

## **Referral of proposed action**

#### What is a referral?

The *Environment Protection and Biodiversity Conservation Act 1999* (the **EPBC Act**) provides for the protection of the environment, especially matters of national environmental significance (**NES**). Under the EPBC Act, a person must not take an action that has, will have, or is likely to have a significant impact on any of the matters of NES without approval from the Commonwealth Environment Minister or the Minister's delegate. (Further references to 'the Minister' in this form include references to the Commonwealth Environment Minister or the Minister or the Minister's delegate.) To obtain approval from the Minister, a proposed action must be referred. The purpose of a referral is to enable the Minister to decide whether your proposed action will need assessment and approval under the EPBC Act.

Your referral will be the principal basis for the Minister's decision as to whether approval is necessary and, if so, the type of assessment that will be undertaken. These decisions are made within 20 business days, provided sufficient information is provided in the referral.

#### Who can make a referral?

Referrals may be made by or on behalf of a person proposing to take an action, the Commonwealth or a Commonwealth agency, a state or territory government, or agency, provided that the relevant government or agency has administrative responsibilities relating to the action.

#### When do I need to make a referral?

A referral must be made by the person proposing to take an action if the person thinks that the action for actions that has, will have, or is likely to have a significant impact on the following matters protected by Part 3 of the EPBC Act:

- World Heritage properties (sections 12 and 15A);
- National Heritage places (sections 15B and 15C);
- wetlands of international importance (sections 16 and 17B);
- listed threatened species and communities (sections 18 and 18A);
- listed migratory species (sections 20 and 20A);
- protection of the environment from nuclear actions (sections 21 and 22A);
- Commonwealth marine environment (sections 23 and 24A);
- Great Barrier Reef Marine Park (sections 24B and 24C);
- a water resource, in relation to coal seam gas development and large coal mining development (sections 24D and 24E);
- the environment, if the action involves Commonwealth land (sections 26 and 27A), including:
  - actions taken outside Commonwealth land that are likely to have a significant impact on the environment of Commonwealth land;
  - actions taken on Commonwealth land that may have a significant impact on the environment generally;
- the environment, if the action is taken by the Commonwealth (section 28); and
- Commonwealth Heritage places outside the Australian jurisdiction (sections 27B and 27C).

You may still make a referral if you believe your action is not going to have a significant impact, or if you are unsure. This will provide a greater level of certainty that Commonwealth assessment requirements have been met.

To help you decide whether or not your proposed action requires approval (and therefore, if you should make a referral), the following guidance is available from the Department's website:

 Submitting a referral under the EPBC Act – A fact sheet for a person proposing to take an action <u>http://www.environment.gov.au/epbc/publications/factsheet-environment-assessment-process</u>

- the Policy Statement titled Significant Impact Guidelines 1.1 Matters of National Environmental Significance <u>http://www.environment.gov.au/epbc/publications/significant-impact-guidelines-11-matters-national-</u> <u>environmental-significance</u> Additional sectoral guidelines are also available.
- the Policy Statement titled Significant Impact Guidelines 1.2 Actions on, or impacting upon, Commonwealth land, and actions by Commonwealth agencies <u>http://www.environment.gov.au/epbc/publications/significant-impact-guidelines-12-actions-or-impacting-upon-commonwealth-land-and-actions</u>
- the Policy Statement titled Significant Impact Guidelines: Coal seam gas and large coal mining developments— Impacts on water resources <u>http://www.environment.gov.au/resource/significant-impact-guidelines-13-coal-seam-gas-and-large-coal-mining-developments-impacts</u>
- the interactive map tool (enter a location to obtain a report on what matters of NES may occur in that location) <u>http://www.environment.gov.au/epbc/pmst/index.html</u>

#### Can I refer part of a larger action?

In certain circumstances, the Minister may not accept a referral for an action that is a component of a larger action and may request the person proposing to take the action to refer the larger action for consideration under the EPBC Act (Section 74A, EPBC Act). If you wish to make a referral for a staged or component referral contact the Referrals Gateway (1800 803 772).

#### Do I need a permit?

Some activities may also require a permit under other sections of the EPBC Act or another law of the Commonwealth. Information is available on the Department's web site.

#### Is your action in the Great Barrier Reef Marine Park?

If your action is in the Great Barrier Reef Marine Park it may require permission under the *Great Barrier Reef Marine Park Act 1975* (**GBRMP Act**). If a permission is required, referral of the action under the EPBC Act is deemed to be an application under the GBRMP Act (see section 37AB of the GBRMP Act). This referral will be forwarded to the Great Barrier Reef Marine Park Authority (**the Authority**) for the Authority to commence its permit processes as required under the *Great Barrier Reef Marine Park Regulations 1983* (**GBRMP Regulations**). If a permission is not required under the GBRMP Act, no approval under the EPBC Act is required (see section 43 of the EPBC Act). The Authority can provide advice on relevant permission requirements applying to activities in the Marine Park.

The Authority is responsible for assessing applications for permissions under the GBRMP Act, GBRMP Regulations and Zoning Plan. Where assessment and approval is also required under the EPBC Act, a single integrated assessment for the purposes of both Acts will apply in most cases. Further information on environmental approval requirements applying to actions in the Great Barrier Reef Marine Park is available from

http://www.gbrmpa.gov.au/ or by contacting GBRMPA's Environmental Assessment and Management Section on (07) 4750 0700.

The Authority may require a permit application assessment fee to be paid in relation to the assessment of applications for permissions required under the GBRMP Act, even if the permission is made as a referral under the EPBC Act. Further information on this is available from the Authority:

Great Barrier Reef Marine Park Authority

2-68 Flinders Street PO Box 1379 Townsville QLD 4810 AUSTRALIA Phone: + 61 7 4750 0700 Fax: + 61 7 4772 6093

www.gbrmpa.gov.au

#### What information do I need to provide?

Please complete all parts of this form to assist the Department to process your referral efficiently. If a section of the referral document is not applicable to your proposal, please enter N/A.

You can complete your referral by entering your information into this Word file.

#### Instructions

Instructions are provided in blue text throughout the form.

#### Attachments/supporting information

The referral form should contain sufficient information to provide an adequate basis for a decision on the likely impacts of the proposed action. You should also provide supporting documentation, such as environmental reports or surveys, as attachments.

Coloured maps, figures or photographs to help explain the proposed action and its location should also be submitted with your referral. Aerial photographs, in particular, can provide a useful perspective and context. Figures should be good quality as they may be scanned and viewed electronically as black and white documents. Maps should be of a scale that clearly shows the location of the proposed action and any environmental aspects of interest.

Please ensure any attachments are below five megabytes (5mb) as they will be published on the Department's website for public comment. To minimise file size, enclose maps and figures as separate files if necessary. If unsure, contact the Referrals Gateway (email address below) for advice. Attachments larger than five megabytes (5mb) may delay processing of your referral.

Note: The Minister may decide not to publish information that the Minister is satisfied is commercialin-confidence. If you believe that your referral contains information that is commercial-in-confidence, you must clearly identify such information and the reason for its confidentiality at the time of making the referral. The Minister cannot be satisfied that particular information included in a referral is commercial-in-confidence unless a person demonstrates to the Minister that:

- release of the information would cause competitive detriment to the person; and
- the information is not in the public domain; and
- the information is not required to be disclosed under another law of the Commonwealth, a State or a Territory; and
- the information is not readily discoverable.

#### How do I pay for my referral?

From 1 October 2014, the Australian Government commenced cost recovery arrangements for environmental assessments and some strategic assessments under the EPBC Act. If an action is referred on or after 1 October 2014, then cost recovery will apply to both the referral and any assessment activities undertaken. Further information regarding cost recovery can be found on the Department's website at: http://www.environment.gov.au/epbc/publications/cost-recovery-cris

If you are an individual or a small business, you may be exempt from paying the referral fee. See Part 9 of this form for further details.

You may apply for all or part of a fee to be waived. See Part 9 of this form for further details.

#### Payment of the referral fee can be made using one of the following methods: • EFT Payments can be made to:

BSB: 092-009 Bank Account No. 115859 Amount: \$7352 Account Name: Department of the Environment. Bank: Reserve Bank of Australia Bank Address: 20-22 London Circuit Canberra ACT 2601 Description: The reference number provided (see note below)

• **Cheque** - Payable to "Department of the Environment". Include the reference number provided (see note below), and if posted, address:

The Referrals Gateway Environment Assessment Branch Department of the Environment GPO Box 787 Canberra ACT 2601

#### Credit Card

Please contact the Collector of Public Money (CPM) directly (call (02) 6274 2930 or 6274 20260 and provide the reference number (see note below).

**Note**: an invoice will be raised and forwarded to you upon submission of your referral which will include the EPBC reference number for your referral.

#### How do I submit a referral?

Referrals may be submitted by mail or email.

#### Mail to:

Referrals Gateway Environment Assessment Branch Department of Environment GPO Box 787 CANBERRA ACT 2601

• If submitting via mail, please also provide electronic copies of documentation (on CD/DVD or by email)...

#### Email to: epbc.referrals@environment.gov.au

- Clearly mark the email as a 'Referral under the EPBC Act'.
- Attach the referral in a suitable electronic document format (e.g. Microsoft Word and, if possible, PDF).
- If submitting via email, please also mail a hardcopy of the referral including copies of any attachments or supporting reports.

#### What happens next?

Following receipt of a valid referral (containing all required information) you will be advised of the next steps in the process, and the referral and attachments will be published on the Department's web site for public comment. Any person may give the Minister comments on the referral within 10 business days of publication on the Department's website.

The Department will write to you within 20 business days to advise you of the outcome of your referral and whether or not assessment and approval under the EPBC Act is required. There are a number of possible decisions regarding your referral:

#### The proposed action is NOT LIKELY to have a significant impact and does NOT NEED approval

No further consideration is required under the environmental assessment provisions of the EPBC Act and the action can proceed (subject to any other Commonwealth, state or local government requirements).

#### The proposed action is NOT LIKELY to have a significant impact IF undertaken in a particular manner

The action can proceed if undertaken in a particular manner (subject to any other Commonwealth, state or local government requirements). The particular manner in which you must carry out the action will be identified as part of the final decision. You must report your compliance with the particular manner to the Department.

#### The proposed action is LIKELY to have a significant impact and does NEED approval

If the action is likely to have a significant impact a decision will be made that it is a *controlled action*. The particular matters upon which the action may have a significant impact (such as World Heritage values or threatened species) are known as the *controlling provisions*.

