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Submission on the South East Queensland Koala Conservation Strategy

15th March 2026

The Koala Action Group's (KAG) comments focus primarily on the Redlands City Council (RCC) area, where we have deep, firsthand knowledge. With more almost forty years of active involvement in koala conservation, we have a clear understanding of what strategies succeed and which approaches do not. The experience gained in Redlands offers valuable, evidence-based lessons for koala conservation across the rapidly growing South East Queensland region. Because Redlands' koala populations have been studied so extensively—and have coexisted with urban development for decades—the insights from this area provide a uniquely informed perspective on managing koalas in expanding urban landscapes.

Recent reports show the investment that RCC has committed to koala conservation appears to have been rewarded. Two independent research groups have shown that there has been no evidence of population decline of Redland koalas since 2018¹. This is deserving of the government's attention.

Loss of Habitat

The primary cause of koala decline is loss of habitat. This has been made clear for the last 30 years with expert advice being unanimous. Groups to advise the minister as far back as 1998 (the original Koala Council chaired by Professor Frank Carrick) and many other iterations (eg. Koala Taskforce 2008; Koala Expert Panel 2018) have all said the same thing:

Protection of habitat is the key determinant of whether koalas can survive in the future SEQ.

This habitat loss has been gathering momentum for the last 30 years and has been exemplified by the koala population decline in the Koala Coast – a shameful 80 percent in this time.

This is despite heroic efforts of local groups to replant habitat and local RCC efforts to promote programs that encourage retention of habitat. The many iterations of state koala policy documents have failed dismally to stem the clearing rates. There are two main reasons: failures in the mapping of koala habitat (Questions 10,14,15, 16 and 17) and exemptions that allow business as usual (Questions 18 – 39).

Failures in koala habitat mapping

(Questions 10,14, 15, 16 and 17 in the online survey)

How can the Queensland Government support increased action to protect koalas?

¹ <https://www.redlandscosttoday.com.au/2026/01/redland-city-reports-first-city-wide-koala-population-stabilisation-in-south-east-queensland/>

What should be considered in a review of the Koala Habitat Map methodology?

What are the opportunities to improve mapping at the local or property level?

The Koala Habitat Map is currently updated annually. How often should it be updated?

What sort of engagement with landholders and industry should take place before koala mapping updates are released?

In our opinion mapping is of supreme importance because if koala habitat is not mapped there is no protection as the following case study will show. This is the most important way the Qld Government can support increased action to support koalas.

The criteria used to assess koala habitat for mapping is human-centric and has failed abysmally to use koala scientific expertise to understand how koalas use habitat. Excellent and well-reviewed scientific studies have shown that koala survival depends on providing koalas the opportunity to move for nutritional and breeding purposes. It is futile to protect even quite large areas of good habitat that are not connected to other areas.

This knowledge was encapsulated in the definition of koala habitat in the Nature Conservation (Koala) Conservation Plan 2017:

Koala habitat means:

1. an area of vegetation where koalas live; or
2. a partially or completely cleared area used by koalas to cross from an area of vegetation where koalas live to another; or
3. an area of vegetation where koalas do not live, if the area primarily consists of **koala habitat trees** and is reasonably suitable to sustain koalas.

The protocol used today primarily addresses only aspect number 3. It is not appropriate for urban koalas to define koala habitat primarily through Regional Ecosystem (RE) classifications. This also sets an unreasonably high bar for locally refined koala habitat areas (LRKHA) which should be an opportunity to use local knowledge about koala habitat.

The current method is set out in “Spatial modelling for koalas in South East Queensland: Report v4.0” (2023):

To address the transition of responsibility for koala habitat conservation from local government to state government, local governments were asked to provide locally significant koala habitat areas that formed part of their koala conservation efforts.

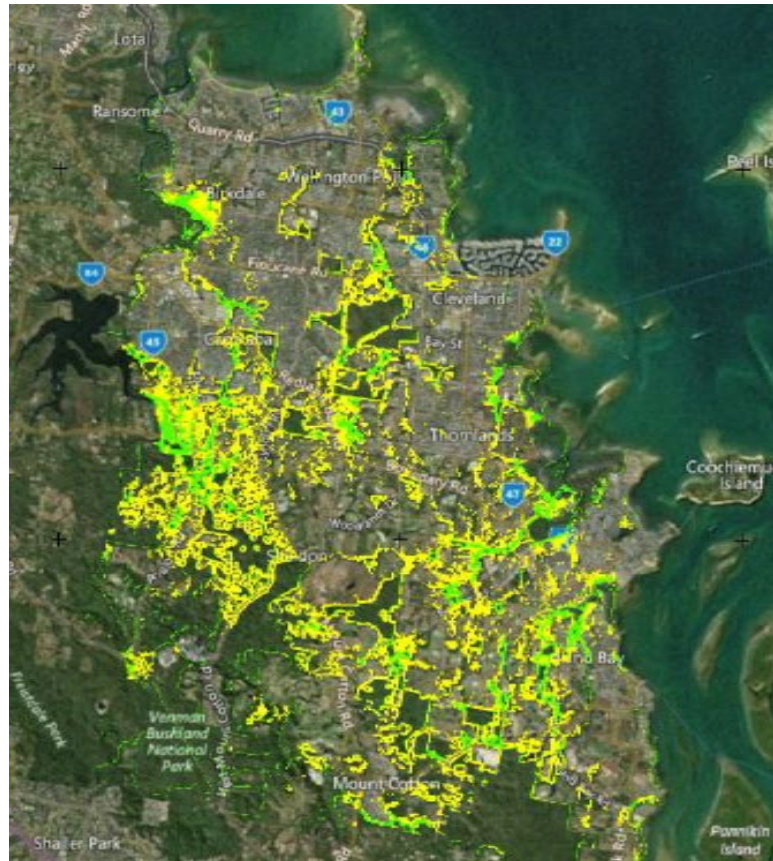
Transferring responsibility for koala habitat conservation is absurd as the LGAs are the ones who know their area best. Redland City Council diligently mapped and ground-truthed the locally significant koala habitat areas. All of these areas were disregarded in the State mapping (except for a small patch along Tingalpa Creek) apparently because they were “Areas of HVR which didn’t meet the criteria for remnant or high value regrowth (HVR)”.

