EPBC Act referral

Australian Government
Department of Agriculture, Water and the Environment

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Title of proposal	**2020/8769 - Albany Ring Road Stages 2 and 3B**

Section 1

Summary of your proposed action

1.1 Project industry type Transport - Land

1.2 Provide a detailed description of the proposed action, including all proposed activities

The Albany Ring Road Stage 2 and 3b includes the construction of approximately 7km of new dual carriageway (Attachment A Figure 2). The Proposed Action includes:

- Construction and operation of 7km of new dual carriageway road from South Western Highway to Festing Street Albany.
- Grade separated interchanges at key intersections.
- Drainage basins and other drainage structures.
- Landscaping and revegetation works.
- Modifications to local roads.

1.3 What is the extent and location of your proposed action?

See Appendix B

1.5 Provide a brief physical description of the property on which the proposed action will take place and the location of the proposed action (e.g. proximity to major towns, or for off-shore actions, shortest distance to mainland)

The Proposed Action includes the construction and operation of 7km of new road which extends from the intersection of South Coast Highway and Link Road in the north to Festing Street in the east within the City of Albany, WA. The Development Envelope for the works is approximately 137.7 hectares (ha).

1.6 What is the size of the proposed action area development footprint (or work area) including disturbance footprint and avoidance footprint (if relevant)?

The proposed action Development Envelope is 137.7ha

1.7 Proposed action location

Lot - Refer to Appendix A within Supporting Document. See Attachment A.

1.8 Primary jurisdiction Western Australia

1.9 Has the person proposing to take the action received any Australian Government grant funding to undertake this project?

☐ Yes ☑ No

1.10 Is the proposed action subject to local government planning approval?

☑ Yes ☐ No

1.10.1 Is there a local government area and council contact for the proposal?

☐ Yes ☑ No

1.11 Provide an estimated start and estimated end date for the proposed action	Start Date	01/06/2021
	End Date	01/06/2023

1.12 Provide details of the context, planning framework and state and/or local Government requirements

The Proposed Action has been referred to the Environmental Protection Authority(EPA) under Part IV of the Environmental Protection Act 1986 (EP Act).The project was not assessed by the EPA.

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A permit to clear native vegetation will be required under the EP Act prior to clearing native vegetation commencing. Granting and administration of clearing permits is regulated under the EP Act (Clearing of Native Vegetation) Regulations 2004. Main Roads will submit an application for a clearing permit to the Department of Water and Environmental Regulation (DWER),

Works associated with this Proposed Action will be conducted within areas currently zoned “Primary Regional Road” or “Other Regional Roads” within the Town Planning Scheme. Main Roads does not require further planning approval to construct roads within these zonings. The Proposed Action will require a Development Approval under the Planning and Development Act 2005 in areas outside of this scheme.

The Proposed Action may require a Bed and Banks permit to interfere with bed and banks under Section 21A licence under the Rights in Water and Irrigation Act 1914 (RIWI Act). This licence application will be assessed by the Department of Water and Environmental Regulation (DWER).

There are two potential European Heritage sites, within the Development Envelope (Archae-aus,2020). One is listed on the Local Governments Municipal Inventory listing(Gledhow Rail Siding), and one is not registered on any heritage list (Fuel Storage Tanks from WWII). Main Roads will complete the Government Heritage Property Disposal Process under the Heritage Act 2018 to impact on these sites.

1.13 Describe any public consultation that has been, is being or will be undertaken, including with Indigenous stakeholders

Stakeholder consultation was done in association with the planning and design works, starting in 2006 when the alignment definition works began. Discussions were initially limited to government agencies and heritage groups. An extended gap occurred in stakeholder communications and engagement since the last round in 2008 where consultation involved the route definition study process. A concerted effort and more focussed consultation commenced in May 2019 when the Federal and State Governments allocated funding for the planning, development and construction of the project.

Stakeholders included in these recent consultations include:

Commonwealth Government
Federal Minister for Infrastructure and Transport, Hon Michael McCormack
Department of Agriculture, Water and the Environment

State Government
Minister for Transport, Hon Rita Saffioti
Department of Planning Land and Heritage
Heritage Council
Department of Water and Environment Regulation (Office of the EPA)
Department of Water and Environment Regulation (Native Vegetation Regulation)
Department of Transport
Department of Treasury
Department of Infrastructure, Regional Development and Cities
Albany Port Authority
Department of Transport
Great Southern Development Commission
Public Transport Authority
Department of Biodiversity, Conservation and Attractions
Water Corporation
City of Albany

Community
Landowners
Wagyl Kaip and Southern Noongar Native Title Claim representatives
Albany Visitor Centre
Albany cycling groups
Albany Residents and Ratepayers
General public and local residents

Environmental Groups
Torbay Catchment Group
Denmark Community Environment Centre
South Coast NRM

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Wildflower Society WA (Albany)
Oyster Harbour Catchment Group
Albany Community Environment Centre

For further details regarding public consultation for the Proposed Action is located within Section 3 of the Supporting Document, see Attachment A.

1.14 Describe any environmental impact assessments that have been or will be carried out under Commonwealth, State or Territory legislation including relevant impacts of the project

The Proposed Action was referred to the WA EPA under Part IV of the EP Act who determined on 27 July 2020 to not assess the Proposal. The key environmental factors addressed by the referral included:

- Flora and vegetation.
- Terrestrial environmental quality (including acid sulfate soils).
- Terrestrial fauna.
- Inland waters (including dewatering, acid sulfate soils, stormwater runoff).
- Social surroundings (including visual amenity, noise, heritage).

1.15 Is this action part of a staged development (or a component of a larger project)?

☑ Yes ☐ No

1.15.1 Provide information about the larger action and details of any interdependency between the stages/components and the larger action

The Albany Ring Road will be a dedicated freight route around the City of Albany to enable the effective movement of freight to and from the Port of Albany. The Albany Ring Road will cater for the travel demands associated with growth in grain, woodchip and other agricultural industries, increased mining production, increased population growth, urban expansion and the expected increase in tourists. The project has been separated into a staged construction process(see Attachment A Figure 1).

