City of Wanneroo

Lot 15451,

501 Pipidinny Road, Eglington

Native Vegetation Clearing Permit Application
Supporting Documentation

January 2022

1. Introduction

The City of Wanneroo is proposing to undertake the clearing of vegetation within the boundaries of Yanchep Foreshore Reserve: Lot 15451, 501 Pipidinny Road, Eglington (Figure 1). The proposed clearing will facilitate the widening along defined sections of the northern side of the existing beach access way (BAW) to allow for ongoing future maintenance and machinery access to Yanchep beaches south of the Lagoon area when required (including for beach renourishment activities in the event of unsafe beaches post storm events). Detailed land parcel information for the location affected by the proposed clearing works is contained within Table 1 below, a copy of the Land Title is provided as Attachment A.

Table 1: Ownership and zoning of the land parcel affected by proposed clearing works.

Lot Number	Address	Reserve No	Land Owner	MRS Zoning	Reserve Purpose
Lot 15451 on Deposited Plan 40341	501 Pipidinny Road, Eglington 6034	20561	Crown Land - City of Wanneroo	Parks and Recreation	Recreation & Purposes Incidental Thereto

2. Background

The City engages external consultants to assess Coastal Limestone Hazard's along the City's 31km's of coastline. The assessment results enable the City to undertake forward planning and budgeting activities to address these coastal hazards. The 2015 Coastal Limestone Hazard Assessment identified the need to remove a portion of a limestone outcrop to the north of Fisherman's Hollow Beach (in Yanchep) deemed to be at risk of falling, therefore appropriately addressing potential safety concerns.

To undertake these works, a 14 tonne excavator (with a width of 2.5 metres) is required to access the limestone outcrop. The closest (and only) machinery maintenance access to the beach is via the Leonard Way BAW. For the majority of its length, the Leonard Way BAW is 3 metres wide however, in some areas the width of the BAW reduces to 2 metres. As the width of the machinery required to undertake the hazard reduction works is 2.5 metres, a portion of the track (identified in Figure 2) will need to be cleared to increase the width of the BAW to 3 metres (for its entire length) in order to allow these works to be undertaken.

The widening of the Leonard Way BAW will allow the City for improved, and ongoing access, by emergency vehicles, maintenance vehicles or machinery to beach areas south of the Yanchep Lagoon in the event on an emergency situation or maintenance requirement (i.e. beach renourishment, maintenance of existing BAW structures, hazard reduction works, emergency or routine maintenance works etc).

The City of Wanneroo is proposing to undertake the abovementioned works within the Foreshore Reserve at Yanchep. The City's proposed works will impact upon localised areas of remnant vegetation and weed species in immediately parallel to the existing BAW, and it is

for this reason, that a clearing permit is being sought from the Department of Water and Environmental Regulation.

To facilitate the clearing within Lot 15451, the City submits this supporting documentation to assist the Department of Water and Environmental Regulation's (DWER) assessment of the clearing permit application.

