Australian Government
Department of Agriculture, Water and the Environment

EPBC Ref: 2020/8803

Mr Scott Whitaker
Regional Director, North Coast Region
Department of Transport and Main Roads
12 First Avenue
Maroochydore QLD 4558

Dear Mr Whitaker

Additional information required for preliminary documentation
Beerburrum to Nambour Rail Upgrade Project, Queensland

I am writing to you in relation to your proposal to upgrade the North Coast Line between Beerburrum and Nambour, including a new rail corridor and associated infrastructure, Queensland.

On 12 January 2021, a delegate of the Minister decided that the proposed action is a controlled action and that it will be assessed by preliminary documentation. Further information will be required to be able to assess the relevant impacts of the proposed action.

Details outlining the further information required are at Attachment A. Details outlining the information requirements for offset proposals required under the EPBC Environmental Offsets Policy are at Attachment B. General guidance for determining Koala habitat in disturbed/open/cleared areas is provided in Attachment C.

Details on the assessment process and the responsibilities of the proponent are set out in the enclosed fact sheet. Further information is available from the department's website at http://www.environment.gov.au/epbc.

If you have any questions about the assessment process or the further information required, please contact Carl Menke, by email to carl.menke@environment.gov.au, or telephone 02 6274 2896 and quote the EPBC reference number shown at the beginning of this letter.

Yours sincerely

Richard Miles
Director
Queensland South Assessments Section
27 January 2021

ATTACHMENT A
REQUEST FOR ADDITIONAL INFORMATION REQUIRED FOR ASSESSMENT BY PRELIMINARY DOCUMENTATION

Beerburrum to Nambour Rail Upgrade Project, Queensland (EPBC 2020/8803)

1. General content, format and style

The preliminary documentation must:

1.1	Include: a) the information contained in your original referral b) all additional information submitted to the Department in support of the referral c) the further information you provide on the impacts of the proposed action and the strategies you propose to avoid, mitigate, and/or offset those impacts (as described below), and d) other relevant information on the matters protected by the EPBC Act.
1.2	Follow the structure of this information request.
1.3	Include a reference table indicating where to find the information fulfilling this request.
1.4	Contain sufficient information to enable interested stakeholders and the Minister (or delegate) to understand the environmental consequences of the proposed development on matters of national environmental significance (MNES). Specifically, it must contain sufficient information to allow the Minister (or delegate) to make an informed decision on whether or not to approve, under Part 9 of the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act), the undertaking of the action for the purposes of each controlling provision. *Please note that the Department may require further information, in addition to the information required below, should new information come to light during the assessment stage (e.g. an additional species has been identified onsite).*
1.5	Ensure all work and conclusions: a) are evidence based and the evidence is provided b) use scientifically robust methodologies appropriate to the purpose, detail why the methodology/s was selected, and are described and referenced c) consider and state any limitations in the chosen approach d) are supported by peer reviewed literature, with references provided, or expert opinion e) are presented clearly, unambiguously, succinctly and objectively f) are, where appropriate, supported by maps, plans, diagrams or other descriptive detail

	g) demonstrate consideration of relevant Approved Listing Advice(s), Approved Conservation Advice(s), Recovery Plan(s), Threat Abatement Plan(s) or comparable policy guidelines, and approved survey methods.
1.6	Be able to read as a stand-alone document and must include summaries of all relevant information. Detailed technical information, studies or investigations necessary to support the main text should be attached as appendices to the main document.

2. Description of the action

The preliminary documentation must include a description of the action

2.1	Including: a) The location, boundaries, and size (in hectares) of the disturbance footprint, and of adjoining areas and vegetation, which may be indirectly impacted by the proposal, including from material stockpiles, vehicle access and associated activities. b) A description of all components of the proposed action, including the anticipated timing and duration, (including start and completion dates) of each component of the proposed action. This should include a detailed outline of the expected timing of any staged clearing over the construction period. c) A description of the construction and operation of the residential development and associated works (i.e. activities that comprise its operation). d) An indicative layout plan for the proposed action area, including the location and type of land use, key infrastructure, and the number and location of dwellings, other buildings, open space, and conservation areas.