Locally significant koala habitat areas should not have to meet the criteria for remnant or high value regrowth! Koalas do not care if their habitat reaches some esoteric height or growth criteria – they just need a food source and shelter trees. Removing “small areas and slivers” is an opportunity lost as they often connect to larger areas of habitat.

There is also the obsession with not mapping areas that have a cleared understorey. By this criterion much of the prime koala habitat at the time of European settlement would have not made the grade for mapping as there was often a grassy understorey under old growth koala food trees owing to indigenous fire practices. Obviously, this presented no difficulty to koalas, or they would not have survived to the time of settlement.

The mapping in the RCC Wildlife Connections should be accepted and mapped as Koala Corridors and Locally Refined Koala Habitat Area.

**From: Wildlife Connections Plan
2018 - 2028, Redlands City Council**



There were concerns expressed about the mapping by the Koala Advisory Council:

More consultation on mapping is required prior to mapping being finalised. Consultation should be in the form of adequate time for local governments to review the mapping data and provide feedback on that data, prior to it being finalised by DES.

and: *Pros and cons for removing isolated patches from the mapping including: The benefit of mapping isolates for species conservation, including species other than koalas. A recognition that small patches are important...* Koala Advisory Council Minutes, 5th August 2020.

This advice was not enacted upon as it seems apparent the advice of other stakeholders such as developers and landholders was given a higher priority.

This could explain why large areas of undisputed koala habitat are not mapped. These are possibly linked to areas that are likely to come under applications for development. Not mapping koala habitat because it is under threat is surely, the most counter-productive reason! Many of these areas were protected under previous mapping but are suddenly no longer worthy of mapping because, presumably, they have potential for development. (See case study number 2).

“The Trails” 275-495 Serpentine Creek Road Redland Bay QLD 4165 (See aerial photo below).

This application is for urban residential which is to be developed with just a small corridor running from east to west along a drainage line. Virtually all koala trees will be removed (an estimated total of 5,000), many because they do not meet the Regional Ecosystems’ criteria as the understory has been cleared. A few trees (mostly *Melaleuca*) are to be retained along the drainage line. These will likely be disturbed by earthworks and construction of stormwater devices.

This block is of clear strategic value to koalas with conservation land to the west, the north and the southeast. There seems to be no concern for koalas in this development as they are presumed (falsely) to stay in the adjacent conservation area. There is no attempt to protect the trees in the northeast or provide access to the coastal corridor via the well treed area to the southeast. The Local Authority is best situated to know the local conditions and their mapping (pictured on the next page) should be accepted by the State Government.

Despite obvious koala habitat with many mature koala trees on this block (see photographs below), the only mapped koala habitat is along the road reserves and therefore exempt from clearing controls. It is inexplicable to hold to this, as they are buffers to the conservation area, are well vegetated as they were designated road reserve some 70 years ago. Thousands of these trees will be totally removed to build roads which could have easily utilised the cleared area with little diminution of housing yield.



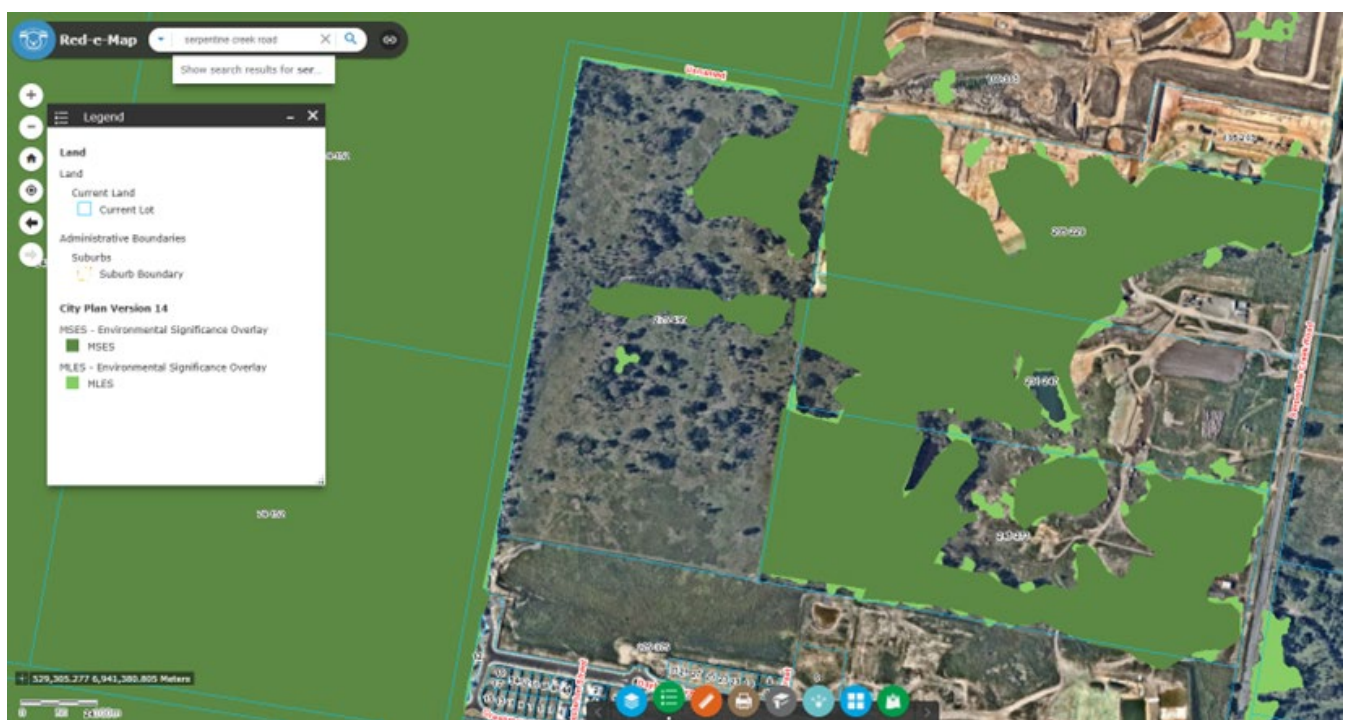
Left: The Trails site



Right: Isolated trees to be removed showing scratches

From: Ecological Technical Assessment, Saunders Havill Group for Lendlease Communities (Shoreline) Pty Ltd, 10 September 2021

Of even more concern is the discrepancy between the State's Globe Mapping and the Redland City Council's mapping of the same area.



