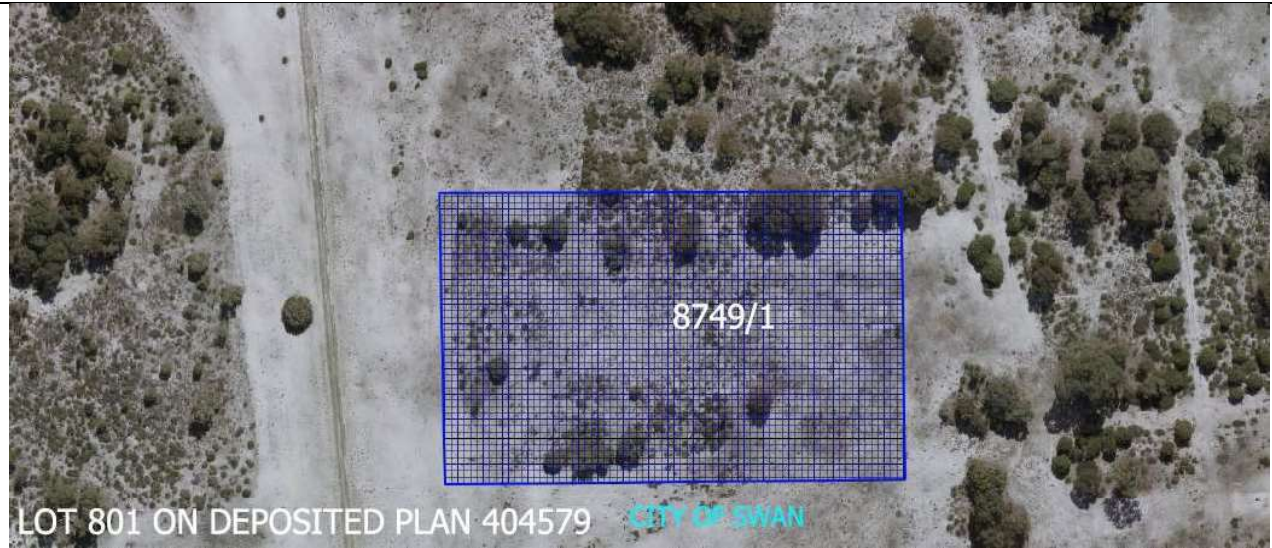


Figure 1 - Application area cross-hatched blue



Figure 2a -Photo taken at the northern boundary of the application area looking south (Telstra Corporation Limited, 2020a)



Figure 2b - Photo taken from the western boundary of the application area looking east (Telstra Corporation Limited, 2020a)



Figure 2c - *Eucalyptus* sp.



Figure 2d - *Melaleuca* sp.

Figures 2a-d: Representative photos of the vegetation within the application area (Telstra, 2020a; 2020c).

### 3. Minimisation and mitigation measures

In relation to whether alternatives have been considered that would avoid or minimise the need for clearing, the applicant has advised: "The field was aligned to be located in an area that consists of already cleared land with a small part of the field encroaching into the section that we need to clear. In other words, the layout was aligned to have as little impact as possible on the overall site" (Telstra Corporation Limited, 2020b).

CPS 8749/1, 25 February 2020

#### 4. Assessment of application against clearing principles

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

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

The native vegetation within the application area is unlikely to comprise a high level of biodiversity, and therefore, the proposed clearing is not likely to be at variance with this clearing principle.

According to the available biological databases, two threatened and 23 priority flora species have been recorded within the local area. Threatened flora are discussed further under Principle (c). Based on the similarities shared between the soil in habitats for these flora taxa and within the Application area, the following 3 priority species may occur within the Application area:

