

Clearing Desktop Report – Short Form



1. PROJECT DETAILS

Project Name:	Gravel Pit 2 For Albany Hwy 308-316, Cranbrook
Region/Directorate:	Great Southern
Expected Project Start Date:	October 2021
Road/Bridge Name and No:	Albany Hwy
Project Location (SLK):	308-316 SLK
TRIM Document No:	Site Inspection report - D21#846938
TRIM Link to Spatial Data:	Project shapefile - D21#733727
EOS No:	2461

2. PURPOSE OF CLEARING

The purpose of this application is to seek approval for the construction of a gravel pit to provide material for the Albany Highway 308-316 Gordon South proposal.

The material pit is predominantly cleared, although does contain two clumps of paddock trees (seven in total) that require removal (0.032 ha) to access the gravel and facilitate shaping of the rehabilitated paddock.

A total of 0.032 ha of native vegetation is proposed to be cleared in the 4.8 ha proposal area.

The environmental approvals for the Albany Highway 308-316 Gordon South proposal and associated material pits and laydown areas are being obtained under CPS 818.

3. ALTERNATIVES TO CLEARING

There is the option to retain the existing trees, however this would result in a greater amount of land being disturbed to access gravel, as well as a landform that does not suit ongoing farming in the proposals area after rehabilitation is completed. The farmer has requested that the trees be removed to allow him to return the proposal area back to agriculture.

4. MEASURES TO AVOID, MINIMISE, MITIGATE AND MANAGE PROJECT CLEARING IMPACTS

The proposal area has been designed to avoid as many trees as possible.

5. APPROVED POLICES AND PLANNING INSTRUMENTS

The clearing of native vegetation in Western Australia is regulated under the *Environmental Protection Act* (EP Act) and the Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.3), Main Roads has also had regard to the following documents.

Environmental Protection Policies

- Environmental Protection (Peel Inlet - Harvey Estuary) Policy 1992 Environmental Protection (Western Swamp Tortoise Habitat) Policy 2011

Other Legislation of relevance for assessment of clearing and planning/other matters

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Country Areas Water Supply Act 1947* (WA) (CAWS Act)

- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Planning and Development Act 2005* (WA) (P&D Act)
- *Soil and Land Conservation Act 1945* (WA)
- *Rights in Water and Irrigation Act 1914* (WA) (RIWI Act)
- *Aboriginal Heritage Act 1972* (WA) (AHA)
- *Town Planning and Development Act (WA) 1928*

Relevant other policies and guidance documents:

- Environmental Offsets Policy (Government of Western Australia, 2011)
- A guide to the assessment of applications to clear native vegetation (DEC, December 2014)
- Procedure: Native vegetation clearing permits (DWER, October 2019)
- Environmental Offsets Guidelines (Government of Western Australia, August 2014)
- Technical guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2016)
- Technical guidance – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment (EPA, 2020)
- Approved conservation advice under section 266B of the EPBC Act for threatened flora/fauna/vegetation communities
- Approved Recovery Plans for threatened species
- EPBC Act Referral guidelines for the three threatened black cockatoo species
- Strategic advice – EPA

6. CLEARING AREA

Clearing Area (ha):	0.032 ha	No. Trees Cleared:	seven
Species Name:	Trees – <i>Eucalyptus wandoo</i> , <i>Eucalyptus occidentalis</i> Shrubs – <i>nil</i>		
Easting and Northing:			

7. EXISTING ENVIRONMENT AND SITE INFORMATION

Site Vegetation Description/Association:	The mapped Beard vegetation association is 967 – Medium woodland; wandoo & yate. This is consistent with the tree species that occur in the proposal area and similar to those which occur in adjacent areas.				
Site Vegetation Condition:	Completely Degraded as the proposal area features paddock trees.				
Pre-European Extent Remaining (%):	Pre-European Vegetation Representation and extent remaining				
	Pre-European Vegetation Association	Scale	Pre-European (ha)	Current Extent (ha)	% Remaining
	Veg Assoc No. 967 described as Medium woodland; wandoo & yate	Statewide	216,684	36,536	16.86
		IBRA Bioregion Avon Wheatbelt	174,907	26,637	15.23
		IBRA Sub-region Katanning	174,907	26,637	15.23
Local Government Authority Shire of Cranbrook		77,064	15,137	19.64	

8. ASSESSMENT OF PROJECT AGAINST CLEARING PRINCIPLES

Is Vegetation to be cleared at variance with:

Justification or Evidence:

Principle (a) – Native vegetation should not be cleared if it comprises a high level of biological diversity.