According to Queensland Globe (top), none of the isolated trees within the site (outlined in red), have been mapped as koala habitat or even as locally significant habitat on the site. This contrasts with the RCC mapping (directly above) which shows MSES over the more vegetated part of the site. (Note in the Globe map, the recent clearing to the east of the site which has meant the loss of thousands of koala habitat trees. Piles of tree debris are still evident on close inspection.) If the koala habitat mapping by the RCC had been recognised by the State mapping, this habitat destruction would have been much reduced.

As none of the paddock trees are mapped, they are not protected. This is despite many scientific publications that recognise the importance of paddock trees². This includes the EPBC Act Conservation Advice³ which, under the heading *Habitat critical to the Koala's survival* states the following:

For an individual koala, these resources include access to sufficient quality food and shelter trees to meet their daily energetic requirements and reproductive needs, and a place to avoid predators. This includes forests or woodlands, road-side and rail vegetation and paddock trees, safe intervening ground matrix for travelling between trees and patches to forage and shelter and reproduce and access to vegetated corridors or paddock trees to facilitate movement between patches.

When the mapping is properly done, it should be reviewed every year.

Q 2. How can we protect koala habitat while also providing access to land for housing?

A 2. In colonial days, it seemed as if we could grow forever as the land seemed so vast. However, in these more enlightened times there should be some recognition that land is a finite commodity and we cannot continue to expand into our natural areas as we are losing valuable species and ecosystems. People need greenspace for their well-being and to interact with nature for the benefit of their mental health. European countries, with limited space have by necessity learned how to set firm limits to urban expansion and control population growth.

Outward urban sprawl is inefficient and results in higher long-term costs for the community to build and maintain roads, transport networks, and essential services such as sewage connection and treatment.

Greenfield developments should be a thing of the past. In the few remaining and any new developments, the State Government's Koala Sensitive Development Guideline demonstrates how it is possible to develop land for housing while retaining koala populations. These methods should be mandated in Priority Koala Areas with the relevant Local Governments encouraged to incorporate them in their planning guidelines.

The State Government should be setting the example in their Priority Development Areas (PDAs) which are often (as in the Southern Thornlands PDA) in sensitive areas that have previously been assessed as unsuitable for urban development for ecological reasons.

It was reassuring when in the Interim Land Use Plan (April 2025) (ILUP), Economic Development Queensland (EDQ) recognised the need for the Southern Thornlands PDA to be developed in a sensitive, sustainable way. This is evident in the vision statement:

“The PDA will protect significant biodiversity values and support the region’s ecological value through the preservation and rehabilitation of critical habitat corridors and the appropriate location of major infrastructure and distribution of land uses. The risks associated with natural hazards will be avoided or mitigated to protect people and property and enhance the community’s resilience.” (ILUP EDQ)

² Barth, Benjamin J., FitzGibbon Sean I., Gillett, Amber, Wilson, Robbie S., Moffitt, Beth, Pye, Adam, Dalene, Preece, Harriet and. Ellis, William A. 2020. “Scattered paddock trees and roadside vegetation can provide important habitat for koalas (*Phascolarctos cinereus*) in an agricultural landscape”. *Australian Mammalogy*, 2020, **42**, 194–203

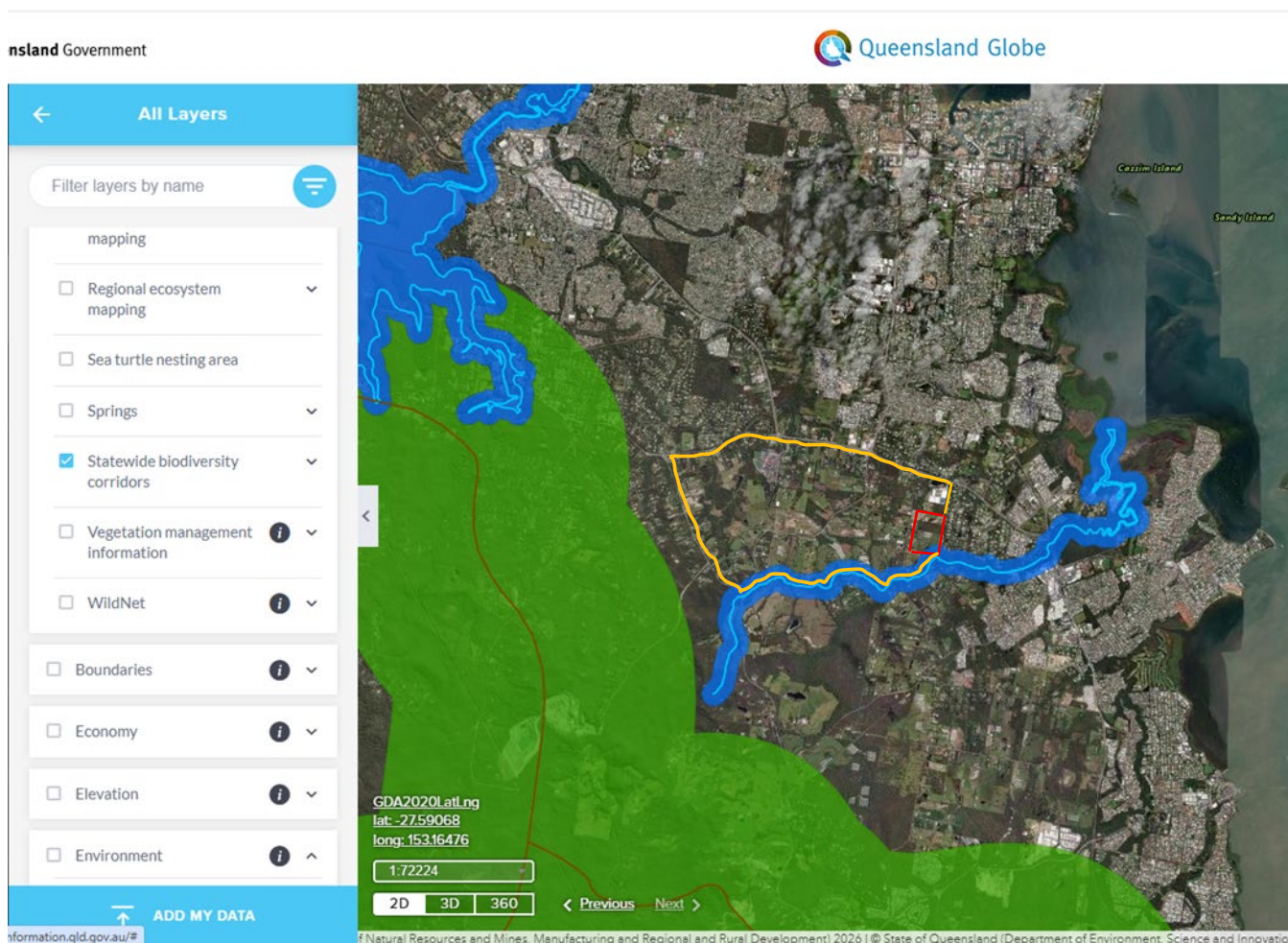
³ Australian Government. *Conservation Advice for Phascolarctos cinereus (Koala) combined populations of Queensland, New South Wales and the Australian Capital Territory*. 2022

