



RE: (SW327) Boallia Road, City of Busselton (SLK 1.48 – 2.50 SLK): Clearing Permit application

The City of Busselton ('the City') proposes to carry out road widening and maintenance work to improve the safety of Boallia Road (1.0 to 6.5 SLK), Boallia, within the City of Busselton. The 1.0 - 3.0 SLK section of road has been allocated funding and will be constructed this financial year. To accommodate the works, selective clearing of up to 0.14 ha of native vegetation between 1.48 - 2.50 SLK will be required.

This cover letter has been prepared to provide background and supporting information for a Clearing Permit application required under *section 51E* of the *Environmental Protection Act 1986* (draft attached).

Consultation with Blackwood District Department of Biodiversity Conservation and Attractions (DBCA) is ongoing and the City will to implement appropriate weed control, infill planting, seed collection of impacted significant flora, and construction controls to avoid accidental impact and mitigate overall project impacts.

A preliminary assessment against the clearing principles indicates the project may be at variance to Principal d) and is not at or not likely to be at variance to the remaining clearing principles. Although the impacts to the TEC will be limited (0.037 ha), and management measures proposed in consultation with DBCA may overall enhance or improve TEC condition within the broader road reserve, the residual clearing impacts proposed may still be considered at variance.

The following information is attached:

- Proposal background and measures to avoid, minimise, mitigate and manage proposed clearing impacts
- Assessment against the 10 clearing principles
- Reconnaissance and Targeted Flora and Fauna Survey (SW Environmental 2021)

If you have any enquiries regarding this letter, please contact me on 0437 700 917.

Yours sincerely,



ATTACHMENTS

Attachment 1 Background and preliminary clearing assessment Attachment 2 Reconnaissance and Targeted Flora and Fauna Survey (SW Environmental 2021) Attachment 3 Clearing (Purpose) Permit Application (Form C2)

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ATTACHMENT 1

BACKGROUND

Proposal background

The City of Busselton proposes to carry out road widening and maintenance work to improve the safety of Boallia Road (1.0 to 6.5 SLK), Boallia, within the City of Busselton. The 1.0 - 3.0 SLK section of the road has been allocated funding and will be constructed this financial year. To accommodate the works, the 'proposal' will require selective clearing of approximately 0.136 ha of native vegetation between 1.48 - 2.50 SLK. The location of the proposal is shown in Figure 1-1.

The proposed clearing and area under application ranges from 0.25 -1.5 m (on average about 0.5 m) from either side the existing cleared shoulder, predominately within the existing roadside drain. As the clearing of native vegetation is required, the City will be submitting a Clearing Permit (Purpose Permit) application to the Department of Water and Environmental Regulation (DWER). The City has considered a range of measures to avoid, minimise, mitigate and manage proposed clearing impacts, documented below. A preliminary assessment of the residual impacts of clearing are provided against the 10 clearing principles, also below.

The Flora and Fauna Survey Report (SW Environmental 2021) (Attachment 2) identifies baseline biodiversity values along the road verge and was used to guide the project design and inform the Clearing Permit application. Andrew Webb (Regional Botanist, Blackwood District DBCA) has been liaised with throughout the planning of the development footprint and assisted the project team in identifying final on ground vegetation impacts with Shane Priddle (SW Environmental).

Summary of the flora, fauna and vegetation values

Key flora, fauna and vegetation values of the proposed clearing area are listed below (SW Environmental 2021, refer to Attachment 2), and follow up site visits by A. Webb and S. Priddle (2021):

- Two native vegetation units were identified within the proposal area.
- 1. CcXp Woodland of *Corymbia calophylla* over shrubland of *Melaleuca preissiana* and *Xanthorrhoea preissii* over mixed grassland herbland of *Freesia alba x leichtlinii* and *Avena fatua* (0.001 ha).

This would have conformed to the definition of the State listed Threatened Ecological Community (TEC) Vulnerable SCP1b *Corymbia calophylla* woodlands on heavy soils of the southern Swan Coastal Plain TEC however it does not meet the condition requirement due to the Degraded to Completely Degraded condition of vegetation within the footprint (A. Webb pers comm).

2. MpXp Open Shrubland of *Melaleuca preissiana* over *Hakea sp. MB01 Astartea fascicularis* and *Xanthorrhoea preissii* over low shrubland of *Melaleuca incana* –(0.126 ha).

