



CONSULTATION POST-IMPLEMENTATION REVIEW

Improving South East Queensland's Koala Habitat Regulations

APRIL 2023



Queensland
Government

Prepared by: Department of Environment and Science

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April 2023

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Executive Summary

Overview of the South East Queensland koala habitat regulations

The koala is an iconic and globally recognised species with high cultural and emotional significance¹. Given the importance of koalas to the social and economic wellbeing of the community, the Queensland Government has acted strongly to protect koalas as an endangered species that is under significant pressure from habitat loss, climate change, inappropriate fire regimes, attacks from wild and domestic dogs, vehicle strikes and disease.

In consultation with koala conservation experts, local governments and state agencies, improvements to the South East Queensland (SEQ) koala habitat regulations under the Planning Regulation 2017 were developed and took effect on 7 February 2020 under the Nature Conservation and Other Legislation (Koala Protection) Amendment Regulation 2020 (the 2020 koala regulations). At the time of introducing the 2020 koala regulations an exemption was granted from consulting with the general public on these reforms, due to the significant risk of pre-emptive habitat clearing.

The objective of the 2020 koala regulations is to provide increased protection for koala habitat in SEQ by prohibiting the activity 'interfering with koala habitat'² in large and connected areas of koala habitat (koala priority areas); and managing losses and gains of koala habitat areas outside of koala priority areas through application of the avoid, minimise and offset mitigation hierarchy. The framework applies to all private sector development projects within the SEQ region, with exemptions for smaller scale development (e.g. a single house) and larger scale projects (e.g. a priority development area) assessed by the Environmental Protection and Biodiversity Conservation Act 1999.

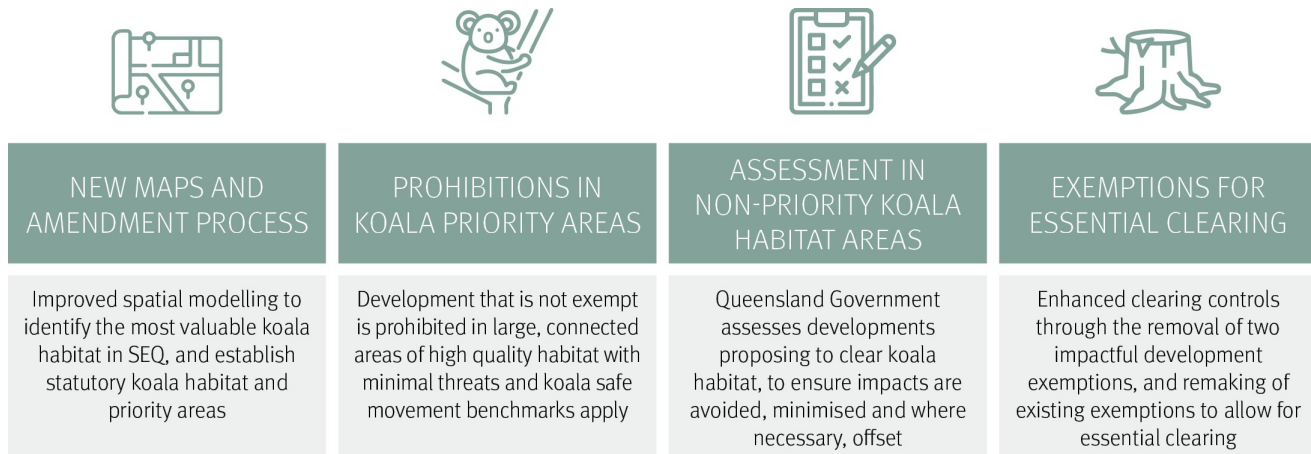
The 2020 koala regulations (Figure E1) increased the scope of planning controls that protect high-quality koala habitat within the SEQ region from the impacts of clearing, and enhancements to the mapping methodology have significantly increased the extent of koala habitat area that is regulated in SEQ. Koala habitat areas now cover 713,000 hectares of SEQ, with the greatest level of planning protections afforded to over 331,000 hectares of large, connected areas of high-quality habitat, known as koala priority areas (based on map v3.0 released in September 2022).

The Department of Environment and Science (the department) is undertaking a Post Implementation Review (PIR) to evaluate whether the 2020 koala regulations will provide strong and effective protection for SEQ's koala habitat in the long term. This Consultation PIR document provides opportunity for consultation with the community, industry and government to better understand the effectiveness of the 2020 koala regulations, and how the regulations may have impacted stakeholders and seek feedback on options for regulatory improvement. Feedback provided during consultation will be used to inform final recommendations that will be presented in a Decision PIR document.

¹ DAWE 2022 National Recovery plan for the Koala: *Phascolarctos cinereus* (combined populations of Queensland, New South Wales, and the Australian Capital Territory). Department of Agriculture, Water and the Environment, Australian Government.

² Under Schedule 24 of the Planning Regulation 2017, 'interfering with koala habitat' is a defined term - (a) means removing, cutting down, ringbarking, pushing over, poisoning or destroying in any way, including by burning, flooding or draining, native vegetation in a koala habitat area; but (b) does not include destroying standing vegetation by stock, or lopping a tree.

Figure E1. The 2020 koala regulations have increased protection for koala habitat in SEQ



The case for government action

In response to widespread community concerns about declining koala populations in the Pine Rivers and Koala Coast regions of SEQ, the Queensland Government established a panel of experts in 2017. The panel was made up of experts in the fields of ecology, wildlife management, and planning and environmental law with the role to inform government on the most appropriate and realistic actions that could be taken to conserve koala populations in SEQ³. Key feedback from the panel was that improvements were required to the existing koala habitat protections under the State's planning framework, which was considered by stakeholders to be the primary means of conserving koala habitat into the future.

SEQ is among Australia's fastest growing areas of population according to the SEQ Regional Plan 2017. The growing demand for land supply to accommodate SEQ's rapidly increasing population and industries⁴ presents a considerable challenge for the preservation of koala habitat into the future. In light of this, the Queensland Government committed to implementing all recommendations of the Koala Expert Panel's report⁵, including the action to 'simplify and strengthen the planning framework to ensure the effective and consistent long-term protection of koala habitat across SEQ.'

Working together to improve the framework

This Consultation PIR is being released for public feedback. Following consultation, a Decision PIR will be prepared which updates and builds on the Consultation PIR.

In preparing this Consultation PIR, the department has:

- Received feedback from state and local government, industry, and the community (Appendix A).
- Established a Queensland Government working group consisting of representatives of the Department of Environment and Science, Department of Resources and the Department of State Development, Infrastructure, Local Government and Planning to advise on options for improving the 2020 koala regulations, in response to stakeholder feedback.
- Engaged with the Koala Advisory Council and local governments in SEQ.

A suite of reliable data sources and departmental records have been accessed to inform this Consultation PIR's impact assessment and performance evaluation. This includes stakeholder surveys that inform the impacts and benefits of the regulation; spatial data, modelling and analysis relating to vegetation clearing rates; and cost

³ Rhodes JR, Hood A, Melzer A, and Mucci A (2017) Queensland Koala Expert Panel: A new direction for the conservation of koalas in Queensland. A report to the Minister for Environment and Heritage Protection. Queensland Government.

⁴ DILGP (2017) ShapingSEQ: South East Queensland Regional Plan. Department of Infrastructure, Local Government and Planning. Queensland Government.

⁵ DES (2018) The Queensland Government Response to the Queensland Koala Expert Panel's Report A new direction for the conservation of koalas in Queensland. Department of Environment and Science. Queensland Government.

impacts including records of development assessment fees, ecological consultancy costs, environmental offset conditions and estimates of administrative hours of work.

This Consultation PIR provides an opportunity for stakeholders to supply additional supporting data and to provide feedback on the impact assessment and policy options considered in this process. All feedback provided will help to ensure that the recommendations of this review are fit-for-purpose and address the key issues raised by our stakeholders.

Findings of this review

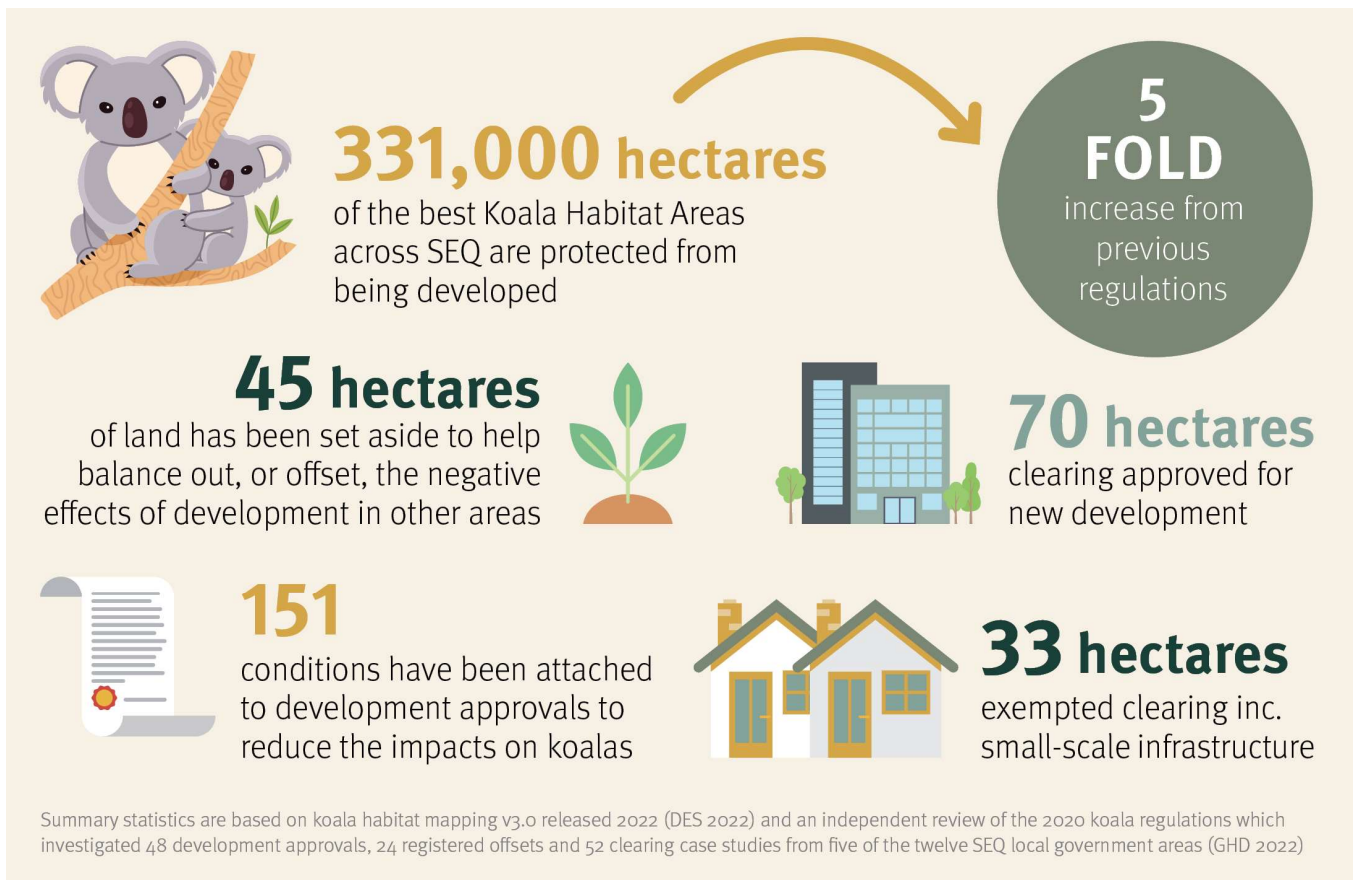
This Consultation PIR presents the findings of data analysis and the views of stakeholders as expressed through targeted consultation including workshops, data requests, survey responses and written submissions.

The Consultation PIR finds the 2020 koala regulations have been successful at increasing protection for koala habitat compared to the previous regulations. The improvements to the methodology for mapping koala habitat have delivered a substantial increase in the extent of protected koala habitat, and improvements to planning controls have delivered stronger outcomes. While the Consultation PIR does not quantify the precise amount of koala habitat cleared since February 2020, case studies suggest that rates of koala habitat clearing in SEQ are reducing compared to the previous regulations.

However, the Consultation PIR also found several elements of the framework have not been working as intended, diminishing the success of the 2020 koala regulations. This includes excessive habitat clearing under exemptions, lack of data on habitat clearing, and unnecessary time delays and costs for stakeholders in preparing development applications.

The findings, and evaluation of the effectiveness of the 2020 regulations is the Queensland Government's assessment, and feedback on this assessment is welcomed through the Consultation PIR.

Figure E2. Summary of findings



Due to constraints on data available to be gathered and analysed for the Consultation PIR, the impact of the 2020 koala regulations on koala habitat clearing rates and koala populations could not be quantified. To address this limitation, the department engaged an independent consultancy (GHD Pty Ltd) to undertake a qualitative assessment of clearing impacts informed by case studies provided by local governments (Attachment 1).

The department monitors woody vegetation extent via satellite imagery and reports on changes to vegetation extent due to clearing and regrowth as part of the Statewide Landcover and Trees Study (SLATS). The most recent published SLATS data captures clearing events from the period August 2019 to August 2020. As this represents less than a full year of data since commencement of the regulation, meaningful comparison to clearing rates under the previous regulation is not possible. Quantitative analysis of change in koala habitat area extent and clearing rates will be undertaken when SLATS data is available for an entire year under the 2020 koala regulations.

Based on analysis by GHD Pty Ltd, less than 72 hectares of koala habitat has been approved for removal between February 2020 and January 2022. Of this, approximately 56 hectares was reported by SEQ local governments from case study sites, while approximately 15 hectares was approved development triggering an offset requirement as catalogued by the Queensland Government. Note that these values pertain only to a subset of observed/proposed clearing based on SEQ local government case studies and data catalogued in offsets register and is not representative of all approved (or otherwise) clearing of koala habitat during this period.

