EPBC REFERRAL BINNIES ROAD, RIPLEY

Prepared for JHC Holdings Pty Ltd



Biodiversity Assessment and Management Pty Ltd PO Box 1376 CLEVELAND 4163



Specialised ecological knowledge that reduces your risk



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 Australian Government Environment Minister or the Minister's delegate. (Further references to 'the Minister' in this form include references to the Minister's delegate.) To obtain approval from the Environment Minister, a proposed action should be referred. The purpose of a referral is to obtain a decision on whether your proposed action will need formal 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 for actions that are 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 that are likely to have a significant impact on the environment of Commonwealth land (even if taken outside 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)
- 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:

• the Policy Statement titled Significant Impact Guidelines 1.1 – Matters of National Environmental Significance. 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.
- the Policy Statement titled Significant Impact Guidelines: Coal seam gas and large coal mining developments—Impacts on water resources.
- the interactive map tool (enter a location to obtain a report on what matters of NES may occur in that location).

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, read 'Fact Sheet 6 Staged Developments/Split Referrals' and 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, 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. If a permission is not required under the GBRMP Act, no approval under the EPBC Act is required (see section 43, 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?

Completing all parts of this form will ensure that you submit the required information and will also assist the Department to process your referral efficiently. If a section of the referral document is not applicable to your proposal 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 project 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 three megabytes (3mb) 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 three megabytes (3mb) may delay processing of your referral.

Note: the Minister may decide not to publish information that the Minister is satisfied is commercial-in-confidence.

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

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: in order to receive a reference number, submit your referral and the Referrals Gateway will email you the reference number.

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, electronic copies of documentation (on CD/DVD or by email) are required.

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

- Clearly mark the email as a 'Referral under the EPBC Act'.
- Attach the referral as a Microsoft Word file and, if possible, a PDF file.
- Follow up with a mailed hardcopy 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.

The Department will write to you within 20 business days to advise you of the outcome of your referral and whether or not formal 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.

Compliance audits

If a decision is made to approve a project, the Department may audit it at any time to ensure that it is completed in accordance with the approval decision or the information provided in the referral. If the project changes, such that the likelihood of significant impacts could vary, you should write to the Department to advise of the changes. If your project is in the Great Barrier Reef Marine Park and a decision is made to approve it, the Authority may also audit it. (See "*Is your action in the Great Barrier Reef Marine Park,*" p.2, for more details).

For more information

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

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

Project title:

1 Summary of proposed action

NOTE: You must also attach a map/plan(s) and associated geographic information system (GIS) vector (shapefile) dataset showing the location and approximate boundaries of the area in which the project is to occur. Maps in A4 size are preferred. You must also attach a map(s)/plan(s) showing the location and boundaries of the project area in respect to any features identified in 3.1 & 3.2, as well as the extent of any freehold, leasehold or other tenure identified in 3.3(i).

1.1 Short description

The location of the subject site is shown on **Attachment 1** and the GIS file for the subject site boundary is attached.

The proposed action comprises a mix of residential and retail/commercial development within Ripley Valley, South East Queensland, located at 84-122 Binnies Road, Ripley (**Attachment 2**). The subject site forms part of land designated by Economic Development Queensland as a Priority Development Area (PDA) as an area suitable to prioritise future residential development to meet the region's affordable housing needs (**Attachment 3**). The Ripley Valley endorsed concept plan for the subject site is shown in **Attachment 4**. The subject site covers 26.81 ha, of which approximately 11 ha have previously been cleared of native vegetation for two power easements, residential dwellings, dams and horse-feeding areas.

1.2	Latitude and longitude	Latitude	L	ongitude
1.2	Latitude and longitude	Latitude location point degrees -27.673381 152.779583 -27.673923 152.77946 -27.673476 152.780001 -27.678331 152.779626 -27.677286 152.778285 -27.6776 152.777684 -27.674816 152.774637 -27.673714 152.774229 -27.672345 152.775077	L minutes seconds d -27.673923 152.77 -27.673999 152.77 -27.673571 152.78 -27.676783 152.77 -27.676783 152.77 -27.676374 152.774 -27.673799 152.774 -27.673391 152.774	ongitude legrees minutes seconds 9465 '9937 0462 8199 7823 '4369 047 4819 9572
		Lot 2 SP114885;	ee Lots, being:	
		Lot 3 RP882873		

1.3 Locality and property description

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

The subject site forms part of the wider area emerging community known as Ripley Valley, a greenfield area which is currently undergoing rapid transformation into the new town/suburb of Ripley. The Ripley Valley PDA's strategic location in close proximity to the City Centre of Ipswich and the large industrial growth area of Swanbank means the area is forecast to provide approximately 50,000 dwellings to house a population of approximately 120,000 people by the year 2031.

The subject site comprises three allotments described as Lot 3 on RP882873, Lot 356 on S3173 and Lot 2 on SP114885, and is generally rectangular in shape, notwithstanding the smaller sized house lots which adjoin the subject site resulting in the subject sites slightly irregular shape. The site is traversed by two Energex power easements, and is improved by three residential dwellings, dams and horse-feeding areas. The site has a dual road frontage to Binnies Road to the north and Bryants Road to the south. Each road fronting the site is an unconstructed gravel road. The subject site has an undulating topography which generally slopes from the eastern side of the site to the west. Given the large site area the site comprises a varying slope ranging from gradients of approximately 6-10% across different parts of the subject site.

The subject site is immediately surrounded by a number of large lot "rural residential" properties similar in scale and size to the subject site. These surrounding lots primarily comprise a single dwelling house and are characterised by large areas of open space containing a mixture of expansive grassed areas and heavily vegetated areas. The locality surrounding the subject site also contains a number of small allotments which also contain dwelling houses with reduced open space areas surrounding the dwelling. The subject site is approximately 800m west of Ripley Road which provides a major road link between the Cunningham Highway and Centenary Highway. Recent urban residential development is occurring primarily to the east of the subject site, located along the road corridor of Ripley Road. These more recent residential developments are primarily characterised by dwelling houses on residential allotments ranging in size from 170m² to 650m². Within the Ripley Road corridor the Ripley Town Centre is currently under construction.

ł	Size of the development footprint or work area (hectares)	26.81	107 hectares
	Street address of the site	84, 1	14 and 122 Binnies Road, Ripley
	Lot description Describe the lot numbers and t Lot 3 on RP882873, Lot 356 or	itle de S317	scription, if known. 3 and Lot 2 on SP114885.
7	Local Government Area and Council contact (if known) If the project is subject to local government planning approval, provide the name of the relevant council contact officer. Luke Conroy, Ipswich City Council (delegate of EDO)		
3	Time frame Specify the time frame in which the action will be taken including the estimated start date of construction/operation. To be confirmed		
)	Alternatives to proposed action Were any feasible alternatives to	~	No

	taking the proposed action (including not taking the action)		Yes, you must also complete section 2.2
	considered but are not proposed?		
1.10	Alternative time frames etc	✓	No
	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 3.3 (where relevant).
1.11	State assessment	✓	No

	Is the action subject to a state or territory environmental impact assessment?		Yes, you must also complete Section 2.5
1.12	Component of larger action Is the proposed action a	✓	No. Please see Section 2.7
	component of a larger action?		
1.13	Related actions/proposals		Yes
Is the proposed action related to other actions or proposals in the region (if known)?	•	The subject site is located within the State designated Ripley Valley Urban Development Area, but the proposed action relevant to this referral is independent of other actions within the Ripley Valley Urban Development Area. Please see Section 2.7 for clarification.	
1.14	Australian Government	~	No
	Has the person proposing to take the action received any Australian Government grant funding to undertake this project?		Yes, provide details:
1.15	Great Barrier Reef Marine	~	No
	Park Is the proposed action inside the Great Barrier Reef Marine Park?		Yes, you must also complete Section 3.1 (h), 3.2 (e)

2 Detailed description of proposed action

NOTE: It is important that the description is complete and includes all components and activities associated with the action. If certain related components are not intended to be included within the scope of the referral, this should be clearly explained in section 2.7.