However, the reality is completely different (see below). The developers' application was accepted without change and clearly ignores the principles raised in the IULP.

Case study 2 – Failure of the Southern Thornlands Priority Development Area to follow the State's own guidelines to protect koalas

“Precinct 1” Southern Thornlands Priority Development Area

The 200-metre wide Eprapah Creek Biodiversity Corridor is mapped as “of State Significance” on Queensland Globe. It is perhaps the most important conduit for wildlife in the Redlands as it connects important areas of coastal koala habitat (Point Halloran) to the extensive protected areas of habitat in Mount Cotton.

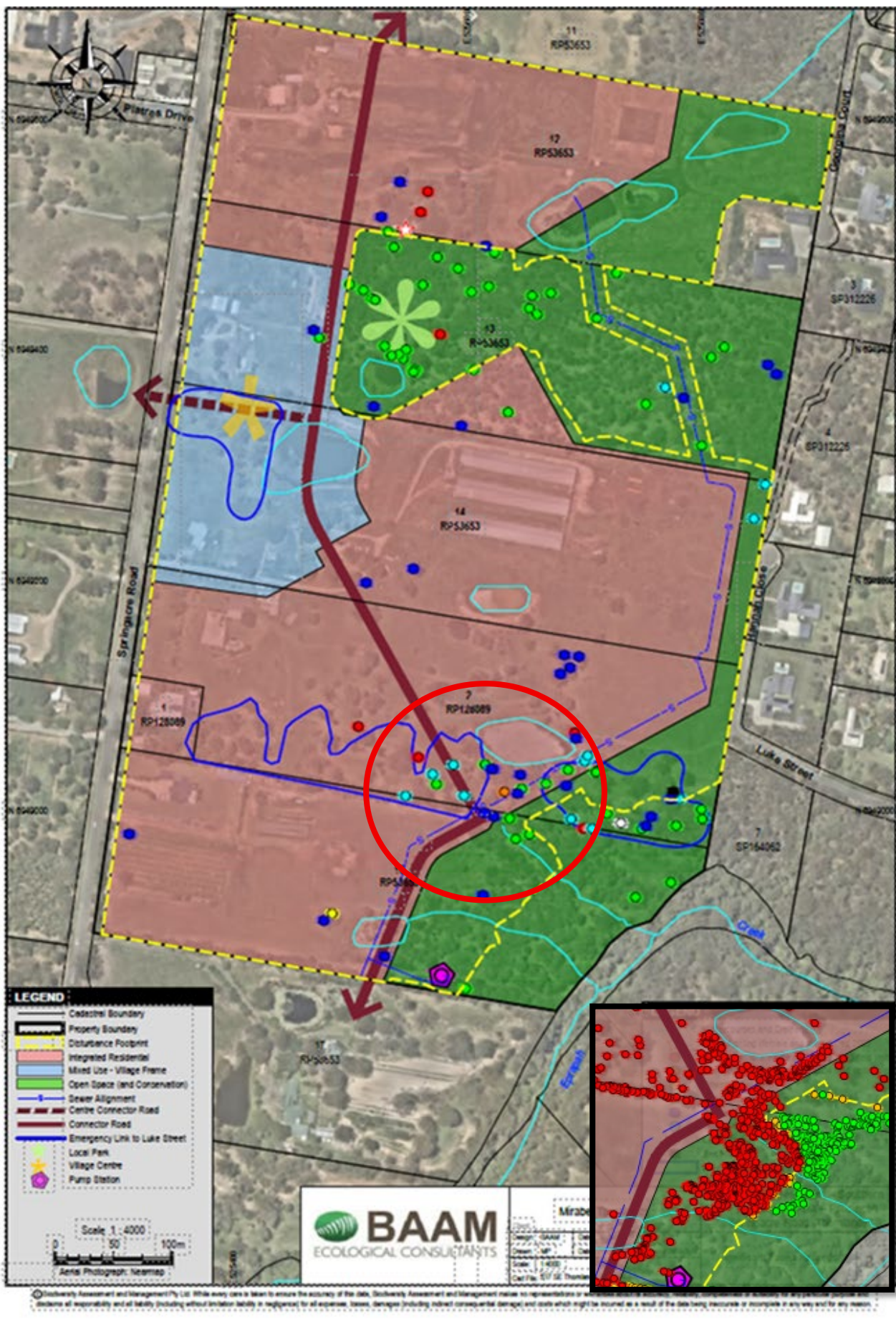


Globe Qld. Precinct 1 in red outline. The whole PDA in yellow.

Extensive koala studies were conducted in the planning process but their findings were not incorporated comprehensively into the plan.

