

Information Sheet – Nature Conservation (Koala) Conservation Plan 2017, Planning Regulation 2017, Queensland Environmental Offsets Policy

Koala mapping

This information provides an overview of Queensland Government's suite of koala mapping layers along with links to other information sheets that outline requirements that relate to clearing or development within these koala mapping layers.

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1 Koala mapping

To support koala conservation, the Queensland Government has developed the following koala mapping layers:

- koala districts;
- koala priority areas;
- koala habitat areas;
- identified koala broad-hectare areas; and
- koala habitat restoration areas.

This information sheet describes what each of these koala mapping layers are and provides links to additional information sheets that describe specific requirements that apply to development within these mapped areas.

The koala mapping layers can be viewed using any of the following methods:

- **Vegetation Management Report**
Request a Vegetation Management Report for an area of interest by completing and submitting this [request form](#) using the lot on plan or central coordinates for your area of interest and selecting the “Vegetation management report” option. You will then be sent a report that identifies whether any of the above-mentioned koala layers are mapped on your area of interest and whether your area of interest is also mapped as containing regulated vegetation or a high risk area on the protected plant flora survey trigger map. This option is useful if you are wanting information on all State Government vegetation clearing restrictions for an area.
- **Queensland Globe**
Use [Queensland Globe](#) to search for an area of interest by selecting “Search”, selecting the search option you want to use (e.g. street address, lot on plan, suburb, latitude and longitude, etc.) and inputting the location. Once you have found your area of interest you can turn on the koala layer(s) you are wanting to view by selecting “Layers” > “Environment” > “Koala plan” and then selecting the layer(s) you are wanting to view.
- **Queensland Spatial Catalogue (QSpatial)**
Download the data package for the koala mapping from [QSpatial](#) (search “South East Queensland Koala Conservation Strategy 2019-2014”). This option will only be useful for people who have access to GIS software (e.g. ArcGIS, QGIS or MapInfo).
- **Development Assessment Mapping System (DAMS)**
Use [DAMS](#) to search for an area of interest by selecting “Search for Land Parcels” and use either street address or lot on plan to find the location. Once you have found your area of interest you can turn on the koala layer(s) you are wanting by selecting “Koala Habitat in SEQ Region” and then selecting the layer(s) you are wanting to view.

2 Koala districts

The extent of the koala’s natural range in Queensland is divided into three koala districts – koala district A, koala district B and koala district C – with each district covering areas with similar koala populations (e.g. density, extent and significance of threatening processes affecting the population) which require similar management regimes (Table 1 and Figure 1).

Table 1: Summary of koala districts

Koala District	Local Government Area	Koala Population
Koala District A	<p>SEQ region</p> <p>Brisbane, Gold Coast, Ipswich, Lockyer Valley, Logan, Moreton Bay, Noosa, Redland, Scenic Rim, Somerset, Sunshine Coast and part of Toowoomba</p>	<ul style="list-style-type: none"> • Highest koala population densities in Queensland • Highly threatened as a result of habitat loss and human impacts • Habitat often in areas zoned for urban and rural purposes
Koala District B	<p>Northern portion of the SEQ bioregion:</p> <p>Bundaberg, Cherbourg, Fraser Coast, part of Gladstone, Gympie, part of North Burnett, part of South Burnett and part of Toowoomba</p>	<ul style="list-style-type: none"> • Koala population density generally lower than 0.2 koalas per hectare • Moderately to highly threatened • Habitat often in areas zoned for rural purposes
Koala District C	<p>Remaining extent of QLD where koalas occur including:</p> <p>Balonne, Banana, Barcaldine, Barcoo, Blackall Tambo, Burdekin, Cairns, Cassowary Coast, Central Highlands, Charters Towers, Etheridge, Flinders, part of Gladstone, Goondiwindi, Hinchinbrook, Isaac, Livingstone, Longreach, Mackay, Maranoa, Mareeba, Murweh, part of North Burnett, Paroo, Quilpie, Rockhampton, part of South Burnett, Southern Downs, Tablelands, part of Toowoomba, Townsville, Western Downs, Whitsunday</p>	<ul style="list-style-type: none"> • Koala population density generally low • Evidence of decline but generally perceived as having lower threats