The controlled action is subject to a public assessment process before a final decision can be made about whether to approve it. The assessment approach will usually be decided at the same time as the controlled action decision. (Further information about the levels of assessment and basis for deciding the approach are available on the Department's web site.)

#### The proposed action would have UNACCEPTABLE impacts and CANNOT proceed

The Minister may decide, on the basis of the information in the referral, that a referred action would have clearly unacceptable impacts on a protected matter and cannot proceed.

#### For more information

- call the Department of the Environment Community Information Unit on 1800 803 772 or
- visit the web site <a href="http://www.environment.gov.au/epbc">http://www.environment.gov.au/epbc</a>

All the information you need to make a referral, including documents referenced in this form, can be accessed from the above web site.

# **Referral of proposed action**

Proposed	Proposed Clearing of Native Vegetation for the Purposes of Rural Conservation Development at Lot 9001 Rosewood Drive, Chittering,
action title:	Western Australia ("project area").

### 1 Summary of proposed action

#### 1.1 Short description

The proposal is the clearing of 25.08 ha of native vegetation for the purposes of a Rural Conservation development at Lot 9001 Rosewood Drive, Chittering, Western Australia ("project area" shown in Attachment 1).

The development involves the creation of 36 Rural Conservation lots and associated infrastructure within a 58.46 ha site. Approximately 18.83 ha of native vegetation will be retained in a dedicated Conservation Lot in the north of the project area. This Conservation Lot will have a conservation covenant placed on it as part of the proposed development.

A total of 30.70 ha of native vegetation will be retained as part of the proposed development, which represents approximately 55% of vegetation within the project area being retained. All potential black cockatoo breeding trees identified within the project area will be retained except where they fall within roads and firebreaks.

Note that approximately 2.68 ha of the project area consists of vehicle tracks with no vegetation.

The development has been designed to retain as much native vegetation as possible through the strict enforcement of building envelopes that will limit vegetation clearing. Development within each lot, including buildings, water tanks and waste disposal systems will be contained within a predetermined 2,000 m<sup>2</sup> envelope. The envelope size has been designed to allow flexibility in the siting of dwellings and it is not expected that the full building envelope will be cleared.

A 500m<sup>2</sup> dwelling and outbuilding footprint for each lot has been assumed for the purposes of calculating the area to be cleared. This is considered a conservative estimate as there will also be a Building Protection Zone (BPZ) around each building and in all likelihood landowners will minimise clearing to retain native vegetation.

The proposed clearing area of 25.08 ha is a conservative estimate based on:

- 500m<sup>2</sup> dwelling and outbuilding footprint
- The inclusion of all firebreaks, access roads and individual driveways
- 20m BPZ around dwelling footprints
- Retained vegetation parcels of under 2,500m<sup>2</sup> except in the Conservation Lot
- 20m separation between parcels of vegetation under 2,500m<sup>2</sup> to meet bushfire requirements (ICS Group 2015)

The position of each building envelope is indicative and the final building envelope plan will need to be approved by the Shire prior to subdivision approval. The overall area of clearing will remain the same if the positioning of building envelopes change. Any changes in building envelopes will also need to ensure that the number of potential black cockatoo breeding trees to be retained will remain the same.

1.2	Latitude and longitude	location poin	Latitude t degrees	minutes	Lor seconds deg	igitude jrees minut	es seconds	
The latitud longitude p	The latitude and longitude points	Location	Latitude			Longitud	le	
	bounding the	Point	aegrees	minutes	seconas	aegrees	minutes	seconds
	project area are displayed in the table, with the Location Points referenced in Attachment 2. 3 4	1	31	30	42.227 S	116	0	22.039 E
		2	31	30	42.242 S	116	1	2.865 E
		3	31	31	1.196 S	116	0	57.169 E
		4	31	31	1.171 S	116	0	22.034 E

#### 1.3 Locality and property description

The project area is located at Lot 9001 Rosewood Drive, Chittering, Western Australia. The project area is located within the Shire of Chittering approximately 50 km north east of Perth (Attachment 1).

The project area is bounded by bushland and Reserve Road to the west, rural residential lots along Rosewood Drive to the east, rural residential lots to the south and agricultural land to the north.

 Size of the development footprint or work area (hectares)
 The project area covers approximately 58.46 ha. The proposed clearing footprint is 25.08 ha.

 1.5
 Street address of the site
 The street address is 356 Reserve Road, Chittering however the Lot description is Lot 9001 Rosewood Drive, Chittering.

#### 1.6 Lot description

Lot 9001 (on Plan 60794) Rosewood Drive, Chittering, Western Australia

#### 1.7 **Local Government Area and Council contact (if known)** Shire of Chittering

#### 1.8 Time frame

The construction of the development will take place after all relevant approvals are obtained.

1.9	1.9 Alternatives to proposed action Were any feasible alternatives to taking the proposed action (including not taking the action) considered which are not proposed?		Νο
		V	Yes, please also complete section 2.2 A higher density subdivision had previously been approved by the Western Australian Planning Commission (WAPC). However, a better conservation outcome was considered desirable following discussions with the Shire of Chittering. Therefore the current Structure Plan has been designed to retain as much native vegetation as possible.
1.10	Alternative time	✓	No

	frames, locations or activities Does the proposed action include alternative time frames, locations or activities?		Yes, you must also complete Section 2.3. For each alternative, location, time frame, or activity identified, you must also complete details in Sections 1.2-1.9, 2.4-2.7 and 3 and 5 (where relevant).
1.11	Commonwealth, State or Territory assessment	✓	No
	Is the action subject to other a Commonwealth, State or Territory environmental impact assessment?		Yes, please also complete section 2.5
1.12	Component of	~	No
	Is the proposed action a component of a larger action?		Yes, please also complete section 2.7
1.13	Related		No
	actions/proposals Is the proposed	✓	Yes, provide details:
	action related to other actions or proposals in the region?		The development of Lot 2 Reserve Road Chittering, south of the project, is related to the proposal as it is within the same Shire of Chittering Town Planning Scheme (TPS) Amendment (No. 55) and Structure Plan approved by the WAPC. While related as per the above, each project sits within a different cadastral lot, has a different development style, a different development timeframe, and a different environmental setting.
			Lot 2 consists of a former wildflower farm that has been cleared and is proposed to be developed for residential housing (R2). A subdivision application for Lot 2 has been lodged with the WAPC. The proposed development on Lot 2 is not considered likely to have an impact on any MNES and is therefore will not be referred under the <i>Environment</i> <i>Protection and Biodiversity Conservation Act 1999</i> (EPBC Act).
1.14	Australian	$\checkmark$	No
	funding Has the person proposing to take the action received any Australian Government grant funding to undertake the proposed action?		Yes, please also complete section 2.8
1.15	Great Barrier Reef	<ul> <li>✓</li> </ul>	No
	Is the proposed action inside the Great Barrier Reef Marine Park?		Yes, please also complete section 3.1 (h), 3.2 (e)

# 2 Detailed description of proposed action

#### 2.1 Description of proposed action

The proposal is the clearing of 25.08 ha of native vegetation for the purposes of a Rural Conservation development at Lot 9001 Rosewood Drive, Chittering, Western Australia ("project area" shown in Attachment 1).

The development involves the creation of 36 Rural Conservation lots and associated infrastructure within a 58.46 ha site. Approximately 18.83 ha of native vegetation will be retained in a dedicated Conservation Lot in the north of the project area. This Conservation Lot will have a conservation covenant placed on it as part of the proposed development.

A total of 30.70 ha of native vegetation will be retained as part of the proposed development, which represents approximately 55% of vegetation within the project area being retained. All potential black cockatoo breeding trees identified within the project area will be retained except where they fall within roads and firebreaks.

The development has been designed to retain as much native vegetation as possible through the strict enforcement of building envelopes that will limit vegetation clearing. Development within each lot, including buildings, water tanks and waste disposal systems will be contained within a predetermined 2,000 m<sup>2</sup> envelope. The envelope size has been designed to allow flexibility in the siting of dwellings. Due to landowners purchasing in a conservation estate it is most unlikely that the full building envelope will be cleared.

A 500m<sup>2</sup> dwelling and outbuilding footprint for each lot has been assumed for the purposes of calculating the area to be cleared. This is considered a conservative estimate as there will also be a Building Protection Zone (BPZ) around each building and in all likelihood landowners will minimise clearing to retain native vegetation.

The proposed clearing area of 25.08 ha is a conservative estimate based on:

- 500m<sup>2</sup> dwelling and outbuilding footprint
- The inclusion of all firebreaks, access roads and individual driveways
- 20m BPZ around dwellings footprints
- Retained vegetation parcels of under 2,500m<sup>2</sup> except in the Conservation Lot
- 20m separation between parcels of vegetation under 2,500m<sup>2</sup>

The position of each building envelope is indicative and the final building envelope plan will need to be approved by the Shire prior to subdivision approval. The overall area of clearing will remain the same if the positioning of building envelopes change. Any changes in building envelopes will also need to ensure that the number of potential black cockatoo breeding trees to be retained will remain the same.

#### 2.2 Feasible alternatives to taking the proposed action

A higher density subdivision had previously been approved by the WAPC. However, a better conservation outcome was considered desirable following discussions with the Shire of Chittering. Therefore the current Structure Plan has been designed to retain as much native vegetation as possible.

# 2.3 Alternative locations, time frames or activities that form part of the referred action N/A

#### 2.4 Context, including any relevant planning framework and state/local government requirements

The project area falls under the TPS. The proponent lodged a TPS Amendment request with the Shire of Chittering in January 2015. The proponent concurrently lodged a Structure Plan with the Shire of Chittering.

The project area has received the following planning approvals:

- Scheme Amendment 55 gazetted on 18 March 2016, this Amendment rezoned the project area from 'Rural Residential' to 'Rural Conservation'. The land directly to the south of the project area (Lot 2) was included in the Scheme Amendment, being rezoned from 'Rural Residential' to 'Residential R2'.
- Structure Plan for the project area was endorsed by the Western Australian Planning Commission (WAPC) on 3 May 2016 (Attachment 3).

The Bushfire Management Plan prepared by ICS Group for the Structure Plan is presented in Attachment 4. The Bushfire Management Plan discusses the bushfire protection management measures required for the future development

An application for Subdivision will also be lodged with the WAPC in the near future consistent with the intent of the Structure Plan.

