[redacted]

23 April 2024

Department of Water and Environmental Regulation
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To Whom it May Concern,

RE – Vasse Yallingup Siding Road between SLK 0.20 to SLK 5.20 - Clearing Permit Application

Please find herein information pertaining to a clearing permit application on behalf of City of Busselton (the applicant) for roadside vegetation on Vasse Yallingup Siding Road, Marybrook (SLK 0.20 to SLK 5.2) (herein referred to as the subject site) (refer to **Figure 1**).

Background

The City of Busselton continually monitors crashes on its road network, particularly on rural roads, where the operating speeds are typically higher with crashes having a higher severity outcome. This monitoring ensures that the City is in a better position to address concerns where higher than expected crash rates occur, particularly in regards to Killed and Serious injury (KSI) crashes. The City applies for Federal or State Blackspot funding to assist in determining and implementing appropriate counter measures to maximise road safety for the community.

Through the Blackspot program the City identified concerns with Vasse Yallingup Siding Road (VYSR) with a high number of KSI off-carriageway crashes. In the 5 years leading to 31 December 2023 there were 10 recorded crashes (6 recorded as off-carriageway) in this section of road with 4 hospitalisation, 1 medical and 5 Property Damage Only severity. These statistics when viewed with the 5 year crash history up to 31 December 2017 of 14 recorded crashes (10 recorded as off-carriageway) including 1 fatality, 5 hospitalisation and 8 Property Damage Only clearing indicates a urgent need for intervention.

As part of the review of VYSR, the road's geometry, lane widths, traffic volume, traffic mix, speed limit and crash history were used to determine the benefits of providing a sealed shoulder with painted and audible edgelines. VYSR is currently a 6.0m sealed surface with centreline marking.

Austroads guidelines recommends a road with this level of traffic should have a sealed surface of 7.0m with a sealed shoulders. The City, noting that the environmental benefit of retaining vegetation and the natural 'slowing' effect of a more constrained, but consistent, road environment has adopted a conservative approach to the upgrade of rural roads with the primary objective to minimise any increase to the road's original footprint without compromise to functionality and safety. This is largely achieved by implementing a reduced cross section and consistent 'design speed' that will result in a long term outcome where all rural roads have a road environment where the overall geometrics constrain the vehicle speeds.

VYSR is currently posted at 90km/h however the City is working with the RAC and Main Roads WA as part of a Safer Speeds Trial to implement a reduced speed limit throughout the District. The current objective is to achieve an 80km/h speed limit for VYSR which, with the approach to City approach below should see a significant reduction in the number of KSI crashes on this section of road.

The City's proposal is for a cross section with 6.0m traffic carriageway, a 0.5m unsealed shoulders and 0.5m unsealed shoulders for a total formation width of 8.0m and no additional allowance for longitudinal drainage. In comparison, 'Austroads Guide to Road Design' recommends a minimum 7.0m traffic carriageway and 2.0m shoulders, of which 1.0m would be a sealed shoulder, for a total formation width of 11.0m. In addition to the 11.0m clearing, the clear zone recommendations contained with the Table 4.1: Clear Zone distances - MRWA , identifies a clear zone of 6.5m at 90km/h on straights, increasing on curves, based on a traffic volume between 1501-6000 vehicles per day (VPD).

"A clear zone is the area adjacent to the traffic lane that should be kept free from features that would be potentially hazardous to errant vehicles. The clear zone is a compromise between the recovery area for every errant vehicle, the cost of providing that area and the probability of an errant vehicle encountering a hazard. The clear zone should be kept free of non-frangible hazards where economically and environmentally possible. Alternatively, hazards within the clear zone should be treated to make them safe or be shielded by a safety barrier (Austroads 2008a)."

The traffic volume recorded in September 2022 identified an average traffic volume of 1,981 vehicle per day (VPD). Using Austroads Vehicle Classifications the traffic volume is distributed to 1709 passenger vehicles, 75 passenger vehicles towing trailers and 197 heavy vehicles, this equates to 2302 Passenger Car Equivalents (PCE).