2.1 Description of proposed action

Ripley Valley is located in the western growth corridor of South East Queensland, approximately 5 km southeast of Ipswich CBD and 30 km southwest of the Brisbane CBD. In 2009, Ripley Valley was identified under the South East Queensland Regional Plan 2009 -2031 (SEQRP) by the State Government because of its potential to absorb a vast portion of the regional area's population over the two-decade timeframe. The SEQRP suggests a serious population influx to the region with projections of 120,000 residents needing to be accommodated in more than 50,000 dwellings.

The proposal represents the development of a mix of residential and retail/commercial uses within Ripley Valley to accommodate growth within the region. The subject site forms part of land designated by Economic Development Queensland (EDQ) as an area suitable to prioritise future residential and supporting retail/commercial development to meet the region's affordable housing needs. The proposed action represents an important opportunity to establish new affordable residential development with supporting retail in Ripley Valley. It seeks to establish a master planned, mixed use community, and will comprise a mix of retirement living and townhouse accommodation, with supporting retail and commercial services.

The proposed development covers 26.81 ha and will provide approximately 350-400 residences over 14.38 ha and supporting retail / commercial services over the developable balance of the land (3.28 ha). The balance of the subject site is dedicated to the proposed Ipswich-Springfield Rail Corridor, and two (2) Energex easements that accommodate a 33kV and 110kV powerline respectively. It is anticipated that each easement area will contribute to the proposed open space network.

The subject site is well located in relation to existing and future services. It is approximately 800m west of Ripley Road which provides a major inter suburban road link between the Cunningham Highway and Centenary Highway, is located in immediate proximity to the proposed Ripley North Rail Station, is well serviced by existing trunk water mains, and has capacity to be accommodated by the Bundamba Creek sewerage catchment area.

Refer to Preliminary Master Plan prepared by Zenx Architects dated 18 Feb 2016 (Attachment 2).

2.2 Alternatives to taking the proposed action

No feasible alternatives are applicable or have been considered in relation to the development of the site.

2.3 Alternative locations, time frames or activities that form part of the referred action

Not Applicable

2.4 Context, planning framework and state/local government requirements

The proposed development site is located within the Ipswich City Council local government area and is located within the Ripley Valley Priority Development Area (PDA); therefore, future development over the site is subject to assessment against the provisions of the Economic Development Act 2012 and more specifically the Ripley Valley Urban Development Area Development Scheme (the Ripley Development Scheme).

The declaration of a PDA removes the subject site from the planning and development processes of the Sustainable Planning Act 2009 and the Ipswich Planning Scheme 2006. Notwithstanding this, Section 3.2.12 of the Ripley Development Scheme does make reference to various components of the Ipswich Planning Scheme. In particular, the Ripley Valley Scheme is largely informed by the Part 15 of the Ipswich Planning Scheme, being the Ripley Valley Master Planned Structure Plan (the Structure Plan) (**Attachment 3**). The Vision as outlined in the Scheme has also informed the detail of the Structure Plan.

With reference to Map 4 of the Ripley Development Scheme, the subject site is located within the Urban Living Zone. Section 3.4 of the Ripley Development Scheme prescribes that the Urban Living Zone is intended to be developed as "urban and suburban neighbourhoods focused on identifiable and accessible centres and comprising of a mix of residential developments including houses, multiple residential and other residential." It is noted that the Urban Living Zone is also intended to accommodate a wide range of other non-residential uses.

Within the Urban Living Zone, the subject site is within the Secondary Urban Centre West Neighbourhoods.

The subject site is also the subject of various development constraints, including two (2) high voltage Energex electricity transmission lines and associated easements, a future regional transport corridor (the Ipswich-Springfield Rail Corridor), and the Swanbank Power Station Buffer Area.

These constraints are incorporated within the endorsed EDQ plans which identify a range of infrastructure items to be considered prior to development. These include road network, water and sewerage infrastructure, green space, centres hierarchy and community facilities.

Process

Under the Ripley Valley Development Scheme, the initial stage of the development application is the preparation and endorsement of a Context Plan (**Attachment 4**). Context Plans provide an intermediate level of spatial planning and include a broad range of development parameters generally applicable to future development. Context Plans are required to ensure that the development proposal will not prejudice the achievement of the vision and zone intents for the Development Scheme Area.

Notably, a Context Plan currently exists over the subject site area, being the Ripley Secondary Urban Centre West (SUCW) Context Plan. See attached. This Context Plan was endorsed by the Urban Land Development Authority (now Economic Development Queensland) on 5 December 2012. The approved Context Plan maps the majority of the subject site within the SUCW Residential Medium Density (20-35 dw/ha) area and the SUCW Residential (35-50 dw/ha) area. It is also noted that the eastern side of the subject site also forms part of the Commercial Mixed Use area.

The Context Plan also illustrates the site being traversed by two Energex Easements for High Voltage Powerlines, a Proposed Rail Corridor, and a number of proposed 'Suburban Link' road corridors.

Engagement with Energex and the State Government Department of Transport and Main Roads (Rail) has commenced in relation to the above powerline and rail corridor constraints.

With the endorsed Context Plan in place, the applicant is in a position to lodge a development application for the individual development proposal over the subject site via a Plan of Development, without the requirement of preparing a broader Context Plan. However if the proposed development is materially inconsistent with the existing endorsed Context Plan, then a new Context Plan will be required to accompany the development application.

Assuming the proposed development is consistent with the existing endorsed Context Plan and there is no requirement for a new Context Plan, the development application process will involve the preparation of a Plan of Development (PoD) to accompany a Reconfiguring a Lot (ROL) development application. A Plan of Development demonstrates in detail how proposed uses, works and lots will contribute towards the achievement of the Development Scheme Vision and how the proposed development accords with the UDA Wide Criteria and relevant Zone Intent.

The Plan of Development will include maps, graphics and text that provide a high level of detail and includes aspects such as the proposed land uses, proposed subdivision layout, nature of the proposed Lots, the development staging, preferred open space locations, maximum building envelopes, servicing and road layout.

The PoD sets up an approval framework for future development over the subject site. Notably, Table 2 of the Ripley Development Scheme prescribes that development for a Material Change of Use (other than for a car park), where the land is not on the Environmental Management Register or Contaminated Land Register, is Exempt Development where in accordance with an approved Plan of Development.

Therefore the proposed development will require lodgement of a development application for a Plan of Development and Reconfiguring a Lot.

2.5 Environmental impact assessments under Commonwealth, state or territory legislation

Not Applicable.

2.6 Public consultation (including with Indigenous stakeholders)

No public consultation pursuant to the *Economic Development Act 2012* is proposed to be carried out unless the proposal warrants preparation of a new Context Plan. This will be determined by Ipswich City Council. Where a new Context Plan is required, public consultation is to be carried out in accordance with Act and the Ripley Valley Urban Development Area Development Scheme.

Where indigenous stakeholders are likely to be affected, appropriate consultation will be undertaken.

2.7 A staged development or component of a larger project

The proposed action represents the development of a mix of residential and retail/commercial uses within Ripley Valley to accommodate growth within the region. The site forms part of land designated by Economic Development Queensland (EDQ) as an area suitable to prioritise future residential and supporting retail/commercial development to meet the region's

affordable housing needs. The proposed action forms a small part of the larger Ripley Valley Urban Development Area (**Attachment 3**).

