



Australian Government

Department of Agriculture, Water and the Environment

EPBC Ref: 2020/8684

Mr Robert Snowden
Group Quarry Manager
Neilsens Quality Gravels Pty Ltd
Johnstone Road
BRENDALD QLD 4500

Dear Mr Snowden

**Additional information required for preliminary documentation
Warrill View Hard Rock Quarry, Queensland**

I am writing to you in relation to your proposal to construct and operate a hard rock quarry on Lot 1 of RP 51909 and Lots 2, 7, 8, 10 and 18 on RP 50377, 299 Hayes Road, Silverdale, Queensland.

On 28 July 2020, 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.

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 [REDACTED] by email to [REDACTED], or telephone [REDACTED] and quote the EPBC reference number shown at the beginning of this letter.

Yours sincerely,

[REDACTED]

Director
Queensland (South) and Sea Dumping Section
10 September 2020

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

Warrill View Hard Rock Quarry, Queensland (EPBC 2020/8684)

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 <i>Environmental Protection and Biodiversity Conservation Act 1999</i> (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 EPBC Act, the undertaking of the action for the purposes of each controlling provision. <i>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).</i>
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 be 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.
2.2	The Department notes the proposed access road to connect the project area to the Cunningham Highway is designed to accommodate B-double type vehicles and requires expansion and upgrading. However, the referral does not outline the specifications of the access road, nor does it discuss the potential impacts on MNES as a result of its construction and ongoing usage. The Department estimates the new access road to be approximately 4.5 km in length. The referral does not provide sufficient detail (such as the amount of habitat likely to be impacted) nor does it discuss potential impacts to MNES in relation to these works including its ongoing use.

	Please confirm whether or not the current referral is related to the above development or if it is part of a larger action¹. Further details on 'split referrals' and components of a larger action can be found at https://www.environment.gov.au/resource/epbc-act-policy-statement-staged-developments-split-referrals-section-74a-epbc-act. If the access road is part of the proposed action, please include details accordinging in the below fields (points 3, 4, 5 and 6).
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3. Description of the environment and Matters of National Environmental Significance

Listed threatened species and ecological communities and listed migratory species

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.

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

- Grey-headed Flying-fox (*Pteropus poliocephalus*) – Vulnerable
- Spotted-tailed Quoll (*Dasyurus maculatus*) – Endangered
- Green Alga (*Lychnothamnus barbatus*) – Endangered
- Yellow Satinheart (*Bosistoa transversa*) – Vulnerable
- Lloyd's Olive (*Notelaea lloydii*) – Vulnerable

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

¹ Please note that the EPBC Act defines an 'action' in section 523 to include a project, development, undertaking and activity, or series of activities. The use of words such as 'project', 'development' and 'series of activities' indicate that, for the purposes of the act, a number of related activities may be treated as a single action.

Koala with a score of 8. The Department disagrees with this score and considers that a score of 9 is more appropriate for the following reasons:

- a. Koala occurrence (+2) - Koala evidence was recorded both within the impact area and within retained habitats.
- b. Vegetation composition (+2) - The project area supports forest or woodland with at least two known food trees (Forest Red Gum, Narrow-leaved Ironbark).
- c. Habitat connectivity (+2) - Although located within a highly modified rural environment, the project area does form part of contiguous landscape ≥ 500 ha and is within a mapped regional biodiversity corridor.
- d. Key Existing Threats (+2) - A recently deceased male Koala was found at the base of a favoured feed tree (i.e. abundant scats underneath). The cause of death could not be ascertained, but no puncture wounds were observed, and the location was a long distance from the roadway or internal access. The project area occurs within a sparsely populated landscape with minimal vehicle traffic in the local area. No evidence (scats) of dogs was observed outside of the immediate vicinity of the residential dwelling.
- e. Recovery Value (+1) - The Department considers that a score of (+1) for recovery value is more appropriate based on the high level of use by this species on the project site and adjoining lands and considering the current level of threat to Koala in context to additional pressures on habitat such as a result of bushfires.
 - The EPBC Act referral guidelines for the listed Koala note that the interim recovery objectives for Koala in the coastal context are to protect and conserve large, connected areas of habitat critical to the survival of the Koala and maintain corridors and connective habitat that allows movement of Koala between large areas of habitat.

The Department notes the referral documentation states that there is 145.6 ha of Koala habitat within the project area. Of this 145.6 ha of Koala habitat, 43.5 ha is proposed to be directly impacted and 102.1 ha is proposed to be retained. The referral notes that 30 ha of the retained Koala habitat will be protected by a voluntary declaration and involve some rehabilitation. An additional 13 ha of disturbed land within the project area is proposed to be rehabilitated.

However, the referral documentation appears to exclude sections of the proposed western pit (as seen on Lot 7) from the calculations of impacted Koala habitat. The proposed western pit area is estimated to be approximately 100 ha. The referral documentation states that Koala food and/or habitat tree species (including Silver-leaved Ironbark, Narrow-leaved Ironbark and Moreton Bay Ash) are present within the western pit area. Given this, and with consideration to Koala habitat and Koala food trees as defined within the Department's *EPBC Act referral guidelines for the vulnerable Koala*, the Department considers Koala habitat directly impacted as a result of the proposed action likely to be larger than 43.5 ha. Please refer to Attachment C for further guidance. Please note that these additional areas may provide habitat for other MNES.