The City is continuing to refine the road alignment, crossover location and construction techniques in an objective to further reduce the number of trees actually cleared as part of the works.

The City's approach to delivering a strategic balance between the road geometry, vehicle speeds and only clearing the vegetation identified as impacted by the road formation clearly demonstrates the City's commitment to the environment and acceptance of a more holistic approach to the importance of road corridors and the function they provide in environmental habitats and linkages.

Following a detailed assessment of VYSR, the City has managed to reduce the number of trees to be cleared to a total of 26. Any further reductions do not comply with Austroads guidelines and is considered likely to comprise human safety.

The City demarcated the 26 trees subject to clearing and an environmental consultant from Accendo subsequently undertook a site visit to record the following information:

- tree species;
- diameter at breast height (DBH);
- record any hollows.

To enable the progression of the project, a clearing permit pursuant to the *Environmental Protection Act 1987* is required. A description and photograph of the trees subject to clearing to enable progression of the project is provided below.

Plate 1. Tree 1 (T1) - A single mature *Agonis flexuosa* tree.

Plate 2. Tree 2 (T2)- A very small *Corymbia calophylla* tree. This tree does not constitute black cockatoo breeding or foraging habitat given that it is a juvenile tree.

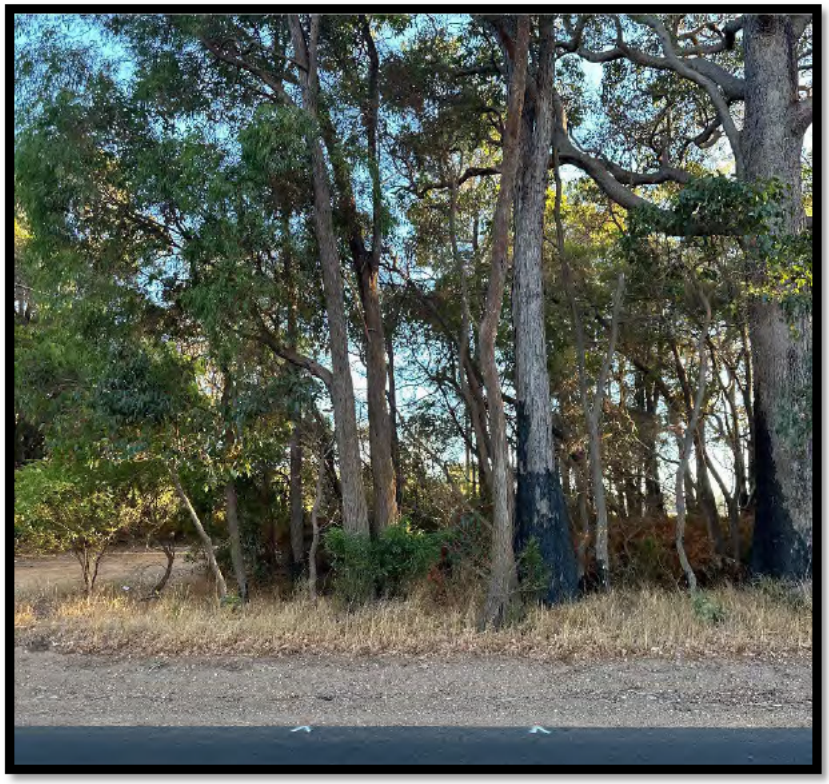

Plate 3. Tree 3 and 4 (T3 and T4) - Two *Corymbia calophylla* trees with a DBH <50 cm. These trees do not constitute black cockatoo breeding habitat.

Plate 4. Tree 5 (T5) - A mature *Corymbia calophylla* tree with a DBH >50cm. No obvious hollows were observed.

Plate 5. Tree 6 (T6) - A mature *Eucalyptus marginata*, tree with a DBH >50cm. No obvious hollows were observed, and the tree is showing signs of dieback.

Plate 6. Tree 7 (T7) - A mature *Corymbia calophylla* tree with a DBH >50cm. No obvious hollows suitable for black cockatoos were observed.