The proposal proposes to clear up to 0.032 ha of wandoo & yate woodland (totalling seven trees) that is in a Completely degraded condition due to surrounding agricultural pursuits.

The proposed clearing is not located within an Environmentally Sensitive Area (ESA). The closest mapped ESA is more than 10km from the proposal area, however there would be an ESA associated with the *Acacia prismifolia* (X) located approximately 1 km west of the proposal area. The proposal will not impact on the *A. prismifolia*.

The closest DBCA managed conservation area is Twongkup Nature Reserve, located approximately 10 km south of the proposal area (Figure 4). The nearest wetland listed in the South Coast Significant Wetlands dataset (Martagallup Swamp (Figure 4), a Conservation Category Wetland) is located approximately 1.6 km north of the proposal area. Based on this distance, no impacts on this or any other wetland are expected to result from proposal activities.

The desktop assessment indicates two EPBC Act listed TECs / DBCA Listed PECs occur within the 10 km desktop study area (Figure 5) : 'Eucalypt Woodlands of the Western Australian Wheatbelt' (Wheatbelt Woodlands) (Critically Endangered / P3) and 'Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia' (Kwongkan Shrubland) (Endangered / P3). Ecologia (2020) mapped Wheatbelt Woodlands along Albany Highway within the Gordon South development envelope.

The site inspection did not observe any State listed TECs occurring in the proposal area, as the proposal involves the removal of seven paddock trees in a completely degraded condition. The trees would not meet the criteria for condition or patch size to be considered a TEC.

Desktop searches identified 32 State conservation significant species (Threatened/Priority) within the 10km study area (Figure 3):

- *Acacia primsifolia* (X) (previously presumed extinct)
- *Diuris drummondii* (T)
- *Gastrolobium lehmannii* (T)
- *Acacia microneura* (P1)
- *Banksia lepidorhiza* (P1)
- *Rhodanthe fuscescens* (P1)
- *Thomasia dielsii* (P1)
- *Conospermum spectabile* (P2)
- *Conostylis seorsiflora* subsp. *Nyabing* (A. Coates s.n. 2/10/1988) (P2)
- *Melaleuca ordinifolia* (P2)
- *Stylidium diuroides* subsp. *nanum* (P2)
- *Acacia ataxiphylla* subsp. *ataxiphylla* (P3)
- *Calytrix pulchella* (P3)
- *Chorizema carinatum*(P3)
- *Stylidium exappendiculatum* (P3)
- *Stylidium lepidum* (P3)

- *Stylidium rhipidium* (P3)
- *Stylidium pseudohirsutum* (P3)
- *Stylidium roseonatum* (P3)
- *Thysanotus gageoides* (P3)
- *Verticordia brevifolia* subsp. *brevifolia* (P3)
- *Verticordia coronata* (P3)
- *Verticordia huegelii* var. *tridens* (P3)
- *Banksia acuminata* (P4)
- *Banksia porrecta* (P4)
- *Caladenia integra* (P4)
- *Calothamnus microcarpus* (P4)
- *Calytrix pulchella* (P4)
- *Eucalyptus marginata* x *pachyloma* (P4)
- *Orthrosanthus muelleri* (P4)
- *Thysanotus parviflorus* (P4)
- *Xanthorrhoea brevistyla* (P4)

No significant flora are expected to occur in the proposal area as it been cleared ed of native vegetation apart from the seven trees. The closest record (*A. prismifolia*) is 1 km west of the proposal area. Main Roads is aware of the location of the mapped *A. prismifolia*, which will not be impacted by this proposal. No significant flora are expected to be impacted by this proposal directly or indirectly.

Fauna

Eighteen vertebrate fauna species of conservation significance were returned from Threatened and Priority fauna database searches including twelve mammals and six birds in the 10 km study area (Figure 3), namely:

- Boodie (*Bettongia lesueur graii*) (EX)
- Crescent nailtail wallaby (*Onychogalea lunata*) (EX)
- Western ringtail possum (*Pseudocheirus occidentalis*) (CR)
- Woylie (*Bettongia penicillata ogilbyi*) (CR)
- Baudin's cockatoo (*Calyptorhynchus baudinii*) (EN)
- Carnaby's Cockatoo (*Calyptorhynchus latirostris*) (EN)
- Numbat (*Myrmecobius fasciatus*) (EN)
- Chuditch (*Dasyurus geoffroi*) (VU)
- Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksia naso*) (VU)
- Malleefowl (*Leipoa ocellata*) (VU)
- Western barred bandicoot (*Perameles bougainville*) (VU)
- Red-tailed phascogale (*Phascogale calura*) (CD)
- South-western brush-tailed phascogale (*Phascogale tapoatafa*) (CD)
- Peregrine falcon (*Falco peregrinus*) (OS)
- Hooded plover (*Thinornis rubricollis*) (P4)
- Quenda (*Isodon fusciventer*) (P4)
- Tammar wallaby (*Notamacropus eugenii derbianus*) (P4)
- Western mouse (*Pseudomys occidentalis*) (P4)