3. Description of the environment and Matters of National Environmental Significance

<u>Listed threatened species and ecological communities and listed migratory species</u>

From the information provided to date, the Department considers that the matters that may or are likely to be significantly impacted by the proposed action include, but are not limited to:

- Koala (*Phascolarctos cinereus*) combined populations of QLD, NSW and the ACT – Vulnerable.
- Grey-headed Flying-fox (*Pteropus poliocephalus*) – Vulnerable.

The Department also considers that there is a real chance or possibility that significant impacts may arise in relation to the following:

- Giant Barred Frog (*Mixophyes iteratus*) – endangered.
- Greater Glider (*Petauroides Volans*) – vulnerable.
- Regent Honeyeater (*Anthochaera phrygia*) – critically endangered

- Swift Parrot (*Lathamus discolor*) – critically endangered.
- Mt. Emu She-oak (*Allocasuarina emuina*) – endangered.
- Scrub Turpentine *(Rhodamnia rubescens)* - critically endangered.
- Native Guava (*Rhodomyrtus psidioides*) - critically endangered.

Listed Migratory Species

There is evidence that the following migratory species listed under the EPBC Act may be present, or have habitat present, on or within the vicinity of the impact site, and may also be impacted by the proposed action:

- Black-faced Monarch (*Monarcha melanopsis)*.
- Spectacled Monarch (*Symposiachrus trivirgatus*).

Note that this may not be a complete list and it is your responsibility, as the proponent, to ensure that any species or ecological communities listed under the EPBC Act at the time of the controlled action decision, which will or are likely to be significantly impacted by the proposed action, are assessed for the Minister's consideration. Any listing events (i.e. new listing or up-listing of a species or ecological community, e.g. from vulnerable to endangered category) that occur after the controlled action decision was made do not affect the approval process decision, as set out in s158A of the EPBC Act.

Furthermore, it is also the responsibility of the proponent to maintain awareness of any changes to species distributions. Please ensure that a recent Protected Matters Search Tool report has been generated and used during the assessment stage before finalising the draft preliminary documentation.

Habitat quality

In accordance with the Koala habitat assessment tool in the EPBC Act referral Guidelines for the listed Koala, the referral notes that the site contains habitat critical to the survival of the Koala with a score of **6**. The Department disagrees with this score and considers that a score of **8** is more appropriate for the following reasons:

a. *Koala occurrence (+2)* – The referral documentation scored Koala occurrence as +1 due to "*no Koala sightings or evidence of Koala found inside the proposal area but located within 2 km of the edge of the impact area"*, however scratch marks consistent with those made by a Koala were found within the project area at Beerburrum. Therefore, the Department considers a score of +2 is more appropriate for Koala occurrence.

b. *Vegetation composition (+2)* – the referral area contains multiple Regional ecosystems with suitable vegetation composition for Koalas with two or more known Koala food tree species.

c. *Habitat connectivity (+2)* – The referral documentation provides a score of +1 for habitat connectivity, indicating the proposal is within a fragmented landscape with existing barriers. The Department considers that a score of +2 for Habitat connectivity is more appropriate as habitat to be cleared within the referral area is considered part of a contiguous landscape greater than 300 ha. The two-lane Steve Irwin Way and the North Coast Rail line are present, however the prevalence of road-

side vegetation and a lack of suitable fauna proof fencing means that they are not effective Koala barriers. In addition, vegetation clearing will occur within listed State and Regional biodiversity corridors near Beerburrum, Landsborough and Eudlo.

d. *Key existing threats (+1)* – Koala hospitalisation records from the Queensland Department of Environment and Science have recorded car strikes within referral area suburbs. These occurrences are defined as 'infrequent or irregular.'

e. *Recovery value (+1)* – habitat fragments in the study area around the railway to be upgraded are disturbed, dominated by edge environments and unlikely to be important for the long-term survival of the species.