Plate 7. Tree 8 - A *Corymbia calophylla* tree with a DBH <50cm. The tree does not constitute black cockatoo breeding habitat.

Plate 8. Tree 9 (T9) - A single mature *Agonis flexuosa* tree.

Plate 9. Tree 10 (T10) - A single *Agonis flexuosa* tree.

Plate 10. Tree 11 and 12 (T11 and T12) - Two mature *Corymbia calophylla* trees with DBH >50cm. No obvious hollows were observed in T11, however T12 did show evidence of a possible hollow at the top of the tree (as evidenced in second photo).

Plate 11. Tree 13 (T13) - A mature *Corymbia calophylla* tree with a DBH >50cm. No obvious hollows suitable for black cockatoos were observed.

Plate 12. Tree 14 (T14) - A mature *Corymbia calophylla* tree with a DBH >50cm. No obvious hollows suitable for black cockatoos were observed.

Plate 13. Tree 15 (T15) - A single *Agonis flexuosa* tree.

Plate 14. Tree 16 (T16) - A mature *Corymbia calophylla* tree with a DBH >50cm. Small hollows were observed.

Plate 15. Tree 17 (T17) - A mature *Corymbia calophylla* tree with a DBH >50cm. No hollows were observed.

Plate 16. Tree 18 (T18) - A single *Agonis flexuosa* tree.

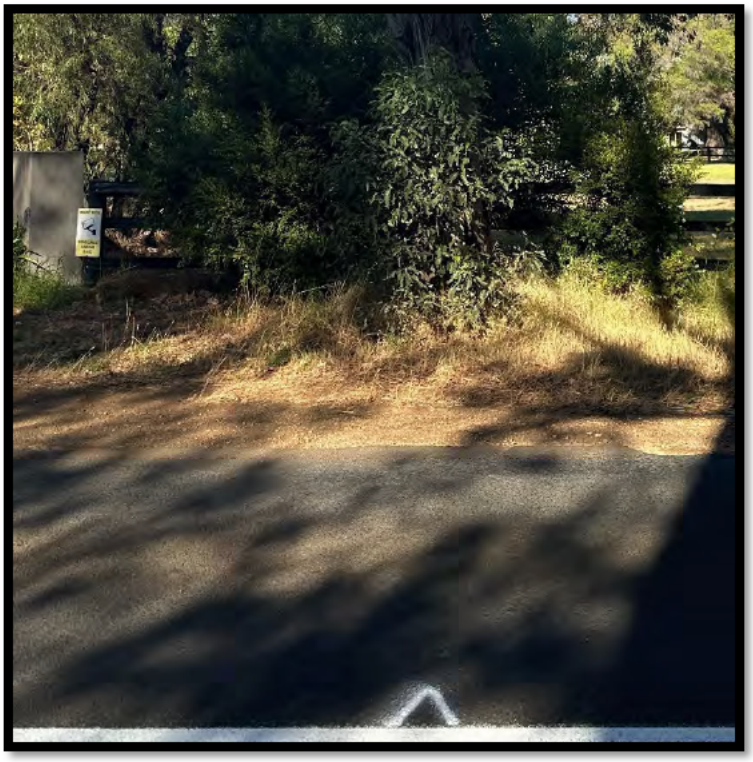

Plate 17. Tree 19 (T19) - A juvenile *Corymbia calophylla* tree which does not provide any black cockatoo breeding or foraging habitat.

Plate 18. Tree 20 (T20) - A mature *Corymbia calophylla* tree with a DBH >50cm. No hollows were observed.

Plate 19. Tree 21 (T21) - A mature *Corymbia calophylla* tree with a DBH >50cm. No hollows were observed.

Plate 20. Tree 22 (T22) - A mature *Corymbia calophylla* tree with a DBH >50cm. No hollows were observed.

Plate 21. Tree 23 (T23) - A mature tree with a DBH <50cm. No hollows were observed, and tree is dead.