3 Description of environment & likely impacts

3.1 Matters of national environmental significance

A search of the Protected Matters Search Tool (PMST) indicates the likely or potential occurrence of Matters of National Environmental Significance (MNES) in the locality (**Attachment 5**).

3.1 (a) World Heritage Properties

Description

There are no World Heritage Properties within the subject site.

Nature and extent of likely impact

There will be no impacts on World Heritage Properties.

3.1 (b) National Heritage Places

Description

There are no National Heritage Places within the subject site.

Nature and extent of likely impact

There will be no impacts on National Heritage Properties.

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

Description

There are no wetlands of International Importance (declared Ramsar wetlands) within the subject site. The subject site is approximately 50 km from the nearest Ramsar wetland (Moreton Bay). There are no creek or river systems that drain from the subject site towards the nearest Ramsar wetland.

Nature and extent of likely impact

Stormwater Management actions will ensure there are no impacts on Wetlands of International Importance.

3.1 (d) Listed threatened species and ecological communities

Description

The Protected Matters Search Tool (PMST) for the subject site identified the following Matters of National Environmental Significance (MNES):

- Two threatened ecological communities (TECs):
 - Lowland Rainforest of Subtropical Australia (Rainforest TEC) (critically endangered) community may occur; and
 - White box-Yellow Box-Blakely's Red gum Grassy Woodland and Derived Native Grassland (critically endangered) community may occur.
- 21 Threatened Species; and
- 14 Listed Migratory Species

An ecological survey of the subject site was completed by Biodiversity Assessment and Management Pty Ltd in January 2016 (BAAM 2016, **Attachment 6**). The results of this assessment and review of specific habitat requirements and distribution of the listed threatened species and TECs identified in the PMST report ruled out the potential for most of these MNES to occur, based on the lack of suitable habitats within the subject site (**Attachment 6**).

Listed Threated Species

Flora

The PMST identifies the potential occurrence of four listed threatened plant species for the subject site:

Scientific Name	Common Name	EPBC Act Status
Bosistoa transversa	Three-leaved Bosistoa	Vulnerable
Notelaea ipsviciensis	Cooneana Olive	Critically Endangered
Phebalium distans	Mt Berryman Phebalium	Critically Endangered
Thesium australe	Austral Toadflax	Vulnerable

Based on a desktop assessment and field survey (BAAM 2016) (**Attachment 6**), one species, *Notelaea ipsviciensis*, is considered to have the potential to occur due to the suitability of habitats for this species within the subject site. This species is discussed in further detail below.

The subject site does not support habitats suited to the other three species and they are considered unlikely to occur (**Attachment 6**).

Species Assessment - Notelaea ipsviciensis

Data relevant to the habitat, distribution and ecology of *Notelaea ipsviciensis* was sourced through relevant literature and relevant and publicly available data sources including the Atlas of Living Australia, the Queensland Department of Environment and Heritage Protection (EHP) "WildNet" database and the Commonwealth Species Profile and Threats database (SPRAT) profile (DotE 2016a).

Notelaea ipsviciensis has been recorded from three closely clustered sub-populations in the Ipswich area, with the extent of occurrence being less than 2 square kilometres (DotE 2016a). The closest record of this species is approximately 7 km from the subject site (ALA 2016; DotE 2016a). This shrub is readily recognisable and detected if present.

EHP does not map the subject site as occurring within a "high risk" area for the purposes of requiring a comprehensive survey for threatened and near threatened plant species listed at the State level, including *Notelaea ipsviciensis* (currently listed in Queensland as Endangered) (refer to Appendix 2 in **Attachment 6**). This mapping reflects the likelihood of threatened and near threatened plant species occurring at a given location, based on known records.

Accordingly, searches for threatened plant species were undertaken in suitable habitats during the collection of vegetation community data at strategic, representative locations throughout the subject

site (**Attachment 6**). No *Notelaea ipsviciensis* specimens were recorded and, given the highly restricted distribution of the species in relation to the proximity of the closest known record, significant impacts as a result of the proposed actions are considered unlikely.

Fauna

The PMST identifies the potential occurrence of 17 listed threatened fauna species (nine birds, six mammals and two reptiles) for the subject site as listed below.

Scientific Name	Common Name	EPBC Act Status
Birds		
Anthochaera phrygia	Regent Honeyeater	Critically Endangered
Botaurus poiciloptilus	Australasian Bittern	Endangered
Erythrotriorchis radiatus	Red Goshawk	Vulnerable
Geophaps scripta scripta	Squatter Pigeon	Vulnerable
Grantiella picta	Painted Honeyeater	Vulnerable
Lathamus discolor	Swift Parrot	Endangered
Poephila cincta cincta	Black-throated Finch	Endangered
Rostratula australis	Australian Painted Snipe	Endangered
Turnix melanogaster	Black-breasted Button-Quail	Vulnerable
Mammals		
Chalinolobus dwyeri	Large-eared Pied Bat	Vulnerable
Dasyurus hallucatus	Northern Quoll	Endangered
Dasyurus maculatus maculatus (SE mainland population)	Spotted-tailed Quoll	Endangered
Petrogale penicillata	Brush-tailed Rock Wallaby	Vulnerable
populations of Qld, NSW and the ACT)	Koala	Vulnerable
Pteropus poliocephalus	Grey-headed Flying-fox	Vulnerable
Reptiles Delma torquata	Collared Delma	Vulnerable
Furina dunmalli	Dunmall's Snake	Vulnerable

Based on a desktop assessment and field survey (BAAM 2016) (**Attachment 6**), one species (Koala) is known to occur within the subject site, while three additional species (Grey-headed Flying-fox, Regent Honeyeater and Red Goshawk) are considered to have the potential to occur due to the suitability of habitats for these species within the subject site. These species are discussed in further detail below.

The other 13 species are considered unlikely to occur due to a lack of suitable habitat and/or on the basis of the species' current recognised distributions (refer to Appendix 2 of **Attachment 6**).

Species Assessment - Koala Phascolarctos cinereus

Data relevant to the habitat, distribution and ecology of Koala was sourced through relevant literature and relevant and publicly available data sources including the Atlas of Living Australia, the EHP "WildNet" database and the Commonwealth SPRAT profile (DotE 2016b). This information, together with a review of aerial photography and existing vegetation community mapping by the Queensland Department of Natural Resources and Mines (DNRM) and EHP Koala habitat mapping was used to inform a field survey, which was conducted on 19 January 2016; the results of which are detailed in **Attachment 6**.

Koala has a distinct association with eucalypt woodland and forest habitat types containing suitable food trees (Hume and Esson 1993; Moore and Foley 2000; Martin *et al.* 2008). The species is not necessarily restricted to bushland or remnant areas and are known to exist and breed within farmland and the urban environment (Dique *et al.* 2004). Similarly, movement is not confined to vegetated corridors, as they also move across cleared rural land and through suburbs (Martin *et al.* 2008).

Koala occurs throughout north-east, central and SEQ, extending south through Victoria into South Australia and Kangaroo Island. The highest density of Koala populations occurs in south-east Queensland (DotE 21016b). As the subject site is mapped under the State Planning Policy as supporting Koala habitats (**Attachment 7**), the occurrence of Koala and an assessment of habitat for Koala was undertaken as part of the ecological assessment (**Attachment 6**). The Koala assessment involved search for Koala and recording Koala habitat trees along representative transect surveys of eucalypt-dominated vegetation communities within the subject site, in addition to conducting a general assessment of habitat features that could potentially support Koala.