The preliminary documentation must consider the total area of habitat for MNES likely to be directly or indirectly impacted as a result of the proposed action in the below fields (points 3, 4, 5 and 6).

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 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 ecological communities) on the proposed action site and adjoining areas.
3.3	For listed threatened species and ecological communities 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. g) Results of any surveys undertaken.
3.4	Information about the methods, data and scientific literature used to identify and assess the environmental values on the proposed action site and surrounding areas, including survey data and historical records. Survey data for the proposed action site must be provided for the above listed threatened species, should be as

	recent as possible, and must not have been collected more than five years before the date of this letter.
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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 the presence of Koala food trees across the proposed action area and as there are few barriers to movement, the proposed action is likely to result in the loss of 43.5 of habitat critical to the survival of the Koala. General guidance for determining Koala habitat in open/cleared areas is provided in Attachment C.
- Further information regarding the presence of habitat and potential impacts are required to determine whether or not the proposed action is likely to have a significant impact on the Grey-headed Flying-fox, Spotted-tailed Quoll, Green Alga, Yellow Satinheart and Lloyd's Olive.
- The Department notes that the action may also result in indirect impacts on MNES and habitat adjacent to the proposed action site. Indirect impacts may result from edge effects; isolation/fragmentation of habitat; mortality or injury to MNES from increased traffic; and/or predation from domestic dogs. Direct and indirect impacts on adjacent habitat areas may also render this habitat to be functionally lost.

To clarify the extent and nature of impact on listed threatened species and ecological communities 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	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).
4.4	Confirm the quantity and quality of suitable habitat to be impacted within the proposed action area.

4.5	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. 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) A risk assessment of potential impacts from the action that are likely to be unpredictable, severe, or irreversible. <i>*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.</i>
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5. Avoidance and mitigation

The Department notes that the proposed action includes retention of 102.1 ha of vegetation primarily located to the east of the project site and in the riparian corridor 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.

In addition, the Department notes that the proposed action involves a number of mitigation measures to minimise impacts to MNES and its habitat during and post-construction, including:

- a) rehabilitation of approximately 13 ha of currently cleared lands associated with Warroolaba Creek to restore to mapped ecosystem functions for this area;
- b) retention, protection and restoration of approximately 30 ha of Koala habitat to the east of the proposed east pit area to enhance connectivity to a large (approximately 80 ha) patch of Koala habitat on the north-east boundary of the project area;
- c) retention, protection and restoration of approximately 40 ha of riparian habitat to the west of Warroolaba Creek to provide refugia habitat during times of drought, with destocking of existing use by cattle;
- d) a dedicated Koala underpass, with associated fauna fencing to be constructed across the northern access road to mitigate against vehicle strike (noting design of this underpass has not yet been completed, but will be designed and constructed

in accordance with State Fauna Sensitive Road Design guidelines; and a reduced 40 km/hr speed limit for 1.5 km stretch of road at the quarry access;

- e) cattle/horse exclusion fencing around the proposed 13 ha rehabilitation area located in the south of the west pit, as well as fencing to prevent cattle/horses accessing riparian habitats;
- f) pre-clearance fauna surveys to identify, investigation and flag habitat features prior to vegetation clearing, including hollow-bearing trees, and presence of Koalas, and a fauna spotter/catcher during clearing activities; and,
- g) temporary fencing and bunting during construction and throughout operation phases to demark retained vegetation within which no construction activity, machinery, stockpiles or equipment can occur.

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. c) Millstones / performance / completion criteria.

	d) Proposed monitoring and evaluation program.
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.

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 EPBC listed Koala.

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 and/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.

Habitat quality assessment methodology

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 habitat 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.
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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

Determining Koala habitat in open/cleared areas

Koala (*Phascolarctos cinereus*)

The Department's *EPBC Act Referral guidelines* defines the Koala habitat as:

Koala habitat: any **forest** or **woodland** containing species that are known koala food trees, or **shrubland** with emergent food trees. This can include remnant and non- remnant vegetation in natural, agricultural, urban and peri-urban environments. Koala habitat is defined by the vegetation community present and the vegetation structure; koalas do not necessarily have to be present.

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').

Please note that above definitions and Attachment 1 of the Guidelines should be used to determine the extent and availability of Koala habitat at a site. The extent of habitat should be considered at its broadest context.

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.

Therefore, areas of cleared land should be considered in the context of habitat values/habitat requirements for the Koala. If you can demonstrate part or parts of the site hold no habitat value for the Koala, based on scientific evidence, then it can be delineated to reflect this.

As noted above however, the site should be considered at its broadest context and that the definitions of Koala habitat (i.e. woodlands, shrublands etc) must be considered. The Department considers that small areas of cleared land located between vegetated areas falls 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. Therefore, it should be considered as Koala habitat and scored accordingly.

The referral guidelines also define barrier as "A feature (natural or artificial) that is likely to prevent the movement of koalas. Natural barriers may include steep mountain ranges (cliffs), unsuitable habitats, major rivers / water bodies or treeless areas more than 2 km wide. Artificial barriers may include infrastructure (such as roads, rail, mines, large fences etc.)

without effective koala passage measures, or developments that create treeless areas more than 2 km wide".