**2.5 Environmental impact assessments under Commonwealth, State or Territory legislation** As part of the TPS Amendment 55, the proposal was referred to the Western Australian Environmental Protection Authority (EPA) under section 48A(1)(a) of the *Environmental Protection Act 1986* (EP Act). The proposal received the decision of 'Scheme Not Assessed- Advice Given (no appeals)' on the 16<sup>th</sup> of March 2015 (Attachment 5).

"The EPA considers that the scheme amendment is unlikely to have a significant effect on the environment and does not warrant formal assessment under Part IV of the EP Act." Advice given from the EPA was for the proponent to consider its responsibilities regarding MNES under the EPBC Act, with particular attention given to impacts to the Black Cockatoos. The EPA also advised that they support the Shires preference for a large single Conservation Lot on Lot 9001 to contribute towards protection of land identified within the Local Biodiversity Strategy. Following the advice form the EPA, the Structure Plan was redesigned to accommodate the EPA and Shire's desire for a single Conservation Lot within the project area.

In order to address the proponents' responsibilities under the EPBC Act and to satisfy the EPA's requirements, this referral has been prepared to assess the potential impact of the proposal on MNES. A search of the EPBC 'Protected Matters Search Tool' database was undertaken on the 20<sup>th</sup> of July 2016 as a means of informing this referral (DotE 2016a) (Attachment 6).

#### 2.6 Public consultation (including with Indigenous stakeholders)

In Western Australia, any applications to rezone land under the *Planning & Development Act 2005* require statutory public advertising. As part of the TPS Amendment request and Structure Plan application outlined in Section 2.4 of this Referral, public advertising has taken place. A copy of the EPA's decision on the TPS Amendment has been made available to the public via the EPA's website.

### 2.7 A staged development or component of a larger action

#### N/A

#### 2.8 Related actions

The development of Lot 2 Reserve Road Chittering, south of the project, is related to the proposal as it is within the same Shire of Chittering Town Planning Scheme (TPS) Amendment (No. 55) and Structure Plan endorsed by the Western Australian Planning Commission (WAPC). While related as per the above, each project sits within a different cadastral lot, has a different development style, a different zoning, a different development timeframe, and a different environmental setting. As part of the TPS Amendment 55, Lot 2 was included in the assessment by the EPA under section 48A(1)(a) of the EP Act. The TPS Amendment received the decision of 'Scheme Not Assessed- Advice Given (no appeals)'.

Lot 2 consists of a former wildflower farm that has been cleared and is proposed to be developed for residential housing (R2). A subdivision application with the WAPC has been lodged for Lot 2. The proposed development on Lot 2 is not considered likely to have an impact on any MNES and is therefore will not be referred under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Advice given from the EPA was for the proponent to consider the potential impacts (loss of habitat) to the Black Cockatoos for developing Lot 9001 Rosewood Drive. The EPA's advice did not make mention the proposed development on Lot 2 as potentially causing a loss of habitat for the Black Cockatoos. The reason for this is that the site has been cleared.

The proposed development on Lot 2 is not considered likely to have an impact on any MNES and is therefore not being referred under the EPBC Act.

# **3 Description of environment & likely impacts**

#### 3.1 Matters of national environmental significance

#### 3.1 (a) World Heritage Properties

Description

There are no known World Heritage Properties located within 5 km of the project area. The nearest World Heritage Property is the Australian Convict Sites (Fremantle Prison- former) which is located approximately 63 km south-west of the project area.

#### Nature and extent of likely impact

NONE- No direct or indirect impacts on the Australian Convict Sites will occur as a result of this proposed action.

#### 3.1 (b) National Heritage Places Description

There are no known National Heritage Places located within 5 km of the project area. The nearest National Heritage Place is the Goldfields Water Supply Scheme which is located approximately 44 km south-east of the project area.

#### Nature and extent of likely impact

NONE- No direct or indirect impacts on the Goldfields Water Supply Scheme will occur as a result of this proposed action.

#### 3.1 (c) Wetlands of International Importance (declared Ramsar wetlands)

#### Description

There are no known Wetlands of International Importance (declared Ramsar wetlands) located within 5 km of the project area. The closest declared Ramsar wetland is the Forrestdale and Thomsons Lakes which is located approximately 71 km south-west of the project area.

#### Nature and extent of likely impact

NONE- No direct or indirect impacts on the Forrestdale and Thomsons Lakes will occur as a result of this proposed action.

#### 3.1 (d) Listed threatened species and ecological communities

#### Description

A search of the EPBC Act Protected Matters Search Tool identified 20 Threatened flora and fauna species as potentially occurring within a 5 km radius of the project area (Attachment 6). No Threatened Ecological Communities (TECs) are known to occur within 5 km of the project area.

Environmental Surveys that have been undertaken within the project area that were used in determining the likelihood of Threatened species occurring within the project area include:

- Vegetation Survey (VDM Environmental 2008) undertaken in September/October 2007
- Level 2 Flora and Vegetation Assessment (360 Environmental 2016a) undertaken in November 2015 (Attachment 7)
- Black Cockatoo Habitat Assessment undertaken in April 2015 (360 Environmental 2015) (Attachment 8).

The likelihood of the species occurring within the project area was determined through the assessment of:

- The on-site surveys undertaken;
- The habitat/vegetation typically associated with the conservation significant species;
- The typical soil type the species in known to grow/occur in;
- The landform (topography, hydrology) the species generally occurs on;
- The condition of the site;
- Current land use; and
- Whether nearby records of the species has been found in the Department of Parks and Wildlife's (DPaW's) database search.

Scientific Name	Common Name	Conservation Status as Listed under the EPBC Act	Likelihood of Presence Within Project Area
Birds			
Calyptorhynchus latirostris	Carnaby's Black Cockatoo	Endangered	Likely
Leipoa ocellata	Malleefowl	Vulnerable	Unlikely
Rostrulata australis	Australian Painted Snipe	Endangered	Unlikely
Mammals			
Dasyurus geoffroii	Chuditch, Western Quoll	Vulnerable	Unlikely
Plants			
Acacia anomala	Chittering Grass Wattle	Vulnerable	Possible
Andersonia gracilis	Slender Andersonia	Endangered	Unlikely
Anigozanthos viridis subsp.	Dwarf Green Kangaroo Paw	Vulnerable	Unlikely
terraspectans			
Caladenia huegelii	King Spider-orchid	Endangered	Unlikely
Chamelaucium sp. Gingin	Gingin Wax	Endangered	Possible
Conospermum densiflorum subsp.	One-headed Smokebush	Endangered	Unlikely
unicephalatum			
Darwinia foetida	Muchea Bell	Critically Endangered	Unlikely
Diuris purdiei	Purdie's Donkey-orchid	Endangered	Unlikely
Eucalyptus balanites	Cadda Road Mallee	Endangered	Unlikely
Eucalyptus leprophloia	Scaly Butt Mallee	Endangered	Unlikely
Grevillea corrugata	A shrub	Endangered	Unlikely
Grevillea curviloba subsp.	Curved-leaf Grevillea	Endangered	Unlikely
curviloba			
Grevillea curviloba subsp. incurva	Narrow curved-leaf Grevillea	Endangered	Unlikely
Ptychosema pusillum	Dwarf Pea	Vulnerable	Unlikely
Thelymitra dedmaniarum	Cinnamon Sun Orchid	Endangered	Unlikely
Thelymitra stellata	Star Sun-orchid	Endangered	Possible

#### Table 1. EPBC Act Listed Threatened Species Likelihood of Occurrence Within Project Area

#### Nature and extent of likely impact

#### <u>Fauna</u>

The likelihood of occurrence assessment determined that one threatened fauna species is likely to occur within the project area which is *Calyptorhynchus latirostris* (Carnaby's Black Cockatoo) (Table 2).

The likelihood of all Threatened fauna species occurring within the site is discussed below:

#### Table 2. Likelihood of Occurrence Assessment for Threatened Fauna

Scientific Name	Common Name	Habitat Description and Distribution	Likelihood of Occurrence	Likelihood Justification
Birds				
Calyptorhynchus latirostris	Carnaby's Black Cockatoo	HabitatWoodlands and scrubs of semi- arid interior of Western Australia, in non-breeding season wandering in flocks to coastal areas, especially pine plantations. Food includes seeds of Banksia species, Dryandra species, Hakea species, Eucalyptus species, Grevillea species and Pinus species; also fruiting almonds (DSEWPaC 2012).DistributionOccurs in south-west to lower Murchison in the north and east to Nabawa, Wilroy, Waddi Forest, Manmanning, Durokoppin, Lake 	Likely	The site contains suitable foraging habitat and potential breeding habitat for this species (Attachment 9 and 10).
Leipoa ocellata	Malleefowl	HabitatThe Malleefowl inhabitsshrublands and low woodlandsthat are dominated by malleevegetation and/or low-growingmulti-stemmed Eucalyptusspecies. Occasionally inhabitingAcacia shrublands (DotE 2016b).DistributionThe Malleefowl is scattered inremnant Wheatbelt vegetation andsouth to the coast, including RoePlain to the south of the NullarborPlain. Recorded from CapeFarquhar (north of Carnarvon) tothe Eyre Bird Observatory (DotE2016b)	Unlikely	Not identified within a 5km buffer of the site (DPaW 2015a).
Rostrulata australis	Australian Painted Snipe	Habitat Occupies shallow wetlands (generally freshwater or brackish) and flooded plains, usually requiring areas of bare, wet mud and dense undergrowth and	Unlikely	There are no wetlands present within the project area. It is not considered that the project area has suitable habitat for

		canopy cover. Also known to inhabit flooded grasslands, paddocks or crops as a secondary habitat (DotE 2016b). <u>Distribution</u> This species is dispersive / part- migratory, dependent on local		this species. Not identified within a 5km buffer of the site (DPaW 2015a).
		conditions. It has a patchy distribution in the south-west of WA (DotE 2016b).		
Mammals				
Dasyurus geoffroii	Chuditch, Western Quoll	Habitat Chuditch populations occur in both moist, densely vegetated, steeply sloping forest and drier, open, gently sloping forest (DotE 2016b). The Chuditch now has a patchy distribution through the <i>Eucalyptus marginata</i> (Jarrah) forest and mixed <i>Eucalyptus</i> <i>diversicolor</i> (Karri)/ <i>Corymbia</i> <i>calophylla</i> (Marri)/Jarrah forest of south-west Western Australia (DotE 2016b).	Unlikely	Only one record (of a dead Quoll) in the last 10 years within 5km of the site (DPaW 2015a).
		Distribution The Chuditch is now known only from Western Australia where it predominantly occurs in Jarrah forest. Occasional records have been obtained from the Wheatbelt and Goldfields where it persists in very low numbers. The majority of Chuditch records are from the contiguous forest in south-west Western Australia (DotE 2016b).		