The presence of Koala was confirmed through the recovery of characteristic scats at three locations within the subject site – i.e. under three different trees located towards the southern portions of the subject site (refer to Figure 3.1 of **Attachment 6**). Koala or scats were not observed throughout the remainder of the subject site. There is a single historical record of Koala from Ripley in the Atlas of Living Australia database (ALA 2016) and 18 records within a 2 km radius of the subject site in the EHP WildNet database (Appendix 1 of **Attachment 6**).

An assessment of habitat quality within the subject site in accordance with the *EPBC Act referral guidelines for the vulnerable Koala* (DotE 2014) returned a score of 8; therefore, it is considered the subject site supports habitat critical to the survival of Koala (**Table 3.1a**).

Attribute	Score	Assessment		
Koala occurrence	2	Desktop	The wildlife online database records 18 Koala sightings within a 2 km radius of the subject site, since 1980. There are no	
			records from AKF within 2km of the subject site.	
		On- ground	Koala evidence (scats and scratches) was observed within the subject site.	
Vegetation composition	Vegetation composition 2 Desktop Portions of the subject site are mapped by I vegetation consisting of RE12.9-10.2 Corym variegata +/- Eucalyptus crebra open forest rocks		Portions of the subject site are mapped by DNRM as remnant vegetation consisting of RE12.9-10.2 <i>Corymbia citriodora</i> subsp. <i>variegata +/- Eucalyptus crebra</i> open forest on sedimentary rocks	
		On- ground	The subject site contains two or more recognised koala food tree species.	
Habitat	2	The subject site connects with large areas of bushland to the south.		
connectivity However, the Cunningham Highway t Highway to the south and west of the impediments to safe Koala movement			the Cunningham Highway to the north and the Centenary	
			to the south and west of the subject site are substantial entry of the substantial entry of the safe Koala movement.	
Key existing	1	Desktop	AKF mapping shows one record of a dead Koala recorded in	
threats			2010 at Brookwater, approximately 11 km to the east of the subject site.	
		On-	Due to the increasing residential developments within the local	
		ground	area, it is considered that the threat of vehicle strike and dog	
			attacks would be relatively high in this location.	
Recovery	1	It is uncertain if the subject site is important in achieving the interim		
value*		recovery objectives for Koala.		
Total	8	Decision: The habitat is considered critical to the survival of the Koala.		

Table 3.1a. EPBC Act Koala habitat assessment tool.

Given this result, an assessment of the significance of impacts on the species from the proposed actions will be dependent on whether the actions are likely to adversely affect habitat critical to the survival of the Koala, and/or whether the proposed development will interfere substantially with the recovery of the species. **Tables 3.1b and 3.1c** provide an assessment against the listed factors from the *EPBC Act referral guidelines for the vulnerable Koala* (DotE 2014) that determine if a significant impact is likely.

This assessment indicates that the proposed action would have a low-moderate risk of significant impacts on Koala. This is due to the relatively small area of impact, and the strategic retention and enhancement of biodiversity corridors as part of the Ripley Valley Urban Development Plan design, which is expected to ameliorate the long term effects of the initial impact.

Table 3.1b. Assessment against EPBC Act referral guidelines for the vulnerable koala (combined populations of Queensland, New South Wales and the Australian Capital Territory

Territory	
Impact Factors	Assessment of Significance
The score calculated for the impact area (higher score = greater risk)	The subject site achieved a score of 8 (of 10) for habitat quality. This score reflects the presence of Koala, prevalence of Koala food trees, and the positioning of the subject site within a broadly continuous landscape of >500 hectares. Relatively moderate risk of significant impact.
Amount of Koala habitat being cleared (more habitat cleared = greater risk)	It is anticipated that approximately 16 hectares of Koala habitats will need to be cleared in order in order for the development to proceed. However, strategic design within the Ripley Valley Urban Development Plan has included the retention and enhancement of biodiversity corridors (Figure 15.3 of Attachment 3), which are expected to ameliorate the long term effects of the initial impact. Relatively low risk of significant impact.
Method of clearing	The method of clearing for the proposed development is yet to be specified, but will need to be conducted in a sequential manner and under the supervision of an experienced fauna spotter and in accordance with the Queensland government <i>Nature Conservation (Koala) Conservation Plan 2006 and Management Program 2006-2016</i> (EHP 2006). Low risk of significant impact expected.
The density or abundance of Koalas	No Koala individuals were directly observed; however evidence in the form of scats was found at three sites, suggesting that the subject site is utilised by Koala on occasion. Strategic design within the Ripley Valley Urban Development Plan has included the retention and enhancement of biodiversity corridors (Figure 15.3 of Attachment 3), which are expected to ameliorate the long term effects of the initial impact. Relatively low risk of significant impact.
Level of fragmentation caused by the clearing	It is anticipated that approximately 16 ha of Koala habitats will need to be cleared in order in order for the development to proceed, which would initially result in fragmentation in what is otherwise a relatively contiguous tract of Koala habitat (>500 ha). However, strategic design within the Ripley Valley Urban Development Plan has included the retention and enhancement of biodiversity corridors (Figure 15.3 of Attachment 3), which are expected to ameliorate the long term effects of the initial impact. Relatively low risk of significant impact.

Table 3.1c. Assessment of the significance of removing habitat critical to the survival ofKoala (refer Sections 6, 7, 8 of DotE 2014).

Characteristics that could adversely affect habitat critical to the survival of Koala	Assessment of Proposed Actions
Increasing Koala fatalities to dog attacks	The proposed development will likely result in an increase in the presence of dogs in the local landscape. However, the retention and enhancement of existing biodiversity corridors within the Ripley Valley Urban Development Area is expected to provide movement opportunities for Koala and reduce exposure to dog attacks in the long term. Moderate risk of significant impact expected.
Increasing Koala fatalities to vehicle-strikes	The proposed development will lead to an increase in traffic volumes on new and existing roads, although the existing level of development already approved in this area indicates this will be relatively minor. Moderate risk of significant impact expected.
Facilitating the introduction	The clearing of Koala habitats can induce stress on individual animals,

or spread of disease of pathogens, that are likely to significantly reduce the reproductive output of Koalas,	which then makes the animals predisposed to succumbing to diseases/pathogens such as Chlamydia. The clearing of Koala habitats will be undertaken in accordance with the <i>Nature Conservation (Koala) Conservation Plan 2006 and Management Program 2006-2016</i> (EHP 2006) and no Koala will placed in a stressful situation by forcing them to move from a tree targeted for clearing. A qualified fauna spotter/catcher will be present during all vegetation clearing to report the presence of any sick or injured Koala observed within the subject site. Low risk of significant impact expected.
Creating a barrier to movement to, between or within habitat critical to the survival of the Koala that is likely to result in the long- term reduction of genetic fitness.	The proposed development will not create a barrier to movement between Koala habitats located outside of the subject site. Strategic design within the Ripley Valley Urban Development Plan has included the retention and enhancement of biodiversity corridors (Figure 15.3 of Attachment 3), which are expected to ameliorate the long term effects of the initial impact and facilitate opportunities for Koala movement. Relatively low risk of significant impact .
Changing hydrology which degrades habitat critical to the survival of the Koala to the extent the carrying capacity of the habitat is reduced in the long-term.	Two minor waterways are present in the subject site. Consideration will be given to the engineering of drainage design to mitigate flooding as would be appropriate in an urban area. It is not expected that the proposed development will lead to degradation in Koala habitat due to changes in hydrology. No significant impact expected.

Species Assessment - Grey-headed Flying-fox Pteropus poliocephalus

Data relevant to the habitat, distribution and ecology of Grey-headed Flying-fox was sourced through relevant literature and relevant and publicly available data sources including the Atlas of Living Australia, the EHP "WildNet" database and the Commonwealth SPRAT profile (DotE 2016c), EHP Flying-fox roost mapping (EHP 2016) and Commonwealth's National Flying-fox Monitoring Viewer (DotE 2016d).