The preliminary documentation must provide a description of the environment affected by and surrounding the proposed action area, over both the short and long term. Specific matters this section must address include, but are not limited to:

3.1	A description of any potential Matters of National Environmental Significance (MNES) (including but not limited to those listed in this request for information) that occur in the project area and adjacent areas.
3.2	A description and map of the current land use/s, land topography, surface and ground water bodies, waterways and vegetation communities (habitat types as they relate to potentially impacted listed threatened species and listed migratory species) on the proposed action site and adjoining areas.
3.3	For listed threatened species and ecological communities and listed migratory species that have the potential, or are likely, to be present at and in the vicinity of the project site, including but not limited to those listed in this request for further information, this section must provide the following: a) Information on the abundance, distribution, ecology and habitat preference of the species or communities. b) Quantification of the extent of habitat and (if known) the number of individuals present or historical patterns of use on and surrounding the proposed action site (including maps identifying known or potential habitat). c) Assessment of the quality and importance of known or potential habitat for the species or communities within the proposed action site and surrounding areas. d) Information detailing known populations or records within at least five kilometres of the development footprint and (if known) the size of these populations. e) Information on the survey methodology used, including a map/s of survey points or transects, how the survey points or transects were selected, when surveys were conducted (e.g. dates, time of day, season, etc.) and search effort (e.g. 20 hours over eight days).

	f) An assessment of the adequacy of any surveys undertaken. In particular, the extent to which these surveys were appropriate for the species and undertaken in accordance with relevant survey guidelines. Survey data for the proposed action site must be provided for the above listed threatened species and listed migratory species, should be as recent as possible, and must not have been collected more than five years before the date of this letter.Please note: a table listing surveys completed with dates, survey objective/s and methodology, survey results, and limitations of survey design may be most succinct. If adequate surveys of the proposed site to confirm the presence/absence of the above listed threatened species and ecological communities and listed migratory species are not undertaken, or are not feasible to undertake, the Department considers that, for the purposes of assessment under the EPBC Act, it may be appropriate to assume that those listed species and ecological communities and listed migratory species are present at the proposed site.

4. Quantification of impacts

Based on the information provided in the referral, additional information provided in support of the referral, information provided in the Species Profile and Threats Database, and observation records provided in the Atlas of Living Australia, the Department considers that:

- Due to evidence of Koala presence within and adjacent to the proposal footprint, a prevalence of Koala food trees across the proposed action area, and no true barriers to movement, the proposed action is likely to result in the loss of 85.9 ha of habitat critical to the survival of the Koala. General guidance for determining Koala habitat in disturbed/open/cleared areas is provided in Attachment C.
- Due to the presence of key foraging resources and the proximity of the proposed action to 12 Grey-headed Flying-fox camps including three listed Nationally Important Flying Fox Camps, there is a real chance or possibility that the proposed action may significantly impact on habitat critical to the survival of the Grey-headed Flying-fox. Please note that the Department considers that habitat for the Grey-headed Flying-fox and the Koala are normally analogous; therefore, the 85.9 ha mapped Koala habitat is also appropriate habitat for the Grey-headed Flying-fox.
- Further information regarding the presence of habitat, potential impacts and specific mitigation and management measures are required to determine whether the proposed action is likely to have a significant impact on MNES, including but not limited to the Giant Barred Frog, Greater Glider, Regent Honeyeater, Swift Parrot, Mt. Emu She-Oak, Scrub Turpentine, Native Guava, Black-faced Monarch and Spectacled Monarch.
- The Department notes that the action may also result in indirect impacts on MNES and habitat adjacent to the proposed action site. Direct and indirect impacts on adjacent habitat areas may also render this habitat to be functionally lost. Indirect impacts may result from:
    - edge effects
    - isolation/fragmentation of habitat

- mortality or injury to MNES from increased traffic
- predation from domestic dogs.

