

Cooloola Great Walk Ecotourism Project - EPBC koala habitat assessment

This document provides an assessment of potential significant impacts on the koala (*Phascolarctos cinereus*) for the Cooloola Great Walk Ecotourism Project (the Project), consistent with the requirements of the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) referral guidelines for the vulnerable koala* and based on the assessment process shown in Attachment 1. This document is an extract from the referral (number 2021/8954) made to the Commonwealth Government for the Project for assessment under the EPBC Act. On 30 June 2021 the Commonwealth Minister for the Environment determined that the Project is not a controlled action, as significant impacts on Matters of National Environmental Significance are unlikely to occur in relation to the project, including koala populations.

1. Could the impacts of the action occur within the modelled distribution of the koala and EPBC Protected Matters Search Tool (PMST)

The proposal is located within the modelled distribution of the koala, within the SEQ bioregion. The PMST report generated for the proposed identifies the koala as being known to occur in the general vicinity of proposal.

2. Determine the Geographic context of the action

The proposal is located in the Coastal context

3. Does the impact area contain koala habitat?

State ecosystem mapping and field surveys have identified potential koala habitat (forest or woodland containing known koala food trees) at all five proposed project sites:

Site	Description	Koala food trees present
Site N	Located in transitional vegetation between riparian vegetation along the Noosa River and adjacent patterned fens heathland. State mapping shows site as palustrine wetland (12.2.12) Ground-truthed as Banksia dominated woodland (RE 12.2.9) with <i>Eucalyptus racemosa</i> present in some areas (RE12.3.14a)	<i>Eucalyptus racemosa</i> <i>Corymbia intermedia</i> <i>Meleleuca quinquenervia</i>
Site L	Located on a ridgeline adjacent to existing public campsite and existing 4wd track. State mapping and field surveys show site as being located in <i>Eucalyptus pilularis</i> dominated open forest (12.2.8). Site is an open, partially cleared area (due to disturbance from adjacent camp site) with sparse koala food tree species present.	<i>Eucalyptus pilularis</i>
Site K	Located on a ridgeline adjacent to management track. State mapping and field surveys show site as being located in a narrow corridor of <i>Eucalyptus pilularis</i> dominated open forest (12.2.8), Surrounded by notophyll vine forest	<i>Eucalyptus pilularis</i>



Site P	Located approximately 100m west of Lake Poona. State mapping and field surveys show site as being within a patch of <i>Eucalyptus pilularis</i> dominated open forest, surrounded by rainforest.	<i>Eucalyptus pilularis</i>
Site D1/D2	Located on Double Island Point. State mapping shows area as being primarily foredune vegetation 12.2.14. Located in a stand of older vegetation dominated by <i>Corymbia. intermedia</i> and <i>Callitris columellaris</i>	<i>Corymbia intermedia</i>

4. Could the impact area contain habitat critical to the survival of the koala?

Assessment of the five sites using the Koala habitat assessment tool is provided in the table below. As the sites are located in different areas and habitats within Great Sandy National Park (6.5-10km apart), critical habitat was assessed separately at each site. Sites N, K, P and D1/D2 were assessed under the tool as not being located within habitat critical for koalas (having a critical habitat score of less than 5). Site L was assessed as being critical koala habitat (with a critical habitat score of 5):