Grey-headed Flying-fox is a large species of flying-fox. As the species is a canopy-feeding frugivore and nectarivore, they utilise vegetation including rainforests, open eucalypt forests, woodlands, melaleuca swamps and banksia woodlands (Nelson 1965). Regular or frequently used camps have been located between Rockhampton in Queensland south to around Mallacoota in East Gippsland, Victoria. They are generally recorded between the coast and the western slopes of the Great Dividing Range. Breeding occurs during the spring months when food resources are at their most plentiful (Duncan *et al.* 1999).

The field investigation under taken by BAAM (2016) (**Attachment 6**) confirmed that no roost sites for Grey-headed Flying-fox are located in the subject site. The field investigation did not include dusk or night time surveys; therefore the actual presence of Grey-headed Flying-fox within the subject site has not been determined. However, the subject site supports some canopy species that, when in flower, would provide resources for Grey-headed Flying-fox, and it is likely that this species would occur within the subject site in response to flowering/fruiting events.

Based on an assessment against the DotE Significant Impact Guidelines 1.1 (DotE 2013) (**Table 3.2**), it is considered that there is a low risk the proposed development will have a significant impact on Greyheaded Flying-fox.

Table 3.2. Assessment against DotE Significant Impact Guidelines 1.1 – MNES - Gr	ey-
headed Flying-fox	

Criteria	Assessment of significance
An action is likely to have a	significant impact on a vulnerable species if there is a real
chance or possibility that it	will:
Lead to a long-term decrease in the size of an important population of a species.	Grey-headed Flying-fox occur widely throughout the local and regional landscape. A search of the Queensland EHP map of Flying- fox roost sites (EHP 2016) and DotE Flying-fox Monitoring viewer
Reduce the area of occupancy	

of an important population. Fragment an existing important population into two or more populations. Adversely affect habitat critical to the survival of a species Disrupt the breeding cycle of an important population.	(DotE 2016d) indicates the closest flying-fox roost site is at Yamanto, approximately 3 km to the north-west of the subject site. Between 500-2499 Grey-headed Flying-fox were recorded from this roost site in February 2015, but none were present in May 2015. Impacts to potential feeding resources in the subject site as a result of this proposed development are not expected to result in long- term effects to the size of an important population, reduce the area of occupancy, fragment an existing population, affect habitat critical to the survival, or disrupt the breeding cycle of the species. Feeding resources are widely available in the broader landscape and no roost sites are known or expected to be present in the potential impact area. Therefore, the potential impacts are assessed as low.
Modify, destroy, remove or 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 a vulnerable species becoming established in the vulnerable species' habitat. Introduce disease that may cause the species to decline.	The proposed development will require the clearing of approximately 16 hectares of mostly regrowth native open forest which holds some potential feeding resources for Grey-headed Flying-fox. However, the Ripley Valley Urban Development Plan (Figure 15.3 of Attachment 3) has included the retention and expansion of biodiversity corridors which will provide abundant feeding resources for this species. Impacts from the loss of potential feeding resources within the subject site, when abundant feeding resources are present within the local landscape, are not expected to cause a decline in population levels for this species; result in the invasion of species, or introduce disease. It is therefore considered that the risk of significant impacts to Grey-headed Flying-fox is low.
Interfere substantially with the recovery of the species.	Feeding resources are widely available in the broader landscape and no roost sites are known or expected to be present in the referral. Therefore, the potential impacts are assessed as low.

Species Assessment - Regent Honeyeater Anthochaera phrygia

Data relevant to the habitat, distribution and ecology of Regent Honeyeater was sourced through relevant literature and relevant and publicly available data sources including the Atlas of Living Australia, the EHP "WildNet" database and the Commonwealth SPRAT profile (DotE 2016e).

The Regent Honeyeater is endemic to south-eastern mainland Australia, occurring mostly on the inland slopes of the Great Dividing Range, and formerly ranged from Wilmington, South Australia to near Rockhampton in Queensland. It is now probably extinct in South Australia, is vagrant to western Victoria, and occurs north only to Pomona in Queensland (Higgins *et al.* 2001). Although occasionally found in agricultural land with only partial tree cover or in city parks and gardens, the Regent Honeyeater occurs mainly in dry box-ironbark eucalypt woodland and dry sclerophyll forest (Higgins *et al.* 2001). Within the box-ironbark eucalypt associations they prefer the wettest, most fertile sites (Garnett *et al* 2011).

Diet is mainly nectar and insects (including exudates such as lerp and honeydew) and, occasionally, fruit. Foraging is mainly carried out in the foliage and flowers of the upper canopy of trees, though they sometimes feed in the understorey and, rarely, on the ground. Nectar is taken mainly from eucalypts and mistletoes (Higgins *et al.* 2001).

There are no records from WildNet or the Atlas of Living Australia for Regent Honeyeater within 5 km of the subject site. Regardless, the subject site provides some potential feeding resources and there is a low potential that this species may occasion the subject site. However, potential resources are readily available in the surrounding landscape and within the dedicated corridors planned for the Ripley Valley Urban Development Plan (Figure 15.3 of **Attachment 3**).

Based on the lack of Regent Honeyeater records for the local area, the marginal habitat values within the subject site and the retention and enhancement of higher valued habitats in the broader landscape,

it is considered that the proposed development will have a low risk of significant impacts on this species.

Species Assessment - Red Goshawk Erythrotriorchis radiatus

Data relevant to the habitat, distribution and ecology of Red Goshawk was sourced through relevant literature and relevant and publicly available data sources including the Atlas of Living Australia, the EHP "WildNet" database and the Commonwealth SPRAT profile (DotE 2016f).

The Red Goshawk is a large, swift and powerful rufous-brown hawk, growing to a length of 45–60 cm, with a wingspan of 100–135 cm. Red Goshawk occur in woodlands and forests of tropical and warm temperate Australia. It prefers mosaic habitats that hold a large population of birds and permanent water. Riparian areas are heavily favoured. Within these habitats it prefers forest of intermediate density – open enough to allow fast flight and manoeuvring, closed enough to allow ambush from a concealed position. It is a solitary and secretive bird and hunts mostly birds, but also mammals, reptiles and insects (Marchant and Higgins 1993). Although Red Goshawk occurred historically in South-East Queensland (SEQ), a recent intensive survey for the species in the most suitable habitats failed to find any birds (Seaton 2014). This, together with a decline in the reports of Red Goshawks submitted to WildNet over the past 34 years suggests that the species range has undergone a significant retraction in SEQ (Seaton 2014).

There are no records from WildNet or the Atlas of Living Australia for Red Goshawk within 5 km of the subject site. The subject site holds limited resources for this species, but there is potential for the species to occur in the local landscape where mature vegetation provides higher habitat values.

Based on the lack of Red Goshawk records for the local area, recent evidence of a significant retraction of the species' range in SEQ, the marginal habitat values within the subject site and the retention and enhancement of higher valued habitats in the broader landscape, it is considered that the proposed development will have a low risk of significant impacts on this species.

Threatened Ecological Communities

The PMST identifies the potential occurrence of two Listed TECs in the subject site: (i) Lowland Rainforest of Subtropical Australia (Rainforest TEC); and (ii) White box-Yellow Box-Blakely's Red gum Grassy Woodland and Derived Native Grassland (Box-Gum TEC).

The results of the field assessment (**Attachment 6**) indicate that the subject site does not support any flora species associated with rainforest conditions and no rainforest habitats were present within the subject site; therefore it is concluded that this Rainforest TEC does not occur within the subject site.

