

Title of Proposal - Coomera Woods Master Planned Development, 49 & 51 George Alexander Way, Coomera

Section 1 - Summary of your proposed action

Provide a summary of your proposed action, including any consultations undertaken.

1.1 Project Industry Type

Residential Development

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

The proposed action is described as "Coomera Woods" and will be developed as a residential master planned community supporting medium and high density residential uses with integrated open space and conservation areas in an urban setting within Coomera.

The project site includes a number of existing approvals and current applications for a variety of development uses and constructions works. The development of Coomera Woods is proposed to be undertaken in accordance with the proposed Coomera Woods Locality Plan which has been designed in accordance with the Coomera Town Centre Structure Plan included in the Gold Coast Planning Scheme and incorporated within the current Gold Coast City Plan 2016.

Primary uses proposed as Part of the Coomera Woods Locality Plan include:

- Detached residential dwellings
- Attached and detaches medium density residential dwellings (duplex lots)
- Mixed use management lots (proposed for medium and high density residential development) with densities ranging from 40 dwellings/ha to 150 dwellings/ha for toal yield of 3,722 dwellings)
- Four neighbourhood nodes encompassing retail and commercial uses
- Recreational Parkland
- Stormwater management (quality treatment and detention)
- Ecological / nature conservation linked parklands
- Trunk and non-trunk roads

Overall, the proposed Coomera Woods Locality Plan (refer Plan 1) provides for a range of residential densities between 25 dwellings/net hectares up to 150 dwellings/net hectares comprised of two residential precincts (Precinct A and Precinct B) and open space (Precinct C). The alignment of major roads and ecological corridors is consistent with existing adjoining approvals and the Coomera Town Centre Structure plan (refer Plan 2). New allotments will be serviced by local roads and trunk collector roads with direct connectivity to the existing road network.

The vision for Coomera Woods is to provide a vibrant mixed use development for the growing East Coomera community, which is strategically located close to public transport, shopping



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centres and parkland. The proximity of the site to Coomera Train Station and Bus Interchange presents an opportunity to create a sustainable transit oriented development surrounded by neighbourhood nodes encompassing retail, commercial and residential uses. Coomera Woods is anticipated to be developed over 12 stages and a 10 to 15 year time frame.

Construction is expected to commence upon resolution of this referral and continue in accordance with the northern Gold Coast Community.

The key statistics for the action are:

Area = 147.331 hectares Development Footprint = 137.181 hectares Open Space/Ecological/Conservation Corridors = 10.15 hectares

For the purpose of impacts on MNES this action is summarised as:

- Clearing of 137 ha of predominately remnant vegetation retaining a number of known primary and secondary koala trees.
- Functional loss of 10 ha of vegetation retaining know koala trees in an urban setting.
- New roads and trunk infrastructure through an isolated bushland fragment.
- Increase in domestic animals.
- Increase in hardstand and stormwater run-off in close proximity to existing site drainage lines.

There a number of attached supporting documents including:

- Coomera- Submission regarding referral of proposed action under EPBC Act, Coomera Woods residential development South East Queensland, Minter Ellison 2017.
- Coomera Woods Development Plan, Saunders Havill Group 2015

- Coomera Woods Ecological Technical Note – MNES Flora and Fauna, Saunders Havill Group 2016

- Coomera Woods Koala Assessment Report, Saunders Havill Group 2017
- Coomera Woods Koala Evaluation and Assessment Chapter 1, Planit Consulting 2017
- Coomera Woods Koala Evaluation and Assessment Chapter 2, Planit Consulting 2017
- Coomera Woods within Coomera Town Centre Plan
- Ecological Assessment of Coomera Woods, Planit Consulting 2008
- Koala Conservation Plan, City of Gold Coast 2017
- Koala Conservation plan for East Coomera, City of Gold Coast 2014
- Preclearing Fauna Assessment and Management Plan, Planit Consulting 2014
- Vegetation Management Plan, Planit Consulting 2014

1.3 What is the extent and location of your proposed action? Use the polygon tool on the map below to mark the location of your proposed action.



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Area	Point	Latitude	Longitude
Comera Woods	1	-27.837961424306	153.32270929535
Comera Woods	2	-27.844052040175	153.32155058105
Comera Woods	3	-27.842913633287	153.32034895142
Comera Woods	4	-27.842610056099	153.32032749374
Comera Woods	5	-27.842610056099	153.32024166306
Comera Woods	6	-27.842648003294	153.32004854401
Comera Woods	7	-27.843065421562	153.3197481366
Comera Woods	8	-27.845266327686	153.31835338791
Comera Woods	9	-27.845721681998	153.31899711807
Comera Woods	10	-27.846101142464	153.31957647522
Comera Woods	11	-27.846708276449	153.32032749374
Comera Woods	12	-27.846954923659	153.32015583237
Comera Woods	13	-27.847106706279	153.32037040909
Comera Woods	14	-27.846935950817	153.32064935883
Comera Woods	15	-27.84718259751	153.3212072583
Comera Woods	16	-27.848591581224	153.32082649
Comera Woods	17	-27.848553636109	153.32027931937
Comera Woods	18	-27.848544149828	153.31992526778
Comera Woods	19	-27.848781306603	153.31864853628
Comera Woods	20	-27.849198701267	153.31772585638
Comera Woods	21	-27.849312535897	153.31717868574
Comera Woods	22	-27.849056407812	153.3167495323
Comera Woods	23	-27.848060348398	153.31571956404
Comera Woods	24	-27.846874551454	153.31489344366
Comera Woods	25	-27.846570985352	153.31482907065
Comera Woods	26	-27.847766271965	153.3127905918
Comera Woods	27	-27.846722768509	153.31188936957
Comera Woods	28	-27.844521891939	153.3101727558
Comera Woods	29	-27.841410231622	153.30871363409
Comera Woods	30	-27.837311811107	153.3079411579
Comera Woods	31	-27.835717939096	153.30772658118
Comera Woods	32	-27.837956943122	153.32270403631
Comera Woods	33	-27.837961424306	153.32270929535

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

Contexually, the site is located in an urban area within Coomera, situated in South East Queensland approximately 30 kilometres north of the Gold Coast. Coomera is a popular tourist



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destination, home to theme parks including Dreamworld and White Water World and has experienced notable expansion of urban development over recent years, Particularly within Coomera west.

The site is bound by the Gold Coast Railway Line to te west, residential development and Pimpama State Secondary School to the north, Bloom Estate (Formally Big Sky Residential Development) to the east, and the proposed Coomera Activity Centre and Transport Hub associated with the existing Coomera Train Station and Bus Interchange, to the south. Major arterials including the Pacific Motorway approximately 350 metres to the west and Foxwell Road approximately 400 metres to the south, segragate the application area. The referral area makes up 147.331 hectares and is dominated by vacant disturbed woodland. Refer to Attachment Coomera Woods Koala Assessment Report by Saunders Havill Group (SHG) Figure 1 for site context and Figure 2 for Site aerial.

The affected area (the Coomera Woods development) is located within the Coomera Town Centre, which in turn is located within the East Coomera / Pimpama urban footprint (also referred to as the Urban Koala Area (UKA) in previous Council koala translocation reports). The 137 Ha affected area is completely surrounded by the 2,148 Ha East Coomera / Pimpama urban footprint.

East Coomera was identified in the South East Queensland Regional Plan 2009-2031 (SEQRP) as a future Major Regional Activity Centre and has been identified for major urban expansion at State and local government levels since the 1980s. The Coomera Town Centre Structure Plan, prepared in compliance with the provisions of the SEQRP, endorsed by both State and Local Government, has been incorporated into the City of Gold Coast's Planning Scheme since 2010.

In the current South East Queensland Regional Plan 2017; ShapingSEQ, Coomera has been identified as major regional activity centre. Within the Gold Coast sub-region; Coomera, Pimpama and Upper Coomera have been identified as the key locations to accomodate the largest proportion of the sub-regions planned expansion, by providing new and more complete communities that are well planned and serviced.

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

The gross site area is 147.331 hectares. The net site area is 137.181 hectares



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1.7 Is the proposed action a street address or lot?

Street Address

49 George Alexander Way

51 George Alexander Way Coomera QLD 4209 Australia

1.8 Primary Jurisdiction.

Queensland

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

No

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

Yes

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

Yes

1.10.1.0 Council contact officer details

1.10.1.1 Name of relevant council contact officer.

Broc Smith / Shahadat Hossain

1.10.1.2 E-mail

1.10.1.3 Telephone Number

(07) 5582 8866

1.11 Provide an estimated start and estimated end date for the proposed action.

Start date 07/2018

End date 06/2033



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1.12 Provide details of the context, planning framework and State and/or Local government requirements.

Provide details of the context, planning framework and State and / or Local Government requirements

A number of approvals exist over the application are which include:

-Development Permit for Reconfiguration of a Lot – 10 Management Lots; Preliminary Approval for Operational Works – Vegetation Clearing; and Preliminiary Approval for Operational Works – Preliminary Bulk Earthworks, Associated retaining Walls and Civil Works (Requests to change: 27 March 2015 – ROL201400195) (Date of original application: 26 May 2010 – ROL2800145) (Date of most recent decision: 01 April 2015 – ROL201466195).

-Development Permit for Operational Works for Change to ground Level (1 April 2015 – OPW201401308).

-Development Permit for Operation Works for Vegetation Management (31 March 2015 – OPW201401310).

-A Preliminary Approval and Development Permit for the Reconfiguration of a Lot was approved by CGC on 11 September 2015 (Council Ref: MCU201400732 / ROL20140013:

-Combined Development Application for Section 242 Preliminary Approval varying the Planning Scheme (in accordance with Section 899 of the Sustainable Planning Act 2009) for development in accordance with the Coomera Woods Locality Plan (Lot 1 on SP165372 and Lot 44 on SP 207822); and

-Development Permit for Reconfiguration of a Lot over Lot 1 on SP165372 and Lot 44 on SP207822 for 492 lots (407 detached dwelling lots and 85 management lots, roads and public open space).



Current and future development applications will be assessed against the Preliminary Approval – Coomera Woods – Development Code, which reflects the intention of the Coomera Town Centre Structure Plan.

As a part of existing approvals, a number of development and management plans have been approved or conceptually approved by CGC for Coomera Woods which include:

-Lot 44 Tree Clearing Staging Plan – Coomera Woods, Coomera (Planit Consulting – 21 November 2014)

-Amended Vegetation Management Plan, George Alexander Way, Coomera, Lot 1 SP165374 & Lot 44 SP207822, Prepared for Polaris Coomera Pty Ltd (Planit Consulting – July 2014)

-Vegetation Management Plan, George Alexander Way, Coomera, Lot 1 SP165374 & Lot 44 SP207822, Prepared for Polaris Coomera Pty Ltd (Planit Consulting – July 2014)

-Lot 44 Tree Clearing Staging Plan Retained Trees at Earthworks Interface (Planit Consulting – 2 June 2014)

-Final Preclearing Fauna Assessment & Management Plan, George Alexander Way Coomera Lot 1 SP165354 & Lot 44 SP207822

-Environmental Corridor Rehabilitation Strategy (Planit Consulting – August 2009).

-Coomera Woods Development – Revised Flood Assessment V2 (Cardno – 17 December 2014).

-Report on Geotechnical Investigation for the Proposed Residential Subdivision, No. 49 to 51 George Alexander Way, Coomera (Geotech Investigations – April 2014).

-Coomera Woods – Erosion and Sediment Control Master Plan (DesignFlow – December 2014).

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

The intention to develop the Coomera Town Centre area has been part of the Gold Coast Planning Scheme (v.1.0) since 2003 with the inclusion of the Coomera Town Centre Local Area Plan. During its design, this planning scheme underwent public consultation in accordance with the Integrated Planning Act 1997. The Coomera Town Centre Structure Plan has also been part of subsequent revisions of the Gold Coast Council Planning Scheme in 2007 (v.1.1) and 2010 (v.1.2) which have similarly gone through the public consultation process in accordance with the Integrated Planning Act 1997 and Sustainable Planning Act 2009, respectively.



The consultation process for the Gold Coast City Plan 2015 (City Plan) included the development of the Coomera Town Centre, which was covered extensively during the public notification period and included a number of meetings between Council and State Government.

The current South East Queensland Regional Plan 2017; ShapingSEQ, outlines the plans for Coomera to be a major regional activity centre and accomodate the largest proportion of the subregions planned expansion. This regional plan underwent a thorough consultation process and submission could be made up until March 2017.

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

The project is not subject to an environmental impact assessment.

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

No

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

No



Section 2 - Matters of National Environmental Significance

Describe the affected area and the likely impacts of the proposal, emphasising the relevant matters protected by the EPBC Act. Refer to relevant maps as appropriate. The <u>interactive map</u> tool can help determine whether matters of national environmental significance or other matters protected by the EPBC Act are likely to occur in your area of interest. Consideration of likely impacts should include both direct and indirect impacts.

Your assessment of likely impacts should consider whether a bioregional plan is relevant to your proposal. The following resources can assist you in your assessment of likely impacts:

• <u>Profiles of relevant species/communities</u> (where available), that will assist in the identification of whether there is likely to be a significant impact on them if the proposal proceeds;

• Significant Impact Guidelines 1.1 – Matters of National Environmental Significance;

• <u>Significant Impact Guideline 1.2 – Actions on, or impacting upon, Commonwealth land and</u> <u>Actions by Commonwealth Agencies</u>.