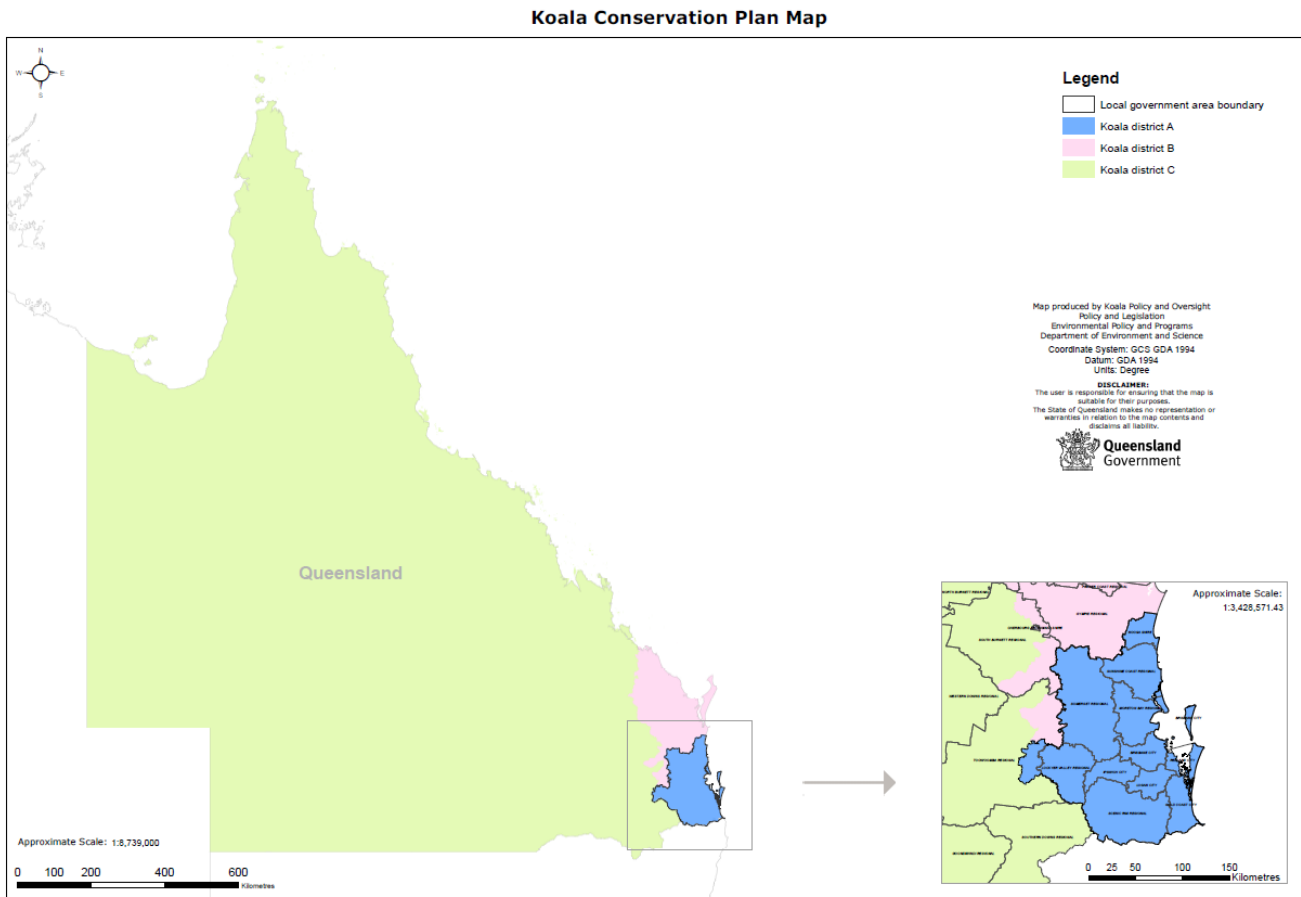


Figure 1: Map of koala districts

Part 3, Section 10 of the Nature Conservation (Koala) Conservation Plan 2017 prescribes specific clearing requirements that must be complied with when clearing koala habitat trees¹ in koala district A and koala district B, referred to as “sequential clearing conditions”. These clearing requirements are in place to prevent the injury or death of koalas when clearing koala habitat and must be complied with irrespective of any approvals or exemptions offered under legislation such as the *Planning Act 2016*.

More information on these clearing requirements can be found in the *Information sheet – Koala Conservation Plan clearing requirements*.

3 Koala habitat areas

Koala habitat areas are areas of vegetation that have been determined to contain koala habitat that is essential for the conservation of a viable koala population in the wild based on the combination of habitat suitability and biophysical variables with known relationships to koala habitat (e.g. landcover, soil, terrain, climate and ground water). The purpose of koala habitat areas is to ensure impacts to koala habitat that is essential for the conservation of koalas in the wild will be avoided to ensure the long-term persistence of koala populations in the wild. This is to be achieved through new koala habitat planning controls that have been introduced into the Planning Regulation 2017 which apply to development that involves clearing in a koala habitat area.