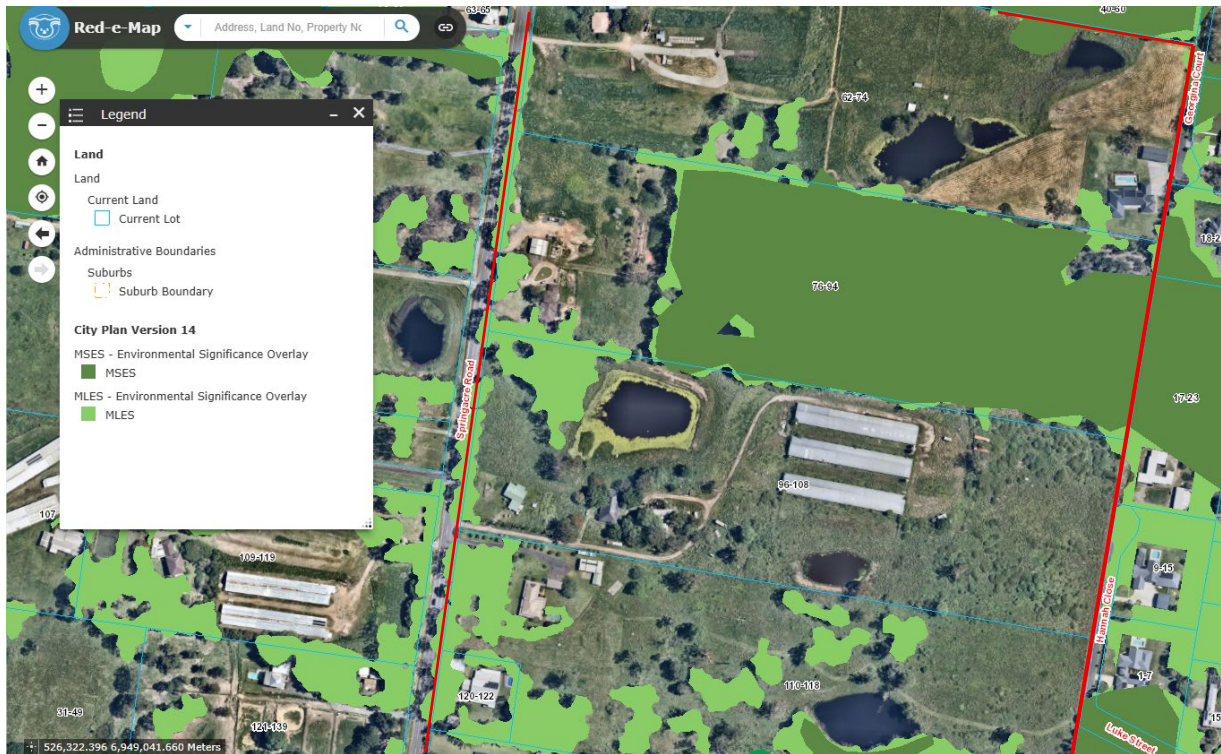
In the State Government approved plan for Precinct 1, the most heavily used koala area near the southern corridor will be urbanised with small lot housing and the 200 metre Ecological Corridor of State Significance reduced by almost half of which another half is further impacted by the removal of hundreds of trees for storm water devices. (See map below).

Koala Usage – Green, red, orange dots. Star – visual sighting mother and joey. (Ecological Report)



Red circle shows a high koala usage area that should have been protected by the 200m Ecological Corridor. The inset in the bottom right corner shows the trees to be removed from this area (red dots).

The significant vegetated section towards the north of the site is not mapped as Koala Habitat by the State but is recognised as MSES by RCC as shown in Red-e-map (site outline in red):



This same block was previously mapped habitat under various State Koala Plans until 2020 when inexplicably, with no apparent justification, protection was removed. At this time, the area was not even in the Urban Footprint. Its use, in the approved plan is for part urban purposes, it is adjacent to the town centre with all the impacts that will involve and approximately half is to be used as an adventure playground.

Another recommendation made in the ILUP (EDQ) is:

Development:

d. seeks to retain significant vegetation for street trees and feature trees in streets, public realm and open space areas

Not one tree appears to be retained in the residential and mixed use village frame precincts. There are many examples of large trees that are important for fauna within the residential area which could be integrated into the development to satisfy this requirement. It is estimated that over 1,000 trees in total will be removed according to the Tree Retention Plan. This is not acceptable when the endangered koala is in such need of habitat in this area to enable the species to survive into the future.

If this is an example of how the State Government is going to allow this PDA to be developed, the implications are dire for the koala population (and other fauna). The Biodiversity Corridor of State Significance will lose its functional capability. Precinct 1 is approximately one twentieth of the area of the PDA and with the loss of over 1,000 koala trees, the total loss over the whole PDA is likely to be more than 20,000 koala trees. No koala population can survive such losses of prime koala habitat (mapped or unmapped!). The irony is that this is all happening in a Priority Koala Area (where koala habitat is supposed to be protected!

Improving regulation (Questions 18 – 39)

Q 19 Do you support amending the exemption threshold for premises of one hectare or less?

A Yes, 500m² is too high a threshold for small lots. Most allotments under 1 hectare would have less than 500m² of mapped koala habitat which means it may all be cleared as exempt. The clearing threshold should be lower, perhaps 250 m² and if more is needed to be cleared for essential purposes, it should be part of the assessment of the application. This would give the council an opportunity to check that clearing is in fact, essential for the purposes applied for.

Q 21 Do you support amending the exemption threshold for premises greater than one hectare?

A No, absolutely not.

500m² is more than enough to allow the building of a house and facilities. For example, if there is 700m² of mapped koala habitat we would find that 800 m² would wipe out all koala habitat allowing it to be cleared as exempt.

Case study 3 – Example of subdivision of land with a total area of just over a hectare (10,123m²)

In this example, there was an application to subdivide 88-92 Dinwoodie Road Thornlands (a property just over the 1 hectare) into 5 allotments. This was refused by council for planning reasons: (minimum 6,000m² lots) and exceeding the 500m² mapped Koala Habitat to be cleared. The owners took the case to court. The court decision allows only 4 lots, with conditions including reduction of the clearing to 487m² and rehabilitation of fauna movement corridors.