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

No

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

No

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

No

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

Yes

2.4.1 Impact table

Species Koala (Phascolarctos cinereus) Impact A likelihood of occurrence assessment has



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been carried out by Saunders Havill Group (SHG) using information from previous and contemporary ecological field surveys to assess the potential for listed threatened species and communities to utilise and / or occur on site. The likelihood assessment tables are outlined in the attached MNES Technical Note prepared by SHG. There are only two threatened MNES species considered to have relevance to the referral site and triggering more detailed impact assessment; The Koala (Phascolarctos cinereus) is listed as a vulnerable species under the EPBC Act. Within Queensland the estimated population numbers range from 100, 000 to 300, 000 (EPA 2006). Specific population figures have been estimated for some locations where the sum equates to slightly more than 70, 000 with the remainder in the low density populations across Queensland. The Listing Advice for Phascolarctos cinereus (Koala) (Threatened Species Scientific Committee, 2012) estimated the Queensland koala population in 2010 to equate to approximately 167, 000 from best known estimates. Within South East Queensland the focus of koala population estimates have focused particularly on the Koala Coast and Pine Rivers. The Listing Advice estimated that in 2010 the population of Koalas within South East Queensland to be 15, 000. This data was based on aggregate of formal estimates and therefore considered of a high reliability. The affected area- description and context The affected area (the Coomera Woods development) is located within the Coomera Town Centre, which in turn is located within the East Coomera / Pimpama urban footprint (also referred to as the Urban Koala Area (UKA) in previous Council koala translocation reports). The 137 Ha affected area is completely surrounded by the 2,148 Ha East Coomera / Pimpama urban footprint. East Coomera was identified in the South East Queensland Regional Plan 2009-2031 (SEQRP) as a future Major Regional Activity Centre and has been identified for major urban expansion at State



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and local government levels since the 1980s. The Coomera Town Centre Structure Plan, prepared in compliance with the provisions of the SEQRP, endorsed by both State and Local Government, has been incorporated into the City of Gold Coast's Planning Scheme since 2010. The Structure Plan: • provide for the integrated planning and development of the Coomera Town Centre to assist in the town centre achieving its potential as a Major Regional Activity Centre within the Gold Coast and South East Queensland region. The town centre will service the Coomera locality as well as the wider regional community of the Gold Coast's Northern Growth Corridor. • encourage a strong base of government, commercial, retail, residential and tourist and entertainment development, supported by core regional services such as secondary and tertiary education facilities, medical services and civic uses. • support and encourage a transit oriented community connected to the Coomera Rail Station and that provides highly accessible and diverse employment opportunities. The rail station will provide a focal point for the integration of multiple modes of transport including rail, bus services, taxis, cyclists, pedestrians and private vehicles, evolving into a Transport Hub. The Coomera / Pimpama area surrounding the Town Centre since became one of the fastest growing urban areas in South East Queensland and in support of the abovementioned integrated planning and development, very significant investments were made in the area by all levels of government. This include: • the recently completed upgrade to the Foxwell Road interchange with the M1 motorway (Exit 54), jointly funded by the Australian Federal Government (\$410 million), the State Government (\$47.4million) and \$17.3 million commitment from the developers within the Coomera Town Centre. • the construction of a TAFE and three schools within the last six years, with a fourth school currently nearing completion. • the acquisition of land adjoining the Coomera rail station (and the Coomera



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Woods site) by the state government for a future health precinct. • the construction of major water and sewerage works by Council, as well as the upgrading of numerous trunk roads. This include the upgrading of Foxwell road from 2 to 6 lanes immediately east of the access road to the Coomera rail station. The Coomera Woods site is effectively surrounded by several significant construction projects that are currently being undertaken along the Coomera Woods site boundaries or in very close proximity thereof. These include: • The duplication of the Coomera to Helensvale section of the heavy rail line between Brisbane and Gold Coast (which forms the western boundary of the Coomera Woods site). • The reconstruction and upgrading of Foxwell road from 2 to 6 lanes between the recently completed M1 interchange and the access road to the Coomera rail station. • The construction of a regional shopping centre by Westfield and QIC, located to the west of the rail line. • A filling station and truck stop at the recently upgraded Exit 54 off the M1 motorway. • The construction of a trunk road and the ~25Ha Bloom residential estate along the eastern boundary of the site. • The development of all land along the northern boundary of the Coomera Woods site is complete and the building of the houses on developed lots adjoining the Coomera Woods site is nearing completion. • The construction of a 55 Ha mixed use / low impact industrial development directly to the west of the rail corridor is planned to commence early next year. In anticipation of the development of this major regional urban expansion, the Council of the City of Gold Coast (CCGC) adopted a proactive approach in relation to the protection of the koala and since 2007 implemented concerted programs in this regard. The East Coomera Koala Conservation Project (2007 – 2014) Following extensive field work to estimate koala populations within the local government area, the CCGC developed and initiated the East Coomera Koala Conservation Project (2007 – 2014) within



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planned urban development areas to manage the most at-risk koalas. This project included detailed monitoring and relocation of koalas. It resulted in 180 individuals being translocated between 2008 and 2014 from the East Coomera urban footprint to secure habitat areas in the Gold Coast hinterland. This included 19 koalas from the Coomera Woods site. The monitoring and relocation program was undertaken in accordance with Animal Ethics Committee approvals and corresponding Scientific Purposes Permits issued by the State Government. The Koala Conservation Plan for East Coomera (2014-2018) CCGC expect 170 koalas to remain within conservation reserves and rural areas beyond the urban footprint at East Coomera-Pimpama. The CCGC developed and adopted the Koala Conservation Plan for East Coomera (2014-2018) to direct the ongoing protection and management of the remaining koala population at East Coomera. Referring to key findings from health assessments for over 200 koalas captured from the project area in conjunction with the East Coomera Koala Conservation Project between 2008 and 2014, Council state that: Koala health issues have been recognised as one of the key factors contributing to koala population declines across SEQ. Assessment of the current health status of koalas within the project area has provided a vital insight into key factors that threaten the remaining population. Of the koalas from the project area examined for the Project, approximately 40 per cent had some clinical signs of illness or disease ranging from conjunctivitis, cystitis, reproductive tract disease, nephritis, kidney disease, gingivitis, gastro-intestinal candidiasis, poor body condition, bacterial infection, toxaemia/septicaemia, anaemia and bone marrow disease (see Table C2.2). In conjunction with the Plan, the CCGC identified a Priority Koala Conservation Precinct (PKCP). It covers around 2,112 hectares which includes areas of high quality koala habitat outside the urban footprint, together with some rural lands.



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The Plan included habitat restoration works within the PKCP. The Koala Conservation Plan state that its objectives are to: • identify the principal threats to koalas and koala habitat in the project area • provide for long-term survival of the local koala population by developing and implementing measures to effectively address threats • develop effective public awareness, engagement and education programs concerning local koala conservation issues • provide for effective implementation, monitoring and review of the Koala Conservation Plan. It relevantly provide that specific measures for investigation will include: • potential habitat restoration programs, • wild dog management programs, • community education and awareness activities, • signage on adjoining major roads, and • monitoring of koala population size, distribution, health and genetics. Towards the conclusion of the Plan, the CCGC reported as follows: This plan has delivered key habitat conservation, contributed to koala health and welfare research and community engagement initiatives, including the preparation of school education materials in alignment with the school science curriculum. Most importantly this plan includes monitoring of the population and habitat changes following the translocation program. The Koala Conservation Plan The CCGC developed, and following public consultation, adopted the city wide Koala Conservation Plan during September 2017. Relevantly, the CCGC states that: This Plan is broken down into categories which address threat management, population monitoring and community engagement. The threat mitigation actions incorporate many of the conservation actions from the City's previous Koala Conservation Plans and have been reviewed and updated where appropriate. The Aim and Objectives of the plan are as follows: Aim: To ensure long-term sustainability of koala populations on the Gold Coast, including safe passage and habitat retention, through threat mitigation actions, research and community collaboration Objectives The Koala



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Conservation Plan will identify and implement measures to minimise threats to koala survival by: • improving safe passage of koalas within urban areas through appropriate infrastructure planning and community participation in conservation initiatives • identifying and protecting habitat to limit clearing and increase connectivity through informed development assessment • reducing koala mortalities caused by vehicle strike, dog attack and Chlamydia • partnering with government, universities, community groups and other research organisations to increase scientific knowledge of koala ecology and health • maintaining a comprehensive, well informed understanding of Gold Coast koala populations and their threats. Koala Surveys A complete and detailed assessment of koala surveys undertaken on the referral site since 2007 is included in the attached Coomera Woods Koala Evaluation and Assessment – Chapter 1 – Evaluation of Koala Survey Methodologies prepared by Planit Consulting Pty Ltd (Planit) It includes addressing the accuracy and reliability of these various surveys. Following is a summary from the abovementioned Planit document, describing the scope of the different surveys, the methodologies used, and the results of the surveys. As can be seen from this summary, the most recent survey by Planit provides a survey specific to the site, and utilises the most accurate methodology to determine the number of koalas using the site. Biolink 2007 This study covered the greater Coomera- Pimpama Koala Habitat Area (C-PKHA) a total area of 3,640 hectares which included the 2,148 Urban Koala Area (UKA) and the referral site, used the Spot Assessment Technique (SAT) (Philips and Callaghan 2011) to first estimate activity levels and then strip transects to estimate Koala densities in occupied areas. The strip transect estimates were extrapolated from the Coombabah Koala Habitat Area, Results estimated that there were approximately 510 (+/-129) Koalas present in the C-PKHA at the time of the study. SHG 2015 As part of a



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broader MNES site survey SHG conducted 16 Spot Assessment Technique surveys (SATs) over the referral area. While SAT surveys traditionally rely on the identification of a scat for commencement, 3 of the 16 survey points were undertaken to fill in locational gaps in data and collect information on suitable tree species for koala habitat. Of the 16 survey points completed 6 showed 'low level', 3 recorded 'normal level' and 4 aligned with a 'high level' of usage based on the East Coast (Medium-High) Density Area threshold (Philips and Callaghan 2011). During the 4 days on-site a juvenile koala was observed on a single day and not resignted despite deliberate survey effort within the same locality. Phillips 2015 As part of a compliance assessment under the EPBC Act, Dr Phillips applied SATs to determine Koala activity levels specifically for the Coomera Woods site and determined that 33% of the site was occupied by Koalas. Applying the density estimates from the above 2007 C-PKHA surveys, Philips 2015 estimated that 15 Koalas occupy 61 ha area of the site. SHG 2016 SHG undertook a direct estimation of Koala activity at Coomera Woods in 2016 using 95 predetermined strip transects of 100 m x 20 m over the course of five days, and then repeated two months later. No Koalas were detected within strip transects and therefore a density of Koalas across the site could not be estimated. During these surveys, two (2) koalas were observed outside of the transect areas that may infer a density estimate of 0.151 0.146 Koalas ha-1. Planit 2017 The attached Coomera Woods Koala Evaluation and Assessment – Chapter 1 – Evaluation of Koala Survey Methodologies prepared by Planit identifies potential errors with the Philips 2015 estimates that 15 Koalas occur onsite, as follows: • The Coomera Woods site is 147 ha. If you apply an occupation rate of 33% (as per Phillips 2015), then 48.51 ha of the site is occupied, not 61 ha as suggested by Dr Phillips. • Phillips 2015 used the density estimate from Biolink 2007 (0.23 koalas/ha) and



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used the incorrect 61 ha rate of occupation to obtain a population of 15 koalas. However, the original density estimate (0.23 koalas/ha) was estimated through sampling the C-PKHA which is an area of 3640 ha and used strip transect results extrapolated from the Coombabah Koala Habitat Area, a different location. The Coomera Woods site is only 147 hectares. • Since the Biolink 2007 survey, a major Koala translocation program was carried out by City of Gold Coast Council who removed 180 koalas from the area and significant development was undertaken within the 2,148 ha UKA. As such, the revised Council estimate is that only 40 koalas remain within the UKA. From these numbers it is possible to calculate a more accurate pre-development density estimate. Relevantly, if 180 koalas were translocated from the UKA and 40 remain, the original density can be calculated as: (180 + 40) / 2148 ha = 0.102 koalas per hectare. • These errors suggest the Philips 2015 population of 15 is a significant over-estimate. • Planit concluded that indirect SAT methods cannot be used on their own to derive species abundance or density and that historical strip transects from the Coombabah Koala Habitat Area are no longer relevant to the Coomera Woods site. • The Planit surveys combined SAT assessments and a line transect method to provide an absolute count of koalas in the Coomera Woods site. SAT locations aligned with those utilised by Biolink 2007 and observers on transect lines covered the entire site at 10-20m intervals repeated under both diurnal and nocturnal spotlighting conditions. • Three (3) koalas were recorded on the first day, an additional koala was found during the nocturnal survey resulting in Four (4) koalas detected. On the second diurnal survey only four (4) koalas were detected though it was considered that one (1) has been considered could be a new sighting. As such, a total of five (5) koalas were recorded during the intensive survey period. Planit (Chapter 1 – 2017) attest that SAT results replicated over successive surveys indicated