- *Drosera occidentalis* (Priority 4) – two individuals of this species have been recorded in the local area, with the closest record found approximately 6.3 kilometres from the Application area. This species tends to inhabit white/black sand over yellow clay, and typically grows in association with sedgeland or open *Banksia attenuata* and *Eucalyptus tottiana* woodland with *Melaleuca* wetland depressions. Associated species are *Hakea prostrata*, *H. varia*, grass trees, *Melaleuca lateritia*, *M. sp.*, *Leptocarpus sp.*, *Pericalymma ellipticum*, *Drosera sp.* (Western Australian Herbarium, 1998-).
- *Stylidium trudgenii* (Priority 3) – three individuals of this species have been recorded within the local area and the closest record can be found approximately 8.3 kilometres from the Application area. The species occupies grey sand or dark grey to black sandy peat on the margins of winter-wet swamp, and is associated with various species, including *Drosera pulchella*, *Drosera aff. pygmaea*, *Villarsia albiflora*, *Epiblema grandiflorum* var. *grandiflorum*, *Comesperma virgatum*, patches of *Baumea rubiginosa*, *Meeboldina scariosa* or scattered *Melaleuca preissiana*, *Banksia littoralis* (shrubs), over *Astartea* aff. *fascicularis* heath (Western Australian Herbarium, 1998-).
- *Poranthera moorokatta* (Priority 2) – known only from two locations. The first location is in Kings Park, Perth, where it grows in open *Banksia menziesii* – *Banksia attenuata* woodland on white silica sand in open spaces between shrubs, not in shaded areas or in areas of high litter cover. The Ellenbrook population was recorded as occurring with *Astartea aff. fascicularis*, *Banksia littoralis*, *Calothamnus lateralis*, *Centrolepis aristata*, *Melaleuca preissiana*, *Pericalymma ellipticum* var. *ellipticum* and *Phyllangium paradoxum* in a shallow dampland on mixed grey and white sand with scattered leaf litter (Barrett, 2012).

Noting the vegetation associated with these species, the vegetation growing within the application area as described in Section 2 above and its degraded condition with minimum vegetation, the application area is unlikely to contain the abovementioned species. In addition, noting the distance between the closest records of these species from the Application area, the proposed clearing is not likely to impact vegetation necessary for the continued existence of *Drosera occidentalis*, *Stylidium trudgenii* and *Poranthera moorokatta*.

According to the available biological databases, the Commonwealth listed threatened ecological community (TEC) *Banksia* Woodlands of the Swan Coastal Plain, which is also the State listed Priority 3 priority ecological community 'Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region' (hereafter referred as Banksia woodland) has been mapped in the local area. The Approved Conservation Advice for the Banksia woodlands states:

- A number of vegetation communities or floristic community types are encompassed within the Banksia woodland ecological community. Some of these sub-communities within the Banksia woodland are highly restricted and listed as Threatened or Priority ecological communities in Western Australia. These have higher significance than sub-types known to be more common and should be provided specific or additional protection, particularly where assigned a higher threat rank than the Banksia woodland listing (Threatened Species Scientific Committee (TSSC), 2016).

The Banksia woodland typically occurs over sandy soils from Jurien Bay to Dunsborough, and extends to the Whicher and Darling escarpments (TSSC, 2016). Conservation advice for this TEC states that the principal structural features of the community are a distinctive upper sclerophyllous layer of low trees, typically dominated or co-dominated by one or more listed *Banksia* species, including *Banksia attenuata* (TSSC, 2016). The community may also have an emergent tree layer of jarrah and marri (TSSC, 2016). Considering this, the vegetation in application area does not meet the key diagnostic criteria to be considered representative of the Banksia woodland TEC.

As discussed in Principle (b), the proposed clearing is not likely to provide suitable breeding habitat and significant foraging habitat for black cockatoos or any other fauna species.

As discussed in Principle (c), the application area is not likely to comprise, or is necessary for the continued existence of threatened flora.

As discussed in Principle (d), the application area does not comprise the whole or a part of, or is necessary for the maintenance of a TEC.

Given the above, the proposed clearing is not likely to comprise a high level of biodiversity, and therefore, is not likely to 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

Noting the lack of dense understorey vegetation, the application area is not likely to comprise, or is necessary for the maintenance of significant habitat for ground dwelling fauna species. The application area may provide some foraging opportunities for

threatened black cockatoo species, however, noting the lack of key food species, it is not likely to be significant as a food source within the local area.