Plate 22. Tree 24 and 25 (T24 and T25) - Two mature *Corymbia calophylla* trees with DBH >50cm. No obvious hollows were observed in these trees.

Plate 23. Tree 26 (T26) - A mature *Corymbia calophylla* tree with a DBH >50cm. No hollows were observed.

Avoidance and Mitigation Measures

The road reserve has been purposefully surveyed to determine the minimum clearing requirements, whilst ensuring public safety. As far as practicable, roadside vegetation has been retained. The 26 trees are required to be cleared to reduce the incidence and intensity of vehicle crashes. Failure to remove these trees presents an imminent danger to the public.

There are no alternatives to the removal of these trees, as these trees have been identified as being dangerously close to the road or are significantly impacting sightlines. On this basis, alternatives such as bollards are not feasible.

To avoid any direct or indirect impacts to other vegetation within or adjacent to these trees, the applicant has committed to the following mitigation measures:

- Prior to clearing commencing, the 26 trees will be clearly demarcated with flagging tape;
- No vehicular access or parking within vegetated areas in the reserve; and
- No stockpiling of cleared vegetation or storage of equipment within the reserve.

The applicant has also committed to planting the following tubestock within the adjacent rail reserve (Wadandi Track):

- 21 *Corymbia calophylla* trees; and
- Five *Agonis flexuosa* trees.

Impact Assessment

Any clearing of native vegetation requires a permit in accordance with Part V of the *Environmental Protection Act 1986* (EP Ac), except where an exemption applies under Schedule 6 of the Act or is prescribed by regulation in the *Environmental Protection (Clearing Native Vegetation) Regulations 2004*.

The clearing of native vegetation for the purpose of the road upgrades works is subject to a clearing referral. Clearing applications are assessed against the Ten Clearing Principles outlined in Schedule 5 of the EP Act. These principles aim to ensure that all potential impacts resulting from the removal of native vegetation can be assessed in an integrated manner.

An examination of the Ten Clearing Principles based upon a site visit and desktop information is provided below.

Table 1: Assessment against the Ten Clearing Principles.

Principle	Assessment	Conclusion
a.) Native vegetation should not be cleared if it comprises a high level of biological diversity	Vegetation mapping (Heddle *et.al* 1980) indicates that the original vegetation complexes within the clearing area would have included: • Abba Complex - is dominated by an open-forest of marri, jarrah, banksia and a woodland of marri with the presence of the occasional mountain gum adjacent to the Whicher Scarp. Common plant species include *Nuytsia floribunda, Kingia australis, Persoonia longifolia* and *Banksia grandis*. The low-lying areas along the creeks and on the flood plains support a woodland of *E. rudis, Melaleuca* spp., with common species including *M. preissiana, M. rhaphiophylla, Regelia ciliata, Hypocalymma angustifolia, Pericalymma ellipticum, Hakea varia, Acacia saligna, Astartea scoparia, A. leptophylla, Viminaria juncea* and sedges of the *Chaetanthus, Schoenus, Hypolaena* and *Anarthria* genera. Vegetation Complex statistics for the Swan Coastal Plain indicate the vegetation extent remaining of the Abba Complex to be 6.7%. (Webb *et al.* 2016). The clearing area is considered to be in a Completely Degraded (Keighery 1994) condition due to a history of anthropogenic impacts which has resulted in an altered vegetation structure (i.e. absence of under and mid-storey). The clearing area contains limited floristic characteristics associated with the abovementioned vegetation complex and therefore is not considered representative of the Abba complex. Notwithstanding, the removal of 26 trees will have a negligible impact on the vegetation extent remaining of the Abba Complex at a local and regional scale. The condition of the subject site and history of anthropogenic disturbances denotes that the subject site would not contain any Priority or Threatened Ecological communities (PEC or TECs). It is not known to contain any flora of conservation significance. As discussed under Principle (b), the removal of 26 trees will marginally reduce the local extent of foraging and breeding habitat, however the impact is unlikely to be significant for fauna species of conservation significance.	Based on the extent of disturbance within the subject site, and the limited clearing footprint, the subject site is not likely to comprise high biodiversity. The proposed clearing is not at variance to this Principle.