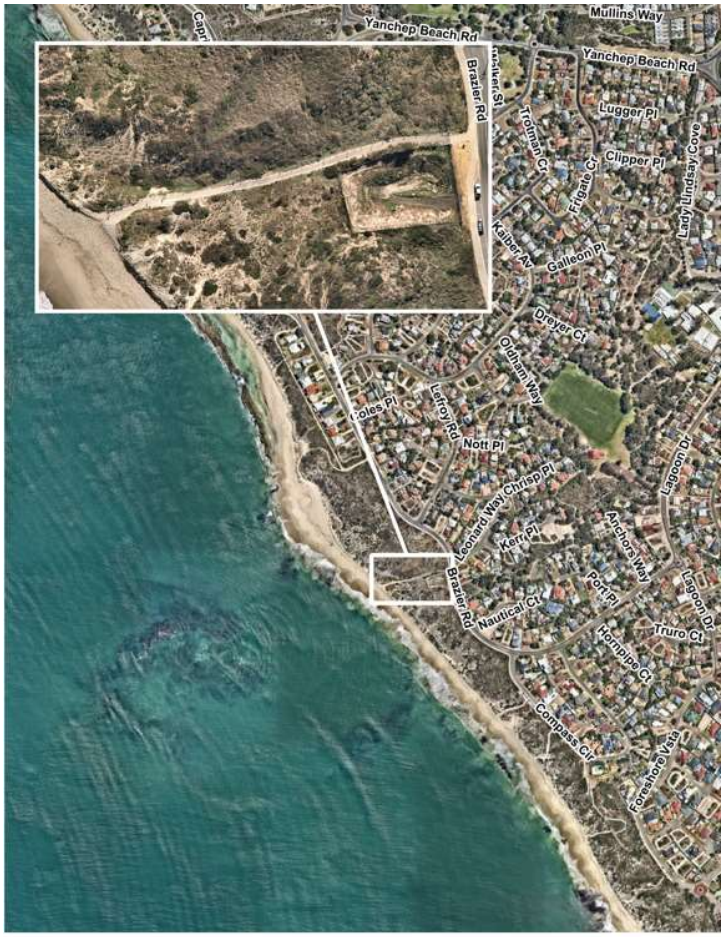

Figure 1
Locality Plan - Leonard Way Beach Access Way

Figure 1: Location of the Leonard Way Beach Access Way (BAW), Yanchep

3. Consideration of Environmental Impacts - Avoidance and Mitigation Measures

The limestone headland at Yanchep Lagoon and the multiple nearshore reef structures prevent both maintenance and/or machinery access to Fisherman's Hollow Beach from the north (i.e. near to the Yanchep Surf Life Saving Club facility).

South of the above mentioned Yanchep Lagoon are three formalised BAW's:

- Fisherman's Hollow BAW;

- Brazier Road BAW (opposite #'s 40/42 Brazier Road); and
- Leonard Way BAW.

The Leonard Way BAW was selected as the access way for the proposed hazard reduction works as it's the closest BAW to Fisherman's Hollow Beach that will allow for machinery access. The two other BAW's located south of the Yanchep Lagoon (in closer proximity to the Fisherman's Hollow Beach) are both built BAW structures with staircases, landings and handrails and are therefore not traversable by either vehicles or machinery.

The proposed clearing totalling 0.00412 hectares (41.2m^2) allows for the existing 140 metre long Leonard Way BAW to be widened to a width of 3 metres in its entirety, thus allowing for larger machinery to gain access to the beach when required (i.e. for planned or emergency maintenance works). Currently, there is a small section (approximately 15 meters in length) with only a width of 2 metres thus preventing larger machinery accessing the beach south of Yanchep Lagoon. The proposed clearing allows for the BAW to be widened only to a width of 3 metres (i.e. only what is necessary to allow a 14 tonne excavator access to the beach to undertake the works).

Unfortunately there are no other alternatives to undertaking the proposed 0.00412 hectares (41.2m^2) of clearing and the works must occur at the Leonard Way BAW.

<u>How impacts have been avoided</u>

When reviewing the vegetation onsite during the City's Vegetation Assessment it was noted that the vegetation present along the southern side of the Leonard Way BAW contained higher native species richness and density, less weed species and was of a higher vegetation condition than that of the northern side. By undertaking the proposed clearing on the northern side of the Leonard Way BAW, the City avoids impacting coastal native heath of higher vegetation condition, species richness and density.

By choosing to widen an existing BAW, and by not building a new BAW to accommodate emergency, maintenance or machinery access in another location closer to Fisherman's Hollow Beach, the City has avoided the requirement to clear undisturbed, good or better condition native coastal vegetation in another area of Yanchep foreshore.

The City is avoiding excessive clearing by clearing only what is absolutely necessary. The machinery requirement to remove a portion of the limestone outcrop deemed to be a safety concern, is a 14 tonne excavator (with a width of 2.5 metres). Therefore, the location and size of the proposed clearing requirements have been limited to only accommodate the traversing space and access requirements of the abovementioned Excavator.