More information on requirements for development in koala habitat areas can be found in:

¹ **Koala habitat tree** means:

- (a) a tree of the *Corymbia*, *Melaleuca*, *Lophostemon* or *Eucalyptus* genera that is edible by koalas; or
- (b) a tree of a type typically used by koalas for shelter, including, for example, a tree of the *Angophora* genus.

- *Information sheet - Development in koala priority areas;*
- *Information sheet - Development in koala habitat areas outside koala priority areas; and*
- *Information sheet - Extractive industries in koala habitat areas within key resource areas.*

In addition to the koala habitat planning controls prescribed in the Planning Regulation 2017, there are also specific clearing requirements prescribed in Section 10 and 11 of the Nature Conservation (Koala) Conservation Plan 2017 that must be complied with when clearing koala habitat trees in a koala habitat area. These clearing requirements are in place to prevent the injury or death of koalas when clearing koala habitat and must be complied with irrespective of any approvals or exemptions offered under other legislation such as the *Planning Act 2016*. More information on these clearing requirements can be found in the *Information sheet – Koala Conservation Plan clearing requirements*.

It is important to emphasise that koala habitat areas are not intended to represent all potential habitat for koalas. Instead, koala habitat areas represent the best habitat for koalas, the retention of which is essential for the long-term persistence of a viable koala populations in the wild.

There are two different categories of koala habitat area – core koala habitat area and locally refined koala habitat area. While the koala habitat planning controls that apply to these areas are the same, the methodology used to determine whether an area is a koala habitat area is different. These methodologies are described in the document [Spatial modelling for koalas in South East Queensland](#) and briefly described below.

Currently, koala habitat areas have only been identified in koala district A which is the South East Queensland (SEQ) region as described in the SEQ Regional Plan (i.e. the following local government areas: Brisbane, Gold Coast, Ipswich, Lockyer Valley, Logan, Moreton Bay, Noosa, Redland, Scenic Rim, Somerset, Sunshine Coast and part of Toowoomba).

The koala habitat area mapping will be updated at least annually to ensure the most up-to-date datasets are used to inform koala habitat areas.

3.1 Core koala habitat areas

The methodology used to determine core koala habitat areas integrated a species distribution model with the Queensland Herbarium's regional ecosystem (RE) mapping and validated koala occurrence records to produce a comprehensive map that ranked koala habitat values of remnant and high value regrowth vegetation across SEQ. As a high-level summary, the core koala habitat area mapping was developed using the following methodology:

- All REs in SEQ were ranked as high (5), medium (4), low (3), very low (2) or non-habitat (1) by a panel of experts based on their suitability as koala habitat (RE suitability ranking) (see Appendix 3 of [Spatial modelling for koalas in South East Queensland](#) for each RE's expert elicited ranking).
- The Queensland Herbarium's remnant and high value regrowth RE mapping for SEQ was attributed with the expert elicited RE suitability rankings.
- Biophysical variables (e.g. soil, terrain, climate, landcover, groundwater) with statistically tested relationship to koala occurrence were used to construct a distribution model (Maxent model) linked to the RE mapping. The outputs of this model were ranked as either high (3), medium (2) or low (1) (Maxent ranking).
- Using the koala habitat decision matrix shown in Figure 2 (which integrates the RE suitability rankings, Maxent rankings and koala occurrence records) all remnant and high value regrowth RE polygons in SEQ were assigned a koala habitat suitability ranking of either: core habitat – very high suitability (10), core habitat – high suitability (9), core habitat – medium suitability (8), core habitat - medium-low suitability (7), core habitat - low suitability (6), core habitat – very low suitability (5), core habitat – possible habitat (4), non-core habitat – rainforest habitat (3), non-core habitat – marginal habitat (2) or non-habitat (1).

- All remnant and high value regrowth RE polygons in SEQ that were ranked as 4 – 10 on the decision matrix were determined to be “core koala habitat areas” which “are essential for the conservation of a viable koala population in the wild” and therefore are the areas that the new koala habitat planning controls apply to under the Planning Regulation 2017.