The field assessment failed to find any White Box *Eucalyptus albens*, Yellow Box *Eucalyptus melliodora* or Blakely's Red Gum *Eucalyptus blakelyi* within the subject site and no co-dominant species of trees were present. In addition, the ground layer lacked tussocked grass; therefore it is concluded that this Box-Gum TEC does not occur within the subject site and no significant impacts are likely.

3.1 (e) Listed migratory species

Description

The PMST report for the subject site identified one migratory marine species, 10 migratory terrestrial species and five migratory wetland species as having potential to occur, or their habitats may occur. Based on the extant habitats within the subject site and extensive knowledge of the habitat requirements for all species listed in the PMST report, only the following species are assessed as having potential to occur within the subject site (Appendix 2 of **Attachment 6**):

- White-throated Needletail Hirundapus caudacutus;
- Fork-tailed Swift Apus pacificus;
- Great Egret Ardea alba;
- Cattle Egret Ardea ibis;
- Oriental Cuckoo Cuculus optatus; and
- Rainbow Bee-eater Merops ornatus.

White-throated Needletail and Fork-tailed Swift are likely to occur within the subject site on an annual basis. Both are aerial species for which the subject site does not represent 'important habitat' and no significant impacts are expected due to the proposed action as these species forage over a wide variety of land use, including human infrastructure and waterbodies.

The nature and extent of impact on the remaining four species are discussed below.

Nature and extent of likely impact

Table 3.3 presents the results of an assessment against the DotE Significant Impact Guidelines 1.1 (DotE 2013) in relation to the migratory species that have potential to occur within the subject site. Based on this assessment, the proposed development is not expected to have any significant impacts on migratory species, or important habitats for migratory species.

Assessment against DotE Significant Impact Guidelines 1.1 – MNES – Migratory Species

Criteria	Assessment of Significance		
An action is likely to have a significant impact on a migratory species if there is a real chance or possibility that it will:			
Substantially modify (including by fragmenting, altering fire regimes, altering nutrient cycles or altering hydrological cycles), destroy or isolate an area of <i>important</i> <i>habitat</i> for a migratory	The subject site contains small farm dams and minor ephemeral watercourses. However, none of these areas are considered to contain important habitat for migratory species, due to the lack of dense fringing vegetation around the dams and continued disturbance of dam banks by domestic horses. Specific accounts are provided for those species considered to have potential to occur within the subject site below.		
species.	Great Egret and Cattle Egret		
	These species may occasionally forage within the subject site, with Great Egret being common and widespread in a variety of habitats and Cattle Egret being associated with paddocks and livestock, but requiring wetlands for breeding. The subject site does not currently support breeding colonies for these species and, based on the small size and disturbed nature of the farm dams, the subject site is not considered to support important habitat for Great or Cattle Egrets. The residual impact of the proposed action is assessed as 'insignificant'.		
	Oriental Cuckoo		
	This species is a relatively sparse migrant to south-east Queensland in areas of suitable, open habitat, and would only		

	 be an occasional visitor to the subject site. The proposed development will have limited impacts on the availability of habitat for this species within the broader region and no significant impacts are expected. Rainbow Bee-eater Rainbow Bee-eater is a common, widespread species in the local landscape. Within its distribution, it occurs in open or lightly timbered areas, shrublands, farmland, cleared land, mangroves, rainforest edges and in disturbed areas that have exposed soil or sand banks for breeding (Higgins 1999). The subject site is not considered to hold important breeding habitat. The proposed action is expected to have minimal effects on any local population of these species and the proposed development is not expected to impact upon important habitat.
Result in invasive species that are harmful to the migratory species becoming established in an area of <i>important habitat</i> for the migratory species.	The subject site does not support habitats that would be considered important for migratory species and the removal of the ephemeral watercourses and constructed dams will not result in an invasion of species that are harmful to migratory species. No significant increase or benefit to invasive species is expected from the proposed action.
Seriously disrupt the lifecycle (breeding, feeding, migration or resting behaviour) of an <i>ecologically significant</i> <i>proportion</i> of the <i>population</i> of a migratory species.	 Great Egret and Cattle Egret The proposed action is expected to have minimal effects on these species and there would be no serious disruption to the lifecycle of any local population. Rainbow Bee-eater Rainbow Bee-eater Rainbow Bee-eater is a common, widespread species and the subject site is not expected to support an 'ecologically significant proportion of a population' and any potential impacts associated with the proposed action are anticipated to be insignificant. Oriental Cuckoo This species is a relatively sparse migrant to south-east Queensland in areas of suitable, open habitat. The proposed development will have limited impacts on the availability of habitat for this species within the broader region. Serious disruption to the lifecycle of any local population is not anticipated to occur.

3.1 (f) Commonwealth marine area

(If the action is <u>in</u> the Commonwealth marine area, 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 subject site is not within a Commonwealth marine area.

Nature and extent of likely impact

There will be no impacts on Commonwealth marine areas.

3.1 (g) Commonwealth land

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

Description

The subject site is not in Commonwealth land. The closest area of Commonwealth Land is the Defence Small Arms Range at Purga, approximately 6 km to the west of the subject site.

Nature and extent of likely impact

The proposed development will have no impacts to Commonwealth land.

3.1 (h) The Great Barrier Reef Marine Park

Description

The subject site is not within or within a catchment of the Great Barrier Reef Marine Park.

Nature and extent of likely impact

The proposed development will have no impacts on the Great Barrier Reef Marine Park.

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

Not applicable to the proposed urban development.

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

Not applicable to the proposed urban development

3.2 (a)	Is the proposed action a nuclear action?	✓	No

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

3.2 (b)	Is the proposed action to be taken by the	~	No
	Commonwealth or a Commonwealth		
	agency?		

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

V	No
the who	ble environment (in addition to 3.1(f))
 ✓ 	No
the whe	
the who	ble environment (in addition to 3.1(g))
	ie environment (in addition to 3.1(g))
	the who

If yes, nature & extent of likely impact on the whole environment (in addition to 3.1(h))

3.3 Other important features of the environment

The subject site comprises a total area of 26.81 hectares over the three allotments. Each Lot contains a residence and associated sheds and are intersected by two high-voltage powerline easements. The entire Ripley Valley area is currently undergoing extensive development and is located in the urban footprint.

3.3 (a) Flora and fauna

Attachment 6 provides the ecological assessment report for the subject site.

The subject site contains mostly regrowth native open forest, intersected by two cleared powerline easements and cleared areas surrounding the residences.

Weeds, especially *Lantana camera*, currently dominate the shrub layer in many areas and cleared areas are dominated by grazed/mown exotic grasses.

No Commonwealth or State listed conservation significant flora species were observed during the field investigation.

Fauna recorded during the site survey consisted of locally common, urban bird species. Red-necked Wallaby *Macropus rufogriseus* and Eastern Grey Kangaroo *Macropus giganteus* were observed, as were scats of Common Ringtail Possum *Pseudocheirus peregrinus* and Koala *Phascolarctos cinereus*. Bandicoot diggings were also observed.

Koala was the only conservation significant fauna species recorded (scats only) during the field investigation.

3.3 (b) Hydrology, including water flows

The subject site supports two ephemeral drainage lines, which were dry at the time of the field investigation, and five farm dams.

3.3 (c) Soil and Vegetation characteristics

The subject site contains mostly regrowth native open forest, intersected by two cleared powerline easements and cleared areas surrounding the residences. Soils are highly erodible sodosols (Ipswich City Council undated)

3.3 (d) Outstanding natural features

The subject site does not support any outstanding natural features.

3.3 (e) Remnant native vegetation

A small area of remnant Regional Ecosystem 12.9-10.2 (*Corymbia citriodora* +/- *Eucalyptus crebra* open forest on sedimentary rocks) occurs in the south-east corner of Lot 356 on S3173.

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

Not Applicable.