Conditions to mitigate these impacts were applied by the State Assessment and Referral Agency, including koala management plans, koala friendly fencing and covenants, and environmental offsets. Based on case studies supplied by five of the twelve SEQ local governments, at least 33 hectares of clearing has occurred as exempted development or is unexplained. As noted above, this is an underestimate of actual exempt clearing across the entire SEQ region (Figure E2).

Exempted development provisions under the 2020 koala regulations allow landholders to undertake reasonable and low-risk land management practices such as removing weeds, harvesting fodder, and clearing to build small-scale infrastructure such as a single house and shed. Despite the importance of these exemptions in allowing fair and reasonable use of the land, stakeholders including SEQ local governments have reported that the ability to stack some exempted development provisions is resulting in large clearing events where habitat loss is not counterbalanced through mitigation or offset. This was perceived to have reduced the overall effectiveness of the protections afforded by the prohibition and development assessment requirements.

The department asked stakeholders impacted by the regulations, including conservation groups, the urban development sector and SEQ local governments, to estimate the impacts, costs and benefits associated with the 2020 koala regulations during the first two years of implementation. Costs could largely be avoided depending on the willingness of landholders and industry to avoid development on properties containing koala habitat areas. Stakeholders also provided feedback that the 2020 koala regulations are complex and time consuming to interpret and apply. This has increased administrative burden for applicants seeking to apply for development approval, and agencies responsible for assessment and compliance.

Key findings are distilled into two problem areas within the 2020 koala regulations, specifically that the complex, lengthy and confusing wording of the legislation was leading to:

1. unintended clearing of koala habitat areas and ineffective monitoring, leading to data constraints

*where unintended clearing means clearing under exemption that is above reasonable thresholds

2. unnecessary complexity, costs and limited certainty for users.

Stakeholders consulted through this review, identified that regulatory amendment would be necessary to resolve the two problem areas and achieve improved certainty for users of the framework, and enhanced outcomes for koala conservation overall.

Options considered

This Consultation PIR compares three options and assesses the costs and benefits associated with these options. The purpose of this analysis is to present a preferred recommendation for consultation, that delivers Queensland Government's objective of increasing protection for koala habitat, as well as delivering the greatest net benefit for Queensland. Options include:

Option 1 Status quo

Retaining the 2020 koala regulations without any changes of a regulatory or non-regulatory nature.

Option 2 Clarification of regulatory requirements

This option involves minor regulatory amendment to:

- clarify the intended application of the prohibition, development assessment and exempted development provisions
- develop a process for notification to the department of koala habitat clearing
- establish a new self-assessment pathway which supports small scale rural and residential development to minimise impacts on koalas.

Option 3 Regulatory improvement to provide a stronger, more simplified framework for koala conservation (recommended option)

This option involves regulatory review and amendment to:

- reduce complexity of exemptions and remove ambiguity of partial exemptions and interaction with other legislation
- establish clear thresholds above which development assessment or prohibition is required
- clarify the intended application of the prohibition, development assessment and exempted development provisions (same as option 2)
- develop a process for notification to the department of koala habitat clearing (same as option 2)
- establish a new self-assessment pathway which supports small scale rural and residential development to minimise impacts on koalas (same as option 2).

Consideration of the costs, impacts and benefits associated with each of the three options has identified option 3 as being able to deliver the greatest net benefit. The Consultation PIR seeks stakeholder feedback to confirm this assessment, in addition to recommendations for improving future monitoring and evaluation of the 2020 koala regulations.

Option 3 would improve the 2020 koala regulations through regulatory amendments to provide improved clarification, guidance and clear thresholds for new small-scale infrastructure (e.g., building a house). Compared with the other explored options, it is estimated that option 3 would save stakeholders up to 10,000 business days in wait time over 10 years. It also improves the effectiveness of the regulation at protecting koala habitat, by more accurately counterbalancing development impacts and incentivising avoidance behaviour.

Retaining the status quo would not address these inefficiencies and unintended losses, and Option 2 would only deliver a minor improvement in terms of effectiveness and efficiency, with significant ongoing development assessment delays anticipated.

Next steps

Taking into consideration feedback on this Consultation PIR, the department will finalise the recommended option and prepare a Decision PIR for consideration of the Queensland Government. The department will progress implementation of the agreed recommended option in collaboration with the Koala Advisory Council, Queensland Government agencies and SEQ local governments.

How to have your say

You are invited to provide feedback and share information or evidence on the impacts, costs and benefits of the regulations and the on the proposed options. This could include options that have not been included.

The online survey allows you to share information about your:

- Experiences in applying the 2020 koala regulation to development approvals
- perspective on the impacts and effectiveness of the 2020 koala regulation
- Feedback on the proposed options

The [online survey](#) is available.

Submissions can also be made via email to SEQKoalaStrategy@des.qld.gov.au (use the subject line: Submission – Consultation PIR – [your name]).

If you are providing a written submission, below is some general guidance. Further questions prompts are provided throughout the report and are summarised in Appendix F.

- Have the 2020 koala regulations increased protection for koala habitat in SEQ? Why or why not?
- Do you support the Recommended Option (Option 3), If you do not support this option, what alternatives should be considered?
- What would be the impacts, costs, and benefits of the recommended option (Option 3) on you or your industry? In your view is there any potential for unintended impacts, or areas that require further consideration by government?

Submissions must be made by 5.00pm 5 June 2023.

Submissions may be published unless provided in confidence. Material provided in confidence should be clearly marked 'IN CONFIDENCE' on the front page of the submission.

While the department will endeavour to identify and protect material claimed as confidential, it cannot guarantee that submissions will not be made publicly available. There is a possibility that the department may be required to reveal information provided by respondents due to a right to information request under the *Right to Information Act 2009*.

For further information, email SEQKoalaStrategy@des.qld.gov.au.

Abbreviations

ADVCC	Accepted development vegetation clearing codes are for routine and low risk clearing activities which can be undertaken without a development approval and are described under the Vegetation Management framework.
Consultation PIR	Consultation Post Implementation Review, meaning the initial report of this review released for public consultation.
Decision PIR	Decision Post Implementation Review, meaning the final report of this review which will build upon feedback from public consultation and deliver policy recommendations to Queensland Government for a decision.
the department	Queensland Government, Department of Environment and Science.
KHA	koala habitat areas, meaning areas established under the Nature Conservation (Koala) Conservation Plan 2017 which represent the best quality habitat based on modelling of biophysical measures (such as climate), suitable vegetation (such as food and shelter trees) and koala sightings records.
KPA	koala priority areas, meaning areas established under the Nature Conservation (Koala) Conservation Plan 2017 which strategically focus protections on large, connected areas of koala habitat with the greatest likelihood of sustaining koala populations in the long term.
LRKHA	locally refined koala habitat areas, meaning areas of mature vegetation that may contain locally important vegetation for koalas, including some areas previously protected under local government planning schemes.
MAR	Map Amendment Request, meaning a request to make, amend or remove a koala habitat area from the Koala Conservation Plan Map.
SDAP	State Development Assessment Provisions, used by the Department of State Development, Infrastructure, Local Government and Planning to deliver a coordinated, whole-of-government approach to the state's assessment of development applications.
SARA	Department of State Development, Infrastructure, Local Government and Planning's State Assessment and Referral Agency, which is responsible for assessing development applications that affect state interests.
SEQ	South East Queensland, meaning the Local Government Areas of Brisbane, Gold Coast, Ipswich, Lockyer Valley, Logan, Moreton Bay, Noosa, Redland, Scenic Rim Sunshine Coast, Somerset, and the urban extent of Toowoomba.
SLATS	State-wide Landcover and Trees Study data, meaning satellite imagery used to monitor changes in Queensland's woody vegetation extent over time.
SPP	State Planning Policy 2/10 - Koala Conservation in South East Queensland, which aimed to ensure the Queensland Government's interest in koala conservation in the SEQ region was considered in land use planning decisions made under the <i>Sustainable Planning Act 2009</i> .
SPRP	South East Queensland Koala Conservation State Planning Regulatory Provisions 2010, also referred to as the previous regulations.
UDIA	Urban Development Institute of Australia, meaning Queensland's largest urban development industry association.

1 Introduction

1.1 Purpose of this review

The Queensland Government is committed to ensuring that its legislation is necessary and effective while providing clear benefits for Queensland. This Consultation Post Implementation Review (Consultation PIR) delivers on a Queensland Government directive to evaluate the actual impacts of the Nature Conservation and Other Legislation (Koala Protection) Amendment Regulation 2020 (the 2020 koala regulations), which were introduced in February 2020.

The Consultation PIR has been prepared to assess the effectiveness, efficiency, and continued relevance of the 2020 koala regulations that regulate 'interference with koala habitat areas across SEQ'. This Consultation PIR document is an opportunity for stakeholders to provide feedback on the government's assessment of impacts on stakeholders in government, industry and the community and options to improve the regulation.

At the time the 2020 koala regulations were passed it was recognised that public consultation undertaken prior to the regulation's commencement could risk significant pre-emptive clearing of koala habitat. Because this outcome would defeat the objectives of the regulation, government granted an exemption from preparing a Consultation Regulatory Impact Statement. The Department of Environment and Science (the department) is now undertaking an equivalent process to evaluate the new koala habitat protections, by means of a PIR.

The objective of this Consultation PIR is to evaluate whether the 2020 koala regulations are providing effective, strong protection for koala habitat in SEQ, and function in a way that minimises impacts to stakeholders. The Consultation PIR includes evaluation of the actual costs and benefits of the regulatory approach and considers any further changes to the framework which may be required to improve outcomes for koalas, the community and our stakeholders.

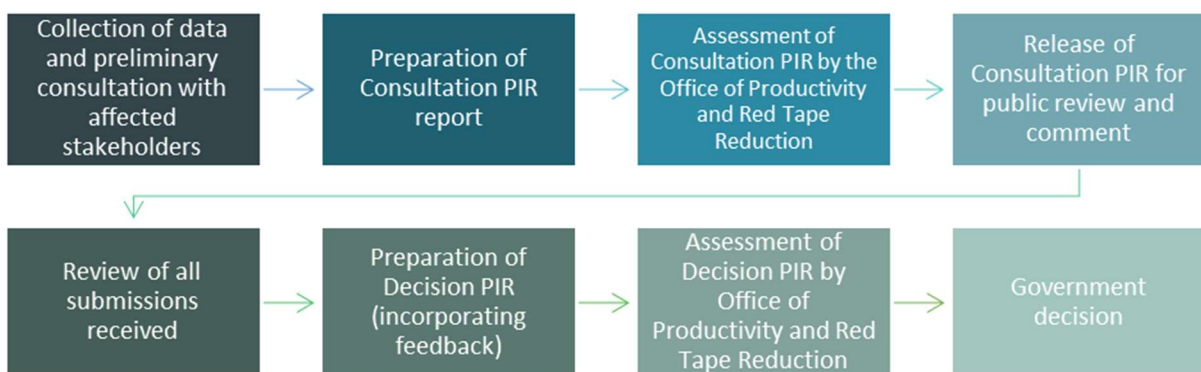
The recommendations outlined in this Consultation PIR take into consideration extensive consultation, learnings from the application of the existing framework through stakeholder feedback and technical reports commissioned as part of this review, recognised conservation principles and standards on clearing regulations, as well as the scientific literature.

Impact assessment methodology and regulatory performance criteria developed for this review were informed by advice from the Koala Advisory Council which includes representation from urban development, local government, conservation, academia, and First Nations peoples; a Queensland Government working group and the twelve SEQ local governments.

This Consultation PIR compares three options and assesses the costs and benefits associated with these options. The purpose of this analysis is to present a preferred recommendation for consultation, that delivers Queensland Government's objective of increasing protection for koala habitat, as well as delivering the greatest net benefit for Queensland.

Taking into consideration feedback on this Consultation PIR, the department will finalise the recommended option and prepare a Decision PIR for consideration of the Queensland Government (Figure 1).

Figure 1. Post Implementation Review process



1.2 Overview of SEQ's koala habitat regulations

Regulatory amendments passed 7 February 2020 replaced existing planning controls for the regulation of SEQ koala habitat, which had been in place since 2010. The Queensland Government's objective in remaking the SEQ koala regulations was to provide increased protection for koala habitat in SEQ. This was achieved by amending four pieces of subordinate legislation, the Environmental Offsets Regulation 2014, the Nature Conservation (Koala) Conservation Plan 2017, the Planning Regulation 2017, and the Vegetation Management Regulation 2012.