According to the available biological databases, 26 fauna species listed as being of conservation significance under the *Biodiversity Conservation Act 2016* within the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* have been recorded within the local area (Department of Biodiversity, Conservation and Attractions (DBCA), 2007-). Of these, forest red-tailed black cockatoo (*Calyptorhynchus banksia* subsp. *naso*), Carnaby's cockatoo (*Calyptorhynchus latirostris*), Baudin's cockatoo (*Calyptorhynchus baudinii*) (collectively known as black cockatoos) may occur within the application area.

According to the available databases, the application area is located outside of the mapped confirmed breeding area for Carnaby's cockatoo. Black cockatoos breed in large hollow-bearing trees, generally within woodlands or forests or in isolated trees (Commonwealth of Australia, 2012). These species nest in hollows in live or dead trees of karri, marri, wandoo, tuart, salmon gum, jarrah, flooded gum, York gum, powder bark, bullich and blackbutt (Commonwealth of Australia, 2012). Potential nesting trees for black cockatoos are defined as "trees of species known to support breeding within the range of the species which either have a suitable nest hollow or are of a suitable diameter at breast height (DBH) to develop a nest hollow. For most tree species, suitable DBH is 500 millimetres". Given that the application area does not contain any habitat trees (Telstra Corporation Limited, 2020a, 2020c), the application area is not likely to provide suitable breeding habitat for black cockatoos.

Foraging habitat for black cockatoos within 7 kilometres of a breeding site is important to adequately support breeding pairs, and individual night roosting sites need food and water within 6 kilometres (Environmental Protection Authority (EPA), 2019). Overlapping foraging ranges within 12 kilometres also support roosting sites and maintain habitat connectivity and movement across the landscape (EPA, 2019). The foraging habitat within the application area is rated as being low, as it comprises minimum vegetation in degraded condition (Keighery, 1994).

As mentioned above, the application area is not located within the mapped confirmed breeding area for Carnaby's cockatoo, and according to available biological databases, there are no confirmed breeding points within the local area. The nearest confirmed breeding point is approximately 26 kilometres away. Given this, the application area is not likely to provide significant foraging habitat for black cockatoos breeding.

According to the available biological databases, there are numerous confirmed roosting sites for black cockatoos that occur within the local area. Within a 6 kilometre radius of the application area, there are 15 confirmed roosting sites, including three in a conservation area. The foraging habitat within the application area may provide some food to support roosting black cockatoos. However, based on the quality of the foraging habitat and the location of the confirmed roosting sites, it is likely that black cockatoos only utilise the application area intermittently, and therefore, the proposed clearing is not considered to significantly impact on the availability of food sources.

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

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

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

Based on the similarities shared between the soil and vegetation types in habitats for threatened flora taxa recorded in the local area and those found within the application area, the application area is not likely to comprise, or is necessary for the continued existence of threatened flora.

According to the available biological databases, the following two threatened flora species have been recorded in the local area:

- *Caladenia huegelii* – the species occurs in areas of mixed woodland of jarrah (*Eucalyptus marginata*), candlestick banksia (*Banksia attenuata*), holly banksia (*B. ilicifolia*) and firewood banksia (*B. menziesii*) with scattered sheoak (*Allocasuarina fraseriana*) and marri (*Corymbia calophylla*) over dense shrubs of blueboy (*Stirlingia latifolia*), Swan River myrtle (*Hypocalymma robustum*), yellow buttercups (*Hibbertia hypericoides*), buttercups (*H. subvaginata*), balga (*Xanthorrhoea preissii*), coastal jugflower (*Adenanthos cuneatus*) and *Conostylis* species. Throughout its range the species tends to favour areas of dense undergrowth. Soil is usually deep grey-white sand usually associated with the Bassendean sand-dune system (Department of Environment and Conservation, 2009)
- *Grevillea curviloba* subsp. *curviloba* - occurs on typically winter wet, deep peaty grey sands over limestone at depth, and occurs with a suite of shrubs including *Acacia saligna*, *Melaleuca huegelii* and *M. systema* ms that are more commonly associated with limestone soils near the coast. The species is associated with the 'Shrublands and Woodlands on Muchea Limestone of the Swan Coastal Plain' ecological community (Department of the Environment, 2020).