To clarify the extent and nature of impact on listed threatened species and ecological communities and listed migratory species as a result of the proposed action, the preliminary documentation must:

4.1	Provide a description of the intended land uses proposed as part of the completed development, including of the proposed open space and conservation areas and associated ongoing activities, and details of the intended party that would be responsible for future management activities.
4.2	Include current maps and coordinates/shapefile(s) of the proposed impact area and areas of habitat for MNES proposed to be retained. Maps must clearly identify development footprints, buffer zones, and any conservation areas where impacts will be avoided, and areas of adjacent habitat that would be subject to indirect impacts, including areas that are to be retained within and adjacent to the site.
4.3	Provide a description of any changes between the referral documentation and preliminary documentation relevant to MNES. For example, please consider any changes to timing of construction phases, disturbance footprint, refined design, survey results etc.
4.4	Confirm the area of habitat that will be directly and indirectly impacted by the proposed action, including areas where: a) Connectivity to surrounding habitat will be retained, removed or functionally lost. b) Adjacent habitat will be subject to intensification of ongoing impacts (for example, through increased levels of dust or polluted runoff). c)
4.5	Confirm the quantity and quality of suitable habitat to be impacted within the proposed action area. Wherever possible the decision to include/exclude habitat needs to be substantiated with field-based assessments. Please provide a discussion wherever field-based assessment/s were not completed, and the suitability of any alternatives used.

4.6	Provide an assessment of the direct, indirect, consequential and cumulative impacts that may occur during construction and post-construction phases, including: a) The nature and extent of impacts (including direct, indirect and facilitated impacts*), including timing and whether the impact is temporary or permanent. Note: This should include particular habitat features relevant to impacted MNES that would be affected e.g. hollows, nest trees, refuge or breeding habitat, or other microhabitat features. b) Details of any policy guidelines, relevant studies, surveys or consultations with species experts/field specialists, which were not included in the referral or additional information provided in support of the referral. c) A local and regional scale analysis of likely impacts, with reference to the project's potential contribution to cumulative impacts in the context of development patterns in the locality and region. d) Assess the long-term viability of remaining populations/areas if the proposal proceeds. e) A risk assessment of potential impacts from the action that are likely to be unpredictable, severe, or irreversible. f) An assessment of likely changes to fragmentation along the length of the project area as a result of the proposed action, and implications for any relevant MNES. This must include an assessment of changes to vegetation, fencing and any suitable fauna movement solutions proposed. **Note: Facilitated impacts may include (but are not limited to) the risk of injury or mortality to MNES as a result of the introduction of domestic dogs in a residential area, vehicle strike as a result of increased residential car use and/or the development of domestic pools.*

5. Avoidance and mitigation

The Department notes that the proposed action includes retention and rehabilitation of vegetation as a conservation area and habitat for MNES. Further information regarding the proposed retained habitat for MNES is required, including (but not limited to) suitability of the areas for MNES at the proposed action site, details of the dimensions and location of the retained area, proposed measures for rehabilitation and maintenance, vegetation composition and uses.

To clarify the proposed measures to avoid and mitigate impacts, the preliminary documentation must:

5.1	Provide a consolidated description of all proposed measures to avoid and mitigate impacts, including those provided in the referral and any additional to those described in the referral.