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that koalas are still utilising areas surveyed by Biolink 2007, although at significantly reduced levels. • Intensive contemporary survey results indicate that the number of individual koalas located on the site at anyone time is actually five (5) or below, which is significantly less than the 15 individuals estimated by Phillips (2015). EPBC Act Referral Guideline for the vulnerable koala Section 5.0 of the attached Coomera Woods Koala Assessment Report, January 2017 prepared by SHG outlines an assessment of the site against the EPBC Act Referral Guideline for the vulnerable koala (Koala Referral Guidelines). This section details how the Coomera Woods site scores a 4 out of 10 under the Koala Habitat Assessment Tool and thus does not contain Habitat Critical to the Survival of the Koala Species. The Department of Environment and Energy (DEE) has previously agreed with this assessment against the Habitat Assessment Tool (see Referral Decision Brief associated with the Coomera Woods referral lodged during 2015 (DEE's reference EPBC 2015/7610. The further developments surrounding the site since then reinforce that the habitat should not be regarded as critical habitat. A recent assessment hereunder by Planit of the referral site against the Koala Habitat Assessment Tool also determined that the referral site does not contain critical habitat to the survival of this species. This new assessment confirms the assessment that was prepared for the previous referral of the proposed action, and demonstrates that there is no reason for a different determination to be made in relation to the current referral. Koala Occurrence: Score = 2 The EPBC Act Protected Matters Search Tool and a search of Queensland's Wildlife Online Search tool identified the Koala as having potential to occur on site. While there is evidence of Koala occurrence on the site, it is noted that East Coomera Koala Conservation Project has involved the relocation of 180 'at risk' Koalas out of the imminent Coomera development area. This has included the



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removal of 19 Koalas off the referral site and a significant number from the surrounding areas as part of the East Coomera Koala Conservation Project, reducing the number of Koalas in the area. Recent surveys of the referral site, post relocation of 180 koalas, results: • Phillips performed a site survey using the SAT method and determined that approximately 33% of the site was utilised by koalas. • SGH performed a 4 day field survey completed in 2015 observed one juvenile male. Scats were observed in several locations, concentrated to gully lines and foothills. Overall use of the site was determined to be "low". • SGH performed koala specific surveys using the strip transect method in October 2016 and observed two koalas within the site, though not within their strip transects. • Planit performed a comprehensive koala survey over a concentrated 36hr period utilising the line transect method and determined that up to 5 koalas were using the site. The SAT method was also used, Planit concluded that the use of the site was "low". As there is evidence of koala occurrence in the previous 2 years, this attribute has been scored 2. Vegetation Composition: Score = 2 A detailed description of the vegetation composition on referral site is provided within the flora portion of Section 3 of this referral, and based on the results from 2004, 2008 and 2015 ecological field surveys. The site was found to be dominated by species that achieve the definition of 'woodland' and 'forest' as referenced in the Koala Referral Guidelines. Ecological survey of the site shows the referral area is predominately dominated by Eucalyptus and Corymbia species. Specifically, these species included Eucalyptus tereticornis (Forest Red Gum), Eucalyptus siderophloia (Grey Gum), Corymbia intermedia (Pink Bloodwood), Corymbia citriodora (Spotted Gum) and Broad-leaved Ironbark (Eucalyptus fibrosa)/or Grey Ironbark (E. siderophloia). Further, there was a high dominance of Allocasuarina littoralis (Black She-oak), A. torulosa (Forest She-oak) and Wattles (Acacia



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disparrima, A. leiocalyx, A. melanoxylon) throughout the shrub layer and a number of weed species were identified. As vegetation composing of canopy species on site is made up of more than two species considered to be Koala food trees, this attribute has been given a score of 2. Habitat Connectivity: Score = 0 The referral site is bound by the Gold Coast Railway Line to the west, Foxwell Road the south and existing and approved development to the north and east. Current aerial imagery shows small vegetated patches to the south. Connectivity to these patches are segregated by existing arterial road and rail infrastructure and future development and EPBC approvals. Additionally, the Bloom Estate to the immediate east has now completed vegetation clearing, removing the majority of vegetation adjoining the eastern boundary with the exception of the retained gully line. Urban development has expanded significantly in the wider Coomera area over the past decade, with residential estates now dominating the landscape to the east and west of the Pacific Motorway. A primary barrier to dispersal between the site and bushland directly to the west is the Gold Coast Railway Line and Coomera Train Station. Trains travel along this portion of the line between Brisbane and the Gold Coast roughly every half an hour between 5am and 12pm. The high frequency of train movements along the track poses significant threats of injury or death to dispersing Koalas. In addition, vegetation clearing of isolated pockets between the railway line and Pacific Motorway associated with Westfield's Northern Frame Precinct (EPBC2014/7291) and Shopping Centre (EPBC20147292) has now been completed. The construction of the shopping centre has commenced and together with the rail corridor, this effectively forms an impenetrable koala barrier to the west and south-west of the Coomera Woods site. The upgrade to the Foxwell road interchange with the M1 motorway (Exit 54) had recently been completed. The majority of the funding was provided by the



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Federal Government with the balance provided by the State government and some significant commitments by developers within the Coomera Town Centre, With Foxwell road planned as an arterial road, the section between the recently completed interchange and the entrance to the Coomera Rail station is currently being upgraded from a 2 lane to a 6 lane road. The section to the east of the access road to the station had already been upgraded to 6 lanes by Council. This major road with high traffic volumes forms a very significant barrier between the Coomera Woods site and the remaining habitat to the south. From the above it is evident that the referral site is surrounded by barriers against the movement of koalas to and from remaining habitat patches and the Koala Conservation Area (which is to be retained and restored by Council as permanent koala habitat for the survival of the species in the broader Coomera / Pimpama area). Furthermore, the Coomera Town Centre Structure Plan shows that the surrounding Coomera area is expected to undergo even further development in the future. The subject site is located centrally within this urban development zone and, as such, will be completely surrounded by existing and future development. Consequently, the project area will become a completely isolated patch fragmented from habitat patches elsewhere in the landscape once surrounding development is complete. The referral site is not part of a contiguous landscape. No suitable corridors to support the regular and ongoing movement of Koalas between habitat areas has been planned within the Coomera Town Centre. The local ecological corridor illustrated within the Coomera Town Centre Structure Plan which extends through adjoining developments to the north-east (to ultimately link up with the Koala Conservation Area) is designed to allow for the immediate refuge for wildlife. This corridor, with its mature vegetation and dense canopy, could facilitate dispersal of individual koalas through adjoining developments to the Koala



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Conservation Area located to the north and east of the East Coomera urban footprint. Whereas habitat connectivity requires that an area is part of a 'contiguous landscape' of more than 300 ha, the site itself is only 147 ha, and is disconnected from other bushland areas. To constitute a contiguous landscape of sufficient size the site would have to be free of barriers to other bushland areas (see the definition of 'contiguous landscape', at p.5 of the Referral Guidelines). Although there is a wildlife corridor to the north east of the site, it does not provide sufficient connection to create a contiguous landscape. The Referral Guidelines, in Table 8: Barriers to dispersal and fragmentation address mitigation measures against 'barriers to movement to or from habitat critical to the survival of the koala that is likely to result in a long-term reduction in genetic fitness or access to habitat critical to the survival of the koala'. It provides that the retention of corridor(s) of at least 100m width would only have a moderate effect in the mitigation of barriers and that corridors greater than 300m can be considered to have higher effectiveness. Having regard to the provisions of Table 8 mentioned above, with a minimum width of approximately 80m (varying in width up to approximately 100m), the corridor through the UKA does not mitigate against the barriers surrounding the Coomera Woods development site and would not provide effective movement to prevent long-term reduction in genetic fitness. Overall, the site is significantly disconnected from large contiguous patches of bushland. While limited movement opportunities currently exist, of bushland. While limited movement opportunities currently exist, and future development intent and Council approvals over these areas will inevitably see this vegetation cleared for residential development. In addition, the existing corridor does not link critical habitat to critical habitat and no viable movement corridors or areas of Koala habitat are planned to be retained adjoining the site. No habitat connectivity values will be retained in the short or long term



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surrounding the site, resulting in an attribute score of 0. Key existing threats: Score = 0Detailed information is available about the existing threats to Koalas in the East Coomera area as extensive monitoring and research was completed during 2012 and 2013 as a lead in to implementing the Council's translocation strategy. Vehicle strikes, dog attacks and disease are three existing threats to the Coomera koala population. The following data has been provided from Council's Reports and Plans (East Coomera Koala Conservation Plan 2014-2018) surrounding this strategy and reports on threats at a time when East Coomera was substantially less developed. Vehicle Strike: Between 2012 and 2013, Wildcare Australia recorded six (6) Koala fatalities from vehicle strike within East Coomera. In the same period, CGC recorded a further two (2) Koala fatalities taking the total deaths from vehicle strike to 8 for the period. The majority of these strikes occurred along Foxwell Road to the south of the project site. Additionally, thirteen (13) Koala vehicle strikes were recorded along the Pacific Motorway as it traverses the Coomera area. Substantial development expansion and vehicle usage on existing and new roads has occurred since this period. Additionally, it is noted that the project area includes two new large scale "trunk" road corridors partially funded by the Council and State Government. Dog Attack: There are approximately 60,000 registered dogs within the Gold Coast area with the majority of these residing in urban settings and occurring through the entire East Coomera area. In 2012, fifteen (15) Koalas were rescued or recovered from the East Coomera Area by Wildcare Australia. Many of these were due to threats of or actual suspected attacks by dogs. Substantial evidence of both frequent and regular Koala mortality from vehicle strike and dog attack is known within the immediate proximity of the project site. These threats, along with the removal of habitat, are in essence why the CGC commenced this strategy of physically capturing



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and relocating the Koalas from the East Coomera area. Disease: Chlamydia is a common bacterial infection in koalas which causes symptoms such as cystitis, conjunctivitis leading to blindness, respiratory infections, reduced fertility rates and if left untreated can lead to death. Unfortunately, most wild koala populations are infected, and inhibits conservation activities. Chlamydia is a serious threat to koalas within the Gold Coast with a mortality rate of 78 per cent of those admitted to the Currumbin Wildlife Hospital. Wildcare Australia koala rescues for 2011 and 2012 found that 26 per cent of examined koalas from East Coomera tested positive for Chlamydia. The Coomera Woods site is almost completely surrounded by vehicle and dog attack threats, either through already constructed residential areas and roads or through approved and under construction areas, the majority of which also retain EPBC approvals. A large portion of the East Coomera koala population is also at risk from chlamydia. Due to the existence of key threats, the attribute has scored 0. Recovery value: Score - 0 The interim recovery objective for coastal areas is based upon protecting and conserving large, connected areas of Koala habitat, particularly where Koalas are genetically diverse/ distinct, free of disease or have a low incidence of disease or where there is evidence of breeding. None of the aforementioned are considered to be present on the referral site. This is primarily because, the site is heavily degraded and will inevitably become completely isolated from large intact patches of koala habitat, as local development expands in accordance with the Coomera Town Centre Structure Plan. Further, the site makes up a significant proportion of the Coomera Town Centre development area and adjoins the Activity Centre Precinct and Rail Station The referral site is already highly isolated by surrounding roads and rail lines. The current development of the Coomera Westfield Centre, Coomera Transport Hub and residential precincts adjoining the referral site, as well as



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future construction of approved developments to the south will further reduce areas of surrounding bushland and connectivity to remnant patches of habitat. This development will result in a completely isolated site surrounded by key threats to the species including roads and domestic pets. The site is not considered large enough in isolation to function and sustain Koala populations. The minimum viable population as suggested by Biolink 2007 is 170 individuals. To support a population of this size Biolink determined that the required area would be 1500 ha. The habitat and resources that the referral site can provide is limited and would not be able to sustain a viable population. While a small number of koalas, up to 5 individuals, were observed on the site during field surveys, it is suggested that this site is likely used by transient animals. This population is not viable and once isolated further from source populations is unlikely to persist long term. The results from SAT surveys suggest a decline in the use of the site as development within the surrounding area has occurred. Initial SAT surveys in 2007 suggested high levels of use and coverage over the site, these SAT levels have progressively decreased over the surveying period. Of the 15 SAT site within Planit's 2017 survey only one location recorded a high activity level. Approximately 180 Koalas have also been relocated from the area as part of the East Coomera Koala Conservation Project, including nineteen (19) individuals from the referral site due to it being identified as a 'high risk' development area. As the referral site does not meet the interim recovery objectives, the attribute has been scored 0. Total Koala Habitat score - 4 (NOT critical habitat) A score of 5 or more is considered critical habitat. The site does not support critical habitat for the koala, this assessment has previously been accepted by the Department of Environment and Energy. • Significant Impact Guidelines 1.1 - Matters of National Environmental Significance The Significant



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Impact Guidelines 1.1 - Matters of National Environmental Significance (SI Guidelines) relevantly provide that 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 • 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 • 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, or • interfere substantially with the recovery of the species. An 'important population' is defined as a population that is necessary for a species' long-term survival and recovery. This may include populations identified as such in recovery plans, and/or that are: • key source populations either for breeding or dispersal • populations that are necessary for maintaining genetic diversity, and/or • populations that are near the limit of the species range. The individuals within the referral site does not constitute as an 'important population as defined within the SI Guidelines. Section 6 of the attached Coomera Woods Koala Assessment Report prepared by SHG include a detailed assessment of the proposed action against the SI Guidelines. This assessment find that is evident that there is no possibility for the long term survival of a sustainable Koala population within the study area, because of the fact that: • The Koala population that existed within the study area had been predominantly translocated to other conservation areas elsewhere on the Gold Coast in accordance with permits issued by the State Government. The small number of koalas remaining are insufficient to form a sustainable population;