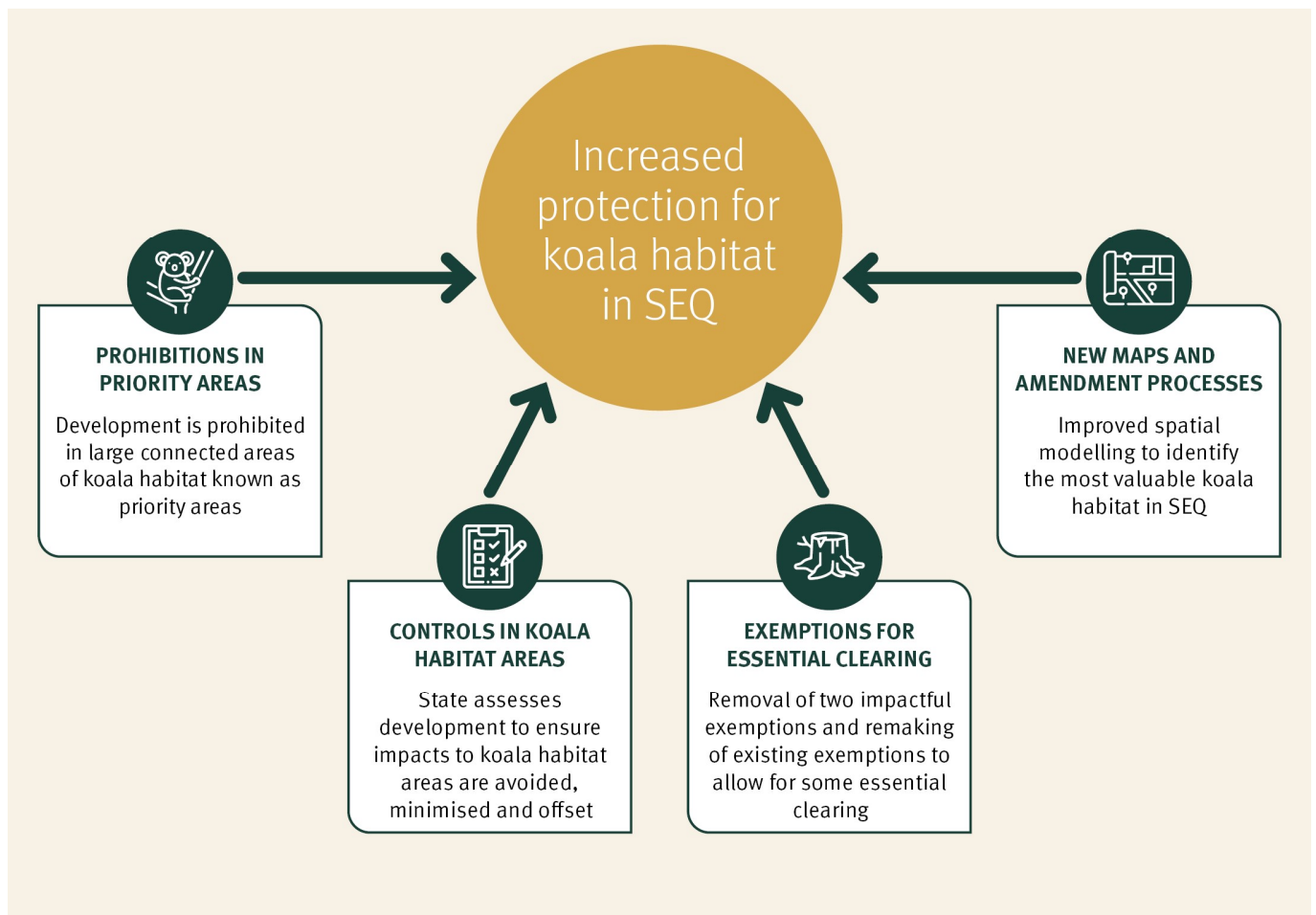
The planning framework as it relates to koala regulation encompasses the following:

- The Nature Conservation (Koala) Conservation Plan 2017 (made under the Nature Conservation Act 1992) which creates the koala habitat area and koala priority area maps.
- The Planning Regulation 2017, which categorises use and development in the mapped areas, including defining prohibited, assessable, accepted and exempt development.
- The Environmental Offsets Regulation 2014, which provides for koala habitat areas as an offset-able value.
- The Vegetation Management Regulation 2012 which, in conjunction with the Planning Regulation, creates accepted development vegetation clearing codes which regulate the clearing of remnant vegetation and regulated regrowth vegetation.

Key elements of the 2020 koala regulations are presented in Figure 2. The 2020 koala regulations work to increase protection for koala habitat in SEQ by:

- Identifying and mapping koala habitat areas and koala priority areas within SEQ which have the highest potential to safeguard koala populations in the long term.
- Prohibiting the lodgement of development applications proposing to clear koala habitat areas within koala priority areas.
- Introducing a State-controlled development assessment framework for koala habitat outside of koala priority areas with enhanced planning controls including:
 - State assessment of development applications proposing to interfere with koala habitat against a new state code for SEQ koala habitat areas contained within the State Development Assessment Provisions.
 - State assessment of development also includes consideration of adherence to the avoid, minimise and offset mitigation hierarchy.
- Requiring that development that is in both a koala habitat area and koala priority area but does not propose to interfere with koala habitat is assessed by local governments against assessment benchmarks that support safe koala movement.
- Providing exemptions necessary to balance the need to conserve koala habitat with the need to allow some clearing for liveability, essential urban growth and industry.

Figure 2. The 2020 koala regulations sought to increase protections for koala habitat areas through a combination of planning prohibitions and controls, exemptions, and statutory mapping



Full details of the new koala conservation protections for South East Queensland is available on the [Department of Environment and Science website](#).

More information on the policy mechanisms for regulatory amendment is available in the [Nature Conservation and Other Legislation \(Koala Protection\) Amendment Regulation 2020](#) and associated explanatory notes.

The 2020 koala regulations have significantly increased the spatial extent of regulated koala habitat compared with the previous regulatory framework. New maps for the SEQ region were developed based on internationally recognised habitat suitability modelling techniques and were gazetted through the Nature conservation (Koala) Conservation Plan 2017. The new maps represent the highest quality habitat for koala populations in SEQ, based on biophysical measures such as altitude and climate, suitable koala vegetation and two decades of koala records⁶.

Maps are updated annually to continue to accurately identify and protect the best quality habitat in the long term and track changes over time, and a formal map amendment process has also been established to allow landholders to add, amend or revoke areas of mapped koala habitat on their property, so long as these changes are in line with the rigorous scientific criteria for classifying a koala habitat area based on on-ground attributes.

⁶ Department of Environment and Science (DES) 2022. Spatial modelling for koalas in South East Queensland: Report version 3.0. Koala Habitat Areas (KHA) v3.0, Locally Refined Koala Habitat Areas (LRKHA) v3.0, Koala Priority Areas (KPA) v1.0, Koala Habitat Restoration Areas (KHRA) v1.0. Brisbane: Department of Environment and Science, Queensland Government.

The statutory koala habitat area maps (Figure 3) establish three classes of koala habitat, which are defined in the Nature Conservation (Koala) Conservation Plan 2017:

Koala priority areas (KPA) vary from hundreds to thousands of hectares in extent, and strategically focus protections on large, connected areas of koala habitat with the greatest likelihood of sustaining koala populations in the long term. Within koala priority areas, development applications proposing to interfere with koala habitat are prohibited, however some exempted development is allowed.

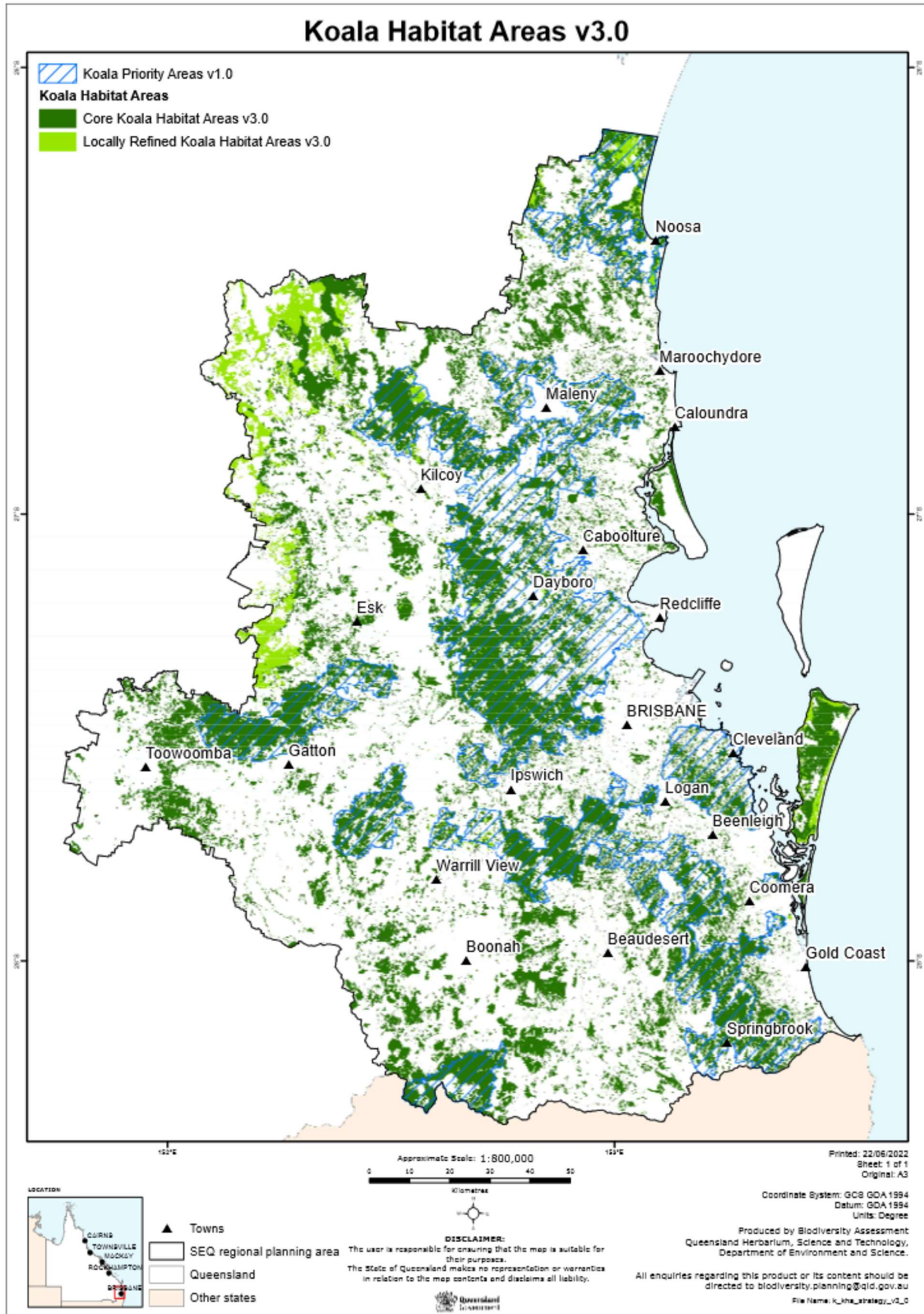
Koala Habitat Areas (KHA), including:

- **Core Koala habitat areas** represent the best quality koala habitat areas, based on modelling of biophysical measures (such as climate), suitable vegetation (for food and shelter) and koala sighting records; and
- **Locally refined koala habitat areas (LRKHA)** are areas of mature vegetation that may contain locally important vegetation for koalas, including some areas that were previously protected under local government planning schemes.

Mapping is updated annually. Detailed property-scale maps are available on the Department of Environment and Science website.

More information on the state's koala habitat mapping can be accessed via the 'Spatial modelling for koalas in South East Queensland' technical report on the Department of Environment and Science website.

Figure 3. Statutory koala habitat area maps v3.0, released September 2022



While the 2020 koala regulations share many core elements with the previous regulatory framework – namely that protections are achieved through a combination of development prohibitions, assessment benchmarks and exemptions – the 2020 koala regulation amendments sought to achieve a stronger and more simplified planning framework, that is administered primarily by Queensland Government agencies rather than local government (Figure 4).

The 2020 koala regulations apply a risk-based approach to developments proposing to impact koala habitat areas, by prohibiting development that proposes to interfere with koala habitat that is within a koala priority area. This prohibition only applies within large, connected areas of important koala habitat mapped as a koala priority area. Development on properties within koala priority areas that contain koala habitat areas, but that do not propose to interfere with koala habitat, are assessed by local governments using new assessment benchmarks under Schedule 11 Part 2 of the Planning Regulation 2017. These benchmarks ensure safe koala movement measures, including for example that development does not adversely affect adjacent koala habitat areas.

Outside of koala priority areas, developments proposing to interfere with koala habitat in a koala habitat area is assessable development that requires development approval. Development is assessed against a new State Development Assessment Provision (SDAP) Code 25: Development in SEQ koala habitat areas.⁷ This code prescribes performance outcomes to ensure that development in SEQ koala habitat areas outside of koala priority areas:

- counterbalances losses of koala habitat area through the delivery of environmental offsets for clearing that cannot reasonably avoided or minimised
- maintains or improves connectivity within and between koala habitat areas to ensure safe koala movement
- is constructed and undertaken in such a way that does not increase risks to koalas.

The responsibility for assessing developments in accordance with the SDAP is held by the State Assessment and Referral Agency (SARA). This office may function as either a referral agency or assessment manager in this process.

The 2020 koala regulations also provide exemptions for development that would otherwise be prohibited or assessable both within and outside of koala priority areas and are listed in full under Schedule 24 of the Planning Regulation 2017 and Appendix D of this report. Available exemptions include clearing that relates to infrastructure, emergency services, dangerous trees, bushfire management, traditional Aboriginal cultural activities and for developments that have already undergone significant planning processes such as Priority Development Areas.

Figure 4. Overview of the 2020 koala regulations

Mapping areas:	PROPERTY CONTAINS KOALA HABITAT AREA AND IS WITHIN A KOALA PRIORITY AREA		PROPERTY CONTAINS KOALA HABITAT AREA AND IS OUTSIDE OF A KOALA PRIORITY AREA
Proposed activity:	NO INTERFERENCE	KOALA HABITAT CLEARING/INTERFERENCE	
Development outcome:	Development is assessed by local governments to ensure safe koala movement	Development is prohibited	Development is assessed by the State Assessment Referral Agency to ensure performance outcomes and conditions including offsets are applied
	Development that is exempted development is not prohibited or assessable		

⁷State Code 25: Development in South East Queensland Koala Habitat Areas. State Development Assessment Provisions v2.6. The State of Queensland, Department of State Development, Manufacturing, Infrastructure and Planning.

1.3 Other government initiatives

South East Queensland Koala Conservation Strategy 2020–2025

The Queensland Government launched the South East Queensland Koala Conservation Strategy 2020–2025 (the Strategy) on 29 August 2020. The Strategy outlines how the Queensland Government is delivering on the Koala Expert Panel's six recommendations for the most appropriate and realistic actions to address the decline in koala population densities in SEQ. The vision of the strategy is to halt the decline of koala populations in the wild in SEQ, and secure their long-term survival.

The Strategy represents Queensland's first target-based strategy for recovering a threatened species. It commits the Queensland Government to providing leadership and working with partners to leverage and maximise collective action to and achieve progress towards the four targets and six action areas.

The Strategy reflects an ambition to achieve a net gain in koala habitat areas across SEQ during the lifetime of the strategy, which is to be achieved through a combination of habitat restoration partnerships and through regulations requiring avoidance and mitigation of impacts to koala habitat, as well as environmental offsets if required.