3.3 (g) Current state of the environment

The subject site is typical of most rural/residential with pockets of native vegetation interspersed amongst cleared and grazed areas.

Weeds, especially *Lantana camera*, currently dominate the shrub layer in many areas and cleared areas are dominated by grazed/mown exotic grasses. In addition to horse and domestic dogs, a range of other non-

native fauna such as Black Rat *Rattus rattus*, House Mouse *Mus musculus*, Red Fox *Vulpes vulpes*, Rabbit *Oryctolagus cuniculus*, Brown Hare *Lepus* capensis and Feral Cat *Felis catus* are expected to frequent the subject site and surrounds.

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

The subject site does not support any heritage places or is recognised as having heritage values.

3.3 (i) Indigenous heritage values

The subject site has not been identified as supporting indigenous heritage values (refer to Map 2 of the Ripley Valley Urban Development Area Development Scheme) (Attachment 3).

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

The subject site is located within the urban footprint. There are no important or unique environmental values within the subject site or within close proximity to the subject site.

3.3 (k) Tenure of the action area (eg freehold, leasehold)

Freehold

3.3 (I) Existing land/marine uses of area

Rural/residential

3.3 (m) Any proposed land/marine uses of area

4 Environmental outcomes

Provide descriptions of the proposed environmental outcomes that will be achieved for matters of national environmental significance as a result of the proposed action. Include details of the baseline data upon which the outcomes are based, and the confidence about the likely achievement of the proposed outcomes. Where outcomes cannot be identified or committed to, provide explanatory details including any commitments to identify outcomes through an assessment process.

If a proposed action is determined to be a controlled action, the Department may request further details to enable application of the draft *Outcomes-based Conditions Policy 2015* and *Outcomes-based Conditions Guidance 2015* (<u>http://www.environment.gov.au/epbc/consultation/policy-guidance-outcomes-based-conditions</u>), including about environmental outcomes to be achieved, details of baseline data, milestones, performance criteria, and monitoring and adaptive management to ensure the achievement of outcomes. If this information is available at the time of referral it should be included.

General commitments to achieving environmental outcomes, particularly relating to beneficial impacts of the proposed action, CANNOT be taken into account in making the initial decision about whether the proposal is likely to have a significant impact on a matter protected under the EPBC Act. (But those commitments may be relevant at the later assessment and approval stages, including the appropriate level of assessment, and conditions of approval, if your proposal proceeds to these stages).

The proposed action will bring about an increase in vehicular movements and, potentially, an increase in the presence of domestic dogs. It is therefore deemed inappropriate to retain Koala trees or habitats for other MNES within the subject site, as retention of habitats would cause an increased risk of death or injury to fauna trying to access the retained habitats. Rather, strategic design within the Ripley Valley Urban Development Plan has included the retention and enhancement of dedicated biodiversity corridors (Figure 15.3 of **Attachment 3**), which will provide safer and more accessible habitats for Koala and other MNES that may occasion the area, and are expected to ameliorate the long term effects of the initial impact within the subject site.

All vegetation clearing for the proposed action will be undertaken in stages and in a sequential manner that allows any resident fauna to move away from the clearing area into adjacent retained or undisturbed habitats. Vegetation clearing will be undertaken under the guidance of a qualified fauna spotter/catcher. It is therefore expected that no direct mortality or injury to Koala or other MNES that may occasion the area will occur during the construction phase of the proposed development.

5 Measures to avoid or reduce impacts

Note: If you have identified alternatives in relation to location, time frames or activities for the proposed action at Section 2.3 you will need to complete this section in relation to each of the alternatives identified.

Strategic design within the Ripley Valley Urban Development Plan has included the retention and enhancement of dedicated biodiversity corridors (Figure 15.3 of **Attachment 3**), which are expected to ameliorate the long term effects of the initial impact within the subject site.

All vegetation clearing for the proposed action will be undertaken in stages and in a sequential manner that allows any resident fauna to move away from the clearing area into adjacent retained or undisturbed habitats. Vegetation clearing will be undertaken under the guidance of a qualified fauna spotter/catcher. It is therefore expected that no direct mortality or injury to Koala or other MNES that may occasion the area will occur during the construction phase of the proposed development.

6 Conclusion on the likelihood of significant impacts

Identify whether or not you believe the action is a controlled action (ie. whether you think that significant impacts on the matters protected under Part 3 of the EPBC Act are likely) and the reasons why.

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.

The subject site is zoned future urban within a declared Priority Development Area. As such the subject site is intended to be developed in accordance with the Ripley Valley Urban Development Scheme (**Attachment 3**). It is evident that Council and the State consider that the retention, protection and enhancement of the dedicated biodiversity corridors within the Ripley Valley Urban Development Area will adequately mitigate against any potential impacts on threatened species and communities, including those MNES that are relevant to the subject site.

The subject site holds limited habitat values for most MNES. Evidence of Koala usage of the subject site was only observed within the remnant vegetation located towards the southern boundary. The retention of this patch of vegetation as part of the proposed action is not advised as its retention within a developed area would cause an increase in fire hazard and increased threats to local fauna that would need to negotiate hostile environments to access this patch of vegetation.

Based on the limited habitat values within the subject site, together with the dedication of strategic biodiversity corridors for the local area, it is considered that the proposed action will not cause any significant impacts to threatened fauna populations.

6.3 Proposed action IS a controlled action

Type 'x' in the box for the matter(s) protected under the EPBC Act that you think are likely to be significantly impacted. (The 'sections' identified below are the relevant sections of the EPBC Act.)

Matters likely to be 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)

Specify the key reasons why you think the proposed action is likely to have a significant adverse impact on the matters identified above.

7 Environmental record of the responsible party NOTE: If a decision is made that a proposal needs approval under the EPBC Act, the Environment Minister will also decide the assessment approach. The EPBC Regulations provide for the environmental history of the party proposing to take the action to be taken into account when deciding the assessment approach.

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		Yes	No
7.1	Does the party taking the action have a satisfactory record of responsible environmental management?		✓
	Provide details		
7.2	Has either (a) the party proposing to take the action, or (b) if a permit has been applied for in relation to the action, the person making the application - ever been subject to any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources?		✓
	If yes, provide details		
7.3	If the party taking the action is a corporation, will the action be taken in accordance with the corporation's environmental policy and planning framework?		✓
	If yes, provide details of environmental policy and planning framework		
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

• Highlighted documents are available to the public, including web references where relevant.

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8.2 Reliability and date of information

For information in section 3 specify:

Information provided in Section 3 of this referral is based on a site investigation undertaken by BAAM Senior Ecologists Dr Jo Chambers and Julia Olsen on 19 January 2016 (refer to **Attachment 6** for results) and an extensive desktop review of the proposed development plans, online wildlife database sources (Atlas of Living Australia, EHP WildNet) and a number of relevant and publicly available data sources such as the Commonwealth SPRAT profiles for threatened species identified from the PMST report.

Information provided in Section 3 was written by Dr Jo Chambers and has been reviewed by BAAM Principal Ecologists Adrian Caneris and Dr Penn Lloyd and Project Delivery Manager (BAAM) Jedd Appleton.

8.3 Attachments

Indicate the documents you have attached. All attachments must be less than three megabytes (3mb) so they can be published on the Department's website. Attachments larger than three megabytes (3mb) may delay the processing of your referral.