If the exempt clearing allowed was 800m² it is unlikely that this mediated decision would have been reached as the extra 300m² clearing would then have been exempt. The pink area leading to a large area of protected habitat to the southeast would likely not have eventuated. In this situation, with the lot just over one hectare, there is a huge difference between clearing 500 and 800m².



Left. 88-92 Dinwoodie Road (red outline)



Right. Pink shows areas to be rehabilitated

Q 23 Do you support amendments relating to partial exemptions?

A23 Yes, if it means that the total area of proposed interference must be equal to or less than the threshold, otherwise the total area must be assessable.

Q 25 Do you support clarification relating to stacking of exemptions?

A Yes, if it means that such clarification would reduce the ability to use several exemptions together to clear additional areas beyond the agreed width and area limits.

Q 27 Do you support amendments to fire management and essential management?

A Yes, if it clarifies that clearing exemptions for multiple purposes cannot be joined to create larger clearing width and that fire management exemptions only apply to existing infrastructure.

Q 29 Do you support amendments related to staging developments and downstream approvals?

A No, because where a material change of use or reconfiguration of a lot is assessed against the koala regulations and approved, there are often ‘minor’ changes that occur as the development progresses. These should be reassessed in subsequent processes.

Q 31 Do you support amendments related to parent and child lots and consequential interference?

A 31 Yes, if a way can be found to inform new owners of the legalities in that the clearing threshold has already been reached and this exemption cannot be used again.

Q 33 Do you support amendments to the application of identified broad-hectare areas?

A 33 It is not clear as to how the sites that are identified for urban purposes are defined. If it means the balance is free to be mapped as koala habitat, then the change is supported. We note that the Assessment Benchmarks in relation to Koala Habitat in South East Queensland Guideline (2020) state that “No new identified koala broad-hectare areas will be established.”

Q 35 Do you support amendments to offsets guidance?

A 35 No. The existing guidance is adequate but it must be more strictly adhered to in the following ways as described in the ‘Koala conservation – offsets’ information publication by the Qld Government quoted below:

An ‘avoid, mitigate, offset’ approach underpins Queensland’s offsets framework. This means

that developers are obliged to try to avoid or mitigate the environmental impact in the first instance.

Should be located as close as possible to the impact site, where the offset site contains habitat suitable for restoration; will create or improve connectivity between koala habitat or Koala Priority Areas; can be protected from koala threats and secured for the duration of the impact – usually in perpetuity.

And requires three new koala habitat trees to be established for every non-juvenile koala habitat tree removed.

Additional guidance should make it clear that the planted trees must be satisfactorily maintained and replaced if they do not survive.

Q 37 Do you support not proceeding with a notification process?

A 37 No, absolutely not. There are always people who will push the boundaries and misinterpret what is exempt. There must be some oversight, or it will be open slather. There appears to be no process whereby the landowners are not made aware of their responsibilities to prevent harm to native animals. Exempt clearing should have a simplified notification process that will let applicants know the guidelines and that the authorities know of their action and will act if the guidelines are exceeded. A simple one-page notification form listing their responsibilities with a signature underneath surely would not be too onerous.

This is especially essential if the 800 m² exemption is accepted. This would definitely open the door to excessive clearing.

If there is no notification process, there is also the difficulty with neighbours and passers-by thinking that the clearing was illegal and making complaints to the Local Authority. This will cause excessive wasting of time and expense with the necessity of officers having to respond with a site visit instead of just being able to look up the records.

Q 39 What other koala habitat regulations could be amended to protect koalas and improve access for housing?

A 39 The State Government's Koala Sensitive Development Guideline demonstrates that it is possible to develop land for housing while retaining koala populations. These methods should be mandated in Priority Koala Areas with the relevant Local Governments encouraged to incorporate them in their planning guidelines.

There should also be the recognition that the present housing crisis is a function of many factors, none of which will be helped by panic planning changes, lowering of standards and local extinctions of koalas. Future generations will be aghast at the long-lasting and permanent environmental damage that would be caused by such a short-sighted approach to housing.

Other questions not already answered (in chronological order, with no particular priority)

Q 1 Do you support a 10-year timeframe for the SEQ Koala Conservation Strategy?

A 1 No. Whole populations of koalas could be lost in that time frame. The SEQ Koala Conservation Strategy should be reassessed at least every five years. Mistakes made and advice not accepted should be reassessed and introduced according to monitoring data.

Q 3 Do you support any of the following habitat targets? Please select all that apply.

A 3 There should be no net loss of koala habitat. Protection of remaining habitat remains the most cost-effective conservation action and should be prioritised wherever possible.

Q 4 How can the Queensland Government enhance awareness of the threats facing koalas?

A 4 All of the suggestions are helpful:

- road signage and road safety and education campaigns have been addressed in the past but need to be regularly refreshed.
- LGAs are best placed to understand community expectations, values, and local threats. Providing LGAs with greater funding autonomy and resources would enhance the reach and impact of conservation messaging and action. Support for LGAs is a good way of increasing awareness of dog control issues (RCC has some great initiatives such as having declared Koala Areas where dogs are mandated to be confined at night).
- improved transparency about koala road mortality would be another useful initiative.
- increased support for universities (such as Griffith University that have some innovative programs to reduce both road and dog attack mortality for koalas).

Q 5 What approaches to mitigating threats do you think are most effective in reducing koala injuries and deaths? Please select top three

A 5 It is impossible to select only three approaches when all are important with different emphasises in different areas. In the Redlands these are the most critical:

- Chlamydia is the biggest killer of koalas in the Redlands (as a direct result of habitat loss). It was disappointing to hear recently that the vaccine was not being given to Redland koalas at this stage. It is vital to expedite the use of the vaccine in areas of greatest need.
- Road safety issues. The increasing traffic because of population increase is going to have an even greater impact on koala populations. There must be a new funding model to provide safe road crossings where the human population is increasing. The developers who benefit from increased development should be contributing to safe fauna crossings and the fencing that makes them effective.
- It is critically important that each area understands their koala populations and how they use habitat. Funding for LGAs (and research bodies), enabling detailed population

studies, (utilising up-to-date drone-based imaging), genetic analysis and assessing carrying capacity of different habitats is essential to develop the best policy to ensure koala survival.