- Stage 1 of the ARR is the east to west connection of Menang Drive linking Chester Pass Road to Albany Highway which was built in 2007.
- Stage 2 of the ARR is the southern link of the ring road and is located between the Lower Denmark Road Link and Frenchman Bay Road. Stage 2 works end west of Festing Street (Part of Proposed Action).
- Stage 3 of the ARR is the western link of the ring road and is located between the intersection of Albany Highway and Lower Denmark Road.

Stage 3 is separated into two sections for construct-ability purposes:

- Part a – from Albany Highway along Link Road to South Western Highway.
- Part b – South Coast Highway to Lower Denmark Road (Part of Proposed Action).
- Stage 4 of the ARR is the duplication of Princess Royal Drive from Hanrahan Road to York Street including duplication of the existing Princess Royal Drive Bridge over rail east of Festing Street.

This action refers to the Construction of Stages 2 and 3b.

1.16 Is the proposed action related to other actions or proposals in the region?

☐ Yes ☑ No

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Section 2

Matters of national environmental significance

2.1 Is the proposed action likely to have any direct or indirect impact on the values of any World Heritage properties?

☐ Yes ☑ No

2.2 Is the proposed action likely to have any direct or indirect impact on the values of any National Heritage places?

☐ Yes ☑ No

2.3 Is the proposed action likely to have any direct or indirect impact on the ecological character of a Ramsar wetland?

☐ Yes ☑ No

2.4 Is the proposed action likely to have any direct or indirect impact on the members of any listed species or any threatened ecological community, or their habitat?

☑ Yes ☐ No

Species or threatened ecological community

Calyptorhynchus latirostris Carnaby's Cockatoo - Endangered

Impact

The Proposed Action is within the known distribution and breeding range of all three Black Cockatoo species and will require the clearing of up to 57.6 ha consisting of:

Foraging Habitat
- 13.4 ha of high quality foraging habitat.
- 2.9 ha of low quality foraging habitat.

Roosting habitat
- 47.2 ha of high quality potential roosting habitat.
- 7.4 ha of low quality potential roosting habitat.

Breeding habitat
- 13.4ha of high quality breeding habitat.

572 Suitable Diameter Breast Height trees (>500 mm) none of which contain known nesting hollows, 34 trees contain hollows that are not suitable for nesting by Black Cockatoos.

In assessing the potential impact to Carnaby's Cockatoo against the referral guidelines, the following information is provided:
- The proposed Action will result in the report of up to 572 Suitable Diameter Breast Height trees (Black Cockatoos) none of which contain known nesting hollows, 34 trees contain hollows that are not suitable for nesting by Black Cockatoos.
- The Proposed Action will result in the removal of 13.4ha of high quality foraging habitat and 2.9ha of low quality foraging habitat.
- The Proposed Action will result in the removal of 47.5ha of low quality roosting habitat and 7.4ha of low quality potential roosting habitat. No known roosting trees were recorded during the survey.
- Removal of potential foraging habitat within the Proposed Action will not create a gap greater than 4 km between patches of Black Cockatoo habitat.

Based on the information provided above it is considered unlikely that the Proposed Action Area will result in a significant

impact as defined by the referral guidelines as:

- No known nesting trees are being impacted;
- The Proposed Action is considered to contain mostly relatively small amount of high quality foraging habitat based on the degraded nature of vegetation within the Proposed Action (Attachment A Figure 8). Based on vegetation type, it is estimated that there is approximately 8,515ha of Black Cockatoo foraging habitat in a 12km radius. This would result in a reduction 0.2% of the habitat in a 12km radius (Attachment A Figure 9).
- No confirmed roosting habitat will be impacted within the Proposed Action Area.

Given the highly modified landscape within the Proposed Action it is considered unlikely that the Proposed Action Area will adversely affect habitat critical to the survival of Carnaby's Cockatoo, disrupt the breeding cycle of a population, or decrease the availability or quality of habitat to the extent that the Black Cockatoos will decline.

Refer to Section 6 of the Supporting Document (see Attachment B) for further information.

Species or threatened ecological community

Calyptorhynchus baudinii Baudin’s Cockatoo (Endangered)

Impact

The Proposed Action is within the known distribution and breeding range of all three Black Cockatoo species and will require the clearing of up to 57.6 ha consisting of:

Foraging Habitat

- 13.4 ha of high quality foraging habitat.
- 2.9 ha of low quality foraging habitat.

Roosting habitat

- 47.2 ha of high quality potential roosting habitat.
- 7.4 ha of low quality potential roosting habitat.

Breeding habitat

- 13.4ha of high quality breeding habitat.

572 Suitable Diameter Breast Height trees (>500 mm) none of which contain known nesting hollows, 34 trees contain hollows that are not suitable for nesting by Black Cockatoos.

In assessing the potential impact to Baudin's Cockatoo against the referral guidelines, the following information is provided:

- The Proposed Action will result in the removal of up to 572 Suitable Diameter Breast Height trees (Black Cockatoos) none of which contain known nesting hollows, 34 trees contain hollows that are not suitable for nesting by Black Cockatoos.
- The Proposed Action will result in the removal of 13.4ha of high quality foraging habitat and 2.9ha of low quality foraging habitat.
- The Proposed Action will result in the removal of 47.5ha of low quality roosting habitat and 7.4ha of low quality potential roosting habitat. No known roosting trees were recorded during the survey.
- Removal of potential foraging habitat within the Proposed Action Area will not create a gap greater than 4 km between patches of Black Cockatoo habitat.