Approximately 0.037 ha of vegetation within the area under application is in Good condition and considered to be State listed TEC Endangered SCP02 Southern wet shrublands, Swan Coastal Plain. The remaining 0.089 ha of vegetation is considered to be too degraded to be TEC (A. Webb pers comm).

- Vegetation condition ranged from Completely Degraded to Good within the proposal footprint:
 - o Good (0.037 ha)
 - Degraded (0.053 ha)
 - o Completely Degraded (0.046 ha)
- 90 taxa of vascular plants were observed from 29 families from within the broader Boallia Road reserve (1.0 to 6.5 SLK). Fifteen of the 90 taxa are introduced. Only a portion of these would occur within the area under application.
- The following significant flora were recorded within the area under application:
 - Grevillea brachystylis subsp. grandis (T)
 - Verticordia plumosa var. ananeotes (T)

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- *Loxocarya magna* (P3)
- Hakea marginata locally significant
- o Petrophile squamata locally significant
- Petrophile serruriae locally significant

Several other significant flora occur within the broader road reserve but outside of the area under application, including *Acacia semitrullata* (P4), *Calothamnus quadrifidus subsp. teretifolius (T), Stylidium lowrieanum* (likely) (P3), *Mesomelaena stygia subsp. stygia.*

- Twenty-three species of fauna were observed, including all three black cockatoos and WRP which are species of conservation significance within the broader Boallia Road reserve (1.0 to 6.5 SLK).
- There were no suitable DBH trees (>50cm DBH) within the area under application and no trees with potential to be used by black cockatoos for breeding. There was no evidence of black cockatoo roosts within the area under application or broader road reserve.
- Feed residue was observed within the broader road reserve from all three black cockatoo species. Vegetation communities with Jarrah and or Marri as key components are likely to represent quality foraging habitat (Unit CcXp).
- Other significant fauna that may use the study area as part of a larger patch include Peregrine falcon, Southern Brushtailed phascogale, Water rat and Bandicoot.

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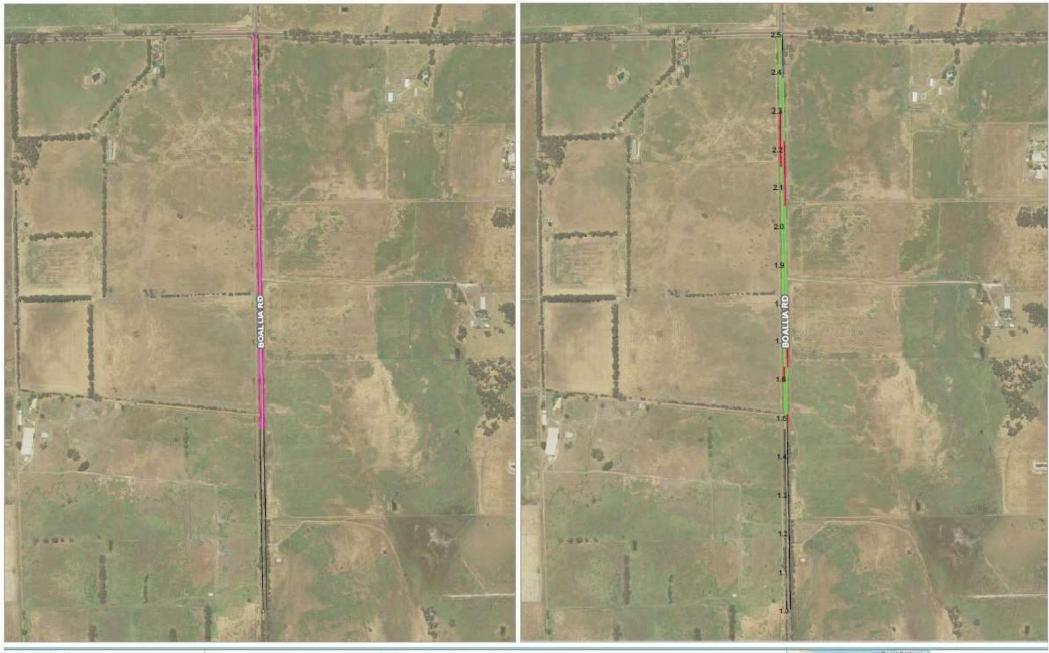