Attribute	Score	Coastal	Site N	Site L	Site K	Site P	Site D1/D2
Koala occurrence ¹	2 (high)	Evidence of one or more koalas within the last 2 years.	Low - No koala presence recorded in current or previous surveys. Ecological advice is that koala use of site is sporadic at best.	Low - No koala presence recorded in current or previous surveys. Ecological advice is that koala use of site is sporadic at best	Low - No koala presence recorded in current or previous surveys. Ecological advice is that koala use of site is sporadic at best	Low - No koala presence recorded in current or previous surveys. Ecological advice is that koala use of site is sporadic at best	Low - No koala presence recorded in current or previous surveys. Ecological advice is that koala use of site is sporadic at best
	1 (medium)	Evidence of one or more koalas within 2 km of the edge of the impact area within the last 5 years.					
	0 (low)	None of the above.	Score = 0	Score = 0	Score = 0	Score = 0	Score = 0
Vegetation composition	2 (high)	Has forest or woodland with 2 or more known koala food tree species, OR 1 food tree species that alone accounts for >50% of the vegetation in the relevant strata.	High – Site is dominated by <i>Banksia aemula</i> , but contains koala food trees - <i>E. racemosa</i> , <i>M. quinquenervia</i> , <i>C. intermedia</i>	Medium — Site is previously disturbed (sparsely vegetated section of existing campsite) with only one koala food tree species - <i>E. pilularis</i>	High — site is dominated by koala food trees - <i>E. pilularis</i>	High — site is dominated by koala food trees - <i>E. pilularis</i>	High — site is dominated by koala food trees – <i>C. intermedia</i>
	1 (medium)	Has forest or woodland with only 1 species of known koala food tree present.	Score = 2	Score = 1	Score = 2	Score = 2	Score = 2
	0 (low)	None of the above.					
Habitat connectivity	2 (high)	Area is part of a contiguous landscape ≥ 500 ha.	Low - located in a narrow (50-70m wide) riparian buffer zone along the Noosa River. Barriers - Noosa River to the west and north, patterned fens to the east and south, palustrine wetland to the south	High - located within large, contiguous area of koala food tree dominated ecosystems (open eucalypt woodland RE: 12.2.8 and 12.2.6), stretching approximately 30km from the Cooloola Sand Patch to Rainbow beach. Barriers - patterned fens to the west (~1.7km), coast to the east (4.8km)	Low - located in narrow (150- 450m) corridor of <i>E. pilularis</i> dominated forest along a ridgeline. Barriers - significant contiguous areas of unsuitable habitat - vine forest (RE 12.2.1 and 12.2.3) immediately around site	Low - located in narrow, isolated corridor of <i>E. pilularis</i> dominated forest. Barriers - significant contiguous areas of unsuitable habitat - vine forest (RE 12.2.1 and 12.2.3) immediately around site, and Poona Lake to the East	Low - isolated patch of vegetation located at Double Island Point, surrounded by unsuitable habitat - pre-cleared early successional regrowth and foredune vegetation.
	1 (medium)	Area is part of a contiguous landscape < 500 ha, but ≥ 300 ha.					
	0 (low)	None of the above.	Score = 0	Score = 2	Score = 0	Score = 0	Score = 0
Key existing threats	2 (high)	Areas which score 0 for koala occurrence and have no dog or vehicle threat present					
	1 (medium)	Areas which score 0 for koala occurrence and are likely to have some degree dog or vehicle threat present.	Medium - wild dog risk throughout Great Sandy National park. No dog proof barriers in place	Medium - wild dog risk throughout Great Sandy National park. No dog proof barriers in place. Potential risk of vehicle strike from recreational 4wd users along adjacent Kings Bore Rd	Medium - wild dog risk throughout Great Sandy National park. No dog proof barriers in place	Medium - wild dog risk throughout Great Sandy National park. No dog proof barriers in place	Medium - wild dog risk throughout Great Sandy National park. No dog proof barriers in place
	0 (low)	Areas which score 0 for koala occurrence and have a significant dog or vehicle threat present.	Score = 1	Score = 1	Score = 1	Score = 1	Score = 1
Recovery value	2 (high)	Habitat is likely to be important for achieving the interim recovery objectives for the relevant context, as outlined in Table 1.	Low - Site is: - not located within a large and/or contiguous area of koala habitat; - no koala population recorded as present at the site - does not provide corridors or connective habitat between large areas of koala habitat	Medium - Site is: - located within a large, contiguous area of koala habitat - lack of koala population recorded at the site means that disease status, genetic diversity or breeding habitat cannot be established - does not provide corridors or connective habitat between large areas of koala habitat	Low - Site is: - not located within a large and/or contiguous area of koala habitat - no koala population recorded as present at the site - may be within connective corridor between potential koala habitat in the area, but no evidence of this.	Low - Site is: - not located within a large and/or contiguous area of koala habitat; no koala population recorded as present at the site - does not provide corridors or connective habitat between large areas of koala habitat	Low - Site is: - not located within a large and/or contiguous area of koala habitat; - no koala population recorded as present at the site - does not provide corridors or connective habitat between large areas of koala habitat
	1 (medium)	Uncertain whether the habitat is important for achieving the interim recovery objectives for the relevant context, as outlined in Table 1.					
	0 (low)	Habitat is unlikely to be important for achieving the interim recovery objectives for the relevant context, as outlined in Table 1.	Score = 0	Score = 1	Score = 0	Score = 0	Score = 0
Status and total score			Score = 3 - Unlikely to be critical koala habitat	Score = 5 May be critical koala habitat	Score = 3 Unlikely to be critical koala habitat	Score = 3 Unlikely to be critical koala habitat	Score = 3 Unlikely to be critical koala habitat

Refer to Attachment 2 for a map of historic koala sightings on a) Queensland Government Records, and b) Atlas of Living Australia

5. Will your action adversely affect habitat critical to the survival of the koala?

The referral guideline states that *'The Significant Impact Guidelines 1.1 state that actions are likely to have a significant impact on a vulnerable species if they adversely affect habitat critical to the survival of the species. Habitat destruction is recognised as the primary adverse effect on habitat critical to the survival of the koala. Whether or not there are other impacts, the loss of habitat critical to the survival of the koala can be sufficient to trigger a significant impact.'*

As per previous criteria, critical koala habitat was identified at Site L (with a critical habitat score of 5). The remaining sites were assessed as not containing critical koala habitat, and so further assessment of these sites is not required.