Based on the information provided above it is considered unlikely that the Proposed Action will result in a significant impact as defined by the referral guidelines as:

- No known nesting trees are being impacted.
- The Proposed Action is considered to contain mostly relatively small amount of high quality foraging habitat based on the degraded nature of vegetation within the Proposed Action (Attachment A Figure 8). Based on vegetation type, it is estimated that there is approximately 8,515ha of Black Cockatoo foraging habitat in a 12km radius. This would result in a reduction 0.2% of the habitat in a 12km radius(Attachment A Figure 9).
- No confirmed roosting habitat will be impacted within the Proposed Action Area.

Given the highly modified landscape within the Proposed Action it is considered unlikely that the Proposed Action Area will adversely affect habitat critical to the survival of Baudin's Cockatoo, disrupt the breeding cycle of a population, or decrease the availability or quality of habitat to the extent that the Black Cockatoos will decline.

Refer to Section 6 of the Supporting Document (see Attachment B) for further information.

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Species or threatened ecological community

Calyptorhynchus banksii naso Forest Red-tailed Black Cockatoo (Vulnerable)

Impact

The Proposed Action is within the known distribution and breeding range of all three Black Cockatoo species and will require the clearing of up to 57.6 ha consisting of:

Foraging Habitat
- 13.4 ha of high quality foraging habitat.
- 2.9 ha of low quality foraging habitat.

Roosting habitat
- 47.2 ha of high quality potential roosting habitat.
- 7.4 ha of low quality potential roosting habitat.

Breeding habitat
- 13.4ha of high quality breeding habitat.

572 Suitable Diameter Breast Height trees (>500 mm) none of which contain known nesting hollows, 34 trees contain hollows that are not suitable for nesting by Black Cockatoos.

In assessing the potential impact to Forrest Red-tailed Black Cockatoo against the referral guidelines, the following information is provided:
- The Proposed Action will result in removal of 572 Suitable Diameter Breast Height trees (Black Cockatoos) none of which contain known nesting hollows, 34 trees contain hollows that are not suitable for nesting by Black Cockatoos.
- The Proposed Action will result in the removal of 13.4ha of high quality foraging habitat and 2.9ha of low quality foraging habitat.
- The Proposed Action will result in the removal of 47.5ha of low quality roosting habitat and 7.4ha of low quality potential roosting habitat. No known roosting trees were recorded during the survey.
- Removal of potential foraging habitat within the Proposed Action Area will not create a gap greater than 4 km between patches of Black Cockatoo habitat.

Based on the information provided above it is considered unlikely that the Proposed Action will result in a significant impact as defined by the referral guidelines as:
- No known nesting trees are being impacted, nor is any vegetation community known to contain breeding habitat;
- The Proposed Action is considered to contain mostly relatively small amount of high quality foraging habitat based on the degraded nature of vegetation within the Proposed Action (see Attachment A Figure 8). Based on vegetation type, it is estimated that there is approximately 8,515ha of Black Cockatoo foraging habitat in a 12km radius. This would result in a reduction 0.2% of the habitat in a 12km radius (See Attachment A Figure 9).
- No confirmed roosting habitat will be impacted within the Proposed Action Area.

Given the highly modified landscape within the Proposed Action it is considered unlikely that the Proposed Action will adversely affect habitat critical to the survival of Forest Red-tailed Black Cockatoo, disrupt the breeding cycle of a population, or decrease the availability or quality of habitat to the extent that the Black Cockatoos will decline.

Refer to Section 6 of the Supporting Document (see Attachment B) for further information.

Species or threatened ecological community

Pseudocheirus occidentalis Western Ringtail Possum (Critically Endangered)

Impact

The Proposed Action is within the known distribution of the Western Ringtail Possum (WRP) and will require clearing of up to (Figure 10):
- 4.5 ha of Core Habitat.
- 0.9 ha of Core Urban Habitat.
- and 35.8 ha of Supporting habitat.

Other habitat includes:
- 17.6 ha of Linkage Habitat.
- 6.9 ha of Likely Linkage Habitat.

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Clearing of native vegetation within the Proposed Action will result in impacts upon the home ranges (to varying degrees) of approximately 13 WRPs recorded in core habitat and core (urban) habitat sampling across the Proposed Action.

The clearing associated with this Proposed Action relates to a road corridor, and is typically no more than 100 m wide in areas that intersect WRP habitat (Figure 4). Where WRP have been recorded, WRP habitat occurs within or in close proximity to the Proposed Action. Accordingly, it is considered that home ranges of individual WRPs will be affected to varying degrees.

Based on analysis of a regional survey undertaken to provide context to the potential impacts by the Proposed Action; the population of WRPs for the 'Around Albany' sub population was estimated at 3.142 individuals (Biota, 2019b). The 26 individuals utilising habitat impacted by the Proposed Action therefore represent approximately less than 0.8% of the sub-population.

The Proposed Action will potentially result in the loss of up to approximately 41.2 ha of habitat for the WRP and impact to the home ranges (to varying degrees) of approximately 26 WRP estimated to utilise the habitat to be disturbed by the Proposed Action as well as 5 dreys. The loss of up to 41.2 ha of habitat of varying value may result in a minor to negligible residual impacts to the species when considered in the regional context.

Refer to Section 6 of the Supporting Document (see Attachment B) for further information.

2.4.2 Do you consider this impact to be significant?

☐ Yes ☑ No

2.5 Is the proposed action likely to have any direct or indirect impact on the members of any listed migratory species or their habitat?

☐ Yes ☑ No

2.6 Is the proposed action to be undertaken in a marine environment (outside Commonwealth marine areas)?

☐ Yes ☑ No

2.7 Is the proposed action likely to be taken on or near Commonwealth land?

☐ Yes ☑ No

2.8 Is the proposed action taking place in the Great Barrier Reef Marine Park?

☐ Yes ☑ No

2.9 Is the proposed action likely to have any direct or indirect impact on a water resource from coal seam gas or large coal mining development?