The 2020 koala regulations are a key mechanism for protection of koala habitat that will allow SEQ koala populations to stabilise in the long term.

Queensland's Biodiversity Conservation Strategy

The Conserving Nature – a Biodiversity Conservation Strategy for Queensland (the Biodiversity Conservation Strategy) sets out the Queensland Government's vision for the future of biodiversity in the state and outlines the goals and objectives for biodiversity conservation. The Biodiversity Conservation Strategy is an important step towards establishing an integrated and comprehensive whole-of-government conservation strategy. It has been developed in response to the recommendations in the Queensland Audit Office Conserving threatened species report and builds on targeted stakeholder undertaken over the last few years.

The Strategy highlights the state's commitment to protecting and conserving biodiversity values, addressing the decline in threatened species and connecting people and nature in economic, social and environmental contexts. The South East Queensland Koala Conservation Strategy 2020–2025 and the 2020 koala regulations are identified as one of the key policies to deliver on the Biodiversity Conservation Strategy goal to protect and manage Queensland's biodiversity.

Queensland Environmental Offsets

A consultation Regulatory Impact Statement proposing reforms to the Queensland *Environmental Offsets Act 2014* is expected to be released for consultation in mid-2023. Consultation on proposed reforms will include opportunity to comment on how offset requirements for koalas are calculated and delivered.

South East Queensland Regional Plan 2017 (*ShapingSEQ*)

A review of *ShapingSEQ* will commence in 2023 with statutory consultation anticipated in the second half of 2023. During the review process, consultation will be undertaken that will provide opportunities for members of the public to provide comments and make a formal submission. Information about the review of *ShapingSEQ*, once available, will be available on the State Development website: <https://planning.statedevelopment.qld.gov.au/>

1.4 Scope of the Consultation PIR

The Queensland Government's objective in undertaking this Consultation PIR is to evaluate whether that the 2020 koala regulations are operating as intended to provide effective and strong protection for koala habitat, and do not impose unreasonable burden on stakeholders and the community.

The 2020 koala regulations are based on four regulatory tools, which will be subject to evaluation and include:

1. Prohibited development
2. Assessable development
3. Exempted development
4. Mapping

Performance indicators have been developed for the review of the 2020 koala regulations, which have regard to the recommendations of the Koala Expert Panel⁸, and the five regulator model principles outlined in the Queensland Government Guide to Better Regulation⁹. These indicators have assisted the department to establish clear benchmarks against which the effectiveness and efficiency of the 2020 koala regulations can be evaluated. Areas where the 2020 koala regulations are not performing as intended will be subject to options analysis for policy improvement and further impact assessment.

Table 1. Performance indicators for review of the 2020 koala regulations

Regulatory tool	Performance indicator
Prohibited development	Prohibitions cost-effectively protect the best quality habitat in the long term and are effective at reducing complexity and costs to stakeholders.
Assessable development	Strong, simplified planning regulations deliver best-practice koala conservation outcomes through application of the mitigation hierarchy; and are supported by appropriate administration, monitoring, and compliance to provide clarity and certainty of requirements and to improve efficiency of assessment processes for users of the framework.
Exempted development	Exemptions balance the objective to protect koala habitat areas with the objective to enable limited clearing activity for existing life and property rights, essential services and public safety.
Mapping	Mapping is based on the best available science to identify valuable koala habitat with the greatest potential for supporting koala populations in the long term and is supported by mechanisms to address errors and continuously improve science.

Consideration of the following was outside the scope of this Consultation PIR:

- targets and action areas from the South East Queensland Koala Conservation Strategy 2020 – 2025¹⁰ including restoration and threat management targets
- transitional provisions within the framework which do not have enduring impacts
- aspects of the framework which are inherent to other legislation including the *Planning Act 2017* and the *Planning Regulation 2017*
- aspects of the offsets policy related to the size and locational rules for offsets, which are currently being assessed in the broader review of the *Environmental Offsets Act 2014*.

The Consultation PIR has been prepared in consultation with key stakeholders affected by 2020 koala regulations, including Queensland Government agencies, SEQ local governments, and the Koala Advisory Council which includes representatives of academia, industry and conservation.

1.5 Limitations of the Consultation PIR

The Consultation PIR aims to assesses the effectiveness, efficiency, and continued relevance of the 2020 koala regulation in meeting the objective of providing increased protection to koala habitat areas in South East Queensland. To undertake an effective review, it is important to be able to measure and quantify effects, both positive and negative, that regulatory change has had on:

1. the benefits provided to Queensland because of the regulations, including direct benefits to koala populations and their habitat as well as any indirect public benefits

⁸ Rhodes JR, Hood A, Melzer A, and Mucci A (2017) *Queensland Koala Expert Panel: A new direction for the conservation of koalas in Queensland*. A report to the Minister for Environment and Heritage Protection. Queensland Government.

⁹ Queensland Treasury (2019) *The Queensland Government Guide to Better Regulation*, Queensland Treasury, Queensland Government.

¹⁰ South East Queensland Koala Conservation Strategy 2020-25. 2020. The State of Queensland, Department of Environment and Science.

2. the impacts on stakeholders directly and indirectly affected by the regulations, including but not limited to development sector, conservation sector, landholders and industry.

Despite the comprehensive data sources gathered and considered as part of this Consultation PIR, it has been difficult for the department to quantify the extent to which impacts on Queensland communities and stakeholders can be attributed solely to the 2020 koala regulations. This is because some impacts were not able to be measured and monitored, and because social and environmental impacts are by nature difficult to quantify. For this reason, the Consultation PIR also relies on evidence from qualitative data sources such as stakeholder feedback, anecdotes and case studies. Data limitations are further detailed in Section 4.

This challenge is compounded by the relatively short period of time that the regulations have been in effect and the ongoing impacts of previous development approvals which introduce a lag effect in on-ground clearing outcomes. It is likely that stakeholder responses have been influenced by their attention on clearing of koala habitat that was undertaken via transitional arrangements or lawful clearing from developments approved under the previous regulatory framework.

The department monitors woody vegetation extent via satellite imagery and reports on changes to vegetation extent due to clearing and regrowth as part of the Statewide Landcover and Trees Study (SLATS). The most recent published SLATS data captures clearing events from the period August 2019 to August 2020. As this represents less than a full year of data since commencement of the regulation, meaningful comparison to clearing rates under the previous regulation is not possible. To address this limitation, the department engaged an independent consultancy (GHD Pty Ltd) to undertake a qualitative assessment of clearing impacts informed by case studies provided by local governments. Quantitative analysis of change in koala habitat area extent and clearing rates will be undertaken when SLATS data is available for an entire year under the 2020 koala regulations.

There is high degree of uncertainty in characterising external market influences on housing supply and demand in SEQ in the years since commencement. The COVID-19 pandemic, Commonwealth Government monetary policy, Commonwealth and State Government housing incentives and shifting homeowner and investor preferences have all influenced the market over this time¹¹. It follows that any inferences made about the extent to which the 2020 koala regulations have impacted either the development sector or the frequency and magnitude of koala habitat area clearing in SEQ must be interpreted with caution.

While these limitations in drawing conclusions from the available clearing data are acknowledged, the department has identified an important need to improve monitoring and respond to new information over time, to ensure that the 2020 koala regulations continue to operate effectively. Recommendations for a future monitoring and evaluation framework for koala habitat area clearing are presented in Section 9 of this report.

Measuring impacts of the 2020 koala regulations on koala populations in SEQ was also challenged by a lack of baseline data and quantitative evidence on the koala population numbers at the time the regulations were passed. Koalas are by nature a cryptic species which occur at relatively low densities across forest landscapes, and while ongoing monitoring programs have sought to identify densities and population trends across SEQ, these efforts are ongoing and have not yet yielded reliable data for presentation in this Consultation PIR. Recommendations for population monitoring indicators that would be useful to inform future evaluations of the 2020 koala regulations are presented in Section 9 of this report.

¹¹ Queensland Treasury (2021) *2021–22 Budget Update - Mid-Year Fiscal and Economic Review*, Queensland Treasury, Queensland Government.

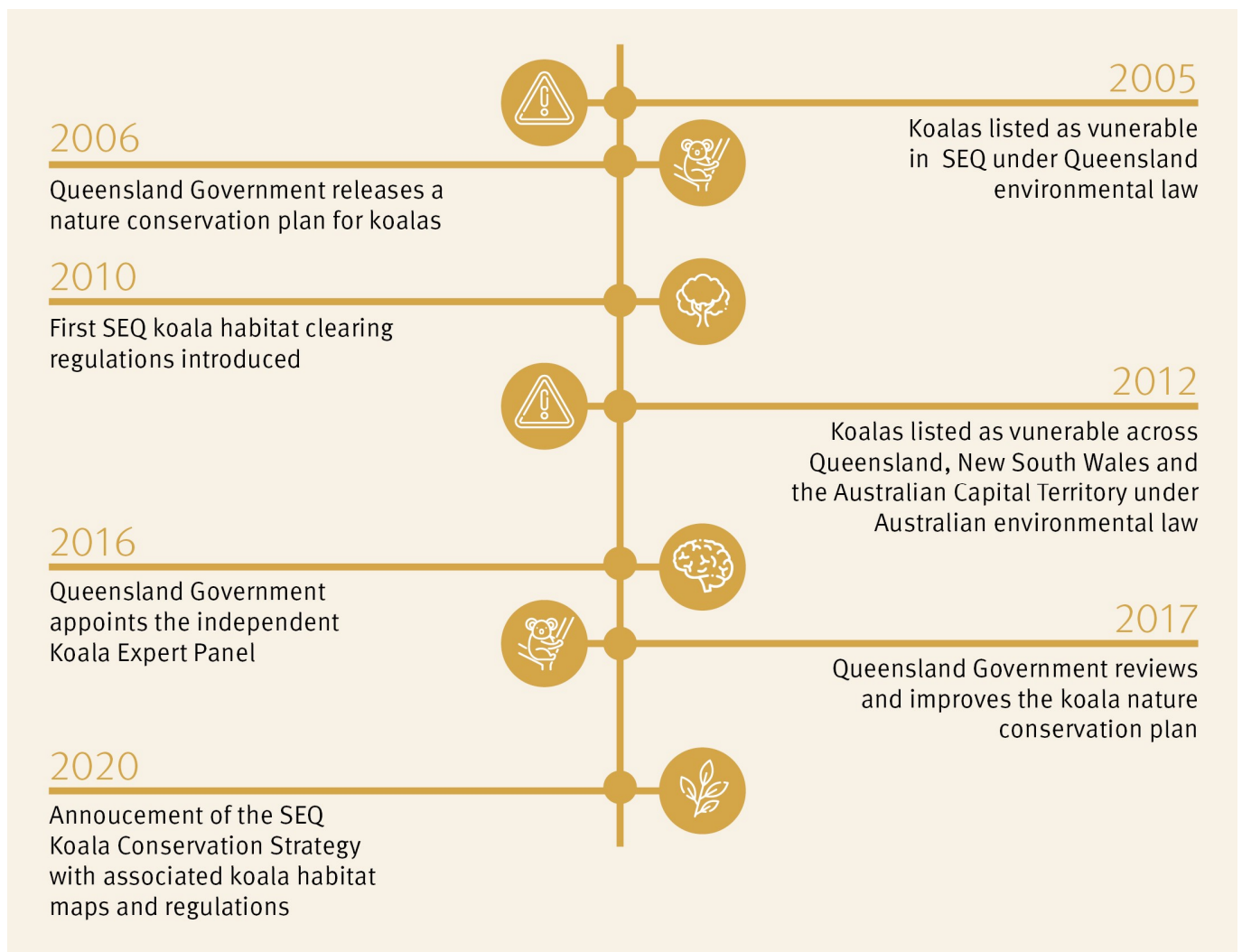
2 The case for ongoing government intervention

2.1 Why were the regulations introduced?

Koalas are one of the world's most well-known and iconic native species. Koalas have special cultural and emotional significance to all Australians, and the global response to the plight of koalas during the devastating 2019-20 bushfires is testimony to their social, cultural and economic value to cultures across the world. Koalas and their habitat are sacred to First Nations peoples and the protections of koalas is deeply embedded in the culture, language, spirituality and identity of First Nations peoples.

Since the early 2000s, Federal, State and local government agencies have each contributed toward a range of measures, policies, and programs with the goal of safeguarding koala populations in Queensland and Australia broadly (Figure 5). These actions have been primarily targeted towards maintaining koala habitat across the SEQ region, where sustained urban and industrial expansion has over time resulted in net loss of koala habitat and a reduction in the quality of remaining habitat.

Figure 5. Timeline of Australian and State Government koala policy measures leading up to the introduction of the 2020 koala regulations and the SEQ Koala Conservation Strategy



SEQ is among Australia's fastest growing areas and according to the SEQ Regional Plan 2017, population projections at the time of passing the 2020 koala regulations were anticipated to increase from 3.5 million to 5.3 million people over 25 years, requiring more than 30,000 new dwellings each year¹². This growth presents a considerable challenge for the preservation of habitat for threatened species including the koala, as increasing demand for land supply will be required to accommodate SEQ's rapidly growing population and primary industries.

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 including dog attacks and vehicle strikes¹³. Since 2010, the Queensland Government sought to address these challenges through planning schemes for the SEQ region, originally by regulating development in koala habitat State Planning Policy 2/10 - Koala Conservation in South East Queensland (SPP) and the Koala Conservation State Planning Regulatory Provisions 2010 (SPRP) which were subsequently incorporated into the Planning Regulation 2017 and have since been repealed¹⁴.

The SPP and the SPRP sought to achieve koala conservation outcomes by establishing priority and non-priority Koala Assessable Development Areas requiring that development is assessed by the relevant local government. The intent of this assessment process was to ensure that applicants took reasonable steps to avoid and minimise impacts to koala habitat, and if necessary, deliver an environmental offset for these impacts. A prohibition applied to developments proposing to clear bushland habitat within a Priority Koala Assessment Development Areas that were for an urban activity and associated with a Material Change of Use of a premises. Exemptions were available under the framework to balance koala conservation outcomes against limited clearing activities that allowed for liveability, industry and essential growth.