	This should include: a) Discussion of consideration and assessment of alternative strategies, plans and measures to avoid and mitigate impacts (e.g. alternative plans, retention of habitat/movement corridors/buffers, and fauna-friendly development and road design). b) Details about pre-clearance and clearance procedures to ensure that species are detected and managed to minimise mortality, stress, injury, or introduction of disease. c) A description (including maps and imagery) of the location, boundaries and size of buffer areas or proposed exclusion zones, and details on how these areas will be enhanced, protected and maintained. Also include a description of any fences or barriers which may be installed around areas where impacts will be avoided. d) Details of any rehabilitation measures to be implemented for disturbed areas, including rehabilitation objectives, target species, timing of rehabilitation stages, methodology, maintenance measures, schedules, and monitoring. e) Details of any ongoing mitigation and management measures during the operation of the facility.
5.2	For each measure proposed, indicate the: a) responsible party b) environmental outcomes to be achieved and the likelihood of success c) milestones / performance / completion criteria d) proposed monitoring and evaluation program e) contingency measures.
5.3	Provide an assessment of the predicted effectiveness of each proposed avoidance or mitigation measure, noting that the effectiveness of a particular measure is a reflection of confidence in the ability of the measure to reduce the risk of a threat. The assessment of effectiveness should be evidence based and include examples of demonstrated success of a particular measure to achieve the desired avoidance/mitigation outcome.
5.4	Please discuss how all Policy and Guidance documents (i.e. Recovery Plans, Threat Abatement Plans and Conservation Advices) have been considered. That is, having regard to and providing a discussion on the objectives of the documents. For example, the National Recovery Plan for the Regent Honeyeater states an objective to: '*Reverse the long-term population trend of decline and increase the numbers of regent honeyeaters to a level where there is a viable, wild breeding population, even in poor breeding years'*. Please provide a discussion on how the proposed action is consistent with relevant species' objectives or alternatively, how the proposed avoidance,

	mitigation/management and offsetting will compensate for any residual significant impact, thereby ensuring consistency with the objective for relevant EPBC Act species.

6. Proposed offsets

Based on the referral information and additional information submitted in support of the referral, the Department considers that the proposed action is likely to have a residual significant impact on the Koala and Grey-headed Flying-fox.

Where residual significant impacts remain after consideration of avoidance and mitigation measures, an environmental offset will be required to compensate for the impacts in accordance with the *Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy* (EPBC Offsets Policy). Offsets must be specific to the species or ecological community being impacted and must improve or maintain the viability of the species.

If a residual significant impact is identified, the preliminary documentation must include an offset proposal, which must:

6.1	Demonstrate how the offset proposal: a) Meets the principles outlined in the EPBC Offsets Policy. b) Addresses the considerations and requirements outlined in the EPBC Offsets Policy, including but not limited to sections 6 and 7 of the EPBC Offsets Policy. c) Directly contributes to the ongoing viability of the EPBC listed species or ecological community and will deliver an overall conservation outcome that improves or maintains the viability of the protected matter, as compared to what is likely to have occurred under the status quo, i.e. if neither the action nor the offset had taken place. d) Compensates for the impact over the entire duration of the impact (i.e. should impacts be in perpetuity, the offsets must also be delivered in perpetuity). Note: while the offsets do not need to be secured before the decision on whether to approve the proposed action, should the proposed action be approved, conditions of an approval are likely to require that offsets are secured, and management measures are in place, before commencement of the proposed action.
6.2	For further details regarding offset requirements, see Attachment B.

<u>Habitat quality assessment methodology</u>

The Department notes that a suitable methodology must be used to determine habitat quality at the offset site for input into the EPBC Act Offsets Assessment Guide (i.e. the 'calculator').

In the past, the Koala habitat assessment tool at Table 4 (p. 27) of the *EPBC Act referral guidelines for the listed Koala* has been used by proponents to assess habitat quality for that

species at proposed offset sites, however the Department notes that this methodology may not accurately account for potential habitat quality improvements as a result of management measures over time.

The Department notes that:

- The methodology chosen to assess habitat quality must be evidence-based, quantitative, robust and repeatable.
- The same methodology to assess habitat quality must be used at both impact and offset sites for input into the EPBC Act Offsets Assessment Guide.
- The quality score for an area of habitat must relate directly to habitat requirements of the species (e.g. number of Koala feed trees). Note that this may inform outcome-based conditions if the Minister decides to approve the proposed action.
- There are three components that need to be considered when calculating habit quality: site condition, site context, and species stocking rates.