Q 6 Do you support any of the following threat mitigation targets? Select all that apply

A 6 Threat mitigation targets can easily be misinterpreted. Just because the mortality rate of koalas on roads is declining does not necessarily mean that the treatment has been working – it may just be that the local koala population has been decimated.

The targets should be inherent in the population studies as described above – perhaps linked to an increasing or stabilising population as in the Redlands.

Q 7 How can we best work with our partners and communities to deliver koala conservation outcomes?

A 7 The Koala Conservation Strategy will never succeed without the involvement of governments, First Nations people, conservation groups, landholders, industries, universities and communities. It is good to see the State Government committing to this policy and taking the advice of the Koala Advisory Council. However, this body does not seem to have any transparency. There have been no minutes issued since August 2020 and its membership is no longer shown on the DETSI website. The community needs to know who is advising the government on these important koala issues and what their credentials are.

We already have good examples of the involvement of most of those groups, with the possible exception of industries and some landholders. The Redland City Council has excellent programs whereby landholders can avail themselves of education and practical experience in caring for their land and wildlife. Volunteers assist with the Wildlife Ambulance, Bushcare and water quality testing. The State Government should play a coordinating and funding role.

Another important initiative by the RCC is the inclusion of the community in programs such as Koala Watch which encourage reporting of sightings of koalas. An important side benefit is the early detection of koalas that are suffering from injuries or sickness so they may be treated. The community would benefit from a fully integrated and transparent process for managing interactions with koalas including sightings, rescues, treatments in wildlife hospitals, euthanasing of rescued koalas, returns to the wild or elsewhere. This integrated and transparent process should be freely available to community and environment groups and the public. The government should provide the community with clear explanations and instructions on how to use this integrated and transparent koala management system.

Industries, including the development industry, are inherently money-making enterprises and have a responsibility to their shareholders. Their decisions, although they may be cloaked in apparently good intentions, are ultimately restricted to efficient and timely use of resources. Hence, we find modern developments that clear-fell sites as this is the most efficient way of putting in services and putting in mass cookie cutter type houses. A very few see a commercial advantage in being seen to protecting the

environment and providing greenspace but generally have to be forced to do so by strict planning laws.

Q 8 What are the biggest knowledge gaps or misunderstandings around koala conservation that need to be addressed?

A 8 i) It is absolutely necessary for koalas to be able to move around to access food trees that they require for their particular dietary needs. Research has shown how koalas' dietary preferences are vital to their health and survival. When certain toxins in their diet become a problem they must move on to another tree species.⁴ Corridors and stepping stone trees are vital for koala movement. This does not seem to be understood by the government.

ii) Another reason that movement corridors are important to koalas is to avoid in-breeding. If a small group of koalas are restricted to an area they will be forced to breed with close relatives.

iii) Cumulative habitat loss. Many small losses of koala habitat become a major problem over time. Once again, this must be recognised by the government if they are to reach their goal of stabilising the koala population.

iv) Koalas will still look for food trees in backyards that do not have any trees. This is a problem when people allow their dogs to freely roam their yards because they do not have any trees. They do not understand that koalas are always searching for food trees.

Q 9 What innovative approaches can be used to address these gaps?

A 9 The single most important way to address these gaps is to map and protect the all-important corridors. See the discussion in answers to 10, 14, 15, 16 and 17

The RCC has already mapped the most important corridors (see answer to question 10). These corridors should be incorporated into the Koala Mapping.

Regarding dog control there are excellent programs provided by groups such as Griffith University and the RSPCA. The "leave it" program is an example. But the most effective is to have local dog control laws that mandate that people must restrain their dogs from dusk to dawn as the RCC has in designated Koala Areas. These by-laws necessarily must be enforced to be effective.

Q 13 Do you support any of the following monitoring targets? Select all that apply.

A 13 The numbers of koalas in individual local government areas (LGAs) would be most useful and would allow for appropriate different actions and priorities to be taken. For example, LGAs with few changes and threats to habitat would have different priorities (such as car mortality) from other ones that have increasing urbanisation into koala habitat leading to

⁴ (1) Moore, B.D., Foley, W. J., Wallis, I.R., Cowling, A. and Handasyde, K.A. 2005. "Eucalyptus foliar chemistry explains selective feeding by koalas". *Biology Letters*. 1 no.1, 64-67.

(2) Youngentob, Kara N., David B. Lindenmayer, Karen J. Marsh, Andrew K. Krockenberger, William J. Foley. **Food intake: an overlooked driver of climate change casualties?** *Trends in Ecology & Evolution*, 2021

cumulative habitat loss. Only by monitoring koala numbers can any indication of whether any actions to help koalas are effective or not.

If the koala numbers are assessed in each LGA, the number of koalas could then be totalled to reveal the number of koalas in SEQ.

Other issues that have not been covered in the above questions

1. The effect of Climate Change on Koala Conservation

Climate change does not seem to be a major consideration in the new Koala Strategy (although it is mentioned briefly as a threat). This is despite Climate Change being included in the review of the Koala Regulations in 2024 which says: “Climate change has been modelled to be the most significant and increasing threat to koala populations in Queensland, with the National Recovery Plan projecting median losses to koala distribution due to climate change under a high global emissions scenario of 30 percent by 2030.”

The scientific research indicates that this is an important issue of concern for the future of Koalas with the most relevant aspect for the Koala Strategy to be the migration forced by increasing temperatures. The range of suitable koala habitat is predicted to move eastward towards the coast as has happened during other historical events.⁵

As their range contracts, South East Queensland is likely to form a vital climate change refugia for koalas. However, it is important to be aware that the climate varies within SEQ and that the most resilient areas are likely to be closest to the coastline or along waterways. Redlands with its mild climate is admirably suited to perform this function. Mean high temperatures are always much lower along the coast. It would be a grave error to allow urbanisation to completely remove koala habitat from the coastal strip and hope that retaining a few large bush blocks of vegetation inland are going to be enough for koalas to survive in the future.

2. Genetic issues

The review of the Koala Regulations in 2024 recognised the problem of large-scale development causing: “Both loss of habitat and infrastructure development of this scale greatly restricts koala movement across urban landscapes, which isolates and reduces the genetic integrity of koala populations and increases their exposure to a variety of threats...”