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and • The majority of the Koala habitat essential for the long-term survival of the Koala within the UKA had been lawfully and sequentially removed or fragmented as part of the development of the Coomera Town Centre and surrounding land (A large proportion of these development activities were referred to the DEE for assessment under the EPBC Act and determined Not to have a significant impact on the Koala species and designated as Not a Controlled Action) • It is also considered extremely unlikely from the small number of Koalas considered to remain within the study area and the high rate of health issues (including high prevalence of Chlamydia) detected by the CGC during their translocation program that there is a population within the study area that is necessary as a key breeding and dispersal source for the long term survival and recovery of the Koala and for maintaining genetic diversity. It concludes that: • consistent with previous positions raised in other EPBC Act Referral Reports and determined to be Not a Controlled Action by the Department of Environment and Energy, that there is not an important population located within the UKA and • the proposed development is unlikely to have a significant impact on the koala as a species within Coomera. Conclusion The proposed action is not considered to have a significant impact on this species for reasons that include: The Coomera Woods site does not contain habitat critical to the survival of the koala as a species: • the site scores a 4 under the Koala Habitat Assessment Tool in the Koala Referral Guidelines; • the site is surrounded by substantial barriers, suffers from side effects caused by surrounding uses, the habitat is degraded and the site is too small to support a minimum viable population; and • there is no link between the site and any other koala habitat area that provide adequate connectivity for the purposes of ensuring long term genetic fitness and ensuring proper access to habitat areas critical to the survival of the species. The proposed action will not have a significant

Grey-headed Flying-fox (Pteropus

poliocephalus)



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impact on an 'Important Population' as defined in the Significant Impact Guidelines: • There is not an important population on the site. Neither is there an important population in the surrounding urban footprint; • The proposed action will not introduce disease that may cause the species to decline, or interfere substantially with the recovery of the species. The small number of koalas within the referral site is not sustainable in the long term. • The small number of koalas are isolated on the site. • Small population size, inbreeding and restricted gene flow all contribute to a reduction in genetic diversity. • A loss of genetic diversity lead to an increased susceptibility to disease. Council research show a very high prevalence of disease amongst koalas in Coomera. • Genetic diversity has been identified as an important factor influencing a population's long-term potential for survival and is critical for long-term fitness and adaptation. • Accordingly, populations lacking genetic diversity often exhibit an increased rate of extinction. This species has not been recorded on-site, however site tree species do form part of the broader components which make up the critical habitat factors for this species. An Assessment against criteria included within the Significant Impact Guidelines 1.1 concludes the project will not result in Significant Impacts on the Greyheaded Flying-fox species (refer to attachment; MNES Technical Note prepared by SHG).

2.4.2 Do you consider this impact to be significant?

No

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

No

2.6 Is the proposed action to be undertaken in a marine environment (outside



Commonwealth marine areas)?

No

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

No

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

No

2.9 Is the proposed action likely to have ANY direct or indirect impact on a water resource related to coal/gas/mining?

No

2.10 Is the proposed action a nuclear action?

No

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

No

2.12 Is the proposed action to be undertaken in a Commonwealth Heritage Place Overseas?

No

2.13 Is the proposed action likely to have ANY direct or indirect impact on a water resource related to coal/gas/mining?

No



Section 3 - Description of the project area

Provide a description of the project area and the affected area, including information about the following features (where relevant to the project area and/or affected area, and to the extent not otherwise addressed in Section 2).

3.1 Describe the flora and fauna relevant to the project area.

Numerous ecological surveys have been carried out over the site including ecological field assessments by Planit Consulting in 2003-2004 and again in 2008. Various studies for koala within the wider region have been undertaken by Biolink on behalf of CGC as part of the East Coomera Koala Conservation Project. Contemporary surveys to identify existing ecological values at the site, was undertaken by SHG ecologists over four (4) days between the 15 and 18 April 2015. Since this timeframe a number of very specific koala surveys have been completed on the land holding, including:

-Dr Stephen Phillips – Site Survey and Assessment in 2015

-Saunders Havill Group Koala Surveys 2016

-Planit Consulting Surveys 2017

A broad description of the site's flora and fauna based on all surveys is outlined in this section of the referral form with details contained in the attachments.

Flora

Queensland's Regulated Vegetation Management Map shows the site contains areas of Category B Remnant Vegetation (Refer Figures in Attached Coomera Woods Ecological Technical Note - MNES Flora and Fauna SHG 2015 and Ecological Assessment of Coomera Woods -Planit 2008).

The Vegetation Management Support Map identifies this remnant vegetation as being made up the following regional ecosystems:

RE 12.3.11 (Of Concern)

Eucalyptus tereticornis +/- *E. siderophloia* and *Corymbia intermedia* open forest to woodland. Corymbia tessellaris, *Lophostemon suaveolens* and *Melaleuca quinquenervia* frequently occur and often form a low tree layer. Other species present in scattered patches or low densities include *Angophora leiocarpa, E. exserta, E. grandis, C. trachyphloia, C. citriodora subsp. variegata, E. latisinensis, E. tindaliae, E. racemosa and Melaleuca sieberi. E. seeana* may be present south of Landsborough and Livistona decora may occur in scattered patches or low densities in the Glenbar SF and Wongi SF areas. Occurs on Quaternary alluvial plains and drainage lines along coastal lowlands. Rainfall usually exceeds 1000mm/y. (BVG1M: 16c).

RE12.11.5 (Least Concern)

Open forest complex in which spotted gum is a relatively common species. Canopy trees include *Corymbia citriodora subsp. variegata, Eucalyptus siderophloia or E. crebra (sub coastal ranges), E. major and/or E. longirostrata and E. acmenoides or E. portuensis and/or E. carnea and/or E. eugenioides. Other species that may be present and abundant locally include Corymbia henryi, C. intermedia, C. trachyphloia, Eucalyptus tereticornis, E. propinqua, E. biturbinata, E. moluccana, E. melliodora, E. fibrosa subsp. fibrosa and Angophora leiocarpa. Lophostemon confertus often present in gullies and as a subcanopy or understorey tree. Mixed understorey of grasses, shrubs and ferns. Occurs on hills and ranges of Palaeozoic and older moderately to strongly deformed and metamorphosed sediments and interbedded volcanics. (BVG1M: 10b)*

RE12.11.5 is an essential habitat factor for Koala.

Under Queensland's State Planning Policy (SPP), the site has been identified as containing the following Matters of State Environmental Significance:

-Wildlife Habitat (Koala)

-Regulated Vegetation

-Regulated Vegetation Intersecting a Watercourse

The following general flora observation were recorded through field survey across the proposed development site (SHG 2015):



Twelve (12) threatened plants and two (2) listed Threatened Ecological Communities (TEC) described as Lowland Rainforest of Subtropical Australia and Subtropical and Temperate Coastal Saltmarsh were considered to have potential to occur on-site (i.e. within 2km radius). None of these protected matters were recorded on or in the vicinity to the site. It is considered that the disturbances and nature of the site in the broader area have affected the likelihood of occurrence of these species.

Twenty-two (22) listed threatened plants protected under the *Nature Conservation Act* 1992 (Qld) (NCA) were considered to have potential to occur across the site (i.e. within a 10km radius). No specimens were recorded at the time of assessment.

Fifty-nine (59) flora species were identified on site throughout the field assessment, with sixteen (16) of these species being introduces. Four (4) of these introduce species are considered Class 2 and Class 3 weed species under the *Land Protection (pest and Stock Route Management) Act 2002,* and six (6) are considered environmental weeds within the Gold Coast Region.

The site is dominated by Eucalypt Woodland/Open Forest associated located on minor alluvial deposit, or on metamorphosed sedimentary rocks associated with the Neranleigh-Fernvale formation beds. The understory across the majority of the site has been routinely slashed and typically was dominated by regenerating eucalypts, native shrubs and grasses.

Across the majority of the site, canopy trees varied from 20-30m in height and were generally widely spaced with an average of about 20m between tree stems. The crown cover varied from about 50-70% with proportions of the higher areas in the northern and southern parts of the site being cleared of canopy trees altogether. The major gully, which is mapped as 'non-remnant' vegetation, exhibited a higher crown cover due to higher percentage of younger aged regrowth reflective of RE12.3.11. This area is contained within the planned 100m wide corridor to be retained and rehabilitated as part of the development.

The majority of the site is mapped as remnant vegetation consisting of Least Concern RE12.11.5 (*Corymbia citriodora subsp. variegata, Eucalyptus siderophloia, E. major open forest on metamorphics* +/- *interbedded volcanics*) and Of Concern RE12.3.11 (*Eucalyptus tereticornis* +/- *Eucalyptus siderophloia, Corymbia intermedia open forest on alluvial plains usually near coast*). RE 12.3.11 is associated with three small areas of the main drainage lines, whereas RE



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12.11.5 covers the balance of the remnant vegetation mapping. Areas not identified as remnant occur in the northern portions of the site, adjacent to the railway line and in cleared areas in the centre. It is considered by Planit Consulting (2008) that some additional areas of the site (mostly within locations recently cleared as a result of sewer installation and machinery tracks) are currently mapped as remnant however do not contain vegetation with height and spread requirements to meet the remnant definition. Contemporary field assessment by SHG (2015) confirmed the presence of mapped RE12.11.5 and RE12.3.11, however noted that primarily only canopy species were present.

Overall, the site has been categorised into three broad vegetation communities (As described within the attached Coomera Woods Ecological Assessment 2008 prepared by Planit). Brief descriptions of these identified communities are presented below:

Forest Red Gum/Ironbark/Bloodwood Association - Broad Gullies and Drainage Lines

This community is best described as Forest Red Gum/Ironbark/Bloodwood Association [nonremnant and RE12.3.11] and is present within broad drainage areas are associated with the lower areas at the base of a number of ridgelines. *Eucalyptus tereticornis* (Forest Red Gum) were observed dominating the canopy layer throughout these areas, with sub-dominant canopy trees including *Corymbia intermedia* (Pink Bloodwood) and Eucalyptus siderophloia (Ironbark).

This community is confined to the lowest proportions of the site and most noticeable within the planned 100m wide environmental corridor. Most areas exhibit an advanced stage of regrowth with some areas mapped as containing remnant RE12.3.11. Some small pockets are also present in the western areas adjacent the railway line.

With the 2015 field assessment by SHG following significant rainfall periods, pools of water and were observed within the drainage areas, and it is in these areas that stands of regrowth Melaleuca dominated. The drainage lines were not observed to contain aquatic flora.

Existing canopy vegetation includes predominately stems of *Eucalyptus tereticornis, E.* siderophloia and Corymbia intermedia within the lower flowpath and *E. tindaliae, E. resinifera, E. propinqua, E. carnea, C. citriodora, Angophora leiocarpa, E. fibrosa and E. acmenoides* on the gully banks. Common elements of the small tree (T2) layer include *Lophostemon suaveolens, Melaleuca quinquenervia, Allocasuarina littoralis, Acacia spp., Alphitonia exclesa*



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and Callistemon salignus.

Additional natives of the lower layers include (but are not limited to) regenerating eucalypts, melaleuca, acacia and swamp box (dense layer to 2.5-3m) with native grasses and ground covers present including Imperata cylindrica, Themeda triandra, Goodenia rotundifolia, Cymbopogon refractus, Lobelia purpurascens, Lomandra longifolia, L, multiflora, Xanthorrhoea johnsonii, Pteridium esculentum, Dianella caerulea, Baumea articulata, Cyperus polystachyos, Juncus spp., Typha orientalis, Lepidosperma laterale, Peripleura hispidula, Pultenaea villosa, Desmodium rhytidopyllum, Laxmannia gracilis, Ozothamnus diosmifolius, Pimelea linifolia, Hibbertia diffusa, Lomatia silaifolia and Notelea ovata.

Tallowwood/White Mahogany/Grey Gum Association – Mid-slope Areas

This community is best described as Broad Leaved White Mahogany/White Stringybark/Grey Gum Association [non-remnant and RE12.11.5a] and was observed along mid-slope areas was a species mix containing *Eucalyptus acmenoides* (White Mahogany), *Eucalyptus microcorys* (Tallowwood), *Eucalyptus major* and *Eucalyptus propinqua* (Grey Gum) within the T1 and T2 layers.

This community is dominant over the site and generally occupies the sloping areas on bony soil types. It intergrades with the Blue Gum/Ironbark associations on the lower alluvial deposits and Spotted Gum/Ironbark associations towards the ridges and higher slopes in the north. The lower layers have been cleared as elsewhere on the site.

The canopy varies in composition but is mostly dominated by White Stringybark (*Eucalyptus tindaliae*) and Broadleaved White Mahogany (*E. carnea*) in association with varying subdominance of Ironbarks (*E. siderophloia and E. fibrosa*), Pink Bloodwood (*Corymbia intermedia*), Smoothbarked Apple (*Angophora leiocarpa*) and Grey Gum (*Eucalyptus propinqua*). In the moister parts and on the more sheltered slopes it includes some Tallowwood (*Eucalyptus microcorys*) and a greater proportion of Grey gum. The drier areas include some Spotted Gum and Brush Box (*Lophostemon confertus*) with Blue Gum sporadically occurring on the lower slopes.

Scattered elements of a tree sub layer still occasionally exist (mostly adjacent to fence-lines and beneath large trees in areas that cannot easily be routinely slashed) which includes Black She-



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oak (*Allocasuarina littoralis*), Forest She-oak (*A. torulosa*), Wattles (*Acacia disparrima, A. leiocalyx, A. melanoxylon*), Red Ash (*Alphitonia excelsa*), White Bottlebrush (*Callistemon salignus*) and Swamp Box (*Lophostemon suavolens*) and immature eucalypts.

The ground layer is generally covered by a sparse covering of grasses (*Imperata cylindrica, Cymbopogon refractus, Themeda triandra*) and other hardy groundcovers (*Lomandra spp, Dianella caerulea, Goodenia spp, Geitonoplesium cymosum, Thysanotus tuberosus, Laxmannia gracilis, Xanthorrhoea spp, Lepidosperma laterale* etc).