FIGURE 1-1 CLEARING PERMIT APPLICATION

BOALLIA ROAD, CITY OF BUSSELTON (SLK 1.48 - 2.50 SLK)

- Project footprint

- Road

Area under clearing application

Threatened Ecological Community

No Yes

Busselton A3 @ 1:7000 25 50 100 m GUD: GDA prie 50 SN Ш environmenta Source Bale may @ Esit and Es data applies. S.D Landgete (2021)

Ref: 520327 Sate: 67073021 Autor: 52



PRELIMINARY CLEARING ASSESSMENT

Measures to avoid, minimise, mitigate and manage proposed clearing impacts

The City has progressed the project design with an emphasis on avoiding and or minimising impacts to native vegetation. Where impacts cannot be directly avoided, they will minimised and mitigated through design measures. Potential impacts will be managed prior to and during construction through the implementation of a construction management plan, prepared in consultation with Blackwood DBCA.

Due to the nature of the constraints associated with native vegetation along Boallia Road the design process included the following measures to directly avoid or minimise impacts on roadside native vegetation between 1.00 – 2.5 SLK:

- Modified the preferred alignment to best fit between constraints.
- Narrowed the design footprint from 8.2m standard formation width to 7.8m formation width with a reduced batter slope (from 1:4 to 1:3).
- Further narrowed footprint within highly constrained areas to 7.2m formation with reduced batter slopes (1:1 ratio).
- No drains adjacent to the road will be constructed to avoid impacting native vegetation.
- Limited lifting of finished road surface (250mm-300mm) to further reduce the footprint.
- Utilisation of limestone within the road base to minimise road batter spill.
- Regular meetings with DBCA to accurately locate flora and vegetation constraints to adjust design alignments and heights to avoid or minimise constraints.
- Removed gravel from worksite to be spread in an appropriate site and monitored for regrowth.

In addition to the design mitigation measures the following actions will be undertaken during the construction period:

- Preparation and implementation of a Construction Environmental Management Plan.
- Onsite Tool Box meetings to brief construction crews on Environmental Management requirements.
- Demarcation, bunting and monitoring of significant flora and vegetation areas to avoid unnecessary or accidental vegetation impacts.
- Liaising with Blackwood District DBCA to implement appropriate weed control, infill planting, seed collection of impacted significant flora, and construction controls to avoid accidental impact and mitigate overall project impacts.

Preliminary assessment of clearing impacts against the 10 clearing principles

In assessing whether the project is likely to have a significant impact on the environment, the area under application (0.136 ha) was assessed against the ten clearing principles (EP Act 1986, Schedule 5).

The project may be at variance to Principal d). It is not at or not likely to be at variance to the remaining clearing principles.

Table 0-1 Brief assessment against the 10 clearing principles

Clearing principle	Preliminary Assessment	Variance
(a) Native vegetation should not be cleared if it	Over most of the application area the proposed clearing is narrow, mostly less than 0.5 m from the existing cleared edge (but up to 1.5 m at one location). As such the area under application impacts mostly road verge vegetation that has been subject to existing edge	