Noting the habitat requirements of the abovementioned species, and the vegetation within the application area, the application area is not likely to include, or be necessary for the continued existence of, threatened flora, and therefore, the proposed clearing is not likely to 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 is not likely to be at variance with this Principle**

Given the vegetation in the application area is not representative of any State listed TEC, it does not comprise the whole or a part of, or is necessary for the maintenance of a TEC.

According to the available biological databases, the following two State listed TEC have been mapped in the local area:

- *Banksia attenuata* woodlands over species rich dense shrublands (*Banksia attenuata* woodland) – occurs on sands at the base of the Darling Scarp between Chittering and Gosnells. This community is very species rich (average 67 species/100m<sup>2</sup>). It is usually dominated by *Banksia attenuata* (occasionally with *Eucalyptus marginata*) with *Bossiaea eriocarpa*, *Conostephium pendulum*, *Hibbertia huegelii*, *H. hypericoides*, *Petrophile linearis*, *Scaevola repens*, *Stirlingia latifolia*, *Mesomelaena pseudostygia* and *Alexgeorgea nitens* being common in the understorey. The introduced bulbous weed *Gladiolus caryophyllaceus* is also common in the community. (Department of Parks and Wildlife, 2016)
- Communities of Tumulus Springs (Organic Mound Springs, Swan Coastal Plain) – Typical and common native vascular plant species associated with the tumulus springs are the trees *Banksia littoralis*, *Melaleuca preissiana* and *Eucalyptus rudis*, and the shrubs *Agonis linearifolia*, *Pteridium esculentum*, *Astartea fascicularis* and *Cyclosorus interruptus*. The following non-vascular plants have also been located on peat mounds associated with the community: *Lycopodium serpentium* (bog clubmoss), *Riccardia aequicellularis*, *Jungermannia inundata*, *Goebelobryum unguiculatum* and *Hyalolepidozia longiscypha*. The maintenance of hydrological processes in terms of both quality and quantity of water to the mounds is essential to sustain the tumulus spring communities (Department of Conservation and Land Management (2006).

Noting the above, the vegetation within the application area does not meet the criteria to be classified as the abovementioned TECs, and therefore, the proposed clearing is not likely to 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 not likely to be at variance with this Principle**

Although the application area is located in an area that has been extensively cleared, given it does not comprise a high level of biodiversity, does not comprise the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna, is not necessary for the continued existence of, threatened flora and does not comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community, it is not considered to be a significant remnant.

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

The application area is located within the ‘Swan Coastal Plain’ IBRA bioregion. This IBRA bioregion has approximately 34 per cent of its Pre-European vegetation extent remaining (Government of Western Australia, 2019).

The application area is also mapped in the Bassendean Complex-Central And\South of the Swan Coastal Plain vegetation complex, which retains approximately 27 per cent pre-European vegetation. However, based on the photographs provided by the Applicant, the vegetation within the application area does not resemble the extensively cleared Bassendean Complex-Central And\South.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DBCA Managed Lands (%)
<b>IBRA Bioregion*</b>				
Swan Coastal Plain	765,680.95	262,810.49	34.32	8.10
<b>Swan Coastal Plain vegetation complex **</b>				
Bassendean Complex-Central And\South	87,476.26	23,508.66	26.87	0.44

\* Government of Western Australia. (2019). 2018 *South West Vegetation Complex Statistics*. Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions, Perth, <https://catalogue.data.wa.gov.au/dataset/dbca>

The local area retains approximately 19 per cent of its pre-European vegetation extent. Noting the local area retains less than 30 per cent pre-European vegetation extent, the Application area is considered to be within an extensively cleared landscape. However, given the extent of the proposed clearing in degraded condition, that does not contain a high level of biodiversity, will not impact on a wildlife corridor and does not comprise conservation significant flora, fauna or ecological communities, the application area is not considered to be significant as a remnant of native vegetation in an extensively cleared landscape.

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

**(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**

As the application area is mapped within a wetland, the vegetation proposed to be cleared is growing in, or in association with, an environment associated with a watercourse or wetland.