Spotted Gum/Ironbark Association - Ridgelines and Balance Areas

This community is best described as Spotted Gum and Ironbark Association [non-remnant and RE12.11.5e] and consists of Lightly timbered ridgelines were identified in the central portion of these properties and were dominated by *Corymbia citriodora* (Spotted Gum), with other canopy species including *Eucalyptus siderophloia* (Northern Grey Ironbark), *Corymbia intermedia* (Pink Bloodwood), and *Eucalyptus acmenoides* (White Mahogany).

This community is found on the highest hill tops in the northern and central parts of the site to the west of the Cunningham Drive road reserve. It intergrades with the Stringybark (Zone 2) Community on the adjacent slopes and contains elements of this association in the canopy. The diversity in the under storey is reduced through prior disturbances but mostly due to the ongoing maintenance slashing activities.

The canopy is dominated by Spotted Gum (*Corymbia citriodora*) and Broad-leaved Ironbark (*Eucalyptus fibrosa*)/or Grey Ironbark (*E. siderophloia*) with White Stringybark (*E. tindaliae*), Broadleaved White Mahogany (*E. carnea*), Narrow-leaved Ironbark (*E crebra*), Smoothbarked Apple (*Angophora leiocarpa*), Pink Bloodwood (*Corymbia intermedia*) and Grey Gum (*Eucalyptus propinqua*) common.

The lower strata are slashed although regenerating acacias and eucalypts occur with additional common native species such as Themeda triandra, Lomandra multiflora, Dianella revoluta, Laxmannia gracilis, Jacksonia scoparia, Acacia disparrima, Pultenea villosa, Allocasuarina torulosa, Desmodium rhytidopyllum and Xanthorrhoea johnsoni present.



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The site was found to be disturbed, particularly along ridgelines and in proximity to access tracks as a result of historical thinning illegal motor-cross and four wheel driving creating dirt tracks throughout the site, and the dumping of domestic waste in the more accessible areas across the site.

Other sporadically occurring native species noted include: Hovea acutifolia, Breynia oblongifolia, Babingtonia similis, Cassinia subtropica, Pultenea villosa, Ozthamnus diosmifolius, Pimelia linifolia, Hibbertia diffusa, Lomatia silaifolia, Notelea ovata, Phyllantus virgata, Glycine spp. In many areas the lower strata have been reduced to exposed soil as a result of track formation, illegal recreational vehicle access or overgrazing.

Overall, the site upon inspection was disturbed as result of historial land use including logging, slashing and grazing as well as the invasion of weeds through the creation of vehicle access tracks. It is noted:

A history of disturbance due to fire, grazing, logging and slashing is evident across the site with most heavily impacted areas reflective of 'non-remnant' vegetation.

A number of weeds were identified throughout the site including four (4) weeds declared under the Land Protection (Pest and Stock Route Management) Act 2002 which were Groundsel (*Baccharis hamifolia*) – Class 2, Fireweed (*Senecio madagascariensis*) – Class 2, Camphor Laurel (*Cinnamonmum camphora*) – Class 3, and Lantana (*Lantana camara*) – Class 3 as well as six (6) environmental weeds within the Gold Coast Region.

Fauna

A fauna assessment was conducted by SHG (2015) in conjunction with the vegetation assessment over the application site and was designed to build on the knowledge of extensive surveys already completed by Planit and Biolink. As noted within Section 2.4 of this referral form a number of koala specific fauna surveys have been conducted over 2015, 2016 and 2017 by three different consultants.

A summary of fauna observations, excluding the koala based survey results is provided below:


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Nineteen (19) threatened fauna listed under the provisions of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) are considered to have potential to occur within the vicinity of the application site (i.e. within a 2km radius). None of these protected matters were observed on or in the vicinity of the site, with the exception of the observation of one (1) koala in the north-east portion of the site.Since this assessment koala specific surveys have been conducted to determine the koala population within the referral site. These surveys have been discussed within Section 2.4 of this referral and are discussed below.

Twenty-three (23) threatened fauna species listed under the *Nature Conservation Act 1992* (NCA) are considered to have potential to occur within the vicinity of the site (i.e. within a 10km radius). Again, none of these species, with the exception of the Koala, were considered likely to occur.

The site's ability to support listed threatened fauna species which are generally highly sensitive, specialised and require particular habitat features is highly unlikely for the majority of the listed EPBC Act or NCA protected species.

A number of common bird species were found to utilize the site as part of their broader home range, including the Noisy Miner, Rainbow Lorikeet, Torresian Crow, Magpies and Butcherbirds.

Fauna cameras were deployed at two locations within drainage areas where it was considered likely that visitation for water would be high. The only fauna recorded were common bird species, including the Pale Headed Rosella (*Platycercus adscitus*) and Noisy Minor (*Manorina melanocephala*).

A few small rocky areas were observed within the subject site close to the ridgelines contained little to no habitat value due to the absence of suitable overhangs, crevices or hollows.

Limited habitat is available for ground dwelling fauna as a result of previous clearings, impediments to movement and ongoing slashing. Most areas contained reduced values with sparse cover of grasses and leaf litter. The highest structural diversity of the lower strata was restricted to the gully area which are not regularly slashed.



Extensive areas of eucalypt forest/ woodland are available for typical dry sclerophyll species (particularly avifauna and koalas).

High edge to ratio remnants increasing opportunity for transient, aggressive species on road frontages and within the open areas created through previous / ongoing clearing.

Semi-permanent gully lines are considered potentially suitable for a variety of frogs, reptiles and avifauna.

High seasonal forage values including nectar, seed, insects and foliage are available due to extensive areas of eucalypt forest / woodland. A very low abundance of suitable fruiting species for frugivores is present.

Low numbers of suitable mature / post mature eucalypt species incorporating hollows are present within the site

Survey did not locate any large or unusual nests associated with migratory, rare birds or birds of prey on site.

Debris and timber pikes provide potential habitat for species commonly associated with areas of human use or farming purposes (i.e. snakes, lizards, mice etc.).

Dogs were observed utilising the site, with numerous footprints recorded along the dirt tracks across the site.

Koala Surveys

As discussed above and within a number of the attached documents, detailed koala specific surveys have been completed over the referral site and wider region over the past decade. The most recent and comprehensive of these was undertaken by Planit in 2017. A summary of the works performed and results are included below:



Planit 2017 employed two sampling methods to survey the site;

-SAT sites; and

-Line transect method.

The SAT site activity levels recorded, only one (1) site of high activity levels. This sampling method was applied to the site approximately 8 weeks after a heavy rain event. The resulting activity levels are therefore likely to be a current representation of activity levels, as any older faecal pellets would have been removed before sampling.

The line transect method was extensive and covered the entire site multiple times, something none of the previous visual observation have done. The result was a total five (5) koalas recorded over the entire site during an intensive 2 day period of diurnal and nocturnal surveys. This result was a third of the estimated population by Phillips in 2015. The detailed reports attached to this referral established that the line transect method applied to the entire site performed during diurnal and nocturnal conditions is the most reliable method to detect koalas and produce reliable and accurate abundance and density results.

PLANIT 2017 KOALA LINE TRANSECT SURVEY RESULTS

Day/Night

Day 1 - 3 + 1 skull

Night 1 - 4 (1 additional found at night)

Day 2 - 4*

Total - 5*

*on day 2, 4 koalas were observed, however the individual identified within the south-west could be the same as the one identified on Day 1 to the north-west but considered another individual due to the perceived size difference between the two koalas.

Full table within Coomera Woods Koala Assessment Chapter 1 2017, prepared by Planit.



As discussed above and within a number of attached documents, detailed koala specific surveys have been completed over the referral site and wider region over the past decade. SGH has previously utilised the Koala Habitat Assessment Tool in accordance with the EPBC Act Referral Guidelines for the Vulnerable Koala (Koala Referral Guidelines) and determined the referral site achieved a score of 4. A current assessment has been performed within section 2.4.1 of this referral in which the referral site achieved a score of 4.

A score of 5 or more is considered critical habitat. The site does not support critical habitat for the koala and therefore should not require referral.

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

The existing drainage of the site is currently uncontrolled draining via sheet flow to the existing gullies. Two drainage lines traverse the site from the central ridgeline draining northeast into the Pimpama River. Run-off south of the ridgeline will flow towards Oakey Creek and ultimately Coomera River to the southeast

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

Regional Ecosystems mapping (refer Attachment Ecological Assessment for Coomera Woods 2008 prepared by Planit) shows the site contains areas of Land Zones 3 and 11. Land Zone 3 follows the north-eastern conservation corridor and small patches adjoining the rail corridor associated with drainage lines on site. The remainder of the site is mapped as Land Zone 11.

Land Zone Definitions (Source: Queensland Government)

Land Zone 3

Short description: recent Quaternary alluvial systems

General Term: alluvial river and creek flats

Recent Quaternary alluvial systems, including closed depressions, paleo-estuarine deposits currently under freshwater influence, inland lakes and associated wave built lunettes. Excludes colluvial deposits such as talus slopes and pediments. Includes a diverse range of soils, predominantly Vertosols and Sodosols; also with Dermosols, Kurosols, Chromosols, Kandosols,



Tenosols, Rudosols and Hydrosols; and Organosols in high rainfall areas.

Land Zone 11

Short Description: metamorphic rocks

General term: hills and lowlands on metamorphic rocks

Metamorphic rocks, forming ranges, hills and lowlands. Primarily lower Permian and older sedimentary formations which are generally moderately to strongly deformed. Includes lot -to-high-grade and contact metamorphics such as phylites, slates, gneisses of indeterminate origin and serpentinite, and interbedded volcanics. Soils are mainly shallow, gravelly Rudosols and Tenosols, with Sodosols and Chromosols on lower slopes and gently undulating areas. Soils are typically of low to moderate fertility.

A review of South East Queensland Region Geoscience Data Set (DNRME) by Planit notes that the site occurs predominately on Naranleigh-Fernvale beds which are comprised of metamorphosed sedimentary rock (mudstones, shale, arenite, chert, jasper, pillow lava etc.)

The underlying geological units are utilised in association with the existing vegetation of the site to determine the regional ecosystem types (vegetation communities in a bioregion that are consistently associated with a particular combination of geology, landform and soil). Analysis of the regional ecosystem types occurring within bushland on similar geology proximate to the rehabilitation areas can provide insight on what vegetation communities exist and are likely to be successful if utilised within a revegetation project.

The Australian Soil Resource Information System (ASRIS) maps the site as containing Chromosols. The pH is estimated to be about 4.8-5.5 indicating strongly acidic soils, while the texture has been mapped as loam, silty loam or sandy loam with a clay content of 20-30%.

A review of the Soils Inventory of the Gold Coast (DNRM 2004) indicates that the soil associations of the site are delineated generally according to underlying geological formations. The majority of the site is comprised of weathered materials generally associated with the



Neranleigh-Fernvale metasediments. These soils contain strong texture contrasts between the A and strongly acidic C horizons. The mapped description of the soil type is:

Red Kurosol KU-AA, Brown Kurosol, KU-AB, Yellow Kurosol KU-AC, Grey Kurosol KU-AD, Ref Ferrosol FE-AA red soil, lack strong texture contrast Tenosols TE weak pedologic organisation, overlie hard unweathered rock or decomposed rock.

Parent Material = Arenite, mudstone, shale, chert, jasper, basic metavolcanics, pillow lava and conglomerate of Neranleigh Fernvale beds metasediments.

The areas surrounding the low-lying portions of the site are mapped as consisting of soil types associated with alluvial deposits in the city. The mapped description of the soil type is:

Mellic Brown Kandosol KA-AB-Do, Brown Dermosol DE-AB, Mottled Grey Sodosol SO-AD, Grey Dermosol DE-AD, Yellow Kandosol KA-AC, Hydrosols HY, Rudosols RU; also includes acid sulfate soils.

Parent Material = Alluvium: clay, silt, sand and gravel; flood plain alluvium.

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

This site has not been identified as containing outstanding natural features. As previously stated, the site has been disturbed and retains isolated and fragmented ecological values in terms of biodiversity and habitat availability. While the site remains vegetation with predominately native species, disturbance to the ground layer, particularly around access tracks, significantly restricts vegetation regeneration. In addition, the site contains notable weed infestations, these areas are associated with access tracks and property boundaries.

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

Queensland's Regulated Vegetation Management Map shows the site contains areas of Category B Remnant Vegetation (Refer Figures in Ecological Assessment Attachment).The Vegetation Management Support Map identifies this remnant vegetation as being made up the following regional ecosystems:



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RE 12.3.11 (Of Concern)

Eucalyptus tereticornis +/- E. siderophloia and Corymbia intermedia open forest to woodland. Corymbia tessellaris, Lophostemon suaveolens and Melaleuca quinquenervia frequently occur and often form a low tree layer. Other species present in scattered patches or low densities include Angophora leiocarpa, E. exserta, E. grandis, C. trachyphloia, C. citriodora subsp. variegata, E. latisinensis, E. tindaliae, E. racemosa and Melaleuca sieberi. E. seeana may be present south of Landsborough and Livistona decora may occur in scattered patches or low densities in the Glenbar SF and Wongi SF areas. Occurs on Quaternary alluvial plains and drainage lines along coastal lowlands. Rainfall usually exceeds 1000mm/y. (BVG1M: 16c).