<u>How impacts have been minimised</u>

A summary of how the City has mitigated impacts to the surrounding dune environment has been listed below;

- Reducing the clearing and disturbance footprint by choosing to widen an existing BAW instead of building a new BAW in a different location;
- Clearing areas of lower vegetation quality; and
- Surveying and clearly delineating the proposed clearing boundaries (with bunting/flagging) to ensure that no un-authorised clearing occurs outside of these boundaries.

4. Scope

The purpose of this document is to provide an assessment against the *Environmental Protection Act 1986* – Ten Clearing Principles to determine whether the proposed clearing is likely to have a significant impact on the environment. The clearing of vegetation is proposed within Lot 15451, totalling 0.00412 hectares (41.2m^2) (Figure 2, Attachment B - Clearing Plan; and Attachment C – Shape files).

Figure 2: Location of the proposed clearing of 0.00412 hectares (41.2m^2) to enable widening of existing Beach Access Way to accommodate ongoing access to the beach by larger machinery and by emergency and maintenance vehicles.

5. Flora and Vegetation

The City's Environmental Asset Officer undertook a Vegetation Assessment of the proposed clearing area on 08/09/2021 and noted the following:

- The application area has been subject to ongoing edge affects from the beach access way (BAW) located parallel and from wind erosion funnelling beach sand up the access way off onto the northern edge of the BAW. This sand action has resulted in the deposition and accumulation of sand within the application area, often covering plants located in the immediate vicinity;
- The vegetation within the application area is predominately weed species, with the exception of the westernmost end; and
- The vegetation condition along the linear application area ranges from a majority Degraded condition to a small area of Good condition at the beach end of the BAW.

Table 3: Species identified during the City's onsite vegetation assessment on 08/09/2021.

NATIVE SPECIES	WEED SPECIES
Olearia axillaris	[redacted]
Spinifex longifolia	
[redacted]	*Arctotis sp* (African daisy)
	Ehrharta villosa (Pyp grass)
	Oxalis pes-caprae (Soursob)
	Pelargoium capitatum (Rose pelargonium)
	Tetragonia decumbens (Sea spinach)
	Trachyandra divaricata (Dune onion weed)

Photos of the proposed clearing area, taken during the City's 08/09/2021 Vegetation Assessment are provided in Attachment D.

The vegetation proposed for clearing to facilitate the beach access way widening works at Leonard Way, Yanchep contains both remnant native vegetation belonging to the Quindalup Complex and weed species. The proposed clearing area and works occur within an Environmentally Sensitive Area and Bush Forever Site 397.

The proposed clearing area lies within an Environmentally Sensitive Area and therefore no possible exemptions may be applied under Part V of the *Environmental Protection Act 1986*.

6. Fauna

No fauna were documented within the extent of the proposed clearing areas during the aforementioned 06/09/2021 Vegetation Assessment.

The City of Wanneroo's (the City's) Environmental Planning Considerations Report (EPCR) did not identify any instances of threatened or priority fauna species within the selected footprint (see Attachment E for further details).

Within a 5km radius of the proposed clearing area, the City's EPCR, identified the following (see Attachment E for further details):

- Federal and State Protected fauna species;
- Carnaby's cockatoo (*Calyptorhynchus latorostris*) 'Confirmed' and 'Possible' breeding and roosting area buffers; and
- Key Biodiversity Area for Birds, specifically the 'Northern Swan Coastal Plan KBA' that extends between the base of the scarp and the coast (Birdlife Australia, 2021).

7. Clearing Principles

The City's mapping program 'Intramaps' generated an 'Environmental Planning Considerations Report' (EPCR - Attachment E) as supporting documentation for the below clearing principle assessment.

The following table summarises potential environmental impacts against the 10 clearing principles.

Table 2: Assessment of the proposed project's likely impacts against the 10 Clearing Principles.