Potential impacts to the species likely to occur within the site is discussed in further detail below:

#### Calyptorhynchus latirostris (Carnaby's Black Cockatoo)

According to the EPBC Act *Referral Guidelines for Three Threatened Black Cockatoo Species* the site falls within the modelled distribution area for the Carnaby's Black Cockatoo (DSEWPaC 2012). In accordance with the guidelines, a Black Cockatoo Habitat Assessment was undertaken by 360 Environmental on the 16<sup>th</sup> and 17<sup>th</sup> of April 2015 (360 Environmental 2015, Attachment 8). The habitat assessment was undertaken to determine the extent and significance of Black Cockatoo habitat within the site. The assessment took into consideration the preferred roosting, breeding and foraging plant species outlined in the guidelines.

Carnaby's feed on seeds, nuts and flowers of a variety of native and exotic plants. Food sources include *Banksia*, Pine trees (*Pinus* sp.), Marri, *Hakea* and *Eucalyptus* such as Jarrah, *Grevillea* and *Allocasuarina fraseriana* (Sheoak) (Shah 2006). Seeds from seed pods of *Banksia* and the cones of pine trees provide the highest energetic yield for Carnaby's Black Cockatoo. Carnaby's Black Cockatoo are less efficient at extracting marri seeds than other species of black cockatoos (Cale 2003).

During the survey, no Black Cockatoos were heard or observed in the project area or seen flying over. No feeding evidence in the form of chewed nuts or cones was observed.

The Black Cockatoo habitat assessment found that suitable foraging habitat for the Carnaby's Black

Cockatoo exists within the site due to the presence of eucalypts including Jarrah, Marri and *Eucalyptus todtiana* and proteaceous plants including *Banksia attenuata*, *Banksia menziesii* and *Hakea stenocarpa* (360 Environmental 2015 and 360 Environmental 2016a).

The total area of potential foraging habitat for Carnaby's Black Cockatoo has been calculated as 55.78 ha in the 360 Environmental Black Cockatoo Habitat Assessment (Attachment 9). Of the 55.78 ha of foraging habitat, 50.88 ha is considered to fall within Habitat Quality Category (HQC) 3 and the remainder falls within HQC 1.

A description of each HCQ in the project area is given below. Note that approximately 2.68 ha of the project area consists of vehicle tracks with no vegetation.

#### HQC 1

Marri and Jarrah in the over-storey with a DBH > 500 mm (potential breeding trees). In addition to the potential breeding trees, this habitat also consists of a mid-storey that was comprised of Black Cockatoo foraging species. These foraging species include Jarrah, Marri, *Banksia spp. Hakea sp. and Xanthorrhia preissii* (Plates 1 & 2).



Plates 1 and 2: Two examples of HQC 1 in the project area.

#### HQC 3

Midstorey vegetation that included known dietary items of Black Cockatoos, including saplings of trees such as Jarrah and Marri. These foraging species include Jarrah, Marri, *Banksia spp. Hakea sp. and Xanthorrhia preissii* (Plates 3 & 4).



Plates 3 and 4: Two examples of HQC 3 in the project area.

Breeding for Carnaby's Black Cockatoos has been recorded from early July to mid-December, and primarily occurs in the Wheatbelt (Johnstone & Storr 1998). However, this species is currently expanding its breeding range westward and south into the Jarrah-Marri forests of the Darling Scarp (e.g. Wungong Dam Catchment) and into the Tuart forests of the Swan Coastal Plain (SCP) including

Yanchep, Baldivis, Lake Clifton and near Bunbury (Johnstone & Kirkby 2011).

Breeding habitat for Carnaby's Black Cockatoo consists of Eucalypt woodland, principally Salmon gum (*Eucalyptus salmonophloia*) or Wandoo, Tuart, Jarrah, Flooded gum (*Eucalyptus rudis*), York Gum (*Eucalyptus loxophleba* subsp. *loxophleba*), Powderbark (*Eucalyptus accedens*), Karri and Marri (DSEWPaC 2012). On the SCP, most nests are in Tuart and eggs are laid on a mat of wood chips at the bottom of a large hollow (mostly top entry hollows) ranging from a few cm's to five m deep (Johnstone & Kirkby 2011).

For most tree species known to support breeding for the Carnaby's Black Cockatoo, a suitable diameter at breast height (DBH) to support a nest hollow is 500 mm, however for Salmon Gum and Wandoo a suitable DBH is 300 mm (DSEWPaC 2012).

During the Black Cockatoo Habitat Assessment, a total of 111 potential future breeding trees were identified for the Carnaby's Black Cockatoo based on their DBH (Table 3 and Attachment 10). The future potential breeding trees identified on site consist of three Marri and 108 Jarrah. Of the 111 potential breeding trees recorded, none contained hollows that would be of suitable dimensions for Black Cockatoo breeding.

DBH	Marri	Jarrah
500-1000 mm	3	97
1000-2000 mm	0	11
Total	3	108

#### Table 3. Total Significant Trees with a DBH greater than 500 mm recorded within the Project Area

Mapping of Carnaby's Black Cockatoo breeding and roosting locations undertaken by the Department of Planning (DoP) (WA) shows that a breeding and roosting site has previously been recorded approximately 9 km north-east of the project area (DoP 2011). While breeding, Black Cockatoos will generally forage within a 6-12 km radius of their nesting site (DSEWPaC 2012).

Following breeding, Black Cockatoos have been known to forage within six kilometres of a roost site. Vegetation within the site is therefore within the foraging radius of a breed site. However flocks of Carnaby's Cockatoos may use several different night roosts across the year.

Based on the design for the project area, the proposed development within the project area is anticipated to have the following impact on Carnaby's Black Cockatoo habitat (refer to table below). A comparison of the area of potential habitat being cleared versus retained post- development has been undertaken (Attachment 11).

#### Table 4. Retention Vs Clearing of Black Cockatoo Habitat within the Project Area

	Potential Foraging Habitat	Potential Black Cockatoo Breeding Trees (#)
Cleared	25.08	8
Retained	30.70	103
Total	55.78	111

#### <u>Flora</u>

The likelihood of all Threatened flora species occurring within the site is discussed below.

Scientific Name	Common Name	Habitat Description and Distribution	Likelihood of Occurrence	Likelihood Justification
Acacia anomala	Chittering Grass Wattle	The Grass wattle grows on the western slopes of the darling range east of Perth, where it is confined to shallow grey sands over laterite. In a few locations it is entangled amongst other low shrubs in low open woodland of Jarrah, Wandoo and Marri over heath dominated by Grevilleas, Dryandras, Hakeas and Acacias (Brown <i>et al.</i> 1998).	Possible	The closest known record is 1.4 km from the project area (DPaW 2015b). Suitable habitat is present in the project area, however the species was not identified in the 360 Environmental field survey (2016) or VDM field survey (2008) both conducted in Spring.
Andersonia gracilis	Slender Andersonia	Andersonia gracilis is currently known from the Badgingarra, Dandaragan and Kenwick areas where it is found on seasonally damp, black sandy clay flats near or on the margins of swamps, often on duplex soils supporting low open heath vegetation with species such as <i>Calothamnus</i> <i>hirsutus, Verticordia densiflora</i> and <i>Kunzea recurva</i> over sedges (DEC 2006).	Unlikely	No suitable habitat occurs in the project area no records occur in the immediate area.
Anigozanthos viridis subsp. Terraspectans	Dwarf Green Kangaroo Paw	Anigozanthos viridis subsp. terraspectans inhabits winter-wet depressions where it grows on grey sandy clay loam, or grey sand, in low post-fire regenerating heath. It is associated with species such as Slender-leaved Banksia (Banksia leptophylla), melaleucas (Melaleuca spp.), Compact Featherflower (Verticordia densiflora), coneflowers (Conostylis spp.) and sedges (Brown et al. 1998).	Unlikely	No suitable habitat occurs in the project area no records occur in the immediate area.

Table 5. Likelihood of Occurrence Assessment for Threatened Flora

Caladenia huegelii	King Spider-orchid	<i>Caladenia huegelii</i> occurs in areas of mixed woodland of Jarrah, Candlestick Banksia ( <i>Banksia</i> <i>attenuata</i> ), Holly Banksia ( <i>B.</i> <i>ilicifolia</i> ) and Firewood Banksia ( <i>B.</i> <i>menziesii</i> ) with scattered Sheoak and Marri over dense shrubs of Blueboy ( <i>Stirlingia latifolia</i> ), Swan River Myrtle ( <i>Hypocalymma</i> <i>robustum</i> ), Yellow Buttercups ( <i>Hibbertia hypericoides</i> ), Buttercups ( <i>H. subvaginata</i> ), Balga ( <i>Xanthorrhoea preissii</i> ), Coastal Jugflower ( <i>Adenanthos cuneatus</i> ) and <i>Conostylis</i> species, from just north of Perth to the Busselton area, usually within 20 km of the coast. Throughout its range the species tends to favour areas of dense undergrowth. Soil is usually associated with the Bassendean sand-dune system. However, rare plants have been known to extend into the Spearwood system (in which calcareous yellow sands dominate) in some areas (DEC 2009).	Unlikely	No records occur in the immediate area. The project area is outside the known distribution of this taxon.
<i>Chamelaucium</i> sp. <i>Gingin</i>	Gingin Wax	<i>Chamelaucium</i> sp. Gingin occurs on white/yellow sand supporting open low woodland with <i>Eucalyptus todtiana, Banksia</i> <i>attenuata</i> and <i>Hibbertia</i> sp. (Stack & English 2003).	Possible	The closest known record is 2.6 km from the project area (DPaW 2015b). Suitable habitat is present in the project area, however the species was not identified in the 360 Environmental field survey (2016) or VDM field survey (2008) both conducted in Spring.
<i>Conospermum densiflorum</i> subsp. <i>unicephalatum</i>	One-headed Smokebush	<i>Conospermum densiflorum</i> subsp. <i>unicephalatum</i> is restricted to low lying sandy clay soils with surface lateritic gravel, in an area between Gingin and Moora over a range of about 10 km (Brown <i>et a</i> l., 1998).	Unlikely	No suitable habitat occurs in the project area no records occur in the immediate area.
Darwinia foetida	Muchea Bell	<i>Darwinia foetida</i> occurs in grey-white sand on swampy, seasonally wet sites. Plants are found alongside sump land, that is, land acting as a pit or well where water collects (CALM 2006).	Unlikely	No suitable habitat occurs in the project area no records occur in the immediate area.
Diuris purdiei	Purdie's Donkey- orchid	Grows under dense shrubs in seasonally-wet swamps and drainage lines (Brown <i>et al.</i> 2013).	Unlikely	No suitable habitat occurs in the project area no records occur in the immediate area.