☐ Yes ☑ No

2.10 Is the proposed action a nuclear action?

☐ Yes ☑ No

2.11 Is the proposed action to be taken by a Commonwealth agency?

☐ Yes ☑ No

2.12 Is the proposed action to be undertaken in a Commonwealth Heritage place overseas?

☐ Yes ☑ No

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2.13 Is the proposed action likely to have any direct or indirect impact on any part of the environment in the Commonwealth marine area?

☐ Yes ☑ No

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Section 3

Description of the project area

3.1 Describe the flora and fauna relevant to the project area

Flora

A flora and vegetation assessment was completed for the Proposed Action (Southern Ecology 2020). This included a desktop assessment of values within a 10km radius of the Proposed Action followed by detailed level and targeted species field surveys over three years from 2017 through to 2019 (Figure 3). A targeted survey was also completed for Prasophyllum paulinae (P1) (an orchid species listed under the Biodiversity Conservation Act 2016 (WA).

A total of 340 taxa from 65 families were recorded including 61 weed species. The dominant families recorded from the study area included:

- Fabaceae (38 taxa).
- Cyperaceae (27 taxa).
- Proteaceae (25 taxa).

Desktop searches of the EPBC Act Protected Matters Search Tool, NatureMap, DBCA Threatened and Priority Flora List and Western Australian Herbarium (WAHERB) databases identified the presence or potential presence of 35 conservation significant flora listed under State and Commonwealth legislation.

Results of the targeted species survey recorded four conservation significant flora from the Survey Area (Figure 5) (Stage 2 and 3b):

- Prasophyllum paulinae (P1): historical records from a private property within the survey area, with the precise location unknown. Targeted surveys of potential habitat were undertaken and no individuals recorded, however it appears this species may require fire to emerge.
- Synaphea incurva (P3): two populations, totalling eight individuals were recorded on road verges in the survey area.
- Andersonia sp. Jamesii (J. Liddelow 84) (P4): one population of 22 individuals was recorded in the large City of Albany Reserve on George St and one individual was recorded on Albany Highway.
- Thysanotus isantherus (P4): two individuals were recorded within the survey area on the western slopes of Mt Melville.

No threatened flora species listed under Commonwealth or State legislation were recorded in the Survey area(Southern Ecology 2020).

Refer to the Supporting Document (Attachment A) for further information regarding Flora relevant to the Proposed Action

Fauna

Southern Ecology (2020) conducted a general fauna habitat assessment for the entire Development Envelope across an area of 247 ha, including a targeted species survey for Black Cockatoos and Western Ringtail Possums.

The NatureMap database search (DBCA 2019) identified 730 fauna species previously recorded within 10 km of the Proposed Action., This total comprised 262 birds, 37 reptiles, 52 mammals, 12 amphibians, and 148 invertebrates and 219 fish. Of the 730 fauna species previously recorded, 714 were native species and 16 were naturalised (introduced) species.

Searches of the EPBC Act Protected Matters database, DBCA NatureMap database and previous studies identified the presence/ potential presence of conservation significant fauna species within 10 km of the Study Area. The desktop searches undertaken by Southern Ecology (2018) recorded:

- 22 species listed under the EPBC Act and/or the BC Act.
- 19 migratory bird species protected under international agreement.
- seven DBCA Priority listed species.

The fauna survey work undertaken by Southern Ecology identified the following general findings on the five fauna habitats found within the Proposed Action:

- the Hakea spp. Shrubland/Woodland Complex offers potential foraging habitat for Carnaby's Black Cockatoos and offers habitat for Western Ringtail Possums.
- the Jarrah/Marri/Sheoak Laterite Forest offers potential foraging, breeding and roosting habitat for all three Black Cockatoo species, provides potential suitable habitat for Western Ringtail Possum, Quenda and may provide potential habitat for the South-Western Brush-tailed Phascogale, Masked Owl and Fork-tailed Swift.
- the Homalospermum firmum/Callistemon glaucus Peat Thicket offers potential foraging and roosting habitat for Carnaby's Black Cockatoos, Western Ringtail Possums, Quenda and may offer habitat for the Fort-tailed Swift.
- non-native planted vegetation offers potential roosting habitat for all three Black Cockatoo species, habitat for Quenda and the Fort-tailed Swift.
- non-native areas where invasive weeds comprise >75% of the vegetation offer potential habitat for Quenda and may offer habitat for the Fort-tailed Swift.

Refer to the Supporting Document (Attachment A) for further information regarding Fauna relevant to the Proposed Action.

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3.2 Describe the hydrology relevant to the project area (including water flows)

The Proposed Action is located within the Denmark Basin in the South West Division within the Torbay Inlet and Oyster Harbour Kalgan King Catchments. The Oyster Harbour Kalgan King Catchment includes the Princess Royal and Oyster Harbours and their tributaries, including the Kalgan River, King River and Napier Creek.

The Proposed Action lies within the 75km2 Parker Brook, Willyung Creek, Munsterhill Drain, and Five Mile Creek catchment. The Proposed Action is altered by artificial channels installed in the late 19th century to drain peaty swamps for agriculture. The Proposed Action crosses a tributary and altered main channel of the Robinson Road Drain, lies north of a low lying drainage or floodplain which drains south into Lake Powell. The Proposed Action of the Albany Ring Road alignment crosses a tributary of Five Mile Creek approximately 500 m north of the South Western Highway.

Oyster Harbour is the closest Nationally Important Wetland which occurs 8 km east of the Survey Area and is hydrologically discrete.

The Proposed Action is within Albany Groundwater Area proclaimed under the Rights in Water Irrigation Act 1914 (WA) (RIWI Act) (GHD 2019a). There are no Proclaimed Surface Water Areas within the Proposed Action Area.

No rivers proclaimed under the RIWI Act will be impacted by the Proposed Action although a number of minor drainage lines (not proclaimed under the RIWI Act) will be impacted, including the Munster Hill Drainage Open Earth Channel which intersect the ARR.