RE12.11.5 (Least Concern)

Open forest complex in which spotted gum is a relatively common species. Canopy trees include *Corymbia citriodora subsp. variegata, Eucalyptus siderophloia or E. crebra* (sub coastal ranges), *E. major and/or E. longirostrata and E. acmenoides or E. portuensis and/or E. carnea and/or E. eugenioides*. Other species that may be present and abundant locally include *Corymbia henryi, C. intermedia, C. trachyphloia, Eucalyptus tereticornis, E. propinqua, E. biturbinata, E. moluccana, E. melliodora, E. fibrosa subsp. fibrosa* and *Angophora leiocarpa. Lophostemon confertus* often present in gullies and as a subcanopy or understorey tree. Mixed understorey of grasses, shrubs and ferns. Occurs on hills and ranges of Palaeozoic and older moderately to strongly deformed and metamorphosed sediments and interbedded volcanics. (BVG1M: 10b)

RE12.11.5 is an essential habitat factor for Koala.

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

The site reflects a low hill, with the ridgeline extending northwest to southeast through the centre of the site. Contours range from 50m along the ridgeline to 10m within the corners of the site (refer Figures in Ecological Assessment Attachment).

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

The affected area (the Coomera Woods development) is located within the Coomera Town Centre, which in turn is located within the East Coomera / Pimpama urban footprint (also referred to as the Urban Koala Area (UKA) in previous Council koala translocation reports). The 137 Ha affected area is completely surrounded by the 2,148 Ha East Coomera / Pimpama urban footprint.



East Coomera was identified in the South East Queensland Regional Plan 2009-2031 (SEQRP) as a future Major Regional Activity Centre and has been identified for major urban expansion at State and local government levels since the 1980s. The Coomera Town Centre Structure Plan, prepared in compliance with the provisions of the SEQRP, endorsed by both State and Local Government, has been incorporated into the City of Gold Coast's Planning Scheme since 2010.

The Structure Plan:

provide for the integrated planning and development of the Coomera Town Centre to assist in the town centre achieving its potential as a Major Regional Activity Centre within the Gold Coast and South East Queensland region. The town centre will service the Coomera locality as well as the wider regional community of the Gold Coast's Northern Growth Corridor.

encourage a strong base of government, commercial, retail, residential and tourist and entertainment development, supported by core regional services such as secondary and tertiary education facilities, medical services and civic uses.

support and encourage a transit oriented community connected to the Coomera Rail Station and that provides highly accessible and diverse employment opportunities. The rail station will provide a focal point for the integration of multiple modes of transport including rail, bus services, taxis, cyclists, pedestrians and private vehicles, evolving into a Transport Hub.

The Coomera / Pimpama area surrounding the Town Centre since became one of the fastest growing urban areas in South East Queensland and in support of the abovementioned integrated planning and development, very significant investments were made in the area by all levels of government. This include:

the recently completed upgrade to the Foxwell Road interchange with the M1 motorway (Exit 54), jointly funded by the Australian Federal Government (\$410 million), the State Government (\$47.4million) and \$17.3 million commitment from the developers within the Coomera Town Centre.

the construction of a TAFE and three schools within the last six years, with a fourth school currently nearing completion.

the acquisition of land adjoining the Coomera rail station (and the Coomera Woods site) by the state government for a future health precinct.

the construction of major water and sewerage works by Council, as well as the upgrading of numerous trunk roads. This include the upgrading of Foxwell road from 2 to 6 lanes immediately east of the access road to the Coomera rail station.



The Coomera Woods site is effectively surrounded by several significant construction projects that are currently being undertaken along the Coomera Woods site boundaries or in very close proximity thereof. These include:

The duplication of the Coomera to Helensvale section of the heavy rail line between Brisbane and Gold Coast (which forms the western boundary of the Coomera Woods site).

The reconstruction and upgrading of Foxwell road from 2 to 6 lanes between the recently completed M1 interchange and the access road to the Coomera rail station.

The construction of a regional shopping centre by Westfield and QIC, located to the west of the rail line.

A filling station and truck stop at the recently upgraded Exit 54 off the M1 motorway.

The construction of a trunk road and the 25Ha Bloom residential estate along the eastern boundary of the site.

The development of all land along the northern boundary of the Coomera Woods site is complete and the building of the houses on developed lots adjoining the Coomera Woods site is nearing completion.

The construction of a 55 Ha mixed use / low impact industrial development directly to the west of the rail corridor is planned to commence early next year.

In anticipation of the development of this major regional urban expansion, the Council of the City of Gold Coast (CCGC) adopted a proactive approach in relation to the protection of the koala and since 2007 implemented concerted programs described within section 2.4.1 of this referral.

While the site remains vegetated primarily with native species, the surrounding land uses have isolated and fragmented this patch of habitat and therefore diminished the site's ecological value. Disturbance from edge effects, weed invasion, creation of access tracks, increases in domestic and feral animals and historical clearing have left the site devoid of notable ecological features and fragmented from large habitat area within the broader Coomera region, limiting its ability to support a high level of biodiversity of provide meaningful connectivity. A number of weed species were identified throughout the site, particularly along access tracks.

A lack of available resources and increased disturbances has reduced suitability of this site for



many species and reduces the potential for long term persistence of species currently utilising this site. Overall, the site is considered to be disturbed and limited in its ability to provide safe refuge or connectivity for fauna.

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

No Commonwealth Heritage Places are located within or adjacent to the site

3.9 Describe any Indigenous heritage values relevant to the project area.

There are no known places of Indigenous heritage value located across the site.

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

The entire extent of the site is freehold land.

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

The site is currently vacant land. Surrounding landuses range from residential, education, transport (rail and bus) and roads.



Section 4 - Measures to avoid or reduce impacts

Provide a description of measures that will be implemented to avoid, reduce, manage or offset any relevant impacts of the action. Include, if appropriate, any relevant reports or technical advice relating to the feasibility and effectiveness of the proposed measures.

Examples of relevant measures to avoid or reduce impacts may include the timing of works, avoidance of important habitat, specific design measures, or adoption of specific work practices.

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

The proposed action has considered the potential impacts on vegetation and wildlife and incorporated these considerations into the project design, construction and operational phases. The total site area is 147.331 hectares, the proposed action proposes the removal of 137.181 hectares for the development footprint. The proposal has allocated 10.15 hectares to the retention of areas of higher ecological value to contribute to the open spaces and ecological areas.

A number of measures to avoid and mitigate potential impacts caused by the removal of vegetation are incorporated into the existing subdivision approval and Operational Works Vegetation Management Approvals. These are summarised below:

1. Approved Vegetation Clearing and Management Plan

The approved 'Vegetation Management Plan, George Alexander Way, Coomera' by Planit date July 2014 (VMP) forms part of the broader management document submitted as a part of the Operational Works drawings for the project site. The VMP covers the clearing of vegetation and includes details on:

-Clearly identified trees to be removed

-All civil works likely to impact on existing vegetation

-Temporary and permanent exclusion and protection fencing (within and surrounding the site)

-Roles and responsibilities for site contractors, Polaris Coomera and the consultant group



-Stockpiling and site access locations

-A clearing sequence plan showing the commencement of clearing and direction of removal (this should be in conjunction with the approved Fauna Management Plan to allow for the appropriate flushing of fauna towards safe havens and fauna movement corridors)

-Links to the Weed Management Strategy (Planit 2009) and Revegetation Strategy (Planit 2009)

-The stockpiling and reuse of cleared vegetation and habitat elements

-Specific details on the removal of previously identified potential fauna habitat trees

2.Fauna Management Plan

The approved 'Final Preclearing Fauna Assessment & Management Plan, George Alexander Way, Coomera' (FMP) by Planit dated July 2014 form has been prepared for potential impacts of the construction phase covering the loss of vegetated areas, isolated trees and likely barriers and impediments to local dispersal.

The FMP includes details on:

-Species surveyed as using the site with a focus on those most likely impacted by development works

-A list of relevant State and Commonwealth legislation constraints and controls for the above listed fauna

-A plan showing existing habitat opportunities and locations

-Details of the threats to existing fauna species

-Clearing sequence plan from the VMP

- -Management and mitigation measures
- -Fauna spotter role, contacts and certification

-Specific fauna management procedures for potential or know habitat trees



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The pre-clearing assessment will be repeated prior to the commencement of works, as it is now out of date. The FMP will be implemented by a Department of Environment and Heritage Protection registered fauna spotter-catcher. This role is mandated for any clearing of native vegetation in Queensland, with the fauna spotter-catcher being present at pre-start meetings and be on-site during all times of construction.

3. Compliance with State and Regional Controls

The mitigation measures mentioned above within the approved VMP and FMP comply with regional and state planning provisions:

-South East Queensland Koala Conservation State Planning Regulatory Provisions 2015 (SEQ SPRP)

-Nature Conservation (Koala) Conservation Plan 2006 & Nature Conservation (Koala) Conservation Plan 2017

The Coomera Woods site is not mapped within an identified Koala Broad-hectare Area, though does comply with provisions within the Regulatory Framework. The Coomera Woods Master Planned Community includes integrated open spaces and ecological conservation areas. The proposal retains vegetation for an ecological link that will run north east through the site which will provide adequate safe dispersal opportunities for wildlife to the Koala Conservation Area.

The FMP is consistent with mitigation requirements within the SEQ SPRP:

1. Site design provides safe koala movement opportunities as appropriate to the development type and habitat connectivity values of the site determined by reference to the factors for consideration in Schedule 2.

2. Native vegetation clearing is undertaken as sequential clearing and under the guidance of a koala spotter where native vegetation is a non-juvenile koala habitat tree.

3. During construction phases:

a) Measures are incorporated into construction practices to not increase the risk of death or injury to koalas; and



b) Native vegetation that is cleared and in an area intended to be retained for safe koala movement opportunities is progressively restored and rehabilitated.

4. Landscaping activities provide food, shelter and movement opportunities for koalas consistent with site design.

The ecological link will provide immediate refuge and dispersal to wildlife from residential and development areas. The vegetation within this link consists of a dense canopy cover within a preferred landscape of established vegetation, allowing safe refuge from potential threats.

The link does not meet corridor requirements in Table 8: Barriers to dispersal and fragementation within the Koala Referral Guidelines:

- retention of corridor(s) of at least 100m width. Corridor greater than 300m wide can be considered to have a higher effectiveness.

Therefore the site does not contain habitat connectivity values.

The retained vegetation does meet following requirements:

-Local scale corridor width of 50m or greater – a minimum of 80m.

-Continuous linear Corridor – the corridor is a linear habitat corridor of remnant vegetation.

-Wildlife Management Solutions – the Corridor integrates Wildlife Management Solutions to reduce potential threats from vehicles and domestic animals.

-Target Species Requirements – the dense canopy over and availability of food trees provide refuge and reduce edge effects for the koala.

The ecological corridor that is to be retained will also be rehabilitated in accordance with the 'Environmental Corridor Rehabilitation Strategy' (Planit August 2009).



The proposed action has incorporated regulatory provisions into the VMP and FMP to comply with the Nature Conservation (Koala) Conservation Plan 2017:

Part 3 s10 Sequential clearing in koala district A or B

The Coomera Woods site is within district A. The VMP and FMP incorporate sequential clearing in a direction away from barriers and towards the ecological corridor to assist safe movement.

Part 3 s11 Koala spotter needed for clearing in koala habitat area

The VMP and FMP stipulate that a DEHP qualified wildlife spotter/catcher will be present during sequential clearing works.

The proposed action complies with strict regional and state regulatory provisions for the carrying out of works within koala habitat areas. The ecological corridor will provide dispersal opportunities for koalas from the site following sequential clearing of the site supervised by a DEHP qualified spotter/catcher.

4. Erosion and Sediment Control Plan and Stormwater Management Plan

Each of these plans will be designed and implemented to cover construction and operational phases of development to ensure water quality objectives are met.

5. Compensation for habitat loss and city wide significant species

The proponents are required to compensate for habitat loss and city wide significant species through the use of one or more of the following:

-Compensatory planting

-Installation of nest boxes

-Native bee relocation



-Rehabilitation of degraded areas suitable to become or support ecologically significant species

-A monetary contribution to near-by Council conservation activities.

East Coomera Koala Conservation Project 2008-2014

In addition to project-specific mitigation measures, the City of Gold Coast has developed and implemented the East Coomera Koala Conservation Project in order to minimise impacts on Koalas as a result of development under the Coomera Town Centre Structure Plan. The project involved a proactive approach to protect Koalas and restore habitat away from areas of urban development. In essence, the project involved:

-Relocated 'at risk' koalas from habitat which will be cleared to areas of secured habitat, such as the Lower Beechmont Conservation Area and Wongawallan Conservation Area;

-Ongoing monitoring of koalas in East Coomera, as well as monitoring of Koalas in relocation areas;

-Habitat restoration in the Pimpama River Conservation Area;

-Community and school education initiates; and

-Engagement with landowners, residents and the broader community to report koala sightings and to promote responsible pet ownership and careful driving.

The Implementation of the East Coomera Koala Conservation Project by City of Gold Coast is a proactive initiative with immediate and long term conservation goals aimed at protecting local koalas.

Koala Conservation Plan 2017

The most recent project to integrate Koala and habitat protection within the Gold Coast area. It ensures the ongoing sustainability of koalas on the Gold Coast and to effectively address the major threats to these local populations, the Koala Conservation Plan will continue to be guided by up-to-date koala population health and sightings data; engage and seek community support and participation; and provide a focus to enhance inter agency collaboration and partnership for all contributing stakeholders.



Plan Objectives

The Koala Conservation Plan will identify and implement measures to minimise threats to koala survival by:

• improving safe passage of koalas within urban areas through appropriate infrastructure planning and community participation in conservation initiatives

• identifying and protecting habitat to limit clearing and increase connectivity through informed development assessment

- reducing koala mortalities caused by vehicle strike, dog attack and Chlamydia
- partnering with government, universities, community groups and other research
- organisations to increase scientific knowledge of koala ecology and health

• maintaining a comprehensive, well informed understanding of Gold Coast koala populations and their threats.