Eucalyptus balanites	Cadda Road Mallee	<i>Eucalyptus balanites</i> is found on light coloured sandy soils over laterite. Habitat consists of gently sloping heathlands (DEC 2004).	Unlikely	No suitable habitat occurs in the project area no records occur in the immediate area.
Eucalyptus leprophloia	Scaly Butt Mallee	<i>Eucalyptus leprophloia</i> is currently known over a range of approximately 90 km, from north of Badgingarra to the Mt Adams area. <i>E. leprophloia</i> is found in a range of habitats, including the slopes of hills in brown loam over laterite (Stack & Broun 2004)	Unlikely	No suitable habitat occurs in the project area no records occur in the immediate area.
Grevillea corrugata	A Shrub	<i>Grevillea corrugata</i> grows in gravelly loam on a roadside in partially cleared eucalyptus woodland. It is known to only occur in two locations, approximately 10 km south of Bindoon (DotE 2016b).	Unlikely	No suitable habitat occurs in the project area no records occur in the immediate area.
<i>Grevillea curviloba</i> subsp. <i>curviloba</i>	Curved-leaf Grevillea	The habitat is typically winter wet, deep peaty grey sands over limestone at depth (English & Phillimore 2000)	Unlikely	No suitable habitat occurs in the project area no records occur in the immediate area.
<i>Grevillea curviloba</i> subsp. <i>incurva</i>	Narrow curved-leaf Grevillea	Grows in open heath in winter-wet areas on sand over limestone, or over ironstone at sites with a high water table (CALM 2000).	Unlikely	No suitable habitat occurs in the project area no records occur in the immediate area.
Ptychosema pusillum	Dwarf Pea	Low open woodland of Banksia and <i>Eucalyptus todtiana</i> over scrub on the upper slopes of a high ridge and Banksia and Eucalypt woodland amongst low scrub and herbs, adjacent to a paperbark community (Brown <i>et</i> <i>al.</i> 1998).	Unlikely	No suitable habitat occurs in the project area no records occur in the immediate area.
Thelymitra dedmaniarum	Cinnamon Sun Orchid	<i>Thelymitra dedmaniarum</i> is confined to open wandoo woodland on red/brown sandy loam associated with dolerite and granite outcropping (Phillimore <i>et</i> <i>al.</i> , 1999).	Unlikely	No suitable habitat occurs in the project area no records occur in the immediate area.
Thelymitra stellata	Star Sun-orchid	The Star Sun-orchid grows among low heath and scrub in Jarrah and Wandoo woodland, both on ridges and slopes, flats, also on riverbanks and breakaways. Soil types are red, brown, yellow, or grey sandy loams clay or gravel over laterite or gravel (DotE 2016b).	Possible	The closest known record is 2.8 km from the project area (DPaW 2015b). Suitable habitat occurs in the project area. However this species was not identified in the 360 Environmental field survey (2016) or VDM field survey (2008) both conducted in Spring.

Potential Impacts to Threatened flora species:

The Level 2 flora and vegetation survey undertaken by 360 Environmental in November 2015 and vegetation survey undertaken by VDM Environmental in September and October 2007 did not identify any Priority species (as listed by DPaW) and no Threatened species listed under the EPBC Act or gazetted as Declared Rare Flora (Threatened) pursuant to the *Wildlife Conservation Act 1950* (WC Act)

within the project area. Figure 5 of the 360 Environmental Flora and Vegetation Report shows known locations of Threatened flora identified in the DPaW paid search, none of which occur within the project area.

Table 3 above shows three species as having the potential to occur within the project area based on nearby records and suitable habitat being present. This includes the following species:

- Acacia anomala (Chittering Grass Wattle);
- Chamelaucium sp. Gingin (Gingin Wax);
- Thelymitra stellata (Star Sun-orchid).

Two of these possible species are perennial, so can be readily identified and would have been detectable in the flora surveys if present. One of the species, *Thelymitra stellata* is a short-lived annual that flowers from October through to November. The species was not located during either of the field surveys that took place during the timing the plant was detectable.

Therefore based on field survey information it is considered unlikely that any Threatened flora species occur within the project area.

#### 3.1 (e) Listed migratory species

#### Description

The likelihood of the species occurring within the project area was determined through the assessment of:

- The habitat/vegetation typically associated with the conservation significant species;
- The typical soil type the species in known to grow/occur in;
- The landform (topography, hydrology) the species generally occurs on;
- The condition of the site;
- Current land use; and
- Whether nearby records of the species has been found in the DPaW's database search.

#### Table 6. EPBC Act Listed Migratory Species Likelihood of Occurrence Within Project Area

Scientific Name	Common Name	Conservation Status as Listed under the EPBC Act	Likelihood of Presence Within Project Area	
Migratory Marine Species				
Apus pacificus	Fork-tailed Swift	-	Unlikely	
Migratory Terrestrial Species				
Motacilla cinerea	Grey Wagtail	-	Unlikely	
Migratory Wetland Species				
Pandion haliaetus	Osprey	-	Unlikely	

Nature and extent of likely impact

The likelihood of occurrence assessment determined that no Migratory species are likely to occur within the project area.

# Table 7. EPBC Act Listed Migratory Species Likelihood of Occurrence within Project Area Justification

Scientific Name	Common Name	Habitat Description and Distribution	Likelihood of Occurrence	Likelihood Justification
<b>Migratory Marine</b>	Species			
Apus pacificus	Fork-tailed Swift	The Fork-tailed Swift is almost exclusively aerial (DotE 2016b). They mostly occur over inland plains but sometimes above foothills or in coastal areas (DotE 2016b). This species is known to forage high above the tree canopy but is rarely recorded lower, so it is independent of terrestrial habitats (Johnstone & Storr 1998).	Unlikely	This species is almost exclusively aerial.
Migratory Terrest	trial Species			
Motacilla cinerea	Grey Wagtail	The Grey Wagtail is a rare visitor to northern Australia. The species has a strong association with water. On migration they may forage on rocky tidal flats (DotE 2016b).	Unlikely	The site does not contain any waterbody or suitable habitat.
Migratory Wetlan				
Pandion haliaetus	Osprey	Favoured habitats for the Osprey are coastal areas, especially the mouths of large rivers, lagoons and lakes (DotE 2016b).	Unlikely	The Osprey is mostly found in coastal areas.

#### 3.1 (f) Commonwealth marine area

(If the action is <u>in</u> the Commonwealth marine area, please complete 3.2(c) instead. This section is for actions taken outside the Commonwealth marine area that may have impacts on that area.)

#### Description

The closest Commonwealth marine area is the EEZ and Territorial Sea that is approximately 43 km to the west of the project area.

#### Nature and extent of likely impact

NONE- No direct or indirect impacts on the Commonwealth Marine Area will occur as a result of this proposed action.

#### 3.1 (g) Commonwealth land

(If the action is on Commonwealth land, please complete 3.2(d) instead. This section is for actions taken outside Commonwealth land that may have impacts on that land). Description N/A

Nature and extent of likely impact

N/A

#### 3.1 (h) The Great Barrier Reef Marine Park

#### Description

The Great Barrier Reef Marine Park exists in Northern Queensland, on the opposite side of Australia that is more than 3000 km from the project area.

#### Nature and extent of likely impact

NONE- Given the distance between the site and the Great Barrier Reef Marine Park, it is not expected there will be any impact to Great Barrier Reef Marine Park.

**3.1 (i)** A water resource, in relation to coal seam gas development or large coal mining development Description

N/A

Nature and extent of likely impact

N/A

3.2 Nuclear actions, actions taken by the Commonwealth (or Commonwealth agency), actions taken in a Commonwealth marine area, actions taken on Commonwealth land, or actions taken in the Great Barrier Reef Marine Park

3.2 (a)	Is the proposed action a nuclear action?	$\checkmark$	No
			Yes (provide details below)

If yes, nature & extent of likely impact on the whole environment

3.2 (b)	Is the proposed action to be taken by the	$\checkmark$	No
	Commonwealth or a Commonwealth		
	agency?		Yes (provide details below)

If yes, nature & extent of likely impact on the whole environment

Is the proposed action to be taken in a		No
Commonwealth marine area?		Yes (provide details below)
If yes, nature & extent of likely impact on		ole environment (in addition to 3.1(f))
Is the proposed action to be taken on	<ul> <li>✓</li> </ul>	No
Is the proposed action to be taken on Commonwealth land?		
		Yes (provide details below)
If yes, nature & extent of likely impact of	on the wh	ole environment (in addition to 3.1(g))
If yes, nature & extent of likely impact of	on the wh	ole environment (in addition to 3.1(g))
If yes, nature & extent of likely impact of the second secon	on the wh	ole environment (in addition to 3.1(g))

# 3.3 Description of the project area and affected area for the proposed action3.3 (a) Flora and fauna

The Level 2 flora and vegetation survey undertaken by 360 Environmental in November 2015 identified a total of 66 taxa (including species, subspecies, varieties and forms) from 43 genera and 21 families were recorded in the project area. The commonly occurring families were; Proteaceae (12 taxa), Fabaceae (8 taxa) and Myrtaceae (7 taxa).

No Priority species (as listed by DPaW) and no Threatened species listed under the EPBC Act or gazetted as Declared Rare Flora (Threatened) pursuant to the WC Act were identified during the project area in the flora and vegetation survey (360 Environmental 2016a).

The likelihood assessment for Threatened fauna listed under the EPBC Act found that the project area is likely to offer potential foraging and breeding habitat for the Carnaby's Black Cockatoo. No other Threatened species are considered likely to occur within the project area.