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comprises a high level	effects. Vegetation condition of the vegetation under application ranged from Completely	
of biological diversity.	degraded to Good, with no vegetation in Very good or better condition:	
	• Good (0.037 ha)	
	Degraded (0.053 ha)	
	Completely degraded (0.046 ha)	
	Vegetation within the verge has a history of disturbance and unlikely to support high levels of diversity.	
	Several flora of significance occur along the verge, including several within the area under application:	
	 Loxocarya magna (P3) – 21 proposed to be cleared with 87 plants to be retained immediately adjacent within the verge. This plant occurred widely through the site with most individuals being avoided. The plant is a Busselton Ironstone and Scott Ironstone endemic species with outliers restricted geographically. However, there are at least 3000 plants of this species known however the numbers have not been accurately assessed (likely to be significantly more) (Ben Lullfitz DBCA pers comm.) Hakea marginata locally significant. 26 plants proposed to be cleared. Petrophile squamata locally significant. 4 plants proposed to be cleared. 	
	 Petrophile serruriae locally significant. 3 plants proposed to be cleared. 	
	Due to the small scale of clearing at any one location most records of flora of significance will be avoided.	
	Twenty-three species of fauna were observed at the site by SW Environmental (2021), with no evidence of any Priority fauna. Four species may occur locally or utilise the road verge vegetation as part of a larger patch:	
	Phascogale tapoatafa (Southern Brush-tailed Phascogale) S	
	Falco peregrinus (Peregrine Falcon) OS	
	Hydromys chrysogaster (Water Rat) P4	
	Isoodon obesulus fusciventer (Southern Brown Bandicoot) P4	
	No clearing of large trees (Diameter at Breast Height (DBH) >50cm) or hollow bearing trees is proposed. Due to the low impacts at any one location and considering most habitat will be retained (clearing less <1.5m from the existing cleared roadside), impacts to these species and other fauna are considered to be negligible.	
	Due to the minor impacts at any one location, the overall poor vegetation condition of the area under application, the small proportion of Priority flora proposed being cleared from records along the road and overall population numbers, the lack of priority fauna recorded or important habitat at the site, the proposed clearing is not likely to be at variance to this principle.	
(b) Native vegetation should not be cleared if it comprises the whole	Twenty-three species of fauna were observed at the site by SW Environmental (2021), including black cockatoos - <i>Calyptorhynchus banksii naso</i> (Forest red-tailed black cockatoo) T, <i>Calyptorhynchus baudinii</i> (Baudin's cockatoo) T, <i>Calyptorhynchus latirostris</i> (Carnaby's cockatoo) T and <i>Pseudocheirus occidentalis</i> (Western ringtail possum) (WRP) T.	Not at variance
or a part of, or is necessary for the maintenance of, a	There was no evidence of black cockatoo roosts at the site. No clearing of large trees (Diameter at Breast Height (DBH) >50cm) or hollow bearing trees is proposed, therefor black cockatoo breeding habitat will not be impacted.	
significant habitat for	Woodland vegetation within the broader road reserve contains foraging habitat for black cockatoos. Although black cockatoos may use the site for foraging (not breeding), only small	

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fauna indigenous to Western Australia.	amounts of old feed residue were observed. The site is not likely to be an important or significant habitat for black cockatoos or other conservation significant fauna. WRP were recorded in woodland north of the study area, with low densities of scats found within the dense vegetation where there were Peppermints present. No dreys were identified so any WRP present are likely to be using hollows (SW Environmental 2021). The small, narrow areas of completely degrade to good condition vegetation corresponds to poor fauna habitat quality. No WRP or their habitat features were recorded within the vegetation under application. No clearing of large trees (Diameter at Breast Height >50cm) or hollow bearing trees is proposed. Due to the low impacts at any one location and considering most habitat will be retained (clearing less <1.5m from the existing cleared roadside), impacts to these threatened fauna will be negligible. Due to the minor impacts at any one location, the overall poor fauna habitat quality of the area under application for threatened fauna, the proposed clearing is not at variance to this principle.	
(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.	 Two threatened flora were identified within the area application described in SW Environmental (2021) and in follow up site visits by A. Webb and S. Priddle (2021): <i>Grevillea brachystylis subsp. grandis</i> (T) Two plants proposed to be cleared, one to be pruned, with 73 plants as per a 2020 count in the Boallia road section bound by Payne and Adams Road. 734 plants all up (of which 187 is a translocation site), with total 547 in the wild (Andrew Webb pers comm.) <i>Verticordia plumosa var. ananeotes</i> (T) One plant proposed to be cleared. 16 plants counted to be retained immediately adjacent within the verge. 249 plants all up in the wild Andrew Webb pers comm. Critical habitat for the flora above occurs within the broader road reserve for these species, including some areas within the 0.14 ha under application. However, the area under application impacts mostly road verge vegetation that has been subject to existing edge effects, in a Completely degraded to Good condition, and is therefore not likely to support repopulation of these plants (e.g. areas infested with exotic grasses). No vegetation in Very good or better condition proposed to be cleared. Consultation with Blackwood District DBCA is ongoing and the City will to implement appropriate weed control, infill planting, seed collection of impacted significant flora, and construction controls to avoid accidental impact and mitigate overall project impacts. 	Not likely to be at variance
(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.	 Two of the vegetation communities have potential affinities to State listed TECs (SW Environmental 2021): CcXp Woodland of Corymbia calophylla over shrubland of Melaleuca preissiana and Xanthorrhoea preissii over mixed grassland herbland of Freesia alba x leichtlinii and Avena fatua – (0.01 ha). This would have conformed to the definition of the State listed Threatened Ecological Community (TEC) Vulnerable SCP1b Corymbia calophylla woodlands on heavy soils of the southern Swan Coastal Plain TEC however it does not meet the condition requirement due to the Degraded to Completely Degraded condition of vegetation within the footprint (A. Webb pers comm). 	May be at variance