Principle	Assessment	Conclusion
	The clearing will result in the removal of, at most, 26 native trees. The removal of these trees is not considered likely to significantly impact on the biological diversity of the area. The proposal is not at variance to this Principle.	
b.) Native vegetation should not be cleared if it comprises the whole or part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.	A search of the Department of Biodiversity, Conservation and Attraction's (DBCA's) threatened fauna database and the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) protected matters database indicates the following fauna is likely to be present within a 1 km radius of the subject site: • *Calyptorhynchus baudinii* (Baudin's Cockatoo); • *Calyptorhynchus latirostris* (Carnaby's Cockatoo); • *Calyptorhynchus banksia naso* (Forest Red-tailed Black Cockatoo) • *Ctenotus ora* (Coastal Plains Skink); • *Dasyurus geoffroii* (Chuditch, Western Quoll); • *Isoodon fusciventer* (Quenda, southwestern brown bandicoot); • *Phascogale tapoatafa subsp. wambenger* (South-western Brush-tailed Phascogale); and • *Pseudocheirus occidentalis* (Western Ringtail Possum (WRP). Migratory and wetland fauna have not been included in this list as the required habitat is not present within the subject site and therefore the proposed clearing is unlikely to impact these species. In the *EPBC Act referral guidelines for three threatened black cockatoo species* (2022), the Commonwealth DCCEEW identify flora species as potential breeding and foraging habitat for the three threatened species of black cockatoo. The proposed works will result in the removal of 15 trees (Trees 5, 6, 7, 11, 12, 13, 14, 16, 17, 20, 21, 22, 24, 25 and 26) with a DBH in excess of 50cm. Only two of these trees contained small hollows (T12 and T16). The suitability of these hollows for black cockatoo breeding could not be confirmed due to the upward orientation of the hollow opening.	Removal of vegetation within the subject site is not considered to be at variance to this Principle.

Principle	Assessment	Conclusion
	Available mapping data indicates that there is approximately 2,000 ha of remnant native vegetation within 10 km radius of the clearing area, the majority of which is described as 'Jarrah, marri and wandoo *Eucalyptus marginata, Corymbia calophylla, E. wandoo* woodland' (DPIRD 2020). In terms of WRP habitat, the proposal will only require the removal of five *Agonis flexuosa* trees and the proposal will not result in fragmented habitat patches. The highly disturbed environment of the subject site and very small clearing footprint is unlikely to present a significant impact to any fauna species of conservation significance. Given vegetation within the subject site is degraded and is limited in area, the subject site is not considered to provide significant habitat for conservation significant fauna recorded within the local area.	
c.) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.	The DBCA's threatened (Declared Rare and Priority) flora databases and the EPBC Act protected matters database indicates the following conservation significant flora is likely to be present within a 10 km radius of the subject site: • *Caladenia busselliana;* • *Caladenia caesarea subsp. maritima;* • *Caladenia huegelii;* • *Caladenia viridescens;* • *Drakaea elastica;* • *Drakaea micrantha; and* • *Eucalyptus x phylacis.* Given that clearing will be limited to a specific number of trees to improve sightlines, if present (albeit considered unlikely), it is highly unlikely that any flora of conservation significance will be impacted. On this basis, the proposed clearing is not at variance to this Principle.	Removal of the vegetation within the subject site is not considered to be at variance with this Principle as vegetation impacts are limited to 26 trees.
d.) Native vegetation should not be cleared if it comprises the	The DBCA defines an ecological community as "a naturally occurring assemblage that occurs in a particular type of habitat" (PWS 2015). A TEC is one that has declined in area	Clearing of the subject site is not considered to be at variance to this