The guideline establishes minimum and maximum thresholds for determining whether an activity is likely to adversely affect critical koala habitat:

- A referral is not required for clearing 2ha or less of habitat containing koala food trees with a habitat score of 5;
- A referral will be required for clearing 20ha or more of habitat containing koala food trees with a habitat score of 8 or greater.
- Clearing within these thresholds may or may not require a referral, depending on the nature and scale of the impact and implications for the resident koala population or habitat in the area.

Site L was assessed as having a critical habitat score of 5, and all clearing at the site, including for structures, infrastructure and access, will not exceed 0.5ha. **Based on this assessment, a referral is not required for adverse effects on habitat critical to the survival of the koala.**

In addition, the following information should also be considered in relation to this assessment:

- The habitat score for Site L, while above the threshold for critical habitat, is still relatively low (5). The site differs from the others primarily due to it being located with a large, contiguous potential koala habitat area (all other sites are located in confined, non-contiguous habitat), rather than it containing a known koala population, or exhibiting unique characteristics that would support a significant koala population.
- Development of the site will not result in clear-felling koala habitat – koala food trees are relatively sparse on the site due to its proximity to the existing Litoria WalkersCamp. Structures and infrastructure can therefore be easily micro-sited to largely retain any koala food trees and preserve understorey vegetation on site to. Where trees must be felled, preference will be given to retain any trees that provide habitat for threatened species, including koala food trees and mature trees.
- No koalas have been detected in the area in recent field surveys or in historical records, and ecological advice is that the likelihood of impacts on koalas inhabiting the area is very low. Despite this, fauna spotter will be on site during all clearing to ensure that no threatened species (including koalas) are present and are directly impacted by the development.
- The site is located within a large area of potential critical koala habitat, and is located immediately adjacent to existing park infrastructure, and so is highly unlikely to fragment any potential habitat in the area.

6. Could your action interfere substantially with the recovery of the koala?

The referral guideline states that ‘*In addition to considering adverse affects on habitat critical to the survival of the koala, you need to consider the potential for your action to interfere substantially with the recovery of the koala*’.

The referral guideline describes five types of impact that are likely to substantially interfere with the recovery of the koala. Consideration of these potential impacts is only required in areas that have been identified as critical koala habitat using the Koala habitat assessment tool (refer to section 6). Assessment against these criteria has therefore only been undertaken for Site L.

Criteria	Impacts	Justification
Increasing koala fatalities in habitat critical to the survival of the koala due to dog attacks to a level that is likely to result in multiple, ongoing mortalities.	No	The proposed development will not encourage wild dog presence. Increased visitation of the area may reduce wild dog presence in the immediate area.
Increasing koala fatalities in habitat critical to the survival of the koala due to vehicle-strikes to a level that is likely to result in multiple, ongoing mortalities.	No	Vehicle access to Site L is primarily along existing, public sand tracks, with a maximum speed limit of 30km/h. Vehicle strikes at these low speeds is highly unlikely. Construction at the site will be small scale, and service will only require infrequent access, and so the risk of vehicle strikes will not increase the risk of already present for the use of access tracks by the public for recreational 4wding.
Facilitating the introduction or spread of disease or pathogens for example <i>Chlamydia</i> or <i>Phytophthora cinnamomi</i> , to habitat critical to the survival of the koala, that are likely to significantly reduce the reproductive output of koalas or reduce the carrying capacity of the habitat.	No	The proposed development will not directly interfere with any koala specimens, and so the risk of facilitating the spread of Koala <i>Chlamydia</i> is extremely low. All construction and service vehicles travelling into Great Sandy National parks must adhere to QPWSP biosecurity protocols to ensure the spread of pathogens.
Creating a barrier to movement to, between or within 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.	No	Development at the Site L is very small in scope (less than 0.5ha), occurs directly adjacent to existing park infrastructure on an already disturbed area, and does not fragment potential koala habitat in the broader landscape.
Changing hydrology which degrades habitat critical to the survival of the koala to the extent that the carrying capacity of the habitat is reduced in the long-term.	No	There are no ecologically valuable watercourses or surface water expressions in the vicinity of Site L that will be affected by the proposal.