#### 3.3 (b) Hydrology, including water flows

The Perth Groundwater Atlas provides the maximum groundwater level covering mostly Perth metropolitan area. These contours do not extend across the project area, with the nearest contour (60 m Australian Height Datum (AHD)) 2 km to the west. Ground water level within the study area is anticipated to be significantly higher than 60m AHD (360 Environmental 2016b). According to the surface elevation (140-165m AHD), there will be a sufficient clearance to groundwater for development across the project area (360 Environmental 2016b).

No surface water features or surface drainage lines exist on the project area. The project area is located between Yalyal Brook to the north and Rocky Creek to the south and is not within the Department of Water (DoW) 100 Year Annual Recurrence Index (ARI) Floodplain development control area (360 Environmental 2016b).

The DPaW Geomorphic Wetlands Dataset does not identify any wetlands within the project area. The nearest geomorphic wetland is a Resource Enhancement Wetland (UFI: 12404) located approximately 730 m south-east of the project area (DPaW 2015c).

The site is not within Public Drinking Water Source Areas (PDWSA), or Proclaimed Surface Water Areas.

#### 3.3 (c) Soil and Vegetation characteristics

The project area falls part of the Mogumber System that contains a gentle to moderate sloping sandplain, varying from pale to yellow clayey sand with gravel and laterised ridges (DAFWA 2012).

Two natural vegetation associations were recorded in the project area:

Vegetation	Description	Area (Ha)
Association Code		
BaEm	Low Woodland of <i>Banksia attenuata, Banksia menziesii,</i> <i>Eucalyptus marginata</i> and <i>Eucalyptus todtiana</i> in various combinations over Low Shrubland of <i>Xanthorrhoea preissii, Allocasuarina humilis, Eremaea</i> <i>pauciflora, hibbertia hypericoides</i> and <i>Mesomelaena</i> <i>pseudostygia.</i>	51.56
EmXa	Low Woodland of <i>Eucalyptus marginata</i> over Shrubland of <i>Xanthorrhoea acanthostachya, Hibbertia</i> <i>hypericoides, Calothamnus sanguineus, Hakea</i> <i>stenocarpa, Petrophile stricta</i> and <i>Mesomelaena</i> <i>tetragona.</i>	4.15

Table 8. Vegetation Associations within the Project Area

#### 3.3 (d) Outstanding natural features

There is nothing within the project area that is considered to be an outstanding natural feature.

#### 3.3 (e) Remnant native vegetation

The project area is dominated by a mosaic overstorey of different dominate trees consisting of both *Banksia* and *Eucalypt* species with a shrubland understorey varying from closed to open. Two natural vegetation associations were recorded in the project area as described in Section 3.3 (c).

#### 3.3 (f) Gradient (or depth range if action is to be taken in a marine area)

The elevation of the project area ranges from approximately 165 m AHD in the northern portion of the site to 140 m AHD in the south-eastern portion of the site (360 Environmental 2016b).

#### 3.3 (g) Current state of the environment

The Flora and Vegetation Report identified that the vegetation condition in the project area ranged from Completely Degraded to Excellent as per the Bush Forever Vegetation Condition Scale as developed by Keighery (1994) (Figure 7 of Attachment 6). The breakdown of the condition within the project area is shown in Table 9 below.

Condition	Area (Ha)
Excellent	49.52
Very Good	6.19
Completely	2.75
Degraded	

Table 9.	Vegetation	Associations	within	the Project	Area
			-		

The structure of the vegetation is variable in density, as evident from recent aerial photographs. Evidence of logging is present, consisting of old stumps, coppicing growth (growth of several trunks from a single stump) and the unsealed tracks that would have been used to remove logs. Many of the remaining large mature trees would not have been suitable for timber products because of their twisted form and thus they have survived. Figure 8 of Attachment 7 shows historical aerial photography which illustrates disturbance within the project area.

Only one introduced species was recorded in the quadrats during the survey, \**Gladiolus caryophyllaceus*. This species is not listed as Declared under the Biosecurity and Agriculture Management Act 2007 (BAM Act) or classified as a Weed of National Significance (WONS).

There was no evidence of Dieback (*Phytophthora* ssp.) within the lower landscape areas of the project area (within vegetation association BaEm), however, the community association EmXa did have approximately 40% death rate amongst *Eucalyptus marginata*. Dieback is the likely cause as no other susceptible species were showing signs of stress or evidence of being effected by the disease (360 Environmental 2015a).

#### 3.3 (h) Commonwealth Heritage Places or other places recognised as having heritage values

There are no Commonwealth Heritage Places or other places recognised as having heritage values by the Heritage Council of Western Australia within the project area (SHO 2016).

#### 3.3 (i) Indigenous heritage values

A search of the Department of Aboriginal Affairs Aboriginal Heritage Inquiry System did not identify any Aboriginal Sites or Other Heritage Places within the project area (DAA 2015). The closest Registered Aboriginal Site the Chandala Brook exists approximately 940 m to the south east of the project area.

#### 3.3 (j) Other important or unique values of the environment

There are no other important or unique values of the environment within the project area.

#### 3.3 (k) Tenure of the action area (e.g. freehold, leasehold)

Freehold

#### 3.3 (I) Existing uses of area of proposed action

The project area contains remnant bushland and an unsealed road that connects to Rosewood Drive.

#### 3.3 (m) Any proposed uses of area of proposed action

The proposed land use is for future rural conservation development with one Conservation Lot being placed into conservation in perpetuity through a conservation covenant.

# 4 Environmental outcomes

The proposed Rural Conservation development within the project area will result in clearing 25.08 ha of native vegetation considered to be potential foraging habitat for the Carnaby's Black Cockatoo (Attachment 11).

This clearing footprint contains a total of eight potential breeding trees for the Carnaby's Black Cockatoo. None of the potential breeding trees proposed to be cleared were found to contain hollows of suitable dimensions for Black Cockatoos to currently breed in. In addition, Carnaby's Black Cockatoos typically breed in the Wheatbelt region of WA (Saunders 1980).

A comparison of the area of potential habitat being cleared versus retained post- development has been undertaken (Attachment 11).

Table 10. Retention Vs Clearing of Black Cockatoo Habitat

	Potential Foraging Habitat	Potential Black Cockatoo Breeding Trees (#)
Cleared	25.08	8
Retained	30.70	103
Total	55.78	111

# 5 Measures to avoid or reduce impacts

The development has been designed to retain as much native vegetation as possible through the strict enforcement of building envelopes that will limit vegetation clearing. Development within each lot, including buildings, water tanks and waste disposal systems will be contained within a predetermined 2,000 m<sup>2</sup> envelope. The envelope size has been designed to allow flexibility in the siting of dwellings and it is not expected that the full building envelope will be cleared.

A 500m<sup>2</sup> dwelling and outbuilding footprint for each lot has been assumed for the purposes of calculating the area to be cleared. This is considered a conservative estimate as there will also be a BPZ around each building and in all likelihood landowners will minimise clearing to retain native vegetation.

The proposed clearing area of 25.08 ha is a conservative estimate based on:

- 500m<sup>2</sup> dwelling and outbuilding footprint
- The inclusion of all firebreaks, access roads and individual driveways
- 20m BPZ around dwellings footprints
- Retained vegetation parcels of under 2,500m<sup>2</sup> except in the Conservation Lot
- 20m separation between parcels of vegetation under 2,500m<sup>2</sup>

The position of each building envelope is indicative and the final building envelope plan will need to be approved by the Shire prior to subdivision approval. The overall area of clearing will remain the same if the positioning of building envelopes change. Any changes in building envelopes will also need to ensure that the number of potential black cockatoo breeding trees to be retained will remain the same. Following subdivision approval a tree survey will be undertaken to flag all the trees that can be retained in the bushfire protection zones and the trees committed to being retained as part of this referral document.

A total of 30.70 ha of native vegetation will be retained as part of the proposed development, which represents approximately 55% of vegetation within the project area being retained. All significant trees

identified within the project area will be retained except where they fall within roads and firebreaks. The landowners will be required to retain all potential breeding trees that fall within their lot.

Approximately 18.83 ha of native vegetation will be retained in a Conservation Lot in the north of the project area. This Conservation Lot will have a conservation covenant placed on it as part of the proposed development. This results in approximately 33% of the vegetation in the project area being reserved for conservation in perpetuity.

The proponent will ensure that work areas and vehicle compounds are located in areas that do not require unnecessary vegetation to be cleared or destroyed. The boundaries of areas to be disturbed within the project area will be clearly defined to prevent any unintended clearing of the potential habitat.

Where possible the clearing will not take place during the typical breeding season for the Carnaby's Cockatoo (July to mid-December) to avoid disturbance of species during peak breeding season. If clearing is to occur during the typical breeding season of the Carnaby's Black Cockatoo, a pre-clearing inspection of trees to be cleared will be undertaken to ensure there are no breeding activities present in the trees. If breeding activities are identified in any trees proposed to be cleared, appropriate fauna management measures will be implemented by qualified Zoologists.

Community education will be undertaken as part of the sale of the Lots to raise awareness of the surrounding environment and the importance of protecting and enhancing native vegetation that provides habitat for Black Cockatoos. This will be done through providing brochures to future residents.

# 6 Conclusion on the likelihood of significant impacts

6.1 Do you THINK your proposed action is a controlled action?



No, complete section 5.2

Yes, complete section 5.3

#### 6.2 Proposed action IS NOT a controlled action.

#### Lead to long term decrease in the size of a population

The project area contains a total of 111 trees that are considered potential future breeding trees for the Carnaby's Black Cockatoos. Due to careful design, the proposed development will result in clearing approximately 7% of the total number of breeding trees within the project area. None of the trees within the project area contained observable hollows that would be of suitable dimensions for Black Cockatoo breeding. In addition, Carnaby's Black Cockatoos typically breed in the Wheatbelt region of WA (Saunders 1980).

The proposal will result in clearing 25.08 ha of potential foraging habitat for the Carnaby's Black Cockatoo. However, the proposal will result in a long-term conservation gain for the Carnaby's Black Cockatoos through the placement of 18.83 ha of vegetation into a Conservation Lot that will be placed under a conservation covenant.

Approximately 55% of the vegetation within the site is proposed to be retained that will provide foraging habitat for the Carnaby's Black Cockatoo in the future. This vegetation includes the Conservation Lot which connects with vegetation to the east and west. In addition the clearing will effectively result in a continuous patchwork of native vegetation being retained, including of 90% of the existing potential breeding trees, allowing foraging by black cockatoos through the development.