Clearing Principle	Proposed Project Impacts
Principle (a) – Native vegetation should not be cleared if it comprises a high level of biological diversity	The application area has been subject to ongoing edge affects from the beach access way (BAW) located parallel and from wind erosion funnelling beach sand up the access way off onto the northern edge of the BAW. This sand action has resulted in the deposition and accumulation of sand within the application area, often covering plants located in the vicinity. The above actions have resulted in a majority of Degraded to a small area of Good vegetation condition along the linear application area. The proposed clearing area is located within Bush Forever Site 397 and is a mapped Environmentally Sensitive Area (ESA). The City's EPCR (Attachment E) identifies the following flora and fauna attributes for the proposed clearing site: • No records of Federal or State TEC's, PEC's, Threatened and Priority Flora records or Threatened and Priority Fauna records within the selected site boundaries: and • The proposed clearing area is within an important birding area (Northern Swan Coastal Plain IBA). The City's EPCR (Attachment E) identifies the following flora and fauna attributes within 5kms of the proposed clearing site: • Federal and State listed TEC's and PEC's (or their buffers) located within a 5km radius of the proposed clearing site:

	• 2x State listed Priority Flora records located within a 5km radius of the proposed clearing site: • Federal and State listed Threatened and Priority Fauna and Fauna Habitat records located within a 5km radius of the proposed clearing site: and • Confirmed and Possible Black Cockatoo breeding and roosting habitat buffers within 6km's of the proposed clearing site. In relation to clearing principle (a), the proposed small clearing area of 0.00412 hectares (41.2m^2) of both remnant vegetation and weed species located within Bush Forever Site 397 and an ESA may be at variance to this principle.
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 indigenous to Western Australia	The City's EPCR (Attachment E) identified the proposed clearing area is within an important birding area (Northern Swan Coastal Plain IBA) and is within the Carnaby's Cockatoo Confirmed and Possible 'roosting area buffers'. The application area has been subject to ongoing edge affects from the beach access way (BAW) located parallel and from wind erosion funnelling beach sand up the access way off onto the northern edge of the BAW. This sand action has resulted in the deposition and accumulation of sand within the application area, often covering plants located in the vicinity. The above actions have resulted in a majority of Degraded to a small area of Good vegetation condition along the linear application area. The City's Vegetation Assessment did not identify the presence of any trees within the proposed 0.00412 hectare (41.2m^2) clearing area, as such, no hollows suitable for nesting are present. Considering the above, the application area is not likely to be at variance with clearing principle (b).
Principle (c) – Native vegetation should not be cleared if it includes or is necessary for the continued existence of, rare flora.	The City's EPCR (Attachment E) identified there are 2 priority flora species within a 5km radius of the application area, however no Federal or State threatened or priority flora species are identified within the application area. The City's Vegetation Assessment did not identify the presence of any trees within the proposed 0.00412 hectare clearing area, as such, no hollows suitable for nesting are present. Considering the application area does not contain rare flora or suitable habitat trees for black cockatoos and the vegetation contains both weed species and remnant flora ranging from a majority Degraded to small areas of Good condition, the application area is not likely to be at variance with clearing principle (c).

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.	The City's EPCR (Attachment E) identified both Federal and State Threatened Ecological Communities (and buffers) within a 5km radius of the application area, however no threatened or priority communities are present within the City's proposed 0.00412 hectare clearing area. Due to the absence of an identified TEC within the application area, the City's proposed clearing is not likely to be at variance to clearing principle (d).
Principle (e) - Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been significantly cleared.	The vegetation proposed for clearing to facilitate the beach access way widening works at Leonard Way, Yanchep contains remnant native vegetation belonging to the Quindalup Complex. In accordance with DBCA's South West Vegetation Complex Statistics, vegetation representation within the Quindalup Complex is greater than 30%, with 60.49% currently persisting (DBCA, 2018). The City's proposed clearing is not likely to be at variance with clearing principle (e) due to the current extent of the Vegetation Complex and the small clearing requirement of 0.00412 hectares (41.2m^2).
Principle (f) - Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or a wetland	Wetlands or watercourses are not located within the application area, or within 50 metres of the application area (Attachment E). The coastal heath vegetation within the application area is therefore not growing in association with a wetland or watercourse. Considering the above, the proposed clearing is therefore not likely to be at variance to clearing principle (f).
Principle (g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	The proposed clearing of 0.00412 hectares (41.2m^2) of remnant vegetation and weed species is not located within an Acid Sulfate Soil risk area. The Groundwater Salinity (Total Dissolved Solids) at the proposed clearing site is considered to be Marginal with a salinity range of between 500 - 1000mg/L (DWER, 2022 and DoE, 2004). DWER's Perth Groundwater Map identifies the surface geology within the application area as Safety Bay Sand: Aeolian and beach lime sand (DWER, 2022). The Natural Resource Information (WA) mapping tool identifies the application area as Quindalup South youngest dune Phase (211Qu_Q4) – the youngest phase containing irregular dunes with slopes up to 20%. Loose pale brown calcareous sand with no soil profile development (DPIRD, 2022).