In 2014, in response to growing community concerns about koala populations in the SEQ region, the Queensland Government commissioned an independent assessment¹⁵ to develop spatial models and identify trends in koala density of two major koala populations in the Koala Coast and the Pine Rivers region¹⁶. This assessment found strong evidence for a rapid and ongoing decline in koala population densities between 1996 and 2014, despite the SPP and SPRP planning regulations. According to the modelling, declines in koala populations were estimated to be as high as 80.3 percent in the Koala Coast area, and a 54.3 percent reduction in the Pine Rivers region. There was also strong evidence that the rates of decline had increased over time. While the causative factors were not investigated in this population modelling study, the history of population growth and urban development within these areas was hypothesized by researchers to be a key factor in the decline.

Queensland Government spatial modelling (Figure 6) of koala habitat areas in SEQ¹⁷ indicated that the pre-clearing extent of koala habitat in the region was 1,850,110 hectares. 1,336,278 hectares or 72 percent of this habitat has been previously cleared, and 138,534 hectares or 7 percent has regrown to high value regrowth. This equates to a net loss of 1,197,744 hectares of koala habitat in SEQ, a 65 percent decline. This reduction is almost solely attributed to clearing for human development including urban expansion, agriculture, and other industry purposes.

¹² DILGP, *ShapingSEQ: South East Queensland Regional Plan*. Queensland Government.

¹³ Beyer HL, de Villiers D, Loader J, Robbins A, Stigner M, Forbes N & Hanger J (2018) Management of multiple threats achieves meaning koala conservation outcomes. *Journal of Applied Ecology*, DOI: 10.1111/1365-2664.13127

¹⁴ DILGP (2015). *South East Queensland Koala Conservation, State Planning Regulatory Provisions*. Department of Infrastructure, Local Government, Planning Policy, and Regional Development. Queensland Government.

¹⁵ Rhodes, JR, Beyer, HL, Preece, HJ and McAlpine, CA (2015) *South East Queensland Koala Population Modelling Study*. UniQuest, Brisbane, Australia.

¹⁶ The Koala Coast is located 20 km south-east of Brisbane, covering an area of 375 km² and encompassing the mainland portion of Redland City, the eastern portion of Logan City and the south-eastern portion of Brisbane City. Pine Rivers is an area approximately 774.5km², located 20km north-east of Brisbane within the Moreton Bay Region.

¹⁷ DES. *Spatial modelling for koalas in South East Queensland: Report version 3.0. Koala Habitat Areas (KHA) v3.0, Locally Refined Koala Habitat Areas (LRKHA) v3.0, Koala Priority Areas (KPA) v1.0, Koala Habitat Restoration Areas (KHRA) v1.0*. Brisbane: Department of Environment and Science, Queensland Government.

Figure 6. Comparative area of pre-clearing koala habitat and current koala habitat in SEQ, based on area calculations included in spatial modelling for koalas in Southeast Queensland: Report v3.0



Evidence from the department’s satellite monitoring of woody vegetation clearing in the SEQ region¹⁸ suggests that koala habitat loss was accelerating under the previous koala habitat regulations (Figure 7). Approximately 42,500 hectares of woody vegetation was cleared in SEQ during this period, representing an approximate demand for clearing of 4,700 hectares per year.

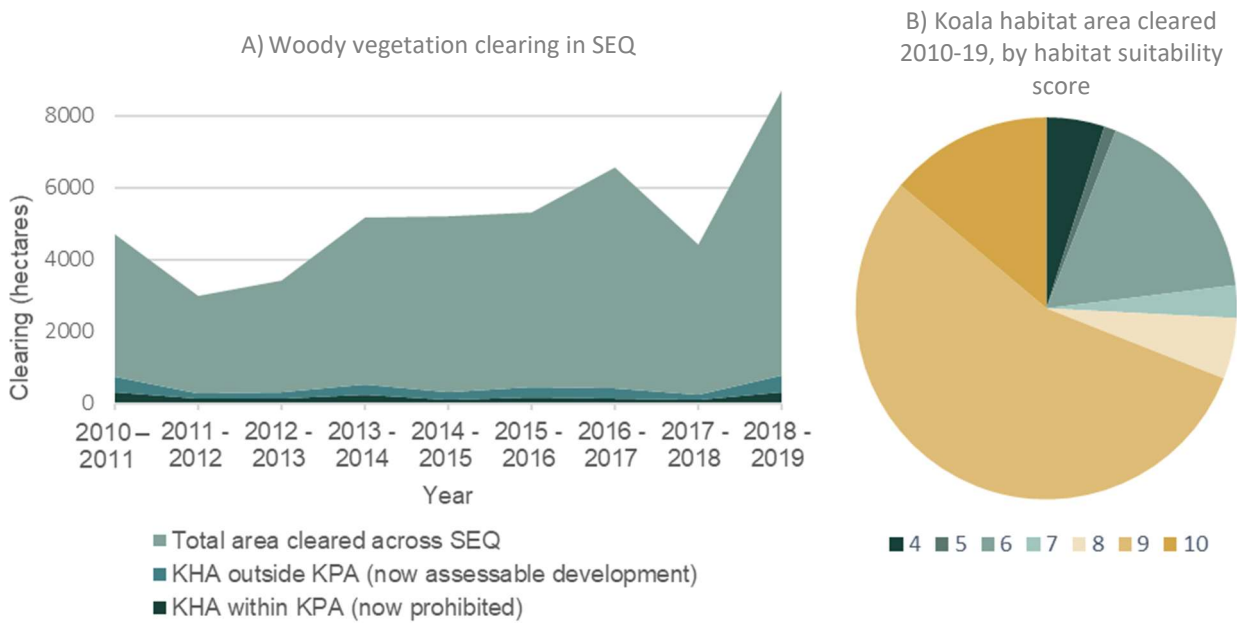
Modelling estimates that 4,000 hectares of koala habitat areas were cleared during the period of the previous regulations. Of these cleared areas, around 1,530 hectares of koala habitat area in total was within a koala priority area where a prohibition on development applications now applies. A further 2,460 hectares of koala habitat was cleared outside of the priority area, where development assessment requirements including avoid, minimise and offset requirements apply. The above clearing represents an average annual loss of approximately 270 hectares of koala habitat that is now regulated and subject to avoid, minimise, offset requirements; and approximately 170 hectares average annual loss of koala habitat where development applications are now prohibited.

There is some degree of uncertainty around actual clearing rates of koala habitat areas due to discrepancies in spatial modelling techniques between 2010 and present day. For example, the task of identifying what extent of woody vegetation that was historically cleared would have met the Queensland Government’s criteria for being mapped as a koala habitat area under the 2020 koala regulations is not straightforward.

Most historically cleared woody vegetation would also have had some form of regulation, primarily as essential habitat under the Vegetation Management framework. In some instances, the previous koala regulations would have applied. Depending on the regulations which applied, some portion of these historical losses would have been compensated through either legally secured environmental offsets, or on-site restoration plantings and covenants. The area of these compensatory arrangements was not able to be determined through this review.

¹⁸DES. 2010 – 2019. Statewide Landcover and Trees Study spatial data: woody vegetation extent – South East Queensland. Department of Environment and Science, Queensland Government.

Figure 7. A) Woody vegetation clearing across SEQ from 2010-2019 including clearing within koala priority areas. B) Actual koala habitat area clearing from 2010-2019 by habitat suitability score



Modelling suggests that of the original remnant or pre-clearing extent of koala habitat prior to any development, only 10 percent of very high-quality koala habitat remains in SEQ today. This is a significant reduction and is likely to have contributed greatly to the rapid decline in koala populations in the wild in SEQ over this period. Compounding this, it is modelled that under the previous regulations, this same limited extent of remaining high-quality koala habitat was disproportionately affected by clearing. As much as 69 percent, or around 2,750 hectares of koala habitat that was cleared during 2010 to 2019 had a very high suitability score of 9 or 10 according to the state's koala habitat suitability modelling methodology. Most of these high-quality areas were situated on high fertility alluvial plains, ideal for agricultural land uses.

Given this history of impacts, the Queensland Government considered it vital to provide as much protection as possible to the remaining high-quality koala habitat to ensure the persistence of koala populations in the wild in SEQ. This response was seen as critical, as it was clear that the urban development sector was not properly resourced to deliver adequate avoidance of impacts to koala habitat during their planning processes.

Problematically, habitat loss associated with urban development in SEQ was creating cost externalities for state and local governments and koala conservation groups to increasingly invest in interventions to save this threatened species. This includes costly koala rescue, rehabilitation, re-release, and habitat restoration operations. This market failure was also leading to further endangerment of the koala as a species of high public value. Given this, increasing protections for koalas and their habitat, as well as providing additional tools and clearer guidance for developers to consider how impacts to koala habitat can be avoided, minimised and offset during planning processes, was considered a cost-effective way to resolve this expensive public policy problem.

2.2 The Queensland Government's response

To investigate evidence-based actions that would assist in recovering SEQ's declining koala populations, the department undertook a review of koala conservation policies, led by an independent Koala Expert Panel made up of experts in ecology, wildlife management, planning and environmental law. The Koala Expert Panel were appointed in 2017 and tasked with informing Government on the most appropriate and realistic actions that could be taken to address the decline in, and ensure the future of, koala populations in the wild across SEQ. In May 2018, the Koala Expert Panel's report¹⁹ and the Queensland Government's response²⁰ were publicly released. The Koala Expert Panel's report detailed key recommendations for improving koala conservation in the SEQ region. Inadequate protections for koala habitat within the state's planning framework were one of the most prominent issues raised during stakeholder consultation.

In their review, the Koala Expert Panel emphasized the need to 'simplify and strengthen the state's planning framework, to ensure the effective and consistent long-term protection of koala habitat areas across SEQ.' The Koala Expert Panel strongly recommended that a regulatory approach to improve koala habitat protections would be central to ensuring the survival of SEQ's koala populations into the future.

An overview of the Koala Expert Panel's recommended actions relating to the state's planning framework, included that the Queensland Government:

- broaden the spatial scope of mapped koala habitat conservation areas beyond what was encompassed in the contemporary mapping framework
- use the best available science to identify and protect a network of well-connected priority koala habitat areas from further clearing
- prohibit clearing in these large, connected priority koala habitat areas and extend clearing protections to other important koala habitat outside of the urban footprint
- only require biodiversity offsets conditions as a 'last resort' for development approvals impacting koala habitat outside of priority areas within the urban footprint
- reduce the number and complexity of exemptions, or substantially reduce the scope of exemptions that were available to clear koala habitat for development in urban areas
- assume responsibility for the managing the assessment of developments impacting koala habitat, effected through the State Development Assessment Provisions (SDAP) codes to ensure uniform outcomes.

The Queensland Government provided in-principal support for all the panel's recommended actions, subject to confirmation of additional funding. The government also committed to working with stakeholders to strengthen koala habitat clearing regulations, inside and outside of the urban footprint and to introduce new and improve koala habitat mapping. A full description of the panel's recommendations is provided in Appendix B.

2.3 Options considered

A Preliminary Impact Assessment of options for improving the previous koala regulatory framework was co-developed in association with the then Department of State Development, Manufacturing, Industry and Planning and presented to Government for a decision. It was considered that the planning framework, with amendments, was the preferred option to provide a legislative basis for regulation of land use and clearing in koala habitat.

Non-regulatory options such as allowing the private sector to self-regulate koala habitat clearing were discounted due to the need to provide clearer guidance to stakeholders and require environmental planning experts to assess the impacts of potential development on koalas and assign appropriate conditions to minimise impacts. This included the need to apply frameworks which are based on best-practice conservation principles, such as the Environmental Offsets Framework 2014 which aims to ensure that impacts to environmental values are avoided, minimised and as a last resort counterbalanced via delivery of an offset.

The option of removing existing koala planning controls under the Planning Regulation 2017 and remaking these

¹⁹ Rhodes JR, Hood A, Melzer A, and Mucci A (2017) *Queensland Koala Expert Panel: A new direction for the conservation of koalas in Queensland*. A report to the Minister for Environment and Heritage Protection. Queensland Government.

²⁰ DES (2018) *Koala Conservation Response: The Queensland Government Response to the Queensland Koala Expert Panel's Report - A new direction for the conservation of koalas in Queensland*.

under the Vegetation Management framework, which identifies and regulates the clearing of areas of koala habitat and other threatened wildlife, was not considered. This was due to the need to describe new maps based on the best-available science and increase regulation beyond the scope of the Vegetation Management framework, for example, by establishing a prohibition and reducing the scope of available exempted development provisions.

Land acquisition or landholder incentive schemes were also discounted as it was determined such schemes would be a highly cost inefficient use of public resources, that would ultimately not deliver on the recommendations of the Panel.

Two options for improving koala conservation outcomes under the planning framework which were presented in the Preliminary Impact Assessment delivered to Queensland Government for a decision.

Option 1 – No change

This option involved retaining the previous koala regulations (SPP and SPRP) under the Planning Act 2016 which prohibited development across 59,900 hectares of bushland inside Priority Koala Assessable Development Areas and applied the avoid minimise hierarchy in a further 28,274 hectares of Koala Assessable Development Areas. This option was not considered a viable option as it would not be consistent with the Queensland Government's election commitment (GEc955), the recommendations of the Koala Expert Panel, or meet the public's expectations from government in relation to koala conservation.

Option 2 – Increase regulation of koala habitat in SEQ

This option led to the 2020 koala regulations described in Section 1.2 of this report. It involved adopting advanced spatial modelling techniques and the best available science to develop updated mapping of koala habitat areas and priority areas for koala conservation across SEQ. The new modelling substantially increased the extent of previously identified koala habitat area, expanding the mapping across the whole of SEQ to include the local government areas of Lockyer Valley, Noosa, Somerset, Scenic Rim, and Toowoomba.

This option involved amendments to the Planning Regulation 2017 to prohibit development proposing to clear koala habitat areas within koala priority areas, while retaining some exempted development provisions to allow for the reasonable use of property. As was recommended by the Koala Expert Panel, the State would become the assessment manager or referral agency of applications for clearing koala habitat outside of koala priority areas, to ensure consistent consideration of all applications and associated assessment guidelines.