Principle	Assessment	Conclusion
whole or a part of, or is necessary for the maintenance of a threatened ecological community.	or was originally limited in distribution. Uncommon ecological communities that do not strictly meet TEC defined criteria, or are inadequately defined, are listed by the DBCA as a PEC. As well as protection under State legislation, selected ecological communities are also afforded statutory protection at a Federal level pursuant to the EPBC Act. The EPBC Act provides for the protection of TECs, which are listed under section 181 of the Act, and are defined as "Critically Endangered", "Endangered" or "Vulnerable" under Section 182. A search of the DBCA's and EPBC databases found one PEC, and one TEC endorsed under State and Commonwealth legislation recorded within proximity to the subject site. This included the 'Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region' ecological community. The subject site does not contain any vegetation consistent with this PEC/TEC. On this basis, the subject site is not likely to comprise or be necessary for the maintenance of a TEC and therefore the proposed clearing is not at variance to this Principle.	Principle as vegetation consistent with the mapped TEC/PEC is not present within the clearing area.
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.	Vegetation within the clearing area has previously been cleared and subjected to a history of anthropogenic disturbances. Historically, the vegetation would have been representative of the Abba complex. The clearing area does not contain the floristic composition or structure consistent with this vegetation complex. Accordingly, the clearing of 26 trees in a degraded area will not impact the extent of the Abba complex. Furthermore, the subject site does not comprise high biological diversity, is not likely to impact upon significant habitat for fauna indigenous to Western Australia, priority or threatened flora and is not likely to comprise a PEC or TEC. On this basis the subject site is not considered to be a significant remnant within an extensively cleared landscape. The proposed clearing is not at variance to this Principle.	The clearing is not considered to be at variance to this Principle as the vegetation is not considered significant as a remnant of native vegetation.
f.) Native vegetation should not be cleared if it is growing in, or in association with an	No wetlands or watercourses are mapped within the disturbance footprint. Accordingly, no riparian vegetation will be impacted. The proposed clearing is not at variance to this Principle.	Clearing within the subject site is not considered to be at variance with this

Principle	Assessment	Conclusion
environment associated with a watercourse or wetland.		Principle as no riparian vegetation will be impacted.
g.) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	The Jindong fertile flats Phase is typically associated with a low risk of wind and water erosion. Furthermore, given the limited amount of vegetation subject to clearing it is very unlikely to cause appreciable land degradation in the form of wind or water erosion. The proposed clearing is not likely to be at variance to this Principle.	Clearing of the subject site is not considered to be at variance to this Principle given the nature of the site and the proposed works.
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 will not result in any impacts to the environmental values of any adjacent or nearby conservation areas. In consideration of the above, the clearing is not at variance to this Principle.	The proposed clearing is not considered to be at variance to this Principle as there will be no direct or indirect impacts to conservation areas in proximity to the subject site.
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.	Clearing within the subject site will not impact surface water run-off given the linear and very limited nature of the clearing area, and the short-term nature of the project. Alterations to surface water from the clearing will be extremely localized and will likely be diverted through the existing road stormwater system. The project will not result in any groundwater interactions. The proposed clearing is not likely to be at variance to this Principle.	The clearing is not considered to be at variance to this Principal as it is unlikely that the clearing will alter natural surface water flows or involve groundwater interactions.
j.) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.	The subject site does not contain a watercourse. The limited clearing along a previously disturbed area is highly unlikely to substantially increase runoff and therefore the incidence or intensity of flooding. The proposed clearing is not likely to be at variance to this Principle.	Clearing within the subject site is not considered to be at variance to this Principle as it is unlikely to increase run off and therefore intensity or incidence of flooding.

Summary

I trust this information is sufficient for your purposes. Should you have any queries or require further information, please do not hesitate to contact the undersigned.

FIGURES

PROJECT	Vasse Yallingup Siding Road
DRAWING TITLE	Figure 1 - Tree Locations
CLIENT	City of Busselton

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West Busselton
Western Australia 6280
Mobile 0418 950 852

Project Number	2439	Designed	PN
Drawing Number	Figure 1	Drawn	PN
Revision	A	Checked	
Date	24/04/2024	Approved	
Sheet 1 of 1		Local Authority	City of Busselton