The Proposed Action will impact on the northern extent of the Albany Groundwater Protection Area' (GPA) protected under the RIWI Act. The Lower Denmark Road forms the northern boundary. The Proposed Action is also located within the boundary of the South Coast Water Reserve' managed under Country Areas Water Supply (CAWS) Act (1947).

The closest Public Drinking Water Source Area (PWDSA) is the Marbelup Water Reserve, located approximately 7 km west of the study area. The Proposed Action is not within a proclaimed Waterways Conservation Area.

There are no wetlands listed under Convention on Wetlands of International Importance (RAMSAR) intersected by the Proposed Action. The closest RAMSAR Wetland is the Muir-Byenup System, which is 110km from the Proposed Action

The closest wetland is the Gledhow Conservation Class wetland, located approximately 250m-500m south-south west of the Proposed Action.

Refer to the Supporting Document (Attachment B) for further information regarding hydrology and the Proposed Action.

3.3 Describe the soil and vegetation characteristics relevant to the project area

Soil Types

Seven soil-landscapes (DAFWA 2017) were mapped within the Development Envelope during the survey:

- Collis yellow duplex - Gravelly yellow duplex soils.
- Owingup Subsystem - Plains with swamps, lunettes and dunes. Yellow solonetzic soils, organic loams and diatomaceous earth.
- Mattaband yellow duplex Phase - Gravelly yellow and yellow duplex soils.
- Minor Valleys S7 slope Phase - Broad valleys in sedimentary rocks; 30 m relief; smooth slopes. Deep sands and iron podzols on slopes.
- Dempster crest - Sands and laterite on elongate crests forest.
- Dempster slope - Sands and gravels on smooth slopes.
- Gardner granite - Granite outcrop.

Acid sulphate soils

An assessment of risk to the environment by Acid Sulphate Soil (ASS) indicates that the majority of Stage 2 (Lower Denmark Road) is located in an area having a 'High to moderate ASS disturbance risk (<3 m from surface)'.

Stage 3b is predominantly 'Low to no risk of ASS'. There is however a minor area of Moderate to low ASS disturbance risk (<3 m from surface) on the western side of George Street associated with a drainage line.

Vegetation

The Proposed Action is located within the Jarrah Forest Interim Biogeographic Regionalisation of Australia (IBRA) region and the Southern Jarrah Forest subregion (JF2) (DoTE 2014b). The Southern Jarrah Forrest sub-region is characterised by Jarrah-Marri forest on laterite gravels and in the eastern part, by Wandoo - Marri woodlands on clayey soils., Jarrah forests occur in a mosaic with a variety of species-rich shrublands (DotE 2014b).

The pre-European vegetation mapping (Beard 1979) has been adapted and digitised by Shepherd et al. (2002). The extent of the vegetation associations affected by the Project have been determined by the state-wide vegetation remaining extent calculations maintained by the DBCA. The Proposed Action comprises of two vegetation units:

- 978 - Low forest; jarrah, Eucalyptus staeri and Allocasuarina fraseriana.
- 3 - Medium forest; jarrah-marri.

Vegetation types

The Proposal Area (137.7 ha) consists of 29.4 ha of native vegetation (comprising the upland, granites and wetland vegetation types). The Proposed Action also contained 34.3 ha of revegetation or planted species, 15.7 ha of non native vegetation and 58.3 ha of cleared area.

Thirteen native vegetation association were described in the 338 ha Survey Area, four occur exclusively in wetland habitats, three are associated with granite outcrops and six generally occur on uplands of sand or predominantly laterite. 'Three granite shrublands/woodland combinations occurred that varied below the resolution of mapping used in this assessment 1:5000, therefore were mapped as mosaics (all mosaics represent 50% proportions of each association)'. Remnant vegetation covered 80.7 ha or 24 % of the Survey Area with in varying condition from Completely Degraded to Excellent (see Attachment A Figure 4).

Disturbed areas comprised of roads, tracks, commercial or residential areas and pasture. In addition to the remnant vegetation unit mapping, three other classes of vegetation were mapped including weeds, revegetation or plantations.

Southern Ecology (2020) described ten vegetation communities within the Proposed Action, these included two granite, five upland and three wetland vegetation types:.

- Evandra aristata Sedgeland.
- Hakea spp Shrubland/Woodland Complex Homalospermum firmum/Callistemon glaucus Peat Thicket Jarrah/Marri/Sheoak Laterite Forest Jarrah/Sheoak/E.staeri Sandy Woodland.
- Marri/Jarrah Forest/Peppermint Woodland.
- Mosaic T. marginata/Gastrolobium bilobum Granite Shrubland/Yate Woodland Peppermint Low Forest.
- Taxandria marginata Granite Shrubland.
- Revegetation/Plantation (Non-native)/Cleared/Completely Degraded.

Two Threatened and four Priority Ecological Communities occur in the vicinity, however no vegetation community in the Survey Area meets the requisite criteria for these communities. The Subtropical and Temperate Coastal Saltmarsh TEC (Vulnerable) occurs approximately 100m from the Survey Area on the margin of Princess Royal Harbor and is confined to marine saline habitats (DotE 2013). The Survey Area falls outside (~6 km) the South East Coastal Botanical Provence, therefore the Proteaceae Dominated Kwongkan Shrubland TEC (Endangered) is not applicable to vegetation within the Survey Area (DotE 2014a).

It has been suggested that the peatland vegetation associations are considered to be the ecological community 'Empodisma gracillimum based peatland communities of the high rainfall zones of South-West Western Australia'. This community does not currently have any statutory listing and can not be confirmed as part of this assessment.

Refer to the Supporting Document (Attachment A) for further information regarding soil and vegetation and the Proposed Action.