	The erosion risk (due to water and wind) of this site is medium to high noting its proximity to coastal conditions. Due to the minor and linear nature of the proposed clearing it is unlikely the site will be eroded. Given the above hydrogeological conditions and absence of risk factors associated with clearing within these hydrogeological features, it is not likely for the clearing to result in appreciable land degradation and therefore is not likely to be at variance to clearing principle (g).
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.	The proposed clearing area is within the Yanchep Foreshore Reserve and is both, an Environmentally Sensitive Area, and Bush Forever 397. Due to the high value of remnant vegetation available throughout the Yanchep Foreshore Reserve and vegetation within the large extents of Bush Forever 397 Site, it is not likely for the proposed clearing to be at variance to clearing principle (h).
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.	Wetlands or watercourses are not located within the application area, or within 50 metres of the application area (Attachment E). The coastal heath vegetation within the application area is therefore not growing in association with a wetland or watercourse. As no surface water is present within the proposed clearing area, the proposed clearing is not likely to cause deterioration in surface water quality through sedimentation or eutrophication. The proposed clearing area is not within a Public Drinking Water Source Area, however it is within the Perth Groundwater Area RIWI Act area. Given the availability of adjacent remnant vegetation throughout Bush Forever Site 397, and the proposed small clearing area, it is not considered the proposed clearing will increase groundwater salinity. The proposed clearing is therefore not likely to be at variance to clearing principle (i).
Principle (j) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause or exacerbate the incidence or intensity of flooding.	The proposed clearing of 0.00412 hectares (41.2m^2) hectares of majority Degraded to small areas of Good (remnant vegetation and weed species) conditioned vegetation is not likely to cause, or exacerbate the incidence, or intensity of flooding. The proposed clearing is not likely to be at variance to clearing principle (j).

8. Conclusion

The City of Wanneroo has assessed the proposed clearing of 0.00412 hectares (41.2m^2) against the ten clearing principles and has found that the clearing may be a variance to clearing principle (a) and not likely to be at variance with the remaining clearing principles.

9. References

Birdlife Australia (2021). Key Biodiversity Areas (KBA's) – Natures Hotspots. 'Key Biodiversity Areas within 100km of Perth. https://birdlife.org.au/documents/KBA-2page-100km_City_Guide-Perth.pdf (accessed 05/01/2022).

City of Wanneroo (2022). Intramaps. Environmental Planning Considerations Report. (accessed 05/01/2022).

Department of Primary Industries and Regional Development (DPIRD). Natural Resource Information (WA) Mapping Tool. https://maps.agric.wa.gov.au/nrm-info/ (accessed 05/01/2022).

Department of Biodiversity Conservation and Attractions (DBCA) 2018. 2018 South West Vegetation Complex Statistics Report. https://catalogue.data.wa.gov.au/dataset/dbca/resource/3d067960-2896-42fd-ba52-1aa46b2edf13?inner_span=True (accessed 05/01/2022).

Department of Environment (DoE, now DWER) 2004. Perth Groundwater Atlas - Second Edition. https://www.water.wa.gov.au/__data/assets/pdf_file/0015/1680/52616.pdf (accessed 05/01/2022).

Department of Water and Environmental Regulation (DWER) 2022. Perth Groundwater Map. https://www.water.wa.gov.au/maps-and-data/maps/perth-groundwater-atlas (accessed 05/01/2022).