The plan is broken into categories to address threat management, population monitoring and community engagement. The plan identifies the major threats to the ongoing survival of koalas on the Gold Coast, the objectives and proposed approach for their mitigation is also discussed. The population monitoring program involves the collection of data for analysis of population density, habitat use, population health and genetic fitness. The program allows the City to stay informed of changes and trends in koala populations, and for mitigation measures and actions remain relevant to achieve the Plans targets.

The community engagement component of the plan incorporates existing initiatives; Koala friends Program, Community Events, Education Resources and Tools, and proposed initiatives; Koala Conservation School Based-Education Programs and Koala Sightings Phone App. This plan encompasses the entire Gold Coast local government area and has allocated numerous resources to achieve the ongoing monitoring and protection of koalas and their habitat.

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

The matters protected by the EPBC Act that may be affected by the proposed action is the koala. The proposed action involves the removal of 137ha of bushland habitat. Approximately 10ha is to be retained for the ecological corridor. The site has been assessed as not containing critical habitat for the koala and achieve a score of 4 against the Koala Habitat Assessment Tool. Though potential habitat will be cleared, no harm is expected to come to individual koalas during clearing works.



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Vegetation clearing will be in accordance with the Approved VMP and FMP;

Implementation of Sequential clearing – with maximum clearing limits/day and clearing in a direction that ushers wild life towards the ecological corridor; and

Supervision of clearing works by DEHP qualified wildlife spotter/catcher

Both of the above measures are in accordance with the Nature Conservation (Koala) Conservation Plan 2017;

Part 3 s10 Sequential clearing in a koala habitat area

(3) in this section- Sequential clearing means all of the following conditions-

(a) clearing of the koala habitat trees is carried out in a way that ensures koalas on the area being cleared (the clearing site) have enough time to move out of the clearing site without human intervention, including, in particular, for clearing sites with an area of more than 3ha, by—

- (i) carrying out the clearing in stages; and
- (ii) ensuring not more than the following is cleared in any 1 stage—

(A) for a clearing site with an area of 6ha or less—50% of the site's area; (B) for a clearing site with an area of more than 6ha—3ha or 3% of the site's area, whichever is the greater; and

(iii) ensuring that between each stage and the next there is at least 1 period of 12 hours starting at 6p.m. on a day and ending at 6a.m. on the following day during which no trees are cleared on the site;

(b) clearing of the koala habitat trees is carried out in a way that ensures, while the clearing is carried out, appropriate habitat links are maintained within the clearing site and between the site and its adjacent area, to allow koalas living on the site to move out of the site;

(c) no koala habitat tree in which a koala is present, and no koala habitat tree with a crown overlapping a tree in which a koala is present, is cleared.



Part 3 s11 Koala spotter needed for clearing in Koala habitat area

(1) This section applies to a person clearing, in a koala habitat area, koala habitat trees having a trunk of a diameter of more than 10cm at 1.3m above the ground.

(2) The person must ensure the clearing is carried out in the presence of a koala spotter who has the primary role of locating koalas in the trees for the person. Maximum penalty—120 penalty units.

(3) This section applies in addition to any other requirement applying to the clearing under an Act.

(4) In this section—koala spotter means a person who has demonstrated experience in—

- (a) locating koalas in koala habitats; or
- (b) conducting fauna surveys.

The ecological corridor that is to be retained will also be rehabilitated in accordance with the 'Environmental Corridor Rehabilitation Strategy' (Planit August 2009).



Section 5 – Conclusion on the likelihood of significant impacts

A checkbox tick identifies each of the matters of National Environmental Significance you identified in section 2 of this application as likely to be a significant impact.

Review the matters you have identified below. If a matter ticked below has been incorrectly identified you will need to return to Section 2 to edit.

5.1.1 World Heritage Properties
No
5.1.2 National Heritage Places
No
5.1.3 Wetlands of International Importance (declared Ramsar Wetlands)
No
5.1.4 Listed threatened species or any threatened ecological community
No
5.1.5 Listed migratory species
No
5.1.6 Commonwealth marine environment
No
5.1.7 Protection of the environment from actions involving Commonwealth land
No
5.1.8 Great Barrier Reef Marine Park
No
5.1.9 A water resource, in relation to coal/gas/mining
No



5.1.10 Protection of the environment from nuclear actions

No

5.1.11 Protection of the environment from Commonwealth actions

No

5.1.12 Commonwealth Heritage places overseas

No

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

<u>Context</u>

The site occurs is located in the long planned regionally significant Coomera Town Centre. The site adjoins a rail line, train station, approved Westfield shopping centre and higher density living options. Roads and other infrastructure in support of these uses have already been upgraded or are under construction. Approved developments have resulted in clearing on all sides of the project area.

Long before the referral of this project the City of Gold Coast in recognition of the potential future impacts has invested significant resources into direct mitigation via translocation and ongoing management of the koala surrounding the study area (Urban Koala Area). The mitigation measures taken by the City of Gold Coast include the direct removal of 180 koalas from the study area, translocated to other conservation locations within the Gold Coast's local government area. This has included 19 animals directly removed from the site of the proposed action.

The development of the site must be undertaken in accordance with state and local planning requirements, which include the need for compliance with the Queensland Nature Conservation (Koala) Conservation Plan 2006, that works are undertaken in accordance with an approved fauna management plan, that a pre-start meeting is held on site with relevant council officers before works can commence, pre and post clearing fauna assessments, and the presence of an approved spotter catcher on site at all times during clearing works.



The attachments to this referral include technical reports that provide details on the survey, assessment and consideration of the impacts of the proposed development on the koala. These reports conclude that the action will not result in significant impacts on the koala.

Policy guidance

In assessing whether the proposed action is likely to have a significant impact the proponent has relied on the following guidelines documents published by the Department:

Matters of National Environmental Significance; Significant impact guidelines 1.1; Environment Protection and Biodiversity Conservation Act 1999 (**Significant Impact Guidelines**); and

EPBC Act referral guidelines for the vulnerable koala (Koala Referral Guidelines).

Key reasons why the proposed action is likely to have a significant impact under the EPBC Act

Set out here are the key reasons why the proposed action will not have a significant impact for the purposes of the EPBC Act. These reasons must be read together with the document, Submission regarding referral of proposed action under the EPBC Act; Coomera Woods residential development, South East Queensland (**EPBC Act Submission**). The EPBC Act Submission provides detailed reasons as to why the proposed action should not be determined to be a controlled action.

Possible impact on the koala

With respect to the Significant Impact Guidelines:

an action is said to have a significant impact on a vulnerable species if there is a real chance or



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possibility that it will one or more specified effects on an 'important population';

an important population is a population that is 'necessary for a species' long-term survival and recovery', which may include populations in recovery plans or that are: 'key source populations either for breeding or dispersal', 'populations that are necessary for maintaining genetic diversity', and/or 'populations that are near the limit of the species range';

reports provided with this referral (the Coomera Woods Koala Assessment Report prepared by Saunders Havill Group, and the Coomera Woods Koala Evaluation and Assessment (Chapters 1 and 2) prepared by Planit Consulting) have assessed both the habitat on the site and the koala population;

the methodology used to assess the koala population is a more accurate and comprehensive methodology than previously used to assess the population on site. From those surveys the reports demonstrate that previous assessments overestimated the number of koalas on the site. Most recently, Planit used a line transect method of visual observation covering the entire site three times over two days and one night, and found only five individual koalas on the site;

the number of koalas on the site have been reduced by the translocation of koalas by the City of Gold Coast in preparation for the development of the site and surrounding areas;

having regard to the small number of koalas located on the site and health issues affecting the koalas, Saunders Havill Group found:

It is ... considered extremely unlikely from the small number of koalas considered to remain within the study area and the high rate of health issues (including high prevalence of Chlamydia) detected by the CGC during their translocation program that there is a population within the study area that is necessary as a key breeding and dispersal source for the long term survival and recovery of the koala and for maintaining genetic diversity.

noting the current health issues of the local koala population, the proposed action will not have the effect of 'introduc[ing] disease that may cause the species to decline';



given the translocation of koalas by the City of Gold Coast, the degraded state of the habitat on the site, and the significant urban development surrounding the site, the proposed action would not 'interfere substantially with the recovery of the species';

an action may also have a significant impact on a vulnerable species if it will 'modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline';

guidelines for an assessment of habitat critical to the survival of the koala are set out in the Koala Referral Guidelines (see below).

With regard to the Koala Referral Guidelines:

whereas it is said that '[h]abitat protection and impact mitigation is focused on areas of habitat that are large and well-connected', the site is surrounded by urban development and largely disconnected from critical koala habitat;

the site is located in an urban environment, noting the long term planning for the development of the Coomera Town Centre and the development that now surrounds the site;

as an urban area, it is relevant that the Koala Referral Guidelines state that '[u]rban areas are not likely to contain habitat critical to the survival of the koala', and that threats to koalas in urban areas 'are best addressed by local remedial action, rather than through regulation under the EPBC Act';

the assessment against the koala habitat assessment tool by Saunders Havill Group has determined that the proper score for the site is 4, and therefore below the threshold for habitat critical to the survival of the koala;

this score has previously been approved by the Department in its previous controlled action assessment;



where the site does not contain critical habitat, under section 8 of the Koala Referral Guidelines the proposed action cannot be regarded as interfering substantially with the recovery of the koala.

The numerous supporting technical reports provide relevant details on the survey, assessment and consideration of impacts on the koala within the legislative context of the EPBC Act. These span over a 2 year period and have been prepared in support of this EPBC Act Referral application to the Commonwealth Department of Environment and Energy (DEE). The overarching conclusions of these various reports by two separate Ecological Consultancy Professional Services Companies is that the Coomera Woods project and facilitated works will not result in significant impacts on the koala as listed and protected as a Matter of National Environmental Significance (MNES) under the EPBC Act. The core findings of this assessment, and on which the no significant impact determination derived, are:

1. With respect to the possible impact on the Grey-headed Flying fox, an assessment against criteria included within the Significant Impact Guidelines 1.1 is provided in the attached *MNES Ecological Technical Assessment Memo - MNES Flora and Fauna (Excluding assessment and impacts on the koala)* prepared by SHG, which concludes the project will not result in significant impacts on the species.

2. With respect to the possible impact of the proposed action on the koala, reasons as to why the proposed action should not be regarded as having a significant impact are set out in the attached, *Coomera Woods Koala Assessment Report* prepared by SHG. Submission regarding referral of the proposed action under EPBC Act, Coomera Woods residential development, South East Queensland. Those reasons include that;

(a) comprehensive population surveys newly undertaken on the site demonstrate that previous assessments overestimated the number of koalas on the site;

(b) the most recent survey undertaken- involving a line transect method of visual observation covering the entire site three times over two days and one night-showed that there were only five individual koalas on the site;

(c) the small number of koalas does not constitute a minimum viable population and neither do the koalas form a part of a larger and viable or sustainable population (due to the fact that the



impact area is bounded by significant barriers in the form of extensive urban development and major transport infrastructure). The small number of koalas within the impact area therefore do no constitute a population that is or could be important for the survival of the species;

(d) given its inadequate size, low quality of the vegetation and the edge effects resulting from surrounding urban development, the impact area itself cannot support a minimum viable population. Furthermore, given the urban context and the resulting barriers bounding the impact area, it does not form part of a larger contiguous landscape;

(e) the outcome of the assessment of the site against the *EPBC Act referral guidelines for the vulnerable koala* is a score of 4, meaning that under the Referral Guidelines the site does not contain habitat critical to the survival of the koala;

(f) measures required to be taken under Queensland law and local planning requirements provide protection for the well-being of the koalas remaining on the site. Given that the site does not contain habitat critical to the survival of the koala and the number of koalas on the site does not constitute a population important for the survival of the species, it is more appropriate that the impact of the proposed action is regulated under Queensland and local law rather than under EPBC Act.

3. Indirect survey and direct census style survey methods documented within the *EPBC Act referral guidelines for the vulnerable koala* has been extensively employed over the referral site by two separate ecological consulting companies and summarised the area is used by a small number of koalas observed over four survey events spanning a 24 month period. Given the low numbers a range of known management measures can be employed to mitigate short term clearing and construction impacts on any individual animal.

4. *The Koala Conservation Management Plan for East Coomera (2014-2018)*, implemented by City of Gold Coast, in conjunction with the approval conditions for the Coomera Woods development site, mandate a range of fauna management measures. These measures adequately mitigate and safeguard against any incidental mortality, injury or threat to dispersing transient animals in the area. The mandated measures include:

a) Vegetation Management Plan 2014 prepared by Planit – limiting the daily extent, sequencing and stages of clearing of the site to enable flushing of all native animals.



b) Compulsory use of fauna spotter-catchers holding registrations with the Queensland Government Department of Environment and Heritage Protection (DEHP) to: complete preclearance reports, be on-site during all clearing works, dictate clearing mechanisms, monitor and reports on all works during and after clearing events.

c) Preparation and submission of a Preclearing Fauna Assessment and Management Plan prepared by Planit for all native species providing schedules controls inclusive of contractor education and training in relation to koala protocols.

5. The Coomera Woods site occurs within the long planned regionally significant Coomera Town Centre. The site itself adjoins a rail line, train station, approved Westfield shopping centre and higher density living options. Roads and other infrastructure in support of these uses have already been upgraded or are under construction. Approved development, inclusive of determinations under the EPBC Act, have resulted in clearing on all sides of the project area. long before the referral of this project the City of Gold Coast in recognition of the potential future impacts has invested significant resources into direct mitigation via translocation and ongoing management of the koala surrounding the study area (Urban Koala Area).