In addition to the attachments listed below, we have also attached the following:

Attachment 2: Master Plan of Development;

Attachment 3: Ripley Valley Urban Development Area Development Scheme;

Attachment 4: Ripley Valley endorsed Concept Plan for the subject site

		\checkmark	
		attached	Title of attachment(s)
You must attach	figures, maps or aerial photographs showing the project locality (section 1)	✓	Attachment 1: Locality of subject site
	GIS file delineating the boundary of the subject site (section 1)	\checkmark	
	figures, maps or aerial photographs showing the location of the project in respect to any matters of national environmental significance or important features of the environments (section 3)	✓	Figure 3.1 of Attachment 6: Ecological Assessment – Binnies Rd, Ripley; Attachment 7- SPP Koala Habitat Mapping

If relevant, attach	copies of any state or local government approvals and consent conditions (section 2.5)		
	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)	\checkmark	Attachment 6: Ecological Assessment – Binnies Rd, Ripley
	technical reports relevant to the assessment of impacts on protected matters that support the arguments and conclusions in the referral (section 3 and 4)	✓	Attachment 5 – PMST report.
	report(s) on any public consultations undertaken, including with Indigenous stakeholders (section 3)		

9Contacts, signatures and declarations

NOTE: Providing false or misleading information is an offence punishable on conviction by imprisonment and fine (s 489, EPBC Act).

Under the EPBC Act a referral can only be made by:

- the person proposing to take the action (which can include a person acting on their behalf); or
- a Commonwealth, state or territory government, or agency that is aware of a proposal by a person to take an action, and that has administrative responsibilities relating to the action¹.

Project title:

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.

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 Great Barrier Reef Marine Park Act², 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.

If the Minister decides that further assessment and approval is required, the Minister must designate a person as a proponent of the action. The proponent is responsible for meeting the requirements of the EPBC Act during the assessment process. The proponent will generally be the person proposing to take the action³.

1. Name and Title:

Mr Peter Huang

2. Organisation (if applicable):

JHC Holding Pty Ltd

3. EPBC Referral Number (if known):



5. Postal address

6. Telephone: 07 32725177

7. Email: admin@ihcholdings.com.au-

Suite 18, Pacific Centre

9213 5289299

223 Calam Road, Sunnybank Hills 4109

8. Name of proposed proponent (if not the same person at item 1 above and if applicable):

peter. huang@yong. com.au

¹ If the proposed action is to be taken by a Commonwealth, state or territory government or agency, section 8.1 of this form should be completed. However, if the government or agency is aware of, and has administrative responsibilities relating to, a proposed action that is to be taken by another person which has not otherwise been referred, please contact the Referrals Gateway (1800 803 772) to obtain an alternative contacts, signatures and declarations page.

² 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.

9. ACN/ABN of proposed proponent (if not the same person named at item 1 above):

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: an individual; OR

a small business entity (within the meaning given by section 328-110 (other than subsection 328-119(4)) of the *Income Tax Assessment Act 1997*); OR

not applicable.

If you are small business entity you must provide the Date/Income Year 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

I would like to apply for a not applicable. waiver of full or partial fees under Schedule 1, 5.21A of the EPBC Regulations. Under sub regulation 5.21A(5), you must include information about the applicant (if not you) the arounds 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 agree to be the proponent for this action. I declare that I am not taking the action on behalf of or for the benefit of any other person or entity. 14316 Person preparing the referral information (if different from 8.1) Individual or organisation who has prepared the information contained in this referral form. Name Dr Jo Chambers Title Biodiversity Assessment and Management Pty Ltd Organisation

ACN / ABN (if applicable) 59 097 464 992

PO Box 1376, Cleveland. 4163.

001 Referral of proposed action v January 2016 Page 31 of 16

9.2

Telephone Email	07 32867788 jo@baamecology.com		
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.		
Signature	Hamkers	Date 9 th February, 2016	

REFERRAL CHECKLIST

NOTE: This checklist is to help ensure that all the relevant referral information has been provided. It is not a part of the referral form and does not need to be sent to the Department.

HAVE YOU:

Completed all required sections of the referral form?

- Included accurate coordinates (to allow the location of the proposed action to be mapped)?
- Provided a map showing the location and approximate boundaries of the project area?
- Provided a map/plan showing the location of the action in relation to any matters of NES?
- Provided a digital file (preferably ArcGIS shapefile, refer to guidelines at Attachment A) delineating the boundaries of the subject site?
- Provided complete contact details and signed the form?
- Provided copies of any documents referenced in the referral form?
- Ensured that all attachments are less than three megabytes (3mb)?
- Sent the referral to the Department (electronic and hard copy preferred)?

Geographic Information System (GIS) data supply guidelines

If the area is less than 5 hectares, provide the location as a point layer. If the area greater than 5 hectares, please provide as a polygon layer. If the proposed action is linear (eg. a road or pipeline) please provide a polyline layer.

GIS data needs to be provided to the Department in the following manner:

- Point, Line or Polygon data types: ESRI file geodatabase feature class (preferred) or as an ESRI shapefile (.shp) zipped and attached with appropriate title
- Raster data types: Raw satellite imagery should be supplied in the vendor specific format.
- Projection as GDA94 coordinate system.

Processed products should be provided as follows:

- For data, uncompressed or lossless compressed formats is required GeoTIFF or Imagine IMG is the first preference, then JPEG2000 lossless and other simple binary+header formats (ERS, ENVI or BIL).
- For natural/false/pseudo colour RGB imagery:
 - If the imagery is already mosaiced and is ready for display then lossy compression is suitable (JPEG2000 lossy/ECW/MrSID). Prefer 10% compression, up to 20% is acceptable.
 - If the imagery requires any sort of processing prior to display (i.e. mosaicing/colour balancing/etc) then an uncompressed or lossless compressed format is required.

Metadata or `information about data' will be produced for all spatial data and will be compliant with ANZLIC Metadata Profile. (<u>http://www.anzlic.org.au/policies_guidelines#guidelines</u>).

The Department's preferred method is using ANZMet Lite; however, the Department's Service Provider may use any compliant system to generate metadata.

All data will be provide under a Creative Commons license (<u>http://creativecommons.org/licenses/by/3.0/au/</u>)

ATTACHMENT 1 Locality of subject site



152°45'E Notes: Imagery sourced from ArcGIS Online (c) 2015



1:45,000 at A4 0.5 Kilometers

© Biodiversity Assessment and Management Pty Ltd. While every care is taken to ensure the accuracy of this data, Biodiversity Assessment and Management makes no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation liability in negligence) for all expenses, losses, damages (including indirect consequential damage) and costs which might be incurred as a result of the data being inaccurate or incomplete in any way and for any reason.



27°40'S

ATTACHMENT 2 Master Plan of Development;

NOTE:

PRELIMINARY MASTER PLANNING ONLY.

SUBJECT TO SITE SURVEY, DESIGN DEVELOPMENT & CONSULTANT/AUTHORITY INPUTS, EG:

- ROAD RESERVE LOCATIONS & WIDTHS.
- RAILWAY CORRIDOR LOCATION & WIDTH. •
- ELECTRICITY EASEMENT SETBACKS.
- DRAINAGE & DETENTION REQUIREMENTS.
- **BUSHFIRE & ECOLOGICAL REQUIREMENTS.**
- TOWN PLANNING REQUIREMENTS.
- ETC.

LAND USE AREAS (APPROX.)				
	APPROVED CONTEXT PLAN*	PRELIM MASTERPLAN		
COMMERCIAL MIXED USE	1.482 ha	3.282 ha		
RESIDENTIAL: 35-50 dw/ha	4.369 ha	3.821 ha		
RESIDENTIAL: 20-35 dw/ha	10.570 ha	10.557 ha		

*NOTE: THESE AREAS ARE MEASURED FROM LOW-RES PLAN BY OTHERS AND ARE VERY APPROXIMATE.



KEY CONVENIENCE RETAIL SITE (SUPERMARKET & SPECIALTY SHOPS) $\left| \right| \right|$

OPEN SPACE



PRELIMINARY MASTERPLAN