According to the available databases, no watercourses intersect the application area. The closest watercourse to the application area is Bennett Brook located approximately 2.7 kilometres southeast from the application area. The area between the watercourse and the application area has been highly cleared and the vegetation within the application area is not growing in association with this watercourse.

The whole application area is mapped within an unknown, resources enhancement category Dampland (ID 10008), and therefore, the vegetation within the application area is growing in, or in association with, an environment associated with a wetland. However, due to the small extent of clearing, and given a large amount of the application area is devoid of vegetation, the proposed clearing is unlikely to increase sedimentation and runoff into the wetland, hence, impacts are not likely to be significant.

Given the above, the proposed clearing 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**

Primary soils within the application area are mapped by the Department of Primary Industries and Regional Development (DPIRD) (2020). The mapped soil subsystem within the Application area is Bassendean, Joel Phase (Schoknecht et al. 2004), which is describe in Section 2 above.

Table 1 Risk degradation summary

<b>Risk categories</b>	<b>Bassendean, Joel Phase</b>
Wind erosion	10-30% of map unit has a high to extreme wind erosion risk
Water erosion	50-70% of map unit has a high to extreme water erosion risk
Salinity	30-50% of map unit has a moderate to high salinity risk or is presently saline
Subsurface Acidification	<3% of map unit has a high subsurface acidification risk or is presently acid
Flood risk	50-70% of the map unit has a moderate to high flood risk
Water logging	>70% of map unit has a moderate to very high waterlogging risk
Phosphorus export risk	>70% of map unit has a high to extreme phosphorus export risk

Land degradation risk mapping indicates that the mapped Bassendean, Joel Phase has a high risk of waterlogging and phosphorus export risk. Noting the extent of the proposed clearing is in a degraded (Keighery, 1994) condition, and that the application area is surrounded by an already cleared area, the proposed clearing is not likely to exacerbate or contribute to further land degradation than that which is currently present.

Given the above, the proposed clearing 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 may be at variance with this Principle**

According to the available databases, the application falls within Bush Forever (BF) site 196. The proposed clearing will impact on the environmental values of this BF site through the direct removal of vegetation and through the potential introduction/spread of weeds. Weed and dieback management practices will assist in minimising these impacts. Noting this, the small extent of clearing and low environmental values of the vegetation proposed to be cleared, the proposed clearing is not likely to significantly impact BF site 196.

Given this, the proposed clearing may be at variance with this clearing 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 proposed clearing is not likely to deteriorate the quality of groundwater of surface water.

Groundwater salinity within the application area is mapped <500 total dissolved solids, milligrams per litre, which is classified as 'fresh' (Mayer, Ruprecht & Bari, 2005). As discussed in principle (f), the application area is located within an unknown Dampland, of which approximately 60 per cent has already been impact by clearing.

Noting the extent of the proposed clearing is in a degraded (Keighery, 1994) condition, and that the application is surrounded by an already cleared landscape, the proposed clearing is not likely to deteriorate the quality of groundwater or surface water.

Given 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 likely to be at variance with this Principle**

As discussed in principle (g), according to the available databases, the mapped soil subsystem Bassendean, Joel Phase (Schoknecht et al. 2004) has high flood and waterlogging risk (DPIRD, 2020). Noting this, the application area may experience localised temporary flooding and waterlogging following significant rainfall events. However, noting the extent of the proposed clearing with minimum vegetation remaining, the proposed clearing is not likely to cause or exacerbate, the incidence of intensity of flooding.

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

### Planning instruments and other relevant matters.

As outlined above, the application area is within Bush Forever site 196. The Department of Planning, Lands and Heritage (DPLH) has advised that an offset package should be prepared and approved by DWER, on advice from the Department of Biodiversity, Conservation and Attractions, prior to the clearing of any native vegetation, in accordance with WA Environmental Offsets Policy (2011) and guidelines and, with guidance from Appendix 4 of the State Planning Policy (SPP) 2.8. DPLH also recommends that the development including installation, access and ongoing maintenance shall not result in any further disturbance or clearing of native vegetation other than the 1.455 ha proposed to be cleared (DPLH, 2019).