3.4 Describe any outstanding natural features and/or any other important or unique values relevant to the project area

No further outstanding natural features and/or any other important or unique values are relevant to the Proposed Action

3.5 Describe the status of native vegetation relevant to the project area

The Proposed Action (137.7 ha) consists of 29.4 ha of native vegetation (comprising the upland, granites and wetland vegetation types). The Proposed Action also contained 34.3 ha of revegetation or planted species, 15.7 ha of non native vegetation and 58.3 ha of cleared area.

The majority of the Development Envelope consists of cleared or non naitve vegetation, therefore has not been provided a vegetation condition (108.3 ha). Of the native vegetation present the vegetation condition is outlined below:

- Excellent 5.8ha
- Very Good 7.1ha
- Good 1.1ha
- Degraded 8.1ha
- Completely Degraded 7.3ha
- Cleared or non native vegetation 108.3ha

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The threshold level below which species loss appears to accelerate exponentially at an ecosystem level is regarded as being at 30 per cent of the pre-European extent of the vegetation type. The vegetation associations (978 and 3) that occur within the Proposed Action retain more than the recommended 30 per cent threshold.

3.6 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area

Topography ranges from 10 – 35 m AHD with the more elevated areas located within Stage 3b and the lower areas within Stage 2.

3.7 Describe the current condition of the environment relevant to the project area

The landscape around the Proposed Action is highly modified, with scattered patches of remnant vegetation remaining. The area has been cleared for a variety of land uses including: agriculture, transport (road and rail) and industrial activity. Much of the remnant vegetation remaining in the vicinity of the Proposed Action Area lies within or near granite outcrops that are difficult to develop.

Current and past land uses have contaminated or potentially contaminated land in and around the Proposed Action. These include a landfill off Albany Port Road, a fertilizer plant off Lower Denmark Road and an informal landfill in bushland near George Street. Various other industrial activities are being undertaken along Lower Denmark Road.

Historical clearing and weeds have influenced the structure and composition of the native vegetation. Sixty-one weeds were recorded from remnant vegetation (Southern Ecology 2020). Five significant weeds were recorded and mapped within the Survey Area.

Current and past land uses have contaminated or potentially contaminated land in and around the Proposed Action. These include a landfill off Albany Port Road, a fertilizer plant off Lower Denmark Road and an informal landfill in bushland near George Street. Various other industrial activities are being undertaken along Lower Denmark Road.

3.8 Describe any Commonwealth Heritage places or other places recognised as having heritage values relevant to the project

No World Heritage Properties or Commonwealth Heritage Places occur within 10 km of the Proposed Action Area (DEE 2018).

The Proposed Action will impact upon the Gledhow Railway Siding (Municipal Inventory 15610) and the Proposed Action may impact upon empty concrete, steel lined above ground storage tanks, approximately 30 m in diameter, previously used for bulk fuel storage of fuel by the Navy during World War II. These Tanks are not listed on any Heritage Listing.

3.9 Describe any Indigenous heritage values relevant to the project area

There are no Aboriginal Heritage sites or areas affected by the Proposed Action.

Support in principle from the Wagyl Kaip Southern Noongar People has been obtained for the Proposed Action.

3.10 Describe the tenure of the action area (e.g. freehold, leasehold) relevant to the project area

The Proposed Action Area intersects Crown, Freehold and Reserve land titles and easements, plus a combination of Easement, Primary Road and Other (e.g. railway, water, and vacant Crown land) lot types.

All land required for the Proposed Action will be acquired by Main Roads prior to construction activities under the WA Land Administration Act 1997.

3.11 Describe any existing or any proposed uses relevant to the project area

The current land uses range from Agricultural land, Rural Land, Rail Reserve Road Reserve and Industrial Land. The proposed use for the land is road reserve for the purpose of providing alternate new primary route for freight to access the Port of Albany

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Section 4

Measures to avoid or reduce impacts

4.1 Describe the measures you will undertake to avoid or reduce impact from your proposed action

The proposal has been located in disturbed areas as much as possible, with approximately 90 per cent of the Proposed Action Area considered to be cleared, completely degraded or degraded.

The Project will seek to minimise its impacts within the Development Envelope, where possible, during the detailed design process.

An EMP will be prepared to minimise the environmental impacts associated with the proposed action as well as identifying areas of responsibilities required for the implementation of management strategies. The EMP will be implemented prior to construction, during construction and post construction works.

4.2 For matters protected by the EPBC Act that may be affected by the proposed action, describe the proposed environmental outcomes to be achieved

The Proposed Action will result in impacts on EPBC listed fauna including:
Black Cockatoos

- Loss of up to 16.3 ha of foraging habitat.
- Loss of up to than 572 Suitable DBH Trees; of which 34 have hollows none of which had suitable nest hollows for Black Cockatoos.
- Loss of up to 54.6 ha of potential roosting habitat.

Western Ringtail Possum

- Loss of up to 4.5 ha of core habitat.
- Loss of up to 0.9 ha of core urban habitat
- Loss of up to 35.8 ha of supporting habitat
- Reduction in home ranges of approximately 26 individual WRPs (representing less than 0.8% of the regional population.

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Section 5

Conclusion on the likelihood of significant impacts

5.1 You indicated the below ticked items to be of significant impact and therefore you consider the action to be a controlled action

- ☐ World Heritage properties
- ☐ National Heritage places
- ☐ Wetlands of international importance (declared Ramsar wetlands)
- ☐ Listed threatened species or any threatened ecological community
- ☐ Listed migratory species
- ☐ Marine environment outside Commonwealth marine areas
- ☐ Protection of the environment from actions involving Commonwealth land
- ☐ Great Barrier Reef Marine Park
- ☐ A water resource, in relation to coal seam gas development and large coal mining development
- ☐ Protection of the environment from nuclear actions
- ☐ Protection of the environment from Commonwealth actions
- ☐ Commonwealth Heritage places overseas
- ☐ Commonwealth marine areas

5.2 If no significant matters are identified, provide the key reasons why you think the proposed action is not likely to have a significant impact on a matter protected under the EPBC Act and therefore not a controlled action

Although the project will be impacting on Black Cockatoo and WRP habitat, the loss of this habitat is not considered significant. With the management measures proposed, no individuals are expected to be harmed during construction works.