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	Astart Melale	ea fascicularis euca incana –(C	and <i>Xanthorr</i>).126 ha).	uca preissiana (hoea preissii ov	ver low shrub	land of	
	condition shrubland	and considere s, Swan Coasta	d to be State	within the area listed TEC Enda aining 0.089 ha s comm).	ingered SCP02	Southern wet	
	Consultation with Blackwood District DBCA is ongoing and the City will to implement appropriate weed control, infill planting, seed collection of impacted significant flora, and construction controls to avoid accidental impact and mitigate overall project impacts.						
	Although the impacts to TEC will be limited to 0.037 ha, and although the management measures proposed in consultation with DBCA may overall enhance or improve TEC condition within the broader road reserve, the residual clearing impacts proposed may be at variance to this clearing principle.						
(e) Native vegetation should not be cleared if it is	prevent clearance of ecological communities with an extent below 30% of pre-European						Not likely to be at
significant as a remnant of native vegetation in an area that has been extensively cleared.	The site intersects the Pinjarra 1136 - Medium woodland; marri with some jarrah, wandoo river gum and casuarina Vegetation Association mapped by Beard (1981) and Abba Complex: A mixture of open forest of Corymbia calophylla (Marri) – Eucalyptus marginata (Jarrah) - Banksia species and woodland of Corymbia calophylla (Marri) with minor occurrences of Corymbia haematoxylon (Mountain Marri). Woodland of Eucalyptus rudis (Flooded Gum) - Melaleuca species along creeks and on flood plains mapped by Webb et al. (2016).					variance	
	Both Vegetation Association 1136 and Abba Complex are over-cleared and under reserved, see tables below.						
	Pre-European Vegetation Representation (Government of Western Australia, 2019a)						
	Pre- European Vegetation Association	Scale:	Pre– European (ha)	Current Extent (ha)	% Remaining	% Remaining in DBCA reserves	
	Veg Assoc No. 1136	Statewide	48,124.57	3,345.51	6.95	3.85	
		IBRA SWA	48 118 01	3 341 18	6 94	3.86	

Vegetation Complexes (Webb) within the Project Area within the City of Busselton (Government of Western Australia, 2019b)

3,341.18

3,341.18

2,640.77

6.94

6.94

6.78

48,118.01

48,118.01

38,946.49

Heddle/Mattiske Veg Complex	Pre-European Extent (ha)	Current Extent (ha)	% Remaining
Abba (Ab)	41,535.96	2,756.41	6.64

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Busselton

SWA02

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3.86

3.86

3.12



	Less than 20m ² of Completely degraded vegetation in the area under application is mapped under the DPIRD-005 native vegetation extent (SLIP 2021). Vegetation within the project extent at this location (and other areas of Completely degraded to Degraded condition) no longer represent the Vegetation Association or Complex due to their poor condition. The 0.037 ha of vegetation in Good condition does not fall within the DPIRD-005 native vegetation extent. As such the vegetation under application is not considered <i>significant as</i> <i>a remnant</i> . As the vegetation under application is not <i>significant as a remnant of native vegetation</i> , (including the 0.037 ha of Good condition vegetation) the clearing impacts proposed are unlikely to be considered to be at variance to 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.	The project does not impact on any drainage lines nor any native wetland vegetation. The proposed clearing is not at variance to this principle.	Not at variance
(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	The minor clearing associated with the road widening will not cause land degradation.	Not at variance
(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 project will not impact on any nearby conservation areas. The nearest – Blackwood State Forest – occurs over 4.5 km south of the area under application. The proposed clearing is not at variance to this principle.	Not at variance
(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.	The minor clearing associated with the road widening will not cause any deterioration of surface or underground water. Existing drainage will be maintained. The proposed clearing is not at variance to this principle.	Not at variance
(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.	The minor clearing associated with the road widening will not increase the risk of flooding. The proposed clearing is not at variance to this principle.	Not at variance

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