		Regional Ecosystem Suitability (RE Rank)					
		High 5	Medium 4	Low 3	Very low 2	Non-habitat 1	
Maxent Suitability (Maxent Rank)	High 3	Record 1	Rule 351 10	Rule 341 9	Rule 331 8	Rule 321	Rule 311
		No Record 0	Rule 350 10	Rule 340 9	Rule 330 8	Rule 320	Rule 310
	Medium 2	Record 1	Rule 251 7	Rule 241 6	Rule 231 5	Rule 221	Rule 211
		No Record 0	Rule 250 4	Rule 240 4	Rule 230 4	Rule 220	Rule 210
	Low 1	Record 1	Rule 151	Rule 141	Rule 131	Rule 121	Rule 111
		No Record 0	Rule 150	Rule 140	Rule 130	Rule 120	Rule 110

Additional labels in the table: "Core" is written across the cells with Maxent Rank 9 and 10. "Non-core" is written across the cells with Maxent Rank 5, 6, and 7. "Non-habitat" is written across the cells with Maxent Rank 1.

Figure 2: Decision matrix for core koala habitat areas

3.2 Locally refined koala habitat areas

To address the transition to the new koala habitat mapping methodology and the responsibility for koala habitat conservation transitioning from local government to state government, local governments were asked to provide locally significant koala habitat that formed part of their koala conservation efforts. These areas contributed to the locally refined koala habitat areas however were clipped to remnant and high value regrowth mapping.

Locally refined koala habitat areas will be in place for a transitional period of two years.

3.3 Requests to make, amend or revoke a koala habitat area determination

Under the Nature Conservation (Koala) Conservation Plan 2017, an owner of land (or a person acting on the owner’s behalf with written consent) can request to make, amend or revoke a koala habitat area determination if they believe, on reasonable grounds, that the existing determination for all or part of their property is incorrect.

More information on requests to make, amend or revoke a koala habitat area determination can be found in the document [Guideline – Requests to make, amend or revoke a koala habitat area determination](#).

4 Koala priority areas

Koala priority areas are large, connected areas that have been determined to have the highest likelihood of achieving conservation outcomes for koalas. These areas were determined using spatial prioritisation software (Marxan) that combined the koala habitat area mapping with a comprehensive spatial dataset that represented

direct measures or proxies of threats², constraints³, opportunities⁴ and resilience⁵ for koala conservation. This included for example urban development, land clearing, dog attacks, koala-vehicle collisions, fire management, climate change, existing conservation areas and climate refugia.

The purpose of koala priority area is to strategically focus long-term management and monitoring effort on areas that have the highest likelihood of achieving conservation outcomes for koalas. This will include a focus on management (e.g. habitat protection, habitat restoration and threat mitigation) and monitoring.

More information on requirements for development in koala priority areas can be found in the *Information sheet – Development in koala priority areas*.

5 Identified koala broad-hectare areas

The Planning Regulation 2017 provides that identified koala broad-hectare area means an area shown on an identified koala broad-hectare area map as an identified koala broad-hectare area and that identified koala broad-hectare area map means each of the following maps:

- [Oxley Wedge, Brisbane City Council](#);
- [Rochedale, Brisbane City Council](#);
- [Coomera, Gold Coast City Council](#);
- [Ripley Valley, Ipswich City Council](#);
- [Kinross Road, Redland City Council](#);
- [South East Thornlands, Redland City Council](#); and
- [Palmview, Sunshine Coast Regional Council](#).

Identified koala broad-hectare areas are areas where there have been previous land use planning commitments approved under previous planning legislation. More information on requirements for development in identified koala broad-hectare areas can be found in the *Information sheet – Development in identified koala broad-hectare areas*.

6 Koala habitat restoration areas

Koala habitat restoration areas are areas of cleared or degraded vegetation that would provide the best koala conservation outcomes if rehabilitated to restore the vegetation as koala habitat. This mapping layer identifies pre-clear regional ecosystem (i.e. the regional ecosystem that was present prior to European settlement) that would support the highest density of koalas if restored.

Koala habitat restoration areas are a non-statutory mapping layer, which means there are no requirements prescribed under the Planning Regulation 2017 for development within koala habitat restoration areas. Instead, this mapping is a purely administrative layer to guide the delivery of environmental offsets and other habitat restoration activities into areas that would provide the greatest benefit to koalas.

Landholders that have koala habitat restoration areas mapped on their land are not required to have their land used to deliver environmental offsets or other habitat restoration activities.

² **Threats** are direct and immediate factors that could do physical harm to koalas.

³ **Constraints** are factors that can limit an area's ability to support habitat.

⁴ **Opportunities** include existing reserves or areas managed with a conservation intent that offer longer-term retention of habitat where koalas can persist.

⁵ **Resilience** identified areas where climate change was less likely to affect koala habitat.

7 Further information

If you have any further queries about the koala mapping, please contact the Koala Assessment and Compliance team at koala.assessment@des.qld.gov.au or 13 QGOV (13 74 68).

Disclaimer

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