Based on the above assessment, **the proposed action at Site L is not likely to interfere substantially with the recovery of the koala.**

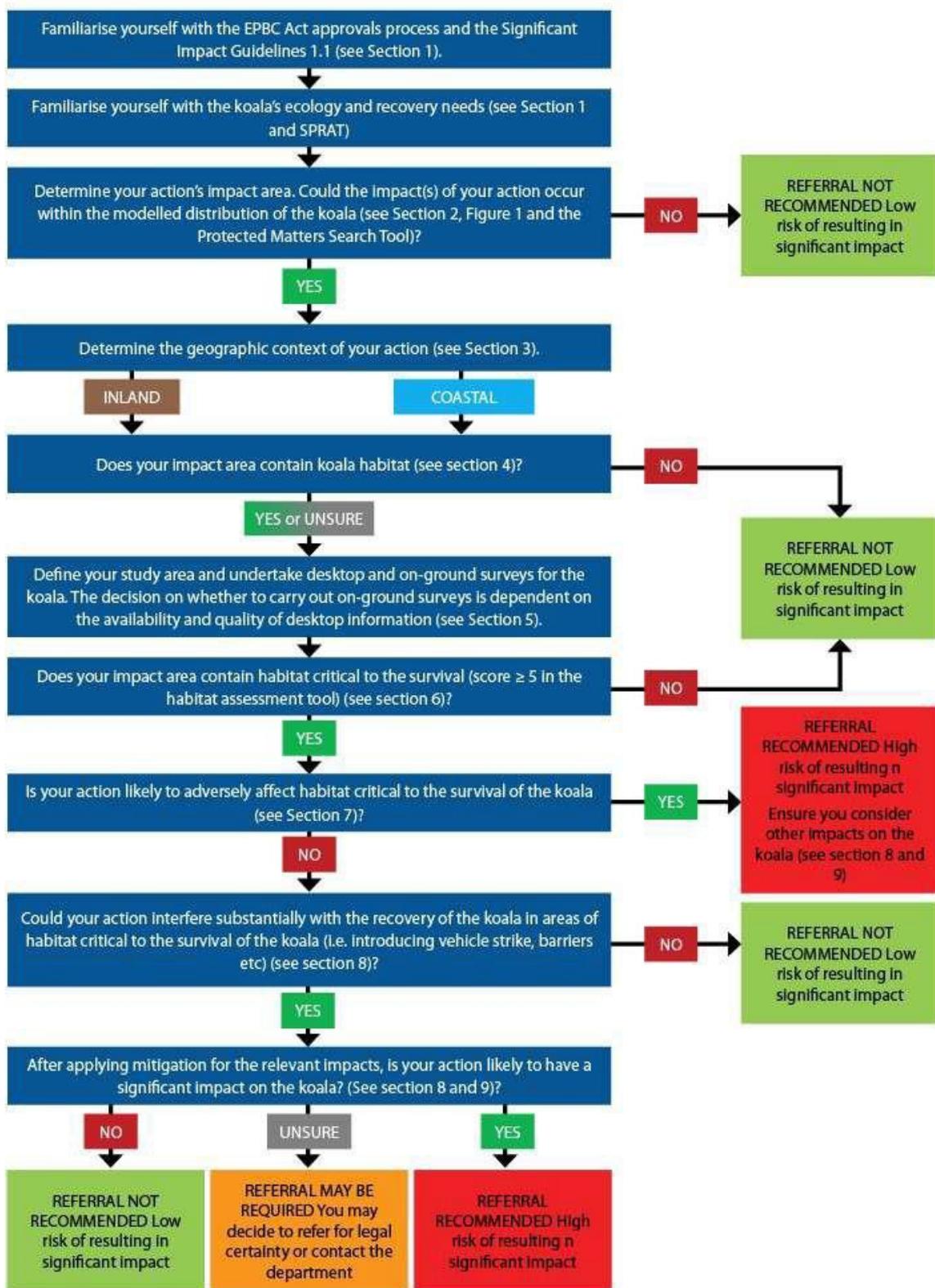
7. Conclusion

Based on the referral guidelines, the proposed action is unlikely to have a significant impact on the koala at any of the five proposed eco-camp sites, as:

- No koalas were recorded in field surveys for the area, nor have there been any historical records of koalas in the area.
- Despite being located within the extent of the koala population, and containing elements of potential koala habitat (e.g. koala food trees), four of the five sites are located in areas that do not meet criteria for critical koala habitat.
- One site (Site L), meets the criteria for critical koala habitat. However, direct or indirect impacts on koalas and their critical habitat are considered highly unlikely due to the absence of koalas observed in the area, the small scale and intensity of the proposed action, and the absence of likely indirect impacts, as well as the mitigation measures that will be undertaken during construction.

Based on the referral guidelines, a referral for the koala is not required.

Attachment 1 – Assessment process



Attachment 2 – Historic Koala sightings in the vicinity (30km) of the Project area

Note. Nearest record is located 4.7km north of Site N and 6.3km southwest of the Site L