Under Clause 5.1.2.1 (i) (e) of SPP 2.8, proposals should support a general presumption against the clearing of regionally significant bushland or other degrading activities, except where a proposal or decision is consistent with the overall purpose and intent of the existing Crown reserve or can be reasonably justified with regard to wider environmental, social, economic or recreational needs, and all reasonable alternatives have been considered in order to avoid or minimise any direct loss of regionally significant bushland, and reasonable offset strategies are secured to offset any loss of regionally significant bushland, where appropriate and practical (Western Australian Planning Commission (WAPC), 2010).

The Delegated Officer had regard to the extent of the proposed clearing and the avoid and minimisation measures proposed by the applicant (as outlined above) and determined that the proposed clearing of 1.455 hectares of native vegetation in degraded condition is not likely to have a significant residual environmental impact on Bush Forever site 196. Consequently, it was determined that an offset is not required when considered in the context of the principles set out under the WA Environmental Offsets Policy (2011).

The City of Swan (2020) has advised that it had received an application for 22 x 3.5m antennas, equipment hut and associated works from Telstra Corporation Limited. The City informed WAPC it had no objection to the proposed work.

No Aboriginal sites of significance have been mapped within the application area.

The clearing permit application was advertised on the DWER website on 9 January 2020 with a 21 day submission period. No public submissions have been received in relation to this application.

## 5. References

- Barrett, R. (2012). *Poranthera moorokatta* (*phyllanthaceae*), a rare new species from perth, western australia. *Nuytsia*, 22(6), 399-407.
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra. City of Swan. (2020). Advice received in relation to clearing permit application 8749/1. DWER Ref: DWERDT244392.
- Department of Biodiversity, Conservation and Attractions (DBCA) (2007- ) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dpaw.wa.gov.au/>. Accessed August 2017.
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- Department of Conservation and Land Management (2006). Community of Tumulus (organic mound) springs of the Swan Coastal Plain Interim Recovery Plan No. 198. Perth, Western Australia.
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- Government of Western Australia. (2019). 2018 South West Vegetation Complex Statistics. Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions, Perth, <https://catalogue.data.wa.gov.au/dataset/dbca>
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- Mayer, XM, Ruprecht, JK & Bari, MA 2005, *Stream salinity status and trends in south-west Western Australia*. Department of Environment, Salinity and Land Use Impacts Series, Report No. SLUI 38.
- Schoknecht, N., Tille, P. and Purdie, B. (2004) Soil-landscape mapping in South-Western Australia – Overview of Methodology and outputs' Resource Management Technical Report No. 280. Department of Agriculture.
- Telstra Corporation Limited. (2020a). Supporting documents in relation to clearing permit application CPS 8749/1. DWER Ref: A1859422.
- Telstra Corporation Limited. (2020b). Additional supporting information in relation to the clearing permit application CPS 8749/1. DWER Ref: A1863307.
- Telstra Corporation Limited. (2020c). Additional photos of the application area received. DWER Ref: A1870821).
- Threatened Species Scientific Committee (2016). Approved Conservation Advice (incorporating listing advice) for the *Banksia Woodlands of the Swan Coastal Plain Ecological Community*. Canberra: Department of the Environment and Energy. Available from: <http://www.environment.gov.au/biodiversity/threatened/communities/pubs/131-conservation-advice.pdf>. In effect under the EPBC Act from 16-Sep-2016.



## **6. GIS datasets**

- Aboriginal Sites of Significance
- Bush Forever
- Clearing Regulations - Environmentally Sensitive Areas
- Carnaby's cockatoo: breeding, roosting, feeding
- Department of Biodiversity Conservation and Attractions, Tenure
- Geomorphic Wetlands, Swan Coastal Plain
- Groundwater salinity, statewide
- Hydrology, linear
- IBRA Australia
- Land for Wildlife
- PDWSA, CAWSA, RIWI Act Areas
- Remnant vegetation
- SAC Biodatasets (accessed January 2020)
- Soils, statewide
- South coast significant wetlands
- Swan coastal plain vegetation complexes
- Town Planning Scheme Zones