⁵ Adams-Hoskings, C., Patrick T. Moss, Jonathan R. Rhodes, Hedley S. Grantham and Clive McAlpine.

Modelling the potential range of the koala at the Last Glacial Maximum: future conservation implications, Australian Zoologist volume 35 (4), 2011

McAlpine, C., Daniel Lunney, Alistair Melzer, Peter Menkhorst, Stephen Phillips, David Phalen, William Ellis, William Foley, Greg Baxter, Deidre de Villiers, Rodney Kavanagh, Christine Adams-Hosking, Charles Todd, Desley Whisson, Robyn Molsher, Michele Walter, Ivan Lawler, Robert Close 2015. *Conserving koalas: A review of the contrasting regional trends, outlooks and policy challenges*. Biological Conservation 192, Elsevier.

As populations of koalas become smaller, there is a greater chance of inbreeding. This means that connectivity is vital for the maintenance of healthy koala populations. At a local scale, this means that smaller patches of koala habitat and stepping stone corridors must be protected to avoid inbreeding.

The genetics of Redlands koalas were assessed in 2018 with the conclusion that koalas on the mainland:

1. “Do not disperse as much as koalas on Minjerribah / North Stradbroke Island
2. Are surrounded by close relatives

This, combined with the existing low permeability of the urban matrix for dispersal, will only further increase the potential risk of inbreeding depression.”⁶

At a landscape scale, larger corridors must be protected to protect the viability of koalas in SEQ. A recent genetics study for the Scenic Rim Regional Council has shown how important it is to connect the different populations in these areas before their genomes decline any further.⁷

Landscape scale corridors have already been identified by the State Government in “A Biodiversity Planning Assessment for the Southeast Queensland Bioregion Landscape Expert Panel Report Version 4.1” 2016.

“Landscape scale corridors have been defined and mapped at a statewide level for most of the state. The network is being expanded as BPAs are completed for additional bioregions. Their broad purpose is to provide for ecological and evolutionary processes at a landscape scale by:

- maintaining long term evolutionary/genetic processes that allow the natural change in distributions of species and connectivity between populations over long periods of time
- maintaining landscape/ecosystems processes associated with geological, altitudinal and climatic gradients, to allow for ecological responses to climate change
- maintaining seasonal migrations and movement of fauna
- maximising connectivity between large tracts/patches of remnant vegetation
- identifying key areas for rehabilitation and offsets.” Page 9 of the same report.

Included in the mapping of the biodiversity corridors in this report is the riparian corridor of Eprapah Creek (of State Significance) which has been compromised recently by the approved development of Precinct 1 in Southern Thornlands PDA (see Case Study 2 above).

⁶ University of the Sunshine Coast, Detection Dogs for Conservation, Dr Romane Cristescu, Katrin Hohwieler, Dr Kasha Strickland, Dr Bethan Littleford-Colquhoun and Dr Celine Frere. **Redland Coast Koala Population Assessment Project**. Prepared for Redland City Council, November 2018

⁷ Scenic Rim 2024 Koala Population Study prepared by OWAD Environment.

Recommendations

1. Mapping

The protection of koala habitat is only as good as the mapping. As shown in the examples above, the current mapping is not fit for purpose as it does not protect many areas of essential habitat.

Previously mapped areas of koala habitat should be reinstated and new areas added that align more with the definition of koala habitat given in the Nature Conservation (Koala) Conservation Plan 2017.

2. Movement corridors are essential for healthy koala populations

Links with mapping between areas of habitat must be protected. To survive in the longer term koalas need to be able to move for nutrition and exchange of genetic material.

3. Habitat target should be to protect existing habitat as top priority

Protection of remaining habitat remains the most cost-effective conservation action and should be prioritised wherever possible. There is the opportunity to revegetate linking areas.

4. Regulations need to be strengthened, not weakened

- Increasing area of exemptions to 800 metres in properties of more than one hectare is not supported.
- Closing loopholes such as stacking exemptions is supported.
- Notification, even when clearing is perceived to be exempt is essential to monitor clearing. It can be simplified to make it less onerous for landowners.

5. Ensure that PDAs and MIDs are not seen as ways to avoid regulation.

Exemptions to clearing prohibitions must be limited to essential development, not to benefit private developers or private schools.

6. Partnerships should be strengthened as suggested in the strategy.

LGAs and Universities should be funded to support koala conservation through vital studies such as the population monitoring and genetic studies that have been done in RCC and Scenic Rim Regional Council. There are good examples of working with First Nations people to integrate cultural knowledge and increase engagement and participation in koala conservation activities in Minjerribah.

DETSI should play a central coordinating role in public awareness campaigns that clearly communicate the major threats to koalas, such as habitat loss, vehicle strike, dog attacks, and disease.

7. Offset strategy must be helpful to the local koala populations

We support limiting the use of offsets as described in the Qld Government fact sheet. We also support the unlocking of funds as described by the Minister's opening message in the strategy.

Conclusion

The single most critically important action to give koalas in SEQ a fresh start is to amend the way koala habitat is assessed to more truly represent where koalas live. The current Regional Ecosystems protocol is only the first step and is most appropriate for large scale assessment. In a rapidly changing landscape where SEQ is becoming more urbanised there must be more flexibility in determining what habitat is critical to koalas if we are to have any hope of saving them. Above all, the scientific research and the real-life examples given above have demonstrated the necessity of linking areas of habitat.

A new protocol of koala habitat assessment, based on the three aspects of the definition of koala habitat in the Nature Conservation (Koala) Conservation Plan 2017 must be developed. This strategy is not insurmountable as this information has already been collected by the many reports and koala population databases available to the State Government. All that is needed is the political will to make it happen. The voters of Queensland have proven time and time again that they do not want to see koalas become extinct in the state as was made clear by the minister's introduction to the *Developing a new South East Queensland Koala Conservation Strategy 2026–2036 Discussion paper*.

KAG thanks you for the opportunity to comment on the new Koala Strategy and sincerely hope that our comments will be given the attention they deserve.

Yours sincerely,

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