The closest record (Carnaby's Cockatoo) was sighted approximately 3.4 km north west of the proposal area. Due to the isolated nature of the paddock trees, it is likely that only birds may use the trees for foraging and potentially roosting and breeding (if suitable hollows are available).

Edith Cowan University & Department of Environment and Conservation (2008) report that Carnaby's have been predominantly observed foraging on the seeds of 52 native species, including

	<p><i>Eucalyptus marginata</i> (Jarrah) and Marri and the flowers of Marri and <i>Eucalyptus wandoo</i> (Wandoo). Forest Red-tailed Black Cockatoo commonly occur in Jarrah, Karri and Marri forests and also in a range of other forest and woodland types, including Blackbutt, Wandoo, Tuart, Albany Blackbutt, Yate and Flooded Gum (DotEE, 2012). Baudin's Cockatoo usually occurs in heavily forested areas dominated by Marri, Jarrah and Karri.</p> <p>The two clumps of paddock trees may provide potential low level (seasonal) foraging habitat for Carnaby's Cockatoo and Forest Red-tailed Black Cockatoo, however the removal of six Wandoo trees is highly unlikely to detrimentally impact on the foraging resource in the area.</p> <p>A Black Cockatoo habitat assessment recorded three Suitable DBH trees within the proposal area, two with hollows that were considered unsuitable for breeding due to their size. No evidence of Black Cockatoo use was observed on or around the trees.</p> <p>Accordingly, the removal of the trees is unlikely to significantly impact any significant fauna. Given the limited nature of clearing, there is likely to be negligible impact on biodiversity values of the area.</p> <p>Based on the above, the proposed clearing is not at variance to this principle.</p>
<p>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.</p>	<p>Eighteen vertebrate fauna species of significance were returned from Threatened and Priority fauna database searches including twelve mammals and six birds in the 10 km study area (Figure 3), namely:</p> <ul style="list-style-type: none"> • Boodie (<i>Bettongia lesueur graii</i>) (EX) • Crescent nailtail wallaby (<i>Onychogalea lunata</i>) (EX) • Western ringtail possum (<i>Pseudocheirus occidentalis</i>) (CR) • Woylie (<i>Bettongia penicillata ogilbyi</i>) (CR) • Baudin's cockatoo (<i>Calyptorhynchus baudinii</i>) (EN) • Carnaby's Cockatoo (<i>Calyptorhynchus latirostris</i>) (EN) • Numbat (<i>Myrmecobius fasciatus</i>) (EN) • Chuditch (<i>Dasyurus geoffroii</i>) (VU) • Forest Red-tailed Black Cockatoo (<i>Calyptorhynchus banksia naso</i>) (VU) • Malleefowl (<i>Leipoa ocellata</i>) (VU) • Western barred bandicoot (<i>Perameles bougainville</i>) (VU) • Red-tailed phascogale (<i>Phascogale calura</i>) (CD) • South-western brush-tailed phascogale (<i>Phascogale tapoatafa</i>) (CD) • Peregrine falcon (<i>Falco peregrinus</i>) (OS) • Hooded plover (<i>Thinornis rubricollis</i>) (P4) • Quenda (<i>Isoodon fusciventer</i>) (P4) • Tammar wallaby (<i>Notamacropus eugenii derbianus</i>) (P4) • Western mouse (<i>Pseudomys occidentalis</i>) (P4) <p>The closest record (Carnaby's Cockatoo) was sighted approximately 3.4 km north west of the proposal area. Due to the isolated nature of the paddock trees, it is likely that only birds may use the trees for foraging and potentially roosting and breeding (if suitable hollows are available).</p>

Edith Cowan University & Department of Environment and Conservation (2008) report that Carnaby's have been predominantly observed foraging on the seeds of 52 native species, including *Eucalyptus marginata* (Jarrah) and Marri and the flowers of Marri and *Eucalyptus wandoo* (Wandoo). Forest Red-tailed Black Cockatoo commonly occur in Jarrah, Karri and Marri forests and also in a range of other forest and woodland types, including Blackbutt, Wandoo, Tuart, Albany Blackbutt, Yate and Flooded Gum (DotEE, 2012). Baudin's Cockatoo usually occurs in heavily forested areas dominated by Marri, Jarrah and Karri.