3 Methodology for review

This review considers a range of data sources to assess whether the 2020 koala regulations are effective and efficient at meeting their objective, based on learning and actual impacts from the first two years of implementation. The overarching objective for the regulations which is stated in the explanatory note for the Nature Conservation and Other Legislation (Koala Protection) Amendment Regulation 2020 is to provide increased protection to koala habitat areas in SEQ.

Building upon this objective, regulatory performance indicators for each of the four key elements of the framework have been developed by the department. This provides a useful evaluation framework for the regulations to ensure it is more specific, measurable, achievable, relevant and timely (SMART), and importantly aligned to the Guidelines for Best Practice Regulation. These criteria have been developed to provide an evaluation structure and do not represent significant deviation from the original policy intent of the regulations.

For further detail on the methodology applied to the Consultation PIR and what data has been considered in this process, please refer to Appendix C.

This Consultation PIR has been informed by stakeholder views and data obtained in the first phase of stakeholder engagement as follows.

Phase 1 (April 2021 to February 2022) – Engagement with stakeholders directly affected by the regulations via a workshop, surveys, written feedback and data requests:

- stakeholder views obtained through one structured workshop with SEQ local governments, three consultations with the Koala Advisory Council, three SEQ local government working group meetings, and three online stakeholder surveys (40 responses)
- these responses are representative of the views of three state government agencies, 12 SEQ local governments (across SEQ), five peak bodies and three community koala conservation groups
- costs of implementing the regulation sought from state government agencies – including records of development assessment fees, ecological consultancy costs, environmental offset conditions and estimates of administrative hours of work
- reports and policies by the Queensland Government relating to koala populations and koala habitat conservation in Queensland, specifically the SEQ region
- academic literature and external reports relating to koala populations and koala habitat conservation in Queensland, specifically the SEQ region
- internal government materials, spatial data, modelling, and analysis relating to koala populations and vegetation clearing rates
- other relevant public domain documents and reports.

Confidentiality of stakeholder responses and data has been maintained throughout this review, to ensure that stakeholder information is protected and that any future negotiations between stakeholders would not be adversely affected, such as through exposure of commercial-in-confidence information.

4 Impacts of the koala planning regulations

4.1 Summary overview

This section summarises the outcomes of Phase 1 stakeholder consultation and data analysis according to the methodology described in Section 3 and Appendix C of this report. Feedback and data received from stakeholders discussed in this section has been crucial to informing this report's analysis of the effectiveness of the 2020 koala regulations, which is presented in Section 5.

Table 2. Dominant problems and themes emerging from the impact assessment

Problem	Themes
<p>Problem 1: Unintended clearing of koala habitat areas and ineffective monitoring</p>	<p>1. Exempted development provisions allow for clearing associated with different elements of new development, for example a building envelope and an associated firebreak, fence line or non-linear infrastructure, to be applied additively. However, on-ground observations from SEQ local governments suggest that this allowable 'stacking' of exempted development provisions is leading to potentially unreasonable sized areas of koala habitat clearing (up to 10,000 square meters per development). Users appear to be clearing up to the maximum allowable limits under exempted development provisions, as there are no incentives to avoid or minimise the impacts of clearing.</p>
	<p>2. As exempted development cannot be assessed, there is currently no ability to require that clearing can only be undertaken if it is necessary and cannot be reasonably avoided. Allowing certain exempted development provisions to occur has reduced koala conservation outcomes from what is currently being achieved for developments within koala priority areas not interfering with (e.g. clearing) koala habitat, which are assessed by SEQ local governments against Schedule 11 benchmarks. Local governments have raised concerns that this is not a consistent approach to conservation risk management, and that making some exempted developments assessable would lead to better outcomes.</p>
	<p>3. There are currently no mechanisms to monitor clearing that is approved or undertaken as exempted development. This limits the effectiveness and the increases the administration effort required to conduct compliance on the 2020 koala regulations</p>
<p>Problem 2: Unnecessary complexity, costs, and limited certainty for users</p>	<p>1. The exempted development provisions are complex, lengthy, and cross reference other schedules/ legislation, making interpretation of the framework difficult. This has created challenges for landholders and developers to comply with the framework and has increased administrative costs including time and resourcing.</p>
	<p>2. Thresholds for, and the purpose(s) of, exemptions lack clarity and do not align with the accepted development vegetation clearing codes under the Vegetation Management framework. This creates confusion for stakeholders. Greater clarity is needed around the use of the exhaustible 500 square meter exemption that can be used for any purpose including for a building envelope for constructing a single house and any reasonable associated infrastructure. This includes how the use of this allowance is tracked over time, to ensure there are not multiple uses per premises. In addition, improved information about when clearing for a firebreak or a road is reasonable and necessary is desirable.</p>
	<p>3. Interaction between the exempted development, prohibition and assessable development provisions have resulted in situations where developments are partially assessable or prohibited. This is creating confusion and increasing administrative and time costs for users of the framework. This includes costs associated with applying for development assessment and conducting ecological assessments when their development is in fact exempt.</p>

4.2 Prohibited development

4.2.1 Overview

This analysis shows that the regulatory settings for prohibited development are efficient at protecting koala habitat with the highest potential for sustaining populations in the long term. Feedback from stakeholders has indicated that prohibiting development applications has been effective at reducing complexity, costs and assisting decision-making around the selection of development sites, by making the government's intentions around koala habitat conservation clear.

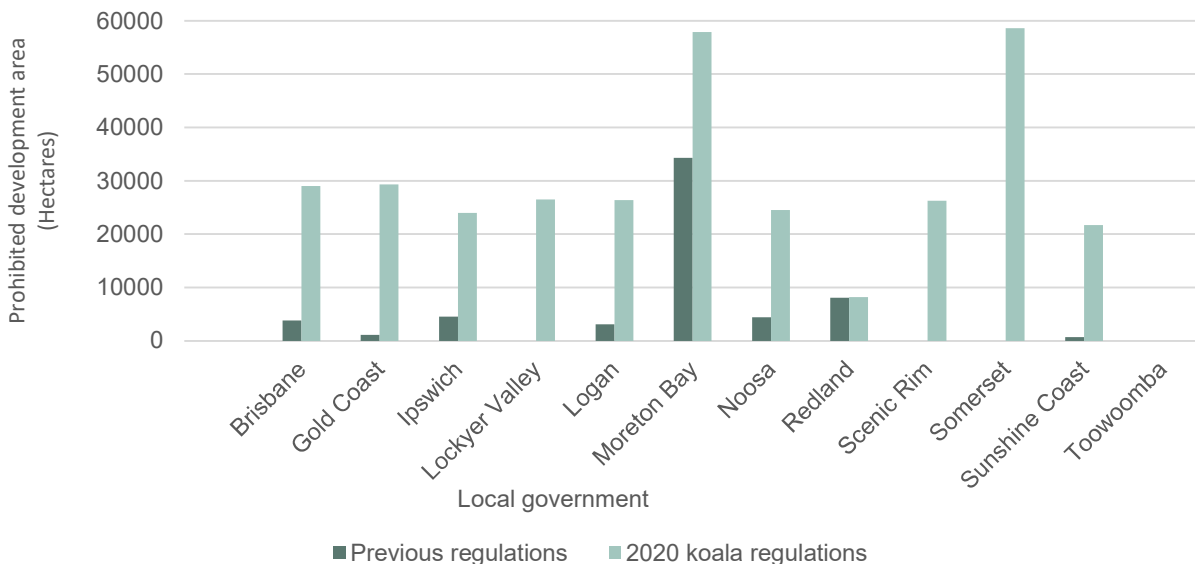
As noted by SEQ local governments, a relatively short period of time had passed since the 2020 koala regulations have come into effect and some clearing in prohibited development areas that was approved under previous regulations is continuing to occur. This is a transitional impact, and it is expected that over time the prohibition is likely to be highly effective at reducing the loss of koala habitat within the koala priority areas. This is notwithstanding resolution of an adverse interaction between the prohibition and exempted development definition, which is fully explored in Section 4.3 of this review.

Overall, adverse economic impacts to stakeholders are minimised as far as practically possible by the uptake of exempted development provisions. Due to the wording of these provisions which allow for some aspects of a prohibited development to be exempted (e.g. firebreaks and necessary roads/fences), it can be difficult for applicants and assessment managers to determine whether an application is indeed prohibited. It has been difficult to quantify the exact costs and impacts on stakeholders, however it is noted it has allowed for some increased exempted development clearing within koala priority areas than was originally intended.

4.2.2 Mapping extent of prohibited development

Compared to the previous regulations, improvements to the spatial modelling and koala habitat maps have overall increased the extent of koala habitat areas in SEQ that are protected as koala priority areas across SEQ local government jurisdiction (see Figure 8).

Figure 8. Comparing extent of prohibited development area under the previous and 2020 koala regulations, by SEQ local government



Source: Comparison based on GHD koala mapping statistics from 2019 and version 2.0 koala habitat map.

The 2020 koala regulations increased the area of koala habitat subject to prohibited development by 272,066 hectares, a >5-fold increase compared with previous regulations. The most recent koala habitat area map v3.0 identified that 331,984 hectares of koala habitat areas inside koala priority areas at the time of this review, which are subject to prohibitions.

At the time of the V2.0 2021 koala habitat map, 127,407 hectares or 38 percent of this vegetation shared formal

protection within existing protected areas such as national parks, state forests and conservation areas. 59,918 hectares was already subject to a similar form of prohibition under the previous regulatory settings.

In a Preliminary Impact Assessment prepared by the department in 2019, the primary land uses within koala habitat areas where prohibitions apply were identified as conservation (69.3 percent), production from relatively natural environments (21.5 percent) and intensive uses (8.2 percent). Secondary land use types include grazing (15.4 percent), forestry (6.1 percent), residential and farm infrastructure (7.2 percent). Utilities, transport, mining, waste, intensive animal production and horticulture also comprised a small portion of land use (1.9 percent total).

4.2.3 Impacts to land supply and urban development

The potential impacts of the development prohibition on land supply outcomes sought by has been regularly assessed by the Department of State Development, Infrastructure, Local Government and Planning (DSDILGP)'s Growth Monitoring Program from the time the 2020 koala regulations came into effect in February 2020. This includes analysis at the local government level which considers the overlap between the SEQ koala habitat area mapping, the SEQ expansion area broad-hectare land supply (2013 updated to 2019), significant growth areas within the *ShapingSEQ* identified expansion area, as well as the region-wide industrial developable area mapping as identified in the 2019 LDSM (Table 3).

ShapingSEQ establishes a policy objective that there will always be at least 15 years' supply of land that is appropriately zoned and able to be serviced. The 2020 Land Supply and Development Modelling report showed there was more than 15 years of planned dwelling supply and four years of approved land supply across the region.

Analysis undertaken in July 2020 resulted in a total reduction of 750 dwellings impacted by prohibited development across the SEQ region. This represents a small percentage of the total land supply capacity identified within the urban footprint to cater for growth to 2041. The SEQ local governments most affected by this small reduction in residential dwelling supply are Moreton Bay (320 dwellings) and Logan (150 dwellings).

Analysis undertaken for industrial land areas resulted in an estimated reduction in industrial developable area of 170 hectares across SEQ resulting from prohibited development. If the industries associated with these impact areas are site specific and not relocatable or exempted under the framework as an essential service, priority development area or public sector entity activity, it is possible that some economic losses and impact on jobs may have been experienced. However, the department has not been made aware of any such impacts during stakeholder consultation.

In 2022 DSDILGP advised that impacts on dwelling supply from the annual koala habitat mapping have been minimal and dwelling supply analysis will no longer be undertaken annually for koala habitat mapping updates, except where the annual update includes a significant increase in koala habitat areas.

The Queensland Government's planning mechanisms for identifying and developing significant growth areas (e.g., Priority Development Areas and the Growth Areas Team (GAT)) are exempt from the koala regulations, as consideration of environmental values in these areas is applied through other processes.

Table 3. Estimated SEQ residential dwelling supply and industrial land supply impact analysis of prohibited development provision within koala priority areas, per Local Government Area from the 2020 Land Supply and Development Modelling report

LGA	SEQ residential dwelling supply		SEQ industrial land supply	
	September 2019	July 2020	September 2019	July 2020
Brisbane	20 dwellings	150 dwellings	Nil impact	<1 hectares
Gold Coast	Nil impact	Nil impact	Nil impact	Nil impact
Ipswich	27 dwellings	40 dwellings	120.5 hectares	125.7 hectares
Lockyer Valley	Nil impact	Nil impact	50.4 hectares	52.6 hectares
Logan	133 dwellings	150 dwellings	Nil impact	Nil impact
Moreton Bay	87 dwellings	320 dwellings	Nil impact	1.3 hectares
Noosa	Nil impact	Nil impact	Nil impact	Nil impact
Redland	<10 dwellings	40 dwellings	Nil impact	3.6 hectares
Scenic Rim	12 dwellings	30 dwellings	Nil impact	Nil impact
Somerset	Nil impact	Nil impact	Nil impact	Nil impact
Sunshine Coast	15 dwellings	20 dwellings	Nil impact	Nil impact
Toowoomba (urban extent)	Nil impact	Nil impact	Nil impact	Nil impact
TOTAL	~304 dwellings	~750 dwellings	170.9 hectares	184.2 hectares

4.2.4 Impacts to landholders and urban developer sector

Of the 204,030 hectares²¹ of koala habitat area in a koala priority area that was not already contained within the protected area estate, less than 5 percent or 9,886 hectares was located within the urban footprint. Relative to the regulations previously in place, the new regulations represent only a relative increase to prohibited development area within the urban footprint of several thousand hectares, as a prohibition on lodging Material Changes of Use development applications already applied to some of the bushland habitat in these areas.

Impacts to landholders

Landholders and developers who had intentions to develop koala habitat areas on their properties but had not yet made a development application prior to the commencement of the regulations may have been adversely impacted by the change in regulations. This is particularly true if their intended development can no longer be undertaken under as exempted development (see Section 4.3) under the 2020 koala regulations.