Although the study area is predominantly bushland the results of this assessment on significant impacts, when measured against criteria established in the EPBC Act and supporting guidelines, are not expected given:

The direct removal of 180 koalas from the study area, translocated to other conservation locations within the Gold Coast's Local Government Jurisdiction. The included 19 animals directly removed from the Coomera Woods referral site as they were considered to be within a 'high risk' development area.

The land surrounding the site has been under development as part of the Coomera Town Centre since 2006. The Coomera Woods site occurs central to the Coomera Town Centre with development land either constructed or under construction in all orientations.

Despite a number of referrals made within the Coomera Town Centre Area, including on nearly all sides of the Coomera Woods site, only one Controlled Action determination has been made.



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This determination related to a site on the periphery of the Urban Koala Area interfacing within the retained East Coomera Koala Consevation Area. Nearly all of these referrals have outlined the influence oof the City of Gold Coast designation of the Urban Koala Area and direct physical translocations of animals as resulting in the broader study area not supporting an important population.

The evidence collected and analysed on this project assessed against the provided cirteria of the EPBC Act and Guidelines, concludes the Coomera Woods Project will not result in a significant impact on the koala.



Section 6 – Environmental record of the person proposing to take the action

Provide details of any proceedings under Commonwealth, State or Territory law against the person proposing to take the action that pertain to the protection of the environment or the conservation and sustainable use of natural resources.

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

Yes

Development undertaken to date include:

The vegetation clearing and bulk earthworks of 25 hectare site adjoining the ecologically sensitive McCoy's creek corridor upstream from Moreton Bay Ramsar Wetland Site.

The vegetation clearing of a 55 hectare site straddling the Oakey Creek upstream from the Coomera River and the Moreton Bay Ramsar wetland site.

The abovementioned works had been undertaken in accordance with the requirements of the subject development approvals and relevant legislative requirements to the satisfaction of the Authorities.

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

Polaris is not and has not been the subject of proceedings under Commonwealth, State or **Territory Law**

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

Yes



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

Polaris does not have an environmental policy. Development applications for all works include the preparation of site specific Fauna-, Flora- and Environmental Engineering Management Plans by independent professionals (appointed by Polaris) in accordance with applicable legislative and regulatory requirements as well as best practices.

Contracts let by Polaris for the execution of works:

Stipulate the supervision of the works by independent professionals (superintendents) appointed by Polaris;

Oblige contractors to comply with all applicable legislative and regulatory requirements;

Call for the preparation of necessary management plans by the contractor and the approval thereof by the relevant superintendents prior to the commencement of the works. These Contractor Management Plans must as a minimum include the requirements set in the management plans submitted / approved as part of the development applications.

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

No



Section 7 – Information sources

You are required to provide the references used in preparing the referral including the reliability of the source.

7.1 List references used in preparing the referral (please provide the reference source reliability and any uncertainties of source).

Reference Source	Reliability	Uncertainties
Australian Koala Foundation 2012, National Koala Tree Protection List; Recommended Tree Species for Protection and Planting of Koala Habitat.	Reliable	N/A
Australian Koala Foundation, The Spot Assessment Technique: determining the importance of Habitat Utilised by Koalas (Phascolarctos cinereus), available online: https: //www.savethekoala.com/ sites/default/files/docs/conserver/ /The%20Spot%20Assessment % 20Technique.pdf	Reliable	N/A
Australian Soil Resource Information System, http://www.asris.csiro.au/	Reliable	N/A
Biolink 2007, Conserving Koalas in the Coomera- Pimpama Koala Habitat Area: A view to the future prepared for City of Gold Coast	Reliable, at the time of the study this document was a fair representation of the area. Density estimates were based on indirect survey methods, which means there is a margin for error.	As discussed within section 2.4.1 of this referral and the attached Coomera Woods Koala Assessment Chapter 1 prepared by Planit there are uncertainties relating to the application of these findings to the referral site and surrounding environment in it current condition.
Callagahan J. 2014, Koala Conservation Plan for East Coomera prepared for City of Gold Coast	Reliable	N/A
Dique DS, de Villiers DL and Preece HJ 2003, Evaluation of line-transect sampling for	Reliable	N/A

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Reference Source	Reliability	Uncertainties
estimating Koala abundance in the Pine Rivers Shire south-		
east Queensland.' Wildlife		
Research 30: 127-133		
Hill & Curran 2003, Area, shape	Reliable	N/A
and isolation of tropical forest		
fragments: effects on tree		
species diversity and		
implications for conservation.		
Journal of Biogeography, 30:		
Dhiling S 2015 Impacts of	Landiable, there are a number	As discussed within Section
proposed clearing activity on	of inaccuracies within the	2 4 1 of this referral and the
the koala habitat located at 49	document relating to	attached Coomera Woods
George Alexander Way,	calculations and inappropriate	Koala Assessment Chapter 1
Coomera in the City of Gold	application of outdated data	prepared by Planit there are a
Coast LGA, South-Eastern	and statistics. The koala density	number of inaccuracies with
Queensland, Australian	estimates were based on	this report, including the
Government, Department of	indirect sampling methods and	calculations and the application
Environment	assumptions.	of a 2007 koala density
		estimate to the referral site. The
		considerably and therefore
		should not be assessed using
		preexisting statistics.
Phillips S & Callaghan J 2011,	Reliable	N/A
The Spot Assessment		
Technique: a tool for		
determining localised levels of		
Phaseolarctos cinereus		
Australian Zoologist 35(3)		
774-780.		
Planit Consulting 2014,	Reliable	N/A
Amended Environmental		
Corridor Rehabilitation Strategy		
Commissioned by Polaris		
Planit Consulting 2014	Reliable	N/A
Amended Vegetation		
Management Plan		
commissioned by Polaris		
Coomera Pty Ltd		
Planit Consulting 2014, Final	Reliable	N/A
Preclearing Fauna Assessment		
& Management Plan		

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Reference Source	Reliability	Uncertainties
commissioned by Polaris		
Coomera Pty Ltd		
Planit Consulting, 2017, Coomera Woods Koala Evaluation and Assessment Chapter 1 – Evaluation of Koala Survey Methodology, commissioned by Polaris Coomera Ptv Ltd	Reliable	N/A
Planit Consulting, 2017, Coomera Woods Koala Evaluation and Assessment Chapter 1 – Response to Dept. of Environment and Energy Brief, commissioned by Polaris Coomera Pty Ltd	Reliable	N/A
Saunders Havill Group 2015, Ecological Assessment Report EPBC Act Referral commissioned by Polaris Coomera Pty Ltd	Reliable	N/A
Saunders Havill Group, 2017, Koala Assessment Report, 49 8 51 George Alexander Way Coomera, Commissioned by Polaris Coomera Pty Ltd	Reliable	N/A
City of Gold Coast. 2017, Koala Conservation Plan available online: http://www.goldcoast.qld .gov.au/documents/bf/koala- conservation-plan.pdf	Reliable	N/A
City of Gold Coast, 2014, Koala conservation Plan for East Coomera 2014-2018, available online: http://www.goldcoast.qld .gov.au/documents/bf/koala-co nservation-plan-east- coomera.pdf	Reliable	N/A



Section 8 – Proposed alternatives

You are required to complete this section if you have any feasible alternatives to taking the proposed action (including not taking the action) that were considered but not proposed.

8.0 Provide a description of the feasible alternative?

There are no feasible alternatives to the proposed action. This is primarily based on the site's strategic designation within the Coomera Town Centre Structure Plan supporting higher density residential development, open space areas, conservation corridors and major arterial connections. The proposal has been designed in accordance with planning and land use intent for the site by City of Gold Coast and is influenced by surrounding land uses and the site's proximity to existing infrastructure. Any alternative locations would extend beyond the ownership boundaries of the proponent and would be in conflict with existing Local and State Government approvals.

8.1 Select the relevant alternatives related to your proposed action.

8.27 Do you have another alternative?

No



Section 9 – Contacts, signatures and declarations

Where applicable, you must provide the contact details of each of the following entities: Person Proposing the Action; Proposed Designated Proponent and; Person Preparing the Referral. You will also be required to provide signed declarations from each of the identified entities.

9.0 Is the person proposing to take the action an Organisation or an Individual?

Organisation

9.2 Organisation

9.2.1 Job Title

Managing Director

9.2.2 First Name

Kaeko

9.2.3 Last Name

Omura

9.2.4 E-mail

kaeko@polariscoomera.com.au

9.2.5 Postal Address

PO Box 105 Surfers Paradise QLD 4217 Australia

9.2.6 ABN/ACN

ABN

36130648056 - POLARIS COOMERA PTY LTD

9.2.7 Organisation Telephone

(07) 55925890



9.2.8 Organisation E-mail

admin@polariscoomera.com.au

9.2.9 I qualify for exemption from fees under section 520(4C)(e)(v) of the EPBC Act because I am:

Not applicable

Small Business Declaration

I have read the Department of the Environment and Energy's guidance in the online form concerning the definition of a small a business entity and confirm that I qualify for a small business exemption.

Signature:..... Date:

9.2.9.2 I would like to apply for a waiver of full or partial fees under Schedule 1, 5.21A of the EPBC Regulations

No

9.2.9.3 Under sub 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

Person proposing the action - Declaration

I, <u>KAEKO OMURA</u>, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral 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 Kullum Date: 22 December, 20 17

I, <u>KAEKO DMVRA</u>, the person proposing the action, consent to the designation of <u>Polaris Coomern PryLTA</u> as the proponent of the purposes of the action describe in this EPBC Act Referral.

Signature: Kinko Omma Date: 22 Pecember, 2017

9.3 Is the Proposed Designated Proponent an Organisation or Individual?


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The Department of the Environment and Energy

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Organisation

9.5 Organisation

9.5.1 Job Title

Managing Director

9.5.2 First Name

Kaeko

9.5.3 Last Name

Omura

9.5.4 E-mail

kaeko@polariscoomera.com.au

9.5.5 Postal Address

PO Box 105 Surfers Paradise QLD 4217 Australia

9.5.6 ABN/ACN

ABN

36130648056 - POLARIS COOMERA PTY LTD

9.5.7 Organisation Telephone

(07) 55925890

9.5.8 Organisation E-mail

admin@polariscoomera.com.au

Proposed designated proponent - Declaration

mma ___, the proposed designated proponent, consent to 1,-

the designation of myself as the proponent for the purposes of the action described in this EPBC Act Referral.

Australian Government Department of the Environment and Energy Submission #2892 - Coomera Woods Master Planned Development, 49 & 51 George Alexander Way, Coomera

Signature: Kin Kull Mmbate: 12 December, 2017

9.6 Is the Referring Party an Organisation or Individual?

Organisation

9.8 Organisation

9.8.1 Job Title

Director

9.8.2 First Name

Boyd

9.8.3 Last Name

Sargeant

9.8.4 E-mail

boyd@planitconsulting.com.au

9.8.5 Postal Address

PO Box 206 Nobby Beach QLD 4218 Australia

9.8.6 ABN/ACN

ABN

20099261711 - PLANIT CONSULTING PTY. LTD.

9.8.7 Organisation Telephone

(07) 55261500

9.8.8 Organisation E-mail

admin@planitconsulting.com.au

Referring Party - Declaration



Submission #2892 - Coomera Woods Master Planned Development, 49 & 51 George Alexander Way, Coomera

Department of the Environment and Energy

Boyd Sargeant ١,

Signature:...

_, I declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence.

22.12.2017 Date: Australian Government



Department of the Environment and Energy

Appendix A - Attachments

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

- 1. coomera_submission_regarding_referral_of_proposed_action_under_epbc_act.pdf
- 2. coomera_woods_development_plans.pdf
- 3. coomera_woods_ecological_technical_note_shg_part_1.pdf
- 4. coomera_woods_ecological_technical_note_shg_part_2.pdf
- 5. coomera_woods_koala_assessment_report_shg.pdf
- 6. coomera_woods_koala_assessment_report_shg_figures_1-3.pdf
- 7. coomera_woods_koala_assessment_report_shg_figures_4-7.pdf
- 8. coomera_woods_koala_evaluation_and_assessment_chapter_1_planit.pdf
- 9. coomera_woods_koala_evaluation_and_assessment_chapter_2_planit.pdf
- 10. coomera_woods_within_coomera_town_centre_plan.pdf
- 11. ecological_assessment_coomera_woods_planit.pdf
- 12. ecological_assessment_coomera_woods_planit_attachments.pdf
- 13. koala_conservation_plan_council_part_1.pdf
- 14. koala_conservation_plan_council_part_2.pdf
- 15. koala_conservation_plan_for_east_coomera_council_part_1.pdf
- 16. koala_conservation_plan_fpr_east_coomera_council_part_2.pdf
- 17. preclearing_fauna_assesment_and_management_plan_planit_figures_5-8.pdf
- 18. preclearing_fauna_assessment_and_management_plan_planit_atts_part_1.pdf
- 19. preclearing_fauna_assessment_and_management_plan_planit_atts_part_2.pdf
- 20. preclearing_fauna_assessment_and_management_plan_planit_part_1.pdf
- 21. preclearing_fauna_assessment_and_management_plan_planit_part_2.pdf
- 22. preclearing_fauna_assessment_and_management_plan_planit_part_3.pdf
- 23. preclearing_fauna_assessment_and_management_plan_planit_part_4.pdf
- 24. preclearing_fauna_assessment_and_management_plan_planit_part_5.pdf
- 25. vegetation_management_plan_planit_2014.pdf
- 26. vegetation_management_plan_planit_2014_figures.pdf