Western Ringtail Possum

The Proposed Action will potentially result in the loss of up to 4.5 ha of core habitat, 0.9 ha of core (urban) habitat, and up to 35.8 ha of supporting habitat. There is approximately 5,128 ha of core and supporting habitat available within a 5 km radius of the Proposed Action Area. Proposed impacts to Core, Core (urban) (Biota 2019b), Supporting and Linkage habitat will have limited impacts on the amount of habitat remaining in the local area. Proposed revegetation of approximately 20 ha including previously cleared areas will increase the amount of vegetation available for the north south linkage along the Proposed Action alignment. This, combined with the integration of engineering structures for fauna passes in specific areas where the Proposed Action intersects habitats, will maintain ecological linkages and area of occupancy for the species.

Based on density estimates for the Proposed Action Area (2.45 possums per ha in Core and Core urban habitat and 0.14 to 0.36 possums per ha in Supporting habitat), the Proposed Action will disturb and clear habitat utilised by an estimated 26 Western Ringtail Possums. It is estimated that there are more than 3000 individual Western Ringtail Possums in the sub-population around Albany (Biota 2019b), therefore the proposed clearing will disturb less than 0.9% of the local population and less than 0.1% of the estimated total species population (noting disturbance only with no mortalities expected).

An assessment against the impact criteria for Critically Endangered species outlined in the Significant Impact Guidelines 1.1 – Matters of National Environmental Significant (DotE 2013) was completed (refer to the Supporting Document (Attachment B)). Based on the significant impact assessment, the Proposed Action is not likely to have a significant impact on nationally listed threatened species or ecological communities.

Black Cockatoos

In determining the significance of clearing up to 57.6 ha of black cockatoo habitat, an assessment was undertaken against the impact criteria for endangered species outlined in DAWE's Significant Impact Guidelines 1.1 – Matters of National Environmental Significance (DotE 2013) and the EPBC Act referral guidelines for three threatened black cockatoo species (Commonwealth of Australia, 2012).

No known nesting trees will be cleared by the Proposed Action. No confirmed breeding sites were identified within 10 km of the Proposed Action. The removal of 572 suitable DBH trees is not expected to lead to a decrease in population. It is noted that a further 396 suitable trees were mapped in the surrounding survey area.

Biota (2019a) has estimated that at least 8,756 ha of native vegetation is present within 12 km of the Proposed Action, constituting foraging habitat for Black Cockatoo. Additional non-native foraging habitat is also likely to occur in this area. This 12 km radius was chosen as it represents the typical maximum distance that Black Cockatoos will fly from roosting or breeding locations to forage (Biota, 2019a). The clearing of up to 57.6 ha of potential habitat for Black Cockatoos is likely to be minor on a local or regional scale. This clearing represents 0.27% of suitable native vegetation in the region (12 km radius), not taking into account non-native vegetation such as plantation. The clearing of up to 57.6 ha of potential habitat for Black Cockatoos is likely to be minor on a local or regional scale.

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

No roosting evidence was recorded within the Proposed Action Area.

Given the scale and nature of the Proposed Action, having regard to the Significant Impact 1.1 Guidelines and the EPBC Act referral guidelines for three threatened black cockatoo species, it is considered the clearing of up to 57.6 ha of black cockatoo habitat is not significant.

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Section 6

Environmental record of the person proposing to take the action

6.1 Does the person taking the action have a satisfactory record of responsible environmental management? Explain in further detail

Main Roads is a State Government agency with an assured record of responsible environmental management and performance.

Main Roads has a strong environmental compliance record, with Main Roads remaining in compliance with all conditions of environmental approvals granted under the Environment Protection and Biodiversity Conservation Act 1999 (C'th) and the Environmental Protection Act 1986 (WA).

Main Roads operations are undertaken in accordance with an Environmental Policy, which outlines Main Roads overarching objectives for environmental protection, sustainability and continual improvement in environmental performance. This project also conforms to the Infrastructure Sustainability Council of Australia framework for contaminated sites, acid sulphate soils management and stakeholder engagement.

The Environmental Policy is implemented through Main Roads international standard AS/NZS ISO 14001:2015-certified Environmental Management System (EMS).

6.2 Provide details of any past or present proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against either (a) the person proposing to take the action or, (b) if a permit has been applied for in relation to the action – the person making the application

Not Applicable

6.3 If it is a corporation undertaking the action will the action be taken in accordance with the corporation's environmental policy and framework?

☑ Yes ☐ No

6.3.1 If the person taking the action is a corporation, provide details of the corporation's environmental policy and planning framework

Main Roads EMS is independently certified and covers the processes and activities that have the potential to impact the environment. The EMS ensures compliance with Main Roads environment and heritage compliance obligations, providing the framework for driving environmental requirements through leadership, planning, support, operation, performance evaluation and improvement actions. The action will be undertaken, monitored and measured in accordance with the Main Roads EMS.

Main Roads Environmental Policy commits to protecting and enhancing the natural environmental and social values in all Main Roads activities.