The two clumps of paddock trees may provide potential low level (seasonal) foraging habitat for Carnaby's Cockatoo and Forest Red-tailed Black Cockatoo, however the removal of six Wandoo trees is highly unlikely to detrimentally impact on the foraging resource in the area.

A Black Cockatoo habitat assessment recorded three Suitable DBH trees within the proposal area, two with hollows that were considered unsuitable for breeding due to their size. No evidence of Black Cockatoo use was observed on or around the trees.

The PMST (D21#842066) indicated that the following fauna have the potential to occur within a 10 km radius of the proposal area.

- Australian Bittern (*Botaurus poiciloptilus*) - Endangered
- Curlew Sandpiper (*Calidris ferruginea*) – Critically Endangered
- Forest Red-tailed Black-Cockatoo (*Calyptorhynchus banksii naso*) – Vulnerable
- Baudin's Cockatoo (*Calyptorhynchus baudinii*) – Endangered
- Carnaby's Cockatoo (*Calyptorhynchus latirostris*) – Endangered
- Grey Falcon (*Falco hypoleucos*) - Vulnerable
- Malleefowl (*Leipoa ocellata*) – Vulnerable
- Eastern Curlew (*Numenius madagascariensis*) – Critically Endangered
- Chuditch (*Dasyurus geoffroii*) – Vulnerable
- Dibbler (*Parantechinus apicalis*) – Endangered

Of these, no evidence of these species was observed in the proposal area.

The PMST identified that the following eight listed Migratory species or their habitat may occur in the proposal area:

- Fork-tailed Swift (*Apus pacificus*)
- Grey Wagtail (*Motacilla cinerea*)
- Common Sandpiper (*Actitis hypoleucos*)
- Sharp-tailed Sandpiper (*Calidris acuminata*)
- Curlew Sandpiper (*Calidris ferruginea*)
- Pectoral Sandpiper (*Calidris melanotos*)
- Eastern Curlew (*Numenius madagascariensis*)
- Osprey (*Pandion haliaetus*)

The Fork-tailed Swift, Grey Wagtail and Osprey have wide distributions and occupy a variety of different habitat types. These species may visit the proposal area on an opportunistic basis but are not likely to be reliant on vegetation within the proposal area for habitat.

	<p>There is no suitable habitat for Common Sandpiper, Sharp-tailed Sandpiper, Curlew Sandpiper, Pectoral Sandpiper, Eastern Curlew or Common Greenshank in the proposal area.</p> <p>Therefore, none of these eight Migratory species are considered likely to occur within the proposal area and proposal activities are unlikely to impact these species.</p> <p>Accordingly, the removal of the trees is unlikely to significantly impact any significant fauna. Given the limited nature of clearing, there is likely to be negligible impact on significant habitat for fauna indigenous to Western Australia.</p> <p>Given the minor clearing and the availability of better habitats in the immediate surroundings, the impacts to indigenous fauna habitat resulting from proposed removal of 0.032 ha vegetation in a Completely degraded condition is unlikely to be significant.</p> <p>Based on the above, the proposed clearing is not at variance to this principle.</p>
<p>Principle (c) – Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.</p>	<p>Desktop searches identified three State listed Threatened species within the 10km study area (Figure 3):</p> <ul style="list-style-type: none"> • <i>Acacia primsifolia</i> (X) (previously presumed extinct) • <i>Diuris drummondii</i> (T) • <i>Gastrolobium lehmannii</i> (T) <p>Main Roads is aware of the location of the mapped <i>A. primsifolia</i>, which will not be impacted by this proposal.</p> <p>No Threatened taxa were observed during the site inspection on 2 August 2021. No understorey species were present.</p> <p>Based on the above, the proposed clearing is not at variance to this clearing principle.</p>
<p>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.</p>	<p>The desktop assessment found no state listed TECs within the 10 km desktop study area (Figure 5).</p> <p>The site inspection did not observe any State listed TECs as occurring in the proposal area, as the proposal involves the removal of seven paddock trees in a completely degraded condition.</p> <p>Based on the above, the proposed clearing is not at variance to this clearing principle.</p>
<p>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.</p>	<p>The pre-European vegetation within the proposal area is Vegetation Association 967. The current extent remaining is below 20% at all scales (State, IBRA Bioregion, IBRA Sub-region and LGA). However, the seven paddock trees in a Completely degraded condition, more than 100m away from other native vegetation are no longer representative of Vegetation Association 967 - Medium woodland; wandoo & yate and accordingly, the proposed removal of these trees is not at variance to this clearing principle.</p>
<p>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.</p>	<p>A search of the Main Roads GIS Database indicates one mapped watercourse (minor non-perennial) located 745m west of the proposal area (Figure 4). The location of the proposal area is near the top of an undulating hill, so does not have topographic features associated with riparian vegetation.</p> <p>The tree species to be removed are wandoo and yate and not considered to be riparian.</p> <p>No mapped wetland/riparian vegetation will be removed as part of the proposal.</p> <p>Based on the above, the proposed clearing is not at variance to this clearing principle.</p>