The Department encourages all proponents to initially consult the Department on appropriate methodology to calculate a habitat quality score, before conducting their assessment.

7. Economic and social matters

The preliminary documentation must:

7.1	Provide details on the social and economic costs and/or benefits of undertaking the proposed action, including the basis for any estimations of costs and/or benefits. Where possible, please include the total economic capital investment and economic ongoing value of the project.
7.2	Identify if economic benefits and employment opportunities are in addition to what would have been expected if the action were not to take place.
7.3	Provide details of any public stakeholder consultation activities, including the outcomes of those consultations.
7.4	Provide details of any consultation with Indigenous stakeholders.

8. Ecologically sustainable development

The preliminary documentation must:

8.1	Provide a description of how the proposed action meets the principles of ecologically sustainable development, as defined in section 3A of the EPBC Act.

ATTACHMENT B
INFORMATION REQUIREMENTS FOR EPBC ACT OFFSET PROPOSALS

The offset proposal must include, but not be limited to, the following:

Details in relation to the proposed offset package, including:

a) A description of the proposed offset site(s) including location, size, condition, and relevant ecological/species habitat features, landscape context and cadastre boundaries of the offset site(s) (supported by mapping).

b) Evidence of the presence of, or usage by, relevant protected matter(s) on, or adjacent to the proposed offset site(s), and the presence and quality of habitat for protected matter(s) on the proposed offset site.

c) Current and likely future tenure of the proposed offset site and details of how the offset site will be legally secured for the full duration of the impact.

Details and justification demonstrating how the proposed offset package will maintain or improve the viability of the protected matter(s) consistent with the EPBC Environmental Offsets Policy and *EPBC Act Offsets Assessment Guide*. This includes:

a) Offset completion criteria (i.e. environmental outcomes) to be achieved, and reasoning for these in reference to relevant statutory recovery plans, conservation advices, and threat abatement plans (e.g. within 15 years of commencement of the action, 85 per cent of the offset site contains X number of Koala habitat trees).

b) Milestones to demonstrate adequate progress towards achieving the offset completion criteria (e.g. within 10 years of commencement of the action the proponent must increase, by at least 20 per cent, the number of available Koala food trees at the offset site).

c) Specific environmental management activities and mitigation that will attain and maintain the completion criteria, including the management of threats to relevant species and the timing of actions (e.g. complete the planting, and ensure a survival rate of 90 per cent, of at least 15, 000 seed, sapling, or tube stock (or equivalent) Koala food tree species within five years following commencement of the action; reduce the invasive weed coverage on the offset site to 5 per cent within five years following commencement of the action implement an annual non-native feral pest control program over a 10 year period).

d) Baseline survey information to determine the presence of relevant protected matters and the extent and quality of the respective habitat(s) at the proposed offset site(s) in accordance with the relevant survey guidelines or using a scientifically robust and repeatable methodology.

e) A monitoring and corrective action program to measure the success of the environmental outcomes, which must include performance indicators, milestone outcomes, monitoring requirements, trigger values, corrective measures, and identified roles and responsibilities in accordance with the requirements in section 3 of the Departments Environmental Management Plan Guidelines:

https://www.environment.gov.au/epbc/publications/environmental-management-plan%ADguidelines

f) Evidence of how the proposed offset completion criteria for the offset will be maintained over the duration of the offset.

g) Justification of how the offset package meets the *EPBC Act Offsets Assessment Guide*, in particular:

- Evidence of the likely effectiveness of any proposed management actions (i.e. rehabilitation / restoration / re-creation of habitat) to support quality improvement and/or maintenance of the proposed offset site(s) for the relevant protected matter(s).
- The time over which management actions will deliver the proposed improvement or maintenance of habitat quality for the relevant protected matter(s).
- The risk of damage, degradation or destruction to any proposed offset site(s), in the absence of any formal protection and/or management, over a foreseeable time period (20 years). This information is important in determining the comparative benefit of a proposed offset.
- Evidence to support 'confidence in results' for averted loss and quality scores.