Main Roads Environment Policy and EMS certificate is publicly accessible from: https://www.mainroads.wa.gov.au/OurRoads/Environment/Pages/environmentalmanagement.aspx

6.4 Has the person taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?

☑ Yes ☐ No

6.4.1 EPBC Act No and/or Name of Proposal

During the past 24 months Main Roads has made more than 10 referrals which includes the following actions:

2019/8608 Tonkin Highway Extension – Thomas Road to South Western Highway
2019/8545 Tonkin Highway Upgrade, Guildford Road to Great Eastern Highway, WA
2019/8543 Bunbury Outer Ring Road Southern Section project, WA
2019/8529 Tonkin Highway Grade Separated Interchanges
2019/8477 Bindoon Bypass - Northern Section, WA
2019/8471 Bunbury Outer Ring Road Northern and Central Section Project, WA
2018/8367 Mitchell Freeway Extension and Wanneroo Road Upgrade, WA
2018/8346 Western Australia/Indian Ocean Drive Widening, Gingin Shire, WA
2018/8279 Sth Coast Hwy Road Widening, Albany, WA
2018/8238 Northam Cranbrook Road widening, Katanning, WA

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Section 7

Information sources

Reference source

Archae-aus. (2020). Non-Indigenous Heritage Impact Assessment of The Albany Ring Road Stages 2, 3 & 4, January 2020, By Archae-aus Pty Ltd. Unpublished report prepared for Main Roads Western Australia

Reliability

Reliable

Uncertainties

None

Reference source

Biota. (2020). Albany Ring Road Western Ringtail Possum Assessment. Unpublished report prepared for Main Roads Western Australia.

Reliability

Reliable

Uncertainties

None

Reference source

Biota. (2019a). Albany Ring Road Cockatoo Habitat Assessment. Unpublished report prepared for Main Roads Western Australia.

Reliability

Reliable

Uncertainties

None

Reference source

Biota. (2019b). Albany Heritage Park Trail: Western Ringtail Possum Impact Assessment. Unpublished report prepared for City of Albany. Leederville, Western Australia, Biota Environmental Sciences Pty Ltd.

Reliability

Reliable

Uncertainties

None

Reference source

Brad Goode & Associates. (2019). Report on The Aboriginal Heritage Survey of Albany Ring Road Stages 2 to 4 (Additional Areas), Albany, Western Australia‘. Dunsborough: Brad Goode & Associates.

Reliability

Reliable

Uncertainties

None

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Reference source

DSEWPaC (2012). EPBC Act referral guidelines for three threatened black cockatoo species: Carnaby's Cockatoo (Endangered) Calyptorhynchus latirostris Baudin's Cockatoo (Vulnerable) Calyptorhynchus baudinii Forest Red-tailed Black Cockatoo (Vulnerable) Calyptorhynchus banksii naso. Canberra. Department of the Environment and Energy

Reliability

Reliable

Uncertainties

None

Reference source

DEWHA. (2009). Significant Impact guidelines for the vulnerable western ringtail possum (Pseudocheirus occidentalis) in the southern Swan Coastal Plain, WA. Perth. Western Australia.

Reliability

Reliable

Uncertainties

None

Reference source

Department of Agriculture and Food Western Australia [DAFWA] (2017) NRM SLIP. Available from: https://maps.agric.wa.gov.au/nrinfo/

Reliability

Reliable

Uncertainties

None

Reference source

GHD. (2020). Main Roads WA, Report on Albany Ring Road Stage 2 and 3, EPBC Supporting Document. July 2020 Unpublished report for Main Roads Western Australia.

Reliability

Reliable

Uncertainties

None

Reference source

Government of Western Australia. (2019). Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019. Accessed: WA Department of Biodiversity, Conservation and Attractions: https: //catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics

Reliability

Reliable

Uncertainties

None

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Reference source

Southern Ecology. (2020). Biological Survey: Albany Ring Road. Report prepared for Main Roads Western Australia, February 2018. Unpublished report prepared for Main Roads Western Australia.

Reliability

Reliable

Uncertainties

None

Reference source

TSSC. (2018a). Conservation Advice Calyptorhynchus baudinii (Baudin's Cockatoo). Canberra: Department of the Environment and Energy. Accessed: https://environment.gov.au/biodiversity/threatened/nominations/comment/baudins-cockatoo

Reliability

Reliable

Uncertainties

None

Reference source

Brad Goode & Associates. (2006). Report on The Aboriginal Heritage Survey of Albany Ring Road Stages 2 and 3, Albany, Western Australia‘. Dunsborough Brad Goode & Associates.

Reliability

Reliable

Uncertainties

None

Reference source

Beard J S 1979, Vegetation Survey of Western Australia: the Vegetation of the Perth Area Western Australia, map and explanatory memoir 1:250,000 series, Applecross: Vegmap Publications.

Reliability

Reliable

Uncertainties

None

Reference source

Shepherd, DP, Beeston, GR, & Hopkins, AJM (2002) Native Vegetation in Western Australia: Extent, Type and Status. Resource Management Technical Report 249.

Reliability

Reliable

Uncertainties

Certain

Reference source

Department of the Environment [DotE] (2013) Conservation Advice for Subtropical and Temperate Coastal Saltmarsh.

Reliability

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Reliable

Uncertainties

None

Reference source

Department of the Environment [DotE] (2014a) Approved Conservation Advice for Proteaceae Dominated Kwongkan Shrublands of the southeast coastal floristic province of Western Australia. Department of the Environment and Energy [DotEE] (2019a) Protected Matters Search Tool. URL:

Reliability

Reliable

Uncertainties

None

Reference source

Department of the Environment [DotE] (2014b) Interim Biogeographic Regionalisation of Australia, Version 7. Available from: http://www.environment.gov.au/topics/land/nrs/ science-maps-anddata/
australiasbioregions-ibra.

Reliability

Reliable

Uncertainties

None

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Section 8

Proposed alternatives

Do you have any feasible alternatives to taking the proposed action?

Yes ☑ No

Appendix A Attachments

The following attachments have been supplied with this supplied with this EPBC Act Referral:

1. Albany Ring Road EPBC Supporting Document
2. Albany Ring Road Biological Survey
3. Albany Ring Road Western Ringtail Possum Survey
4. Albany Ring Road Black Cockatoo Assessment
5. Albany Ring Road Aboriginal Heritage Survey 2006
6. Albany Ring Road Aboriginal Heritage Survey 2019