<p>Principle (g) – Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.</p>	<p>The 4.8 ha proposal area is predominantly cleared farmland. The removal of 0.032 ha of paddock trees will not result in an increase in land degradation.</p> <p>The proposal area is in an area with a low probability of occurrence of Acid Sulphate Soils (Figure 6).</p> <p>Following gravel extraction, the area will be rehabilitated back to pasture.</p> <p>Based on the above, the proposed clearing is not at variance to this clearing principle.</p>
<p>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.</p>	<p>A search of ArcGIS shapefiles indicates that there is only one reserve/conservation area located within the 10km study area (Figure 4). The nearest conservation area is located south of the proposal area. Therefore, no impacts are anticipated to any reserves or conservation areas.</p> <p>Based on the above, the proposed clearing is not at variance to this clearing principle.</p>
<p>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.</p>	<p>The proposed clearing is not considered to disturb or interrupt any natural drainage or cause an alteration to surface water flows. No dewatering or drainage modifications are proposed.</p> <p>No water will be required for the proposal.</p> <p>As such the project is unlikely to interact or cause deterioration of the quality of groundwater in or adjacent to the proposal area.</p> <p>Based on the above, the proposed clearing is not at variance to this clearing principle.</p>
<p>Principle (j) – Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.</p>	<p>The annual average rainfall of Cranbrook (approximately 5km south east of the proposal area) is 495mm per year (BOM, 2021), predominantly during the winter months.</p> <p>The topsoil of the proposal area contains significant amounts of sand, making it free draining.</p> <p>Based on the amount of rainfall and soil type in the proposal area, the removal of the vegetation is unlikely to cause, or exacerbate, the incidence or intensity of flooding.</p> <p>Based on the above, the proposed clearing is not at variance to this clearing principle.</p>
<p>Methodology Used and References:</p>	<p>Main Roads Site Inspection Report - D21#846938</p> <p>Shapefile of proposal area - D21#733727</p> <p>Rainfall data - http://www.bom.gov.au/jsp/ncc/cdio/weatherData/av?p_nccObsCode=139&p_display_type=dataFile&p_startYear=&p_c=&p_stn_num=010537 (accessed 27/08/2021)</p> <p>PMST Report - D21#842066</p> <p>Australian Government. EPBC Act referral guidelines for three threatened black cockatoo species (2012). Department of Sustainability, Environment, Water, Population and Communities.</p> <p>Centre for Ecosystem Management, Edith Cowan University and the Department of Environment and Conservation. (2008) Food Resources of Carnaby's Black-Cockatoo (<i>Calyptorhynchus latirostris</i>) in the Gngangara Sustainability Strategy study area.</p> <p>Department of Parks and Wildlife. (2011) Plants Used by Carnaby's Black Cockatoo. List of plants used by Carnaby's black cockatoo (dpaw.wa.gov.au)</p>

Completed By:	
Name	
Signature	
Job Title	Senior Environment Officer
Date	27/08/2021

Once all sections are completed, send the form to CRSP for review and endorsement.

DECISION ON CLEARING ASSESSMENT		
Clearing Assessment	ENDORSED <input checked="" type="checkbox"/>	REFUSED <input type="checkbox"/>
Comments		
Name		
Signature		
Job Title	Senior Environment Officer	
Date	02/09/2021	

REDACTED

Figure 1. Proposal Area

Figure 2. Locality Map

Figure 3. Study Area – Conservation Significant Flora and Fauna

Figure 4. Study Area - Water and Groundwater Areas, CAWS Catchment and DBCA Lands

Figure 5. Study Area – TEC/PEC and ESAs

Figure 6. Acid Sulphate Soil Risk Mapping (CSIRO)

Extremely Low Probability of Occurrence (green)
Low Probability of Occurrence (yellow)