Data relating to enquiries was requested from the department's Koala Assessment and Compliance team, to inform the likely impacts of the prohibition on landholders. This data was limited in that it is not provide a full

²¹ Summary statistics of koala habitat areas in hectares quoted are based on koala habitat map v3.0 released in September 2022.

representation of enquiries made to state and local government agencies, however, it does give some indication of the extent of prohibition impacts to stakeholders. Enquiry analysis revealed that since February 2020, 37 stakeholders (including 23 enquirers from the general public and others from environmental consultancies and urban development sectors) were informed that their development was considered prohibited development under the 2020 koala regulations. This included one landholder who had proposed to clear between 4 and 5 hectares of koala habitat area within a koala priority area.

Stakeholder surveys of SEQ local governments distributed by the department also sought to quantify the extent to which prohibition has shifted development patterns and the site selection behaviour of both landholders and the urban development industry. Most SEQ local governments cited difficulties in quantifying the extent of impacts, but generally observed that landholders had utilised a range of exempted development provisions to maximise the development potential of existing lots. Had the ability to stack these provisions not been available, the prohibition would have otherwise applied.

SEQ local governments reported that fewer than ten development applications could not be made due to the prohibition, and that some landholders have reconsidered their development intentions, with some looking to sell affected land parcels. However, it was noted these examples represent a small minority of landholders overall. It is also possible that some landholders with impacted by prohibited development are proceeding with scaled back developments that meets the requirements of the exempted development provisions. This suggests a behaviour change to minimise impacts to koala habitat areas, however, most SEQ local governments have also commented that exemptions are overly generous and allow applicants to clear significant areas of habitat without requirements for offset or development assessment.

There was insufficient data available to determine the extent to which the prohibition had impacted stakeholders in an economic sense, including whether there were any economic impacts associated with behaviours to avoid clearing of koala habitat areas.

Impacts to urban development sector

To support the Consultation PIR, the department also collaborated with the Urban Development Institute of Australia (UDIA), an organisation which typically represents developers and consultants associated with larger scale residential development, to develop a member survey. More than 90 percent of UDIA members found both prohibited development and assessable development provisions under the 2020 koala regulations have resulted in member avoidance of sites containing mapped koala habitat areas. This was despite locations having an underlying residential zoning and optimal location within the urban footprint. Sites affected by this avoidance behaviour ranged from 20 – 400 lots per site. The economic impact of this behaviour change was not able to be quantified through the survey.

The driver of this avoidance behaviour for koala habitat outside of koala priority areas was uncertainty with the costs and delays associated with obtaining ecological advice, applying for development assessment and environmental offsetting. However, as development applications which interfere with koala habitat areas in koala priority areas cannot be lodged, the prohibition is an effective deterrent.

Based on enquiries data, the department is aware of some cases of the urban development sector being advised that their proposed developments are prohibited. This included a proposed reconfiguration of lot to subdivide land into twelve smaller lots which would have resulted in the clearing of several hectares of koala habitat with a koala priority area. The cost for the developer to find an alternative site was not able to be determined, however it is acknowledged that there are no costs associated with environmental offsets, application fees or ecological assessment.

4.2.5 Impacts to rural and regional land uses

Outside of the urban footprint and excluding protected areas 192,435 hectares of koala habitat areas and 1,709 hectares of locally refined koala habitat areas are now subject to prohibited development provisions.²²

ShapingSEQ contains outcomes and measures for both agricultural land and koala habitat protection. Analysis of the overlap between these two interests demonstrates there is some intersect between agricultural land and SEQ koala habitat areas. Land that is mapped for the uses of grazing native vegetation comprises the greatest portion of this overlap, however around 59 percent of this land was already regulated as remnant or high value regrowth native vegetation and in a way that protects biodiversity including essential habitat for koalas and other species

²² Koala habitat areas in hectares quoted are based on koala habitat map v3.0 released in September 2022

under the Vegetation Management framework. The area of koala habitat used for production from dryland and irrigated agriculture and plantations is insignificant (491 hectares or 0.19 percent and 75 hectares or 0.03 percent respectively).

Koala habitat areas that are mapped as Category X under a Property Map of Assessable Vegetation (PMAV) via a PMAV application lodged prior to 7 February 2020 have continued to be exempt under the 2020 koala regulations. This exemption provides certainty for landholders with existing PMAVs for Category X vegetation on their property.

Clearing activities which are undertaken in accordance with an Accepted Development Vegetation Clearing Code (ADVCCs) provision of the Vegetation Management framework are exempt from the 2020 koala regulations, up to certain limits. This supports the continued ability for landholders to clear native vegetation for small scale, low ecological risk clearing activities based on the best available science. This includes for example, clearing of native vegetation for weed management activities, managing fodder harvesting, or to improve agricultural efficiency²³. As clearing in accordance with the codes is exempted development under the 2020 koala regulations, the majority of rural and regional and land uses and management practices are not impacted by the regulatory changes. Further analysis on the use of ADVCC exemptions is provided in Section 4.3 Exempted development.

Questions for consultation:

The questions in this box are for stakeholders who undertook development subject to the 2020 koala regulations.

- **Since February 2020, have the new regulations affected your activities?**

For example:

- *I have been impacted by the prohibition in a koala priority area*
- *I have been impacted by the requirement to obtain development approval in a koala habitat area (see also questions in section 4.3)*
- *I have undertaken clearing under an exemption (see also questions in section 4.4)*

- **Is your property or business located in a koala habitat area and/or koala priority area?**

- **Thinking about your experiences in the koala priority area, which outcome best describes how the prohibition affected your development?**

For example:

- *Did not proceed with any development*
- *Was able to proceed with a modified development*
- *Still awaiting outcome (e.g. still in planning and assessment stage)*

- **Can you describe the type of development proposed?**

- **Did you experience any challenges?**

For example:

- *Accessing mapping applicable to your property*
- *Interpreting level of assessment required for the development*
- *Obtaining advice from local government*
- *Obtaining advice from the State Assessment and Referral Agency*
- *Time delays*

- **Did you experience any costs?**

²³ Further information about clearing that can be undertaken under ADVCCs is available at <https://www.qld.gov.au/environment/land/management/vegetation/clearing-approvals/codes/choose>.

4.2.6 Estimated costs and impacts of prohibited development

The exact costs associated with prohibited development are difficult to determine. This is largely due to these being primarily opportunity costs associated with the reduction in developable area across SEQ. The prohibition does not result in any additional costs or fees such as is associated with lodging a development application. There may be a cost to urban planners to find alternative, more suitable locations for developments.

These costs could not be estimated for this Consultation PIR, however feedback from the UDIA suggests it is possible that some landholders and developers are proceeding with scaled back developments within areas that prohibited development would normally apply, to ensure the allowances of exempted development are met. This behaviour suggests that to extent, developers can avoid adverse cost impacts through site relocation.

Exempted development provisions overall reduce as far as practical the economic impacts of the prohibition on stakeholders. Some SEQ local governments were critical that the exempted development provisions have allowed habitat clearing without requirements for rehabilitation or offsetting. However, exempted development is generally intended to apply to smaller scale, low risk clearing activities, such as for practical management of the land or for the construction of a single dwelling and reasonably associated infrastructure.

The prohibition has likely resulted in some minor administrative costs for small scale developments, for example the additional time taken for stakeholders to receive advice from both state and local government agencies on what clearing can be undertaken lawfully within koala priority areas. According to records from the department the actual administrative time to process an enquiry about clearing that was prohibited development was 37 minutes, suggesting that these time costs to stakeholders were not significant.

Since the commencement of the 2020 koala regulations, 37 prohibited development enquiries were processed from the commencement of the regulations until January 2022, resulting in 22 administrative hours of work which was estimated to cost the department around \$1200. While the number of enquiries were initially high, the volume has significantly reduced over time since February 2020 (see Figure 16 in Section 4.2 of this report).

The impacts of prohibited development on other Queensland Government agencies have also been significant, with the Department of State Development, Infrastructure, Local Government and Planning provided feedback that the current wording of the prohibition was unnecessarily increasing the time required to determine at the first whether an application is prohibited. This is because the current drafting of the 2020 koala regulations has led to scenarios where a development can be partially prohibited (for example the building envelope) and partially exempted (for example a necessary access road or track).

This issue was perceived to reduce the effectiveness of the prohibition via adverse interactions with the exempted development provisions. The impacts and drivers of this issue is further explored under the exempted development section 4.3 of this report. It was also considered problematic that the prohibition does not recognise the different stages of development, such as where a material change of use is approved ahead of detailed design and subsequent operational works. This was noted to be a particular point of confusion for the few instances when annual updates to the koala habitat map have resulted in clearing of vegetation where a Reconfiguration of Lot was previously approved becoming prohibited. As development is assessed in accordance with the map and regulatory settings that are in place at the time of lodgement, in this instance the development can proceed.

4.2.7 Estimated benefits of prohibited development

The extent of prohibited development area across SEQ has increased by around 145,000 hectares, relative to the baseline of previous regulations and existing protected areas. There has also been an increased in protections for koala habitat in eleven of the twelve SEQ local governments. These protections represent the strongest level of protections for the habitat of a threatened species that is outside of a formal reserve system but delivers a comparable and cost-effective benefit to koala conservation.

For example, if these 145,000 hectares were acquired by the state for inclusion in Queensland's nature refuge system, the actual cost to the general public would equate to around \$1.65 billion. This estimate has been based on outcomes of a 2018 round of Nature Refuge funding for 53 koala refuge projects, which assumed an average cost per hectare of \$10,270 (\$11,350 in 2022 if CPI is considered). Preliminary analysis presented in this Consultation PIR suggests that the actual cost impacts of the prohibitions on stakeholders are negligible by comparison, and that the model can deliver a comparable benefit to koalas. Further consideration of stakeholder feedback will be necessary to confirm how these benefits of the prohibitions might outweigh their costs to community.

Comparing the cost of koala habitat restoration against the costs of protection also demonstrates the financial benefit of retaining habitat in the first instance. Through the Queensland Government's Koala Habitat Restoration Partnership Program which commenced in 2019, \$4.48 million is being invested over five years to achieve 180

hectares of habitat restoration and 250 hectares of assisted habitat regeneration. Notably, these costs only represent a partial figure of the total cost of restoration, as individual projects are complemented through funding partnerships and in-kind support from landholders.

Historical woody vegetation clearing rates within koala priority areas where prohibitions apply, gives some indication for the demand for land clearing. State-wide Landcover and Trees Study (SLATS) imagery of woody vegetation in SEQ that was curated from the 2010 - 2020 period indicates that prior to the commencement of the 2020 koala regulations, up to 170 hectares per year of koala habitat within a koala priority area had been cleared. If these clearing rates had been allowed to continue, it is estimated that within a timeframe of 30 years at least 6,180 hectares of SEQ's remaining koala habitat within the priority area would have been depleted. As habitat within these priority areas is now strongly protected through a prohibition on lodging development applications, this represents a significant benefit with respect to habitat retention.

The department acknowledges there is a degree of uncertainty around these figures, as some clearing within koala priority areas is expected to continue under exempted development provisions. An independent review of exempt and unexplained clearing case studies areas conducted by GHD Pty Ltd and discussed in Section 4.3, demonstrates that exemption use has continued to enable clearing of koala habitat areas within the koala priority area. Data deficiencies limit analysis of the amount and spatial distribution of clearing in SEQ and the regulatory context of the clearing (e.g. whether the clearing was approved under development approval, accepted development, exempted development, or unlawful).

SLATS data for a full year post commencement of the regulation was not available within the timeframe of this Consultation PIR, therefore an intersection and comparison of landcover change in the koala habitat area since February 2020 is not able to be presented.

Although no environmental offsets are applied to exempted development as these projects are not assessed, it is the policy directive to deliver koala habitat offsets into koala priority areas. It is expected that this will mitigate losses of koala habitat occurring as exempted development in koala priority areas over time and facilitate a net gain of koala habitat within these areas. However, further monitoring and analysis will be required to confirm this theory of change in practice.

In addition to clearing case studies, stakeholders also nominated case studies of when the prohibition was effective at reducing the loss of koala habitat. According to enquiries data, one landholder proposing to clear between four and five hectares and a developer proposing to Reconfigure a Lot (subdivide) into 12 smaller blocks were informed that these developments were prohibited under the 2020 koala regulations. SEQ local governments also observed a lack of development applications proposing to clear koala habitat areas within koala priority areas. This observation indicates that the prohibition itself is robust and is not challenged by applicants and may factor into decision making including site selection for prospective developments.

Question for consultation:

- **Are development prohibitions in koala priority areas an effective way to protect koala habitat?**

4.3 Assessable development

4.3.1 Overview

In making the 2020 koala regulations, the Queensland Government took over responsibility for administering environmental offsets for the koala habitat matter of state environmental significance (MSES), which was previously the role of local government. A new State Development Assessment Provision Code 25 was established which provides assessment benchmarks against which development outside of koala priority areas that proposes to interfere with koala habitat is assessed. These policy changes were introduced in response to the Koala Expert Panel recommendations, which suggested there was a need to deliver greater consistency of development assessment outcomes for koalas across SEQ.

As part of these reforms, the Queensland Environmental Offsets Policy was also updated to align with the intent of the SEQ Koala Conservation Strategy 2020-2025 and the 2020 koala regulations. The Strategy reflects an ambition to achieve a net gain in koala habitat areas across SEQ during the lifetime of the strategy, which is to be achieved through a combination of habitat restoration partnerships and through regulations requiring avoidance and mitigation of impacts to koala habitat, as well as environmental offsets if required.

This analysis demonstrates that the regulatory settings for assessable development has delivered positive outcomes for koala conservation, however there is need and opportunity to improve assessable development for the policy intent to be achieved. The department acknowledges that the 2020 koala regulations have not achieved efficiency overall, and in some cases the administrative burden has increased for stakeholders including state and local government agencies.