Note: where increases in habitat quality of the offset site are being proposed by the proponent to meet the direct offset requirements, the Department will require specific details of site condition, site context or stocking rate measures to be implemented commensurate to the expected level of habitat improvement.

ATTACHMENT C

Information to assist in the assessment of potential impacts on the Koala

Note: This document is not a policy document. The information below is provided to inform the assessment process and is a based-on information available in the EPBC Koala Referral Guidelines and other statutory documentations relevant to the Koala.

- Surveys must be undertaken in accordance with Departmental guidelines, State guidelines and/or best practice survey methodologies in Queensland.

Note: Departmental survey methodologies are generally available in a species profile on the Species Profile and Threats (SPRAT) Database.

- Provide detailed justification for any proposed deviation/s from Departmental guidelines, State guidelines and/or best practice survey methodologies (e.g. seasonality, duration, repetition of survey effort, survey techniques, etc.).
- Habitat assessments must be derived from information:
    - obtained from field surveys and vegetation assessments;
    - in the SPRAT Database;
    - in relevant Departmental documents (e.g. approved conservation advices, recovery plans, listing advices, draft referral guidelines, etc.); and
    - published research and other relevant sources (where relevant).
- The Department highly recommends the use of the following habitat description for the Koala to inform habitat assessments:

Koala	Any forest or woodland (including remnant, regrowth and modified vegetation communities) containing species that are Koala food trees or any shrubland with emergent Koala food trees. ***Forest:*** A vegetation community which conforms to the structural form of tall or low forest (including all sub-forms) in Australia, as defined by Specht (1970) (see Attachment 1 of the Guidelines). ***Woodland:*** A vegetation community which conforms to the structural form of woodland (including all sub-forms) in Australia, as defined by Specht (1970) (Attachment 1 of the Guidelines). ***Shrubland:*** A vegetation community which conforms to the structural form of shrubland (including all sub-forms) in Australia, as defined by Specht (1970) (Attachment 1 of the Guidelines). Attachment 1 of the Guidelines provides guidance on the structural forms of vegetation in Australia. For example, areas with trees <10 m and <10% foliage cover of tallest plant layer, fall within the category of 'low open-woodland'.

- Koalas are known to occur in modified or regenerating native vegetation communities, as well as urban and rural landscapes where food trees or shelter trees may be highly scattered.

- The Department notes that whilst cleared areas may not provide key foraging or shelter habitat for the Koala, these areas may be traversed by Koalas moving between adjacent areas of Koala habitat. Additionally, if scattered trees are present, these areas may provide potential feed and shelter trees across very sparse tall open woodlands.
- Further, areas of cleared land located between vegetated areas may fall within the category of low open woodland as it is part of a larger contiguous patch of habitat, and there is no barrier that is likely to prevent the movement of Koalas.
- The Department notes that the Queensland Regional Ecosystem (RE) mapping may be used to inform the determination of habitat, however habitat assessments must consider and align with the information in the SPRAT Database and relevant Departmental documents.
- The extent of habitat should be considered at its broadest extent (i.e. landscape-scale).
- Where there is any variation in the habitat assessment approach from the information available in the SPRAT Database, it should be discussed with the Department prior to the submission of the referral or assessment documentation, and must be supported by scientific evidence including published research, independent expert advice and information derived from field surveys.
- Review recent EPBC Act approvals for approval definitions of habitat for listed threatened species and communities to inform the habitat assessment.
- Provide the total amount of each type of habitat (in hectares) in the project site and the total amount of each type of habitat (in hectares) in the disturbance footprint.
- Provide detailed maps of each type of habitat for EPBC Act listed threatened species and ecological communities in the project site, with an overlay of the disturbance footprint.