Mapping prepared by the Department of Environment and Conservation (now the DPaW) shows that approximately 12,837 ha of potential Carnaby's foraging habitat exists within a 10km radius of the project area (DPaW 2013). Consequently the proposed clearing of 25.08 ha will result in an overall reduction of potential Carnaby's foraging habitat of less than 0.2% within a 10km radius and thus the clearing of the vegetation on the site will be inconsequential.

Due to the proposed retention of over half the amount of vegetation within the project area, the proposed Conservation Lot and presence of a large amount of habitat surrounding the site, the proposal is unlikely to lead to a decrease in the size of the Carnaby's Black Cockatoo population.

#### Reduce the area of occupancy of the species

Given the proposed retention of approximately 55% of the vegetation within the site and the proposal to place 18.83 ha of native vegetation into a Conservation Lot under a conservation covenant, the proposal is unlikely to reduce the occupancy for the Carnaby's Black Cockatoo (Attachment 11). The proposed clearing of 25.08 ha will result in an overall reduction of potential Carnaby's foraging habitat of less than 0.2% within a 10km radius. It is highly likely that the surrounding bushland would provide a large area of occupancy for the Black Cockatoos.

Mapping prepared by the Department of Environment and Conservation (now the DPaW) shows that approximately 12,837 ha of potential Carnaby's foraging habitat exists within a 10km radius of the project area (DPaW 2013). In addition there are a number of nearby large DPaW managed lands that provide long-term protection for the Carnaby's Black Cockatoo. The closest DPaW managed land exists

approximately 950 m to the south-east of the project area. A large cluster of DPaW managed lands exist 1.5 km to the north-west of the project area.

Therefore there is a large area of habitat to be utilised by the Carnaby's Black Cockatoo surrounding the site.

#### Fragment an existing population into two or more populations

The proposed clearing within the project area will not fragment an existing population into two or more populations due to the retention of a large Conservation Lot within the project area and the presence of nearby protected bushland in DPaW managed lands, with the closest DPaW managed land being 950 m to the south-east of the site (Attachment 12).

Clearing of the project area will not create a gap of more than 4km between patches of Black Cockatoo habitat, as there are numerous areas of native vegetation within a 4 km radius of the project area (Attachment 12).

#### Adversely affect habitat critical to the survival of the species

The seasonal movements of Black Cockatoos means they require large areas of habitat for breeding, roosting and foraging, as well as connectivity between habitats to assist their movement through the landscape (DSEWPaC 2012). Based on the '*EPBC Act referral guidelines for three threatened black cockatoo species*', critical habitat for the Black Cockatoos is defined as providing breeding, roosting and foraging habitat which also provides connectivity between habitats. Habitat that accommodates for all three Black Cockatoo species would be defined as most critical.

It is not deemed that the proposed clearing will adversely affect habitat critical to the survival of the Black Cockatoos as none of the potential breeding trees within the project area contain observable hollows. The project area is also not a known roosting site for the Black Cockatoos. In addition the proposed clearing will result in a continuous patchwork of native vegetation being retained, including 93% of the existing potential breeding trees, allowing foraging by black cockatoos through the development.

#### Disrupt the breeding cycle of a population

Traditionally, Carnaby's Cockatoo breed in the Wheatbelt region of WA (Saunders 1980) and it is therefore less likely for Carnaby's Cockatoo to breed in large numbers in the project area. The project area does not have any trees that are considered currently suitable breeding trees for the Black Cockatoos due to the absence of observable hollows. Due to careful placement of the building envelopes, the proposed development will result in clearing approximately 7% of the total number of breeding trees within the project area. It is therefore unlikely that the proposed action will disrupt the breeding cycles of a Black Cockatoos for breeding. These trees being retained will be able to develop hollows to be used by Black Cockatoos for breeding in the future.

# Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline

A breeding and roosting site has previously been recorded approximately 9 km north-east of the project area (DoP 2011). While breeding, Black Cockatoos will generally forage within a 6-12 km radius of their nesting site (DSEWPaC 2012). Following breeding, Black Cockatoos have been known to forage within six kilometres of a roost site. Vegetation within the site is therefore within the foraging radius of a breed site. Attachment 12 shows that within 10km of the project area approximately 12,837 ha of potential foraging habitat for the Carnaby's Black Cockatoo exists.

The EPBC Act Referral Guidelines for the Black Cockatoos state that creating a gap of greater than 4km between patches of Black Cockatoo habitat is at a high risk of causing a significant impact (DSEWPaC 2012). Within a 4km radius of the project area there are other patches of remnant vegetation classified

as potential foraging habitat that provide connected habitat for the Black Cockatoos some of which is within DPaW managed lands (Attachment 12).

The clearing of eight potential breeding trees that are not currently suitable for Black Cockatoo breeding and 25.08 ha of potential foraging habitat that equates to 0.2% of potential foraging habitat within 10km of the site is not deemed to modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.

# Result in invasive species that are harmful to an endangered or vulnerable species becoming established in the endangered or vulnerable species' habitat

The proposed action alone is unlikely to introduce or spread invasive species that are harmful to Black Cockatoos. The 50% reduction in Carnaby's Black Cockatoo abundance is a result of clearing of core breeding habitat in the Wheatbelt, the deterioration of nesting hollows, and clearing of food resources on the SCP (Cale, 2003).

Weeds and feral animals, which commonly result from modified, cleared sites, are not seen as likely to result from the proposed development. If invasive species do result from the development they are not seen to be key threats to the Carnaby's Black Cockatoo.

#### Introduce disease that may cause the species to decline

The proposed action to develop Rural Conservation lots is unlikely to introduce disease that may cause the Carnaby's Black Cockatoo to decline. The only possible disease and parasite vector associated with developing the project area would be the attraction of cats and foxes which are known to favour 'edge effects' created from fragmented habitats. The proposed development is however, unlikely to be an ideal habitat for foxes due to the presence of humans and traffic within the area.

#### Interfere with the recovery of the species

The proposed action is unlikely to interfere with the recovery of the species as it is not deemed to contain any currently suitable hollows for breeding. The proposal will retain 103 potential future breeding trees that will be able to develop hollows to be used by Black Cockatoos for breeding in the future. Given the proposed retention of approximately 55% of the vegetation within the site and the proposal to place 18.83 ha of native vegetation into a Conservation Lot under a conservation covenant, the proposal is unlikely to interfere with the recovery of the Carnaby's Black Cockatoo.

#### 6.3 Proposed action IS a controlled action

#### Matters likely to be significantly impacted

World Heritage values (sections 12 and 15A)
National Heritage places (sections 15B and 15C)
Wetlands of international importance (sections 16 and 17B)
Listed threatened species and communities (sections 18 and 18A)
Listed migratory species (sections 20 and 20A)
Protection of the environment from nuclear actions (sections 21 and 22A)
Commonwealth marine environment (sections 23 and 24A)
Great Barrier Reef Marine Park (sections 24B and 24C)
A water resource, in relation to coal seam gas development and large coal mining development (sections 24D and 24E)
Protection of the environment from actions involving Commonwealth land (sections 26 and 27A)
Protection of the environment from Commonwealth actions (section 28)
Commonwealth Heritage places overseas (sections 27B and 27C)

# 7 Environmental record of the person proposing to take the action

		Yes	No
7.1	Does the party taking the action have a satisfactory record of responsible environmental management?	✓	
	<b>Provide details</b> The organisation formed for this proposed development consists of experienced property developers that have a history of environmental responsibility. The organisation strives for positive environmental outcomes while achieving development objectives.		
7.2	Provide details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against:		✓
	(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.		
	If yes, provide details		
7.3	If the person taking the action is a corporation, please provide details of the corporation's environmental policy and planning framework. and if and how the framework applies to the action. The Company and its staff are familiar with all environmental requirements that arise from both Commonwealth and State legislation and to this end the Organisation has consistently met all its obligations. The Company's standard practice is to engage highly experienced and reputable consultants to address, where applicable, environmental issues.	✓	
7.4	Has the party taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?		~
	Provide name of proposal and EPBC reference number (if known)		

## 8 Information sources and attachments

(For the information provided above)

#### 8.1 References

360 Environmental. (2015). Lot 9001 Rosewood Drive and Lot 2 Reserve Road, Chittering Black Cockatoo Habitat Assessment. Prepared for Riverside Investments WA Pty Ltd.

360 Environmental. (2016a). *Lot 9001 Rosewood Drive* and *Lot 2 Reserve Road, Chittering Level 2 Flora and Vegetation Assessment.* Prepared for Riverside Investments WA Pty Ltd.

360 Environmental. (2016b). *Lot 2 Reserve Road and Lot 9001 Rosewood Drive, Chittering Local Water Management Strategy*. Prepared for Riverside Investments WA Pty Ltd.

Brown, A., Thomson-Dans, C. and Marchant, N. (Eds). (1998). *Western Australia's Threatened Flora*. Department of Conservation and Land Management, Western Australia.

Brown, A., Kingsley, D., French, C. & Brockman, G. (2013). *Field Guide to the Orchids of Western Australia*. Simon Nevill Publications.

Cale, B. (2003). *Carnaby's Black-Cockatoo (Calyptorhynchus latirostris) Recovery Plan. Perth: Department of Conservation and Land Management.* 

Conservation and Land Management WA (CALM). (2000). *Narrow Curved-leaf Grevillea (Grevillea curviloba subsp. incurve) Interim Recovery Plan 2000-2003*. Department of Environment and Conservation, Western Australia.

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Department of Aboriginal Affairs (DAA). (2015). *Aboriginal Heritage Inquiry System*. Available at: <u>http://maps.dia.wa.gov.au/AHIS2/</u>

Department of Agriculture and Food WA (DAFWA). (2012). *Soil Sub Systems GIS Dataset.* Government of Australia.

Department of Environment and Conservation (DEC). (2004). *Eucalyptus balanites Interim Recovery Plan 2004-2009. Interim Recovery Plan no. 182.* Department of Environment and Conservation, Western Australia.

Department of Environment and Conservation (DEC). (2006). *Slender Andersonia (Andersonia gracilis) Interim Recovery Plan 2006-2011. Interim Recovery Plan No. 228.* Department of Environment and Conservation, Western Australia.

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Department of the Environment (DotE). (2016a). *EPBC Act Protected Matters Report*. Government of Australia.

Department of the Environment (DotE). (2016b). *Species Profile and Threats Database (SPRAT).* Available at: http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl

- Department of Parks and Wildlife [DPaW]. (2015a). *Threatened & Priority Fauna Information (custom search).*
- Department of Parks and Wildlife [DPaW]. (2015b). *Threatened & Priority Flora Information (custom search).*

Department of Parks and Wildlife (DPaW). (2015c). *Geomorphic Wetlands of the Swan Coastal Plain GIS Dataset*. Government of Western Australia.

Department of Planning (DoP). (2011). *Metropolitan Region Scheme (MRS) North East- Potential Habitat for the Carnaby's Black Cockatoo which may Require Further Assessment*, Government of Western Australia.

Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC). (2012). *EPBC Act referral guidelines for three threatened black cockatoo species.* Australian Government.

ICS Group. (2015). Bushfire Management Plan Lot 2 Reserve Road & Lot 9001 Rosewood Drive, Shire of Chittering.

Johnstone, R. E., & Kirkby, T. (2011). Carnaby's Cockatoo (*Calyptorhynchus latirostris*), Baudin's Cockatoo (*Calyptorhynchus baudinii*) and the Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*) on the Swan Coastal Plain (Lancelin–Dunsborough), WA. Studies on distribution, status, breeding, food, movements and historical changes. Perth: Department of Planning.

Johnstone, R. E., & Storr, G. M. (1998). *Handbook of Western Australian Birds*. Volume 1 - Non-Passerines (Emu to Dollarbird). Oxford University Press.

Keighery, B., Gibson, N., Keighery, G., Burbidge, A., & Lyons, M. (1994). *A Floristic Survey of the Southern Swan Coastal Plain*. Unpublished report for the Australian Heritage Commission. WA Department of Conservation and Land Management and the Western Australian Conservation Council of WA.

Phillimore, R., A. Brown & V. English. (1999). *Cinnamon Sun Orchid (Thelymitra manginii ms) Interim Recovery Plan 1999-2002 [Recovery Plan] as Thelymitra manginii.* 

Saunders, D.A. (1980). Food and movements of the short-billed form of the White-tailed Black Cockatoo. *Australian Wildlife Research.* 7: 257-269.

Shah, B. (2006). *Conservation of Carnaby's Black Cockatoo on the Swan Coastal Plain, WA.* Perth: Birds Australia.

Stack, G. & Broun, G. (2004). *Interim recovery plan no. 189, 2004-2009 Eucalyptus leprophloia*. Department of Conservation and Land Management, Western Australia.

Stack, G. & English, V. (2003). *Interim Recovery plan number 140, 2003-2008. Chamelaucium sp. Gingin.* Department of Conservation and Land Management, Western Australia.

State Heritage Office (SHO). 2016. *Heritage Council of Western Australia inHerit*. Government of Western Australia. Available at: <u>http://inherit.stateheritage.wa.gov.au/Public/</u>

VDM Environmental. 2008. *Proposed Residential Development, Lot 7 Reserve Road, Muchea Vegetation Survey*. Prepared for Riverside Investments WA No 2.

#### 8.2 Reliability and date of information

The information provided within this referral document has been prepared by an accredited Environmental Scientist from 360 Environmental. The findings within this referral are based on site specific surveys undertaken by qualified 360 Environmental Botanists and Zoologists. The site specific surveys have been undertaken within the last year and are therefore considered reliable and recent for use in this referral.

#### 8.3 Attachments

		$\checkmark$	
		attached	Title of attachment(s)
You must attach	figures, maps or aerial photographs showing the locality of the proposed action (section 1) GIS file delineating the boundary of the referral area (section 1)		Attachment 1. Site Location Attachment 2. Project Area
	figures, maps or aerial photographs showing the location of the proposed action in respect to any matters of national environmental significance or important features of the environments (section 3)		Attachment 9. Black Cockatoo Potential Foraging Habitat Attachment 10. Black Cockatoo Potential Breeding Habitat
If relevant, attach	copies of any state or local government approvals and consent conditions (section 2.5)		Attachment 5. EPA Decision Letter
	copies of any completed assessments to meet state or local government approvals and outcomes of public consultations, if available (section 2.6)		
	copies of any flora and fauna investigations and surveys (section 3)		Attachment 7. Level 2 Flora and Vegetation Assessment Attachment 8. Black Cockatoo Habitat Assessment
	technical reports relevant to the assessment of impacts on protected matters that support the arguments and conclusions in the referral (section 3) conclusions in the referral (section 3 and 4)		Attachment 8. Black Cockatoo Habitat Assessment
	report(s) on any public consultations undertaken, including with Indigenous stakeholders (section 3)		

#### **List of Attachments**

Attachment 1. Site Location Attachment 2. Project Area Attachment 3. Endorsed Structure Plan Attachment 4. Bushfire Management Plan Attachment 5. EPA Decision Letter Attachment 6. EPBC PMST Attachment 7. Level 2 Flora and Vegetation Assessment Attachment 8. Black Cockatoo Habitat Assessment Attachment 9. Black Cockatoo Potential Foraging Habitat Attachment 10. Black Cockatoo Potential Breeding Habitat Attachment 11. Proposed Black Cockatoo Habitat Retention Attachment 12. Surrounding Protected Habitat

### 9 Contacts, signatures and declarations

Proposed action title: Proposed Clearing of Native Vegetation for the Purposes of Rural Conservation Development at Lot 9001 Rosewood Drive, Chittering, Western Australia ("project area")

#### 9.1 Person proposing to take action

This is the individual, government agency or company that will be principally responsible for, or who will carry out, the proposed action. It may be a trustee (either being an individual or a body corporate) acting on behalf of the trust for which they have responsibility (but not the trust).

If the proposed action will be taken under a contract or other arrangement, this is:

- the person for whose benefit the action will be taken; or
- the person who procured the contract or other arrangement and who will have principal control and responsibility for the taking of the proposed action.

If the proposed action requires a permit under the GBRMP Act<sup>1</sup>, this is the person requiring the grant of a GBRMP permission.

The Minister may also request relevant additional information from this person.

If further assessment and approval for the action is required, any approval which may be granted will be issued to the person proposing to take the action. This person will be responsible for complying with any conditions attached to the approval.

Name and Title:	Peter Fogarty (Director)	
Organisation (if applicable):	Riverside Investments (WA) No 2 Pty Ltd	
Trust deed (if applicable):	<ul><li>attached; OR</li><li>not applicable</li></ul>	
ACN / ABN (if applicable)	ABN 48 118 963072	
Postal address:	c/o Pendulum Group PO Box 1982, West Perth, WA, 6872 (08) 9282 5400	

Telephone:

PF@pendulumgroup.com.au Email:

#### COMPLETE THIS SECTION ONLY IF YOU QUALIFY FOR EXEMPTION FROM THE FEE(S) THAT WOULD OTHERWISE BE PAYABLE

I qualify for exemption from fees under section 520(4C)(e)(v) of the EPBC Act because I am:	<ul> <li>an individual; OR</li> <li>a small business entity (within the meaning given by section 328-110 (other than subsection 328-119(4)) of the <i>Income Tax Assessment Act 1997</i>); OR</li> <li>not applicable.</li> </ul>

24<sup>th</sup> March 2006 If you are small business entity you must provide the Date/Income Year

<sup>&</sup>lt;sup>1</sup> If your referred action, or a component of it, is to be taken in the Great Barrier Reef Marine Park the Minister is required to provide a copy of your referral to the Great Barrier Reef Marine Park Authority (GBRMPA) (see section 73A, EPBC Act). For information about how the GBRMPA may use your information, see http://www.gbrmpa.gov.au/privacy/privacy\_notice\_for\_permits.

that you became a small business entity:

Note: You must advise the Department within 10 business days if you cease to be a small business entity. Failure to notify the Secretary of this is an offence punishable on conviction by a fine (regulation 5.23B(3) *Environment Protection and Biodiversity Conservation Regulations 2000* (Cth)).

#### COMPLETE THIS SECTION ONLY IF YOU WOULD LIKE TO APPLY FOR A WAIVER

Note: Applications for a waiver must be supported by information in writing setting out the grounds on which the applicant considers that a waiver should be made and the reasons why it should be made. The Minister may, at his or her discretion, waive all or part of a fee that would otherwise be payable in the following circumstances:

- the action's primary objective is to protect the environment, or protect and conserve heritage, in a way that is consistent with the objects of the EPBC Act;
- it is in the public interest to do so; or

not applicable.

• there are other exceptional circumstances justifying the waiver.

The Minister will consider the application within 20 business days.

I would like to apply for a waiver of full or partial fees under regulation 5.21A of the <u>EPBC</u> <u>Regulations</u>. Under regulation 5.21A(5), you must include information about the applicant (if not you) the grounds on which the waiver is sought and the reasons why it should be made:

Declaration:

I declare that to the best of my knowledge the information I have given on, or attached to this form is complete, current and correct.

I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf of or for the benefit of any other person or entity.

Signature:

Apr-

Date: 4 August 2016

### 9.2 Individual or organisation

Individual or organisation who is proposed to be designated as the proponent if the Minister decides that the action is a controlled action and further assessment and approval is required. The proponent is responsible for meeting the requirements of the EPBC Act during the assessment process. The proponent may or may not be the person proposing to take the action.

Name of proposed proponent:

If the name of the proposed proponent is not the same person as named at item 1 of section 9.1 above, please complete all of the below fields in section 9.2.

ACN / ABN (if applicable):

Postal address:

Telephone:

Email:

Declaration by the proposed proponent:	I, the proposed proponent, consent to the proposed
	designation of myself as the proponent for the purposes of the action described in this
	referral.
Declaration by the person proposing to	
take the action:	I, the person proposing to take the action, consent to
	the proposed designation of as proponent for the purposes
	of the action described in this referral.

Signature:

Date:

#### 9.3 Person preparing the referral information (if different from 9.1)

Name	Scott Bird
Title	Director/ Principal Environmental Scientist
Organisation	360 Environmental Pty Ltd
ACN / ABN (if applicable)	ACN# 109 499 041/ ABN# 50 109 499 041
Postal address	10 Bermondsey Street, West Leederville, WA, 6007
Telephone	(08) 9388 8360
Email	scottbird@360environmental.com.au
Declaration	I declare that to the best of my knowledge the information I have given on, or attached to this form is complete, current and correct. I understand that giving false or misleading information is a serious offence.
	$\Lambda RI$

Signature

/ your SI

Date 4/08/2016