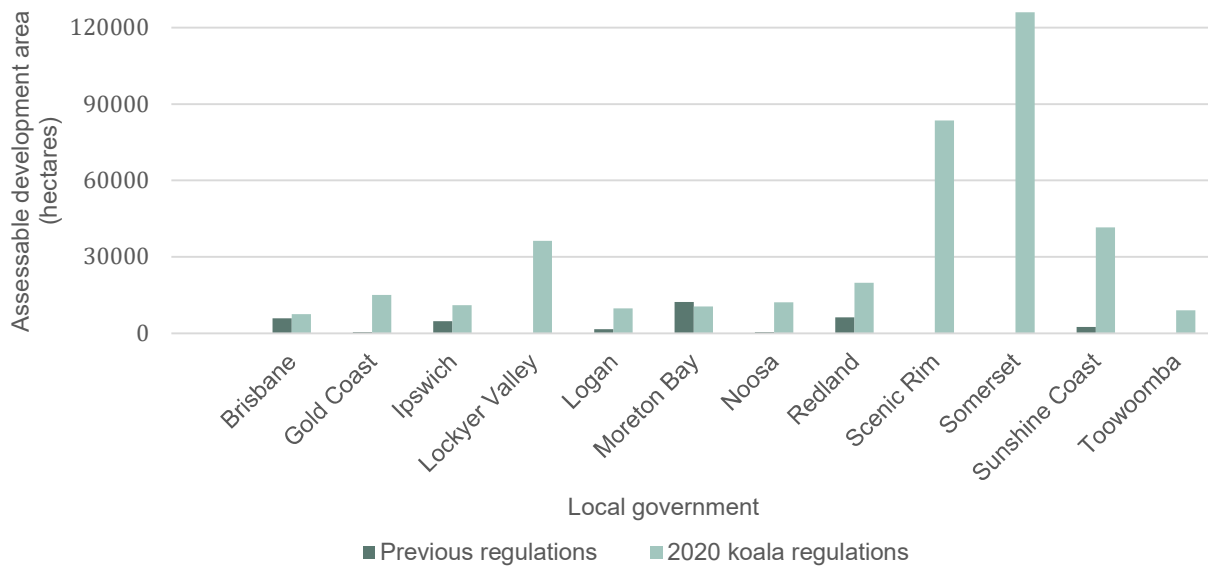
It has been difficult to quantify the exact costs and benefits to stakeholders, including for landholders and the development sector. Comparisons of known cost information has indicated that economic impacts are not solely attributable to regulatory change, but also the increases in spatial extent of the koala habitat map. Evidence from stakeholder surveys including from the urban development sector suggest that developers are avoiding sites with koala habitat areas in order to minimise costs associated with ecological assessment and environmental offsets. This avoidance behaviour may be having the effect of further reducing koala habitat loss and reducing cost to stakeholders and is perceived overall as a positive outcome of the policy.

As in prohibited development areas, significant adverse economic impacts to stakeholders are minimised as far as is practically possible by the availability of exempted development provisions discussed under 4.3. Similarly with the prohibition, there is evidence that exempted development is also having adverse interactions with the assessable development provisions and thereby reducing koala conservation outcomes which were intended to be achieved through the policy. This is a priority issue that the department will further explore through policy improvement options considered in this review.

4.3.2 Mapping extent of assessable development

Compared to the previous regulations, improvements to the spatial modelling which underpins the koala habitat area maps has overall increased the extent of koala habitat areas in SEQ that are regulated as assessable development (see Figure 9). The most recent koala habitat area map v3.0 identified 381,478 hectares or 45 percent of SEQ koala habitat areas in total are subject to assessable development, of which 33,443 hectares is located within the urban footprint. This includes 52,712 hectares of locally refined koala habitat area (of which there is 67 hectares in the urban footprint).

Figure 9. Comparing extent of assessable development areas under the previous and 2020 koala regulations, by SEQ local government



Source: Comparison based on GHD koala mapping statistics from 2019 and version 2.0 koala habitat map

Across SEQ, the 2020 koala regulations increased the area of koala habitat subject to assessable development by over 225,000 hectares compared to the previous regulations (over a five-fold increase). At the time of the v2.0 koala habitat map, 93,044 hectares or 24 percent of koala habitat areas where development assessment now applied was known to share existing, formal protection within protected areas, and outside of these areas 154,024 hectares had some form of regulation as essential habitat. In total, 33,615 hectares had existing koala-related assessment requirements established by the previous SPP and SPRP.

Dwelling supply analysis

Potential impacts of assessable development on land supply outcomes sought by *ShapingSEQ* has been modelled DSDILGPs Growth Monitoring Program (Table 4). This includes local government level analysis which is based on the overlap between the SEQ koala habitat area mapping and the SEQ expansion area broad-hectare land supply (2013 updated to 2019) and significant growth areas (2017) within *ShapingSEQ*'s identified expansion area, as well as the region-wide industrial developable area mapping.

The number of dwellings and industrial area impacted by assessable development area has increased over time due to annual map updates. This includes the July 2020 update included locally refined koala habitat areas (LRKHA) and hence resulted in a significant increase to the number of affected dwellings reported in Table 3 above. However, it is important to note that impacted properties are not prevented from future development, as the regulations which apply to LRKHA located outside of koala priority areas seek to ensure that interference with koala habitat is avoided, minimised and offset through a state-administered development assessment process.

To complement this analysis, UDIA members were also asked to estimate the actual dwelling yield reduction on sites resulting from koala habitat area mapping since February 2020. Of the respondents who provided estimates, the average site percentage yield reduction because of koala habitat area mapping was estimated to be 47 percent. Responses unfortunately did not allow for a useful tally of reduced dwelling numbers. Two thirds of respondents indicated that they have had clearing outside a koala priority area refused, however reports from SEQ local governments have suggested that to their knowledge no development applications have been refused under the 2020 koala regulations.

Table 4. Estimated SEQ residential dwelling supply and industrial land supply impact analysis of assessable development provisions for koala habitat areas outside of koala priority areas, per local government area from the 2020 Land Supply and Development Modelling report

LGA	SEQ residential dwelling supply		SEQ industrial land supply	
	September 2019	July 2020	September 2019	July 2020
Brisbane	<5 dwellings	10 dwellings	Nil impact	9.4 hectares
Gold Coast	368 dwellings	440 dwellings	3.7 hectares	4.7 hectares
Ipswich	452 dwellings	880 dwellings	98.2 hectares	150 hectares
Lockyer Valley	2175 dwellings	2280 dwellings	7.6 hectares	9.6 hectares
Logan	363 dwellings	2650 dwellings	<1 hectare	8.1 hectares
Moreton Bay	210 dwellings	640 dwellings	<1 hectare	1 hectare
Noosa	Nil impact	<5 dwellings	Nil impact	Nil impact
Redland	Nil impact	Nil impact	Nil impact	<1 hectare
Scenic Rim	138 dwellings	330 dwellings	15.4 hectare	30.5 hectares
Somerset	106 dwellings	230 dwellings	Nil impact	<1 hectare
Sunshine Coast	50 dwellings	110 dwellings	<1 hectare	<1 hectare
Toowoomba (urban extent)	150 dwellings	150 dwellings	<1 hectare	6 hectares
TOTAL	~4017 dwellings	~7725 dwellings	~128.9 hectares	~222.3 hectares

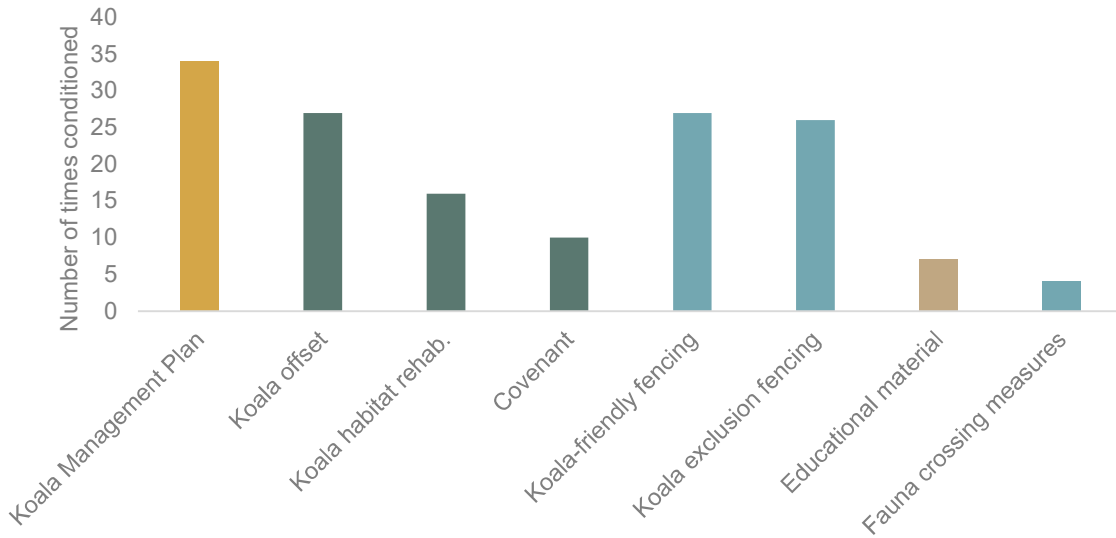
4.3.3 Development assessment outcomes

Within koala habitat areas subject to assessable development, a new State Development Assessment Provision (SDAP) Code 25: Development in SEQ koala habitat areas is applied and is administered by the state. This code requires that development within koala habitat areas follows the avoid, minimise, and offset hierarchy and meets the performance outcomes for koala conservation which are described under the code.

Since the 2020 koala regulations came into effect and at the time of completing this review, 69 development applications were reviewed by the department's Koala Assessment and Compliance team as a technical advice agency. A subset of 48 of these applications were reviewed in an independent analysis undertaken by GHD, to determine the variety of koala conservation conditions which were applied by the State Assessment and Referral Agency (Attachment 1).

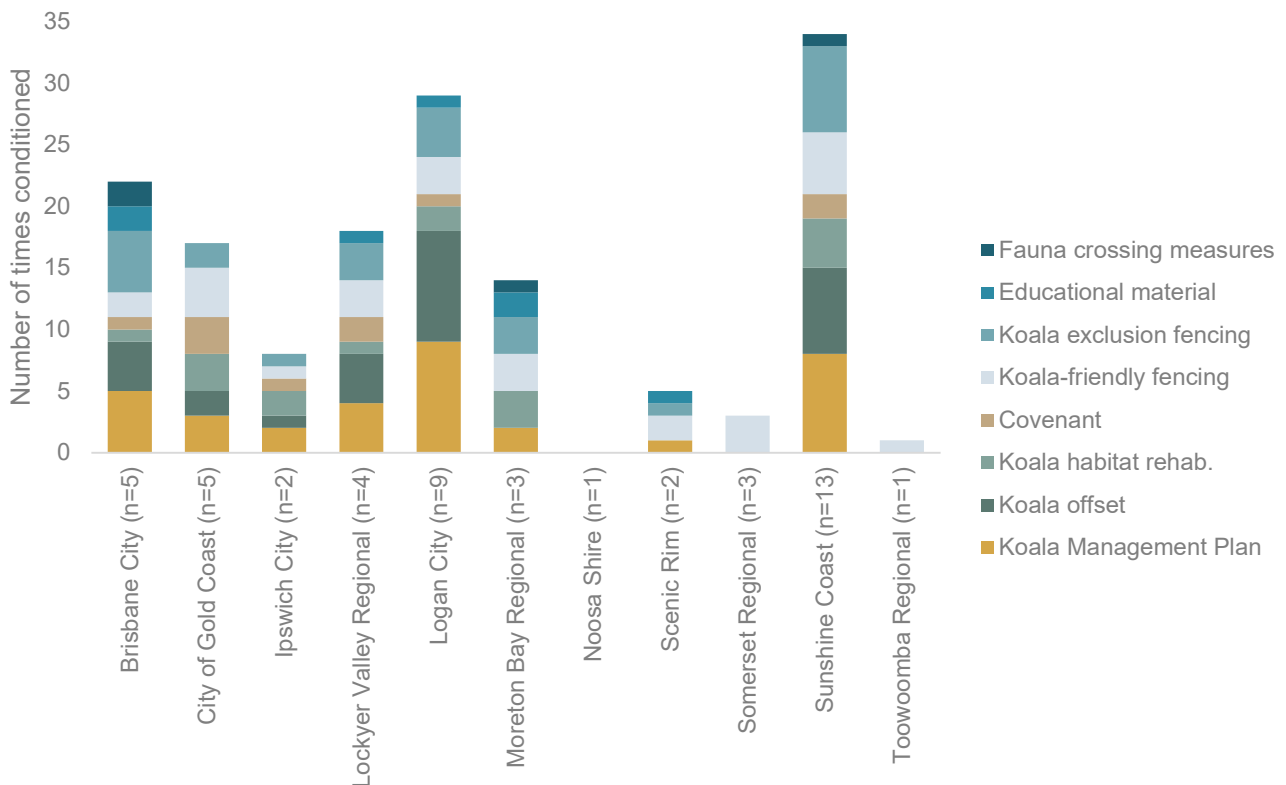
GHD found that a variety of requirements were applied to developments which included koala management plans, koala habitat offsets and koala friendly or koala exclusion fencing as the most prominent conditions (Figure 10). The scope the conditions applied were comparable to the previous regulations under the State Planning Regulatory Provisions and are not a new impact on stakeholders.

Figure 10. Koala related development conditions for a subset of state approved applications (n = 48)



Typically a single development included multiple conditions for each of the koala conservation assessment benchmarks under the SDAP code, including using offsets as a last resort. There did not appear to be any clear trends in the application of conditions when the data was examined by SEQ local government (Figure 11), although it was noted that developments in Logan had a proportionately more frequent requirement to provide offsets. In Gold Coast, Ipswich and Sunshine Coast councils, covenants and rehabilitation conditions were also used. In 23 percent of cases where an offset was required rehabilitation was also conditioned, meanwhile 47 percent of the time rehabilitation and covenants were applied together.

Figure 11. Koala related development conditions placed on a subset of state approved applications, by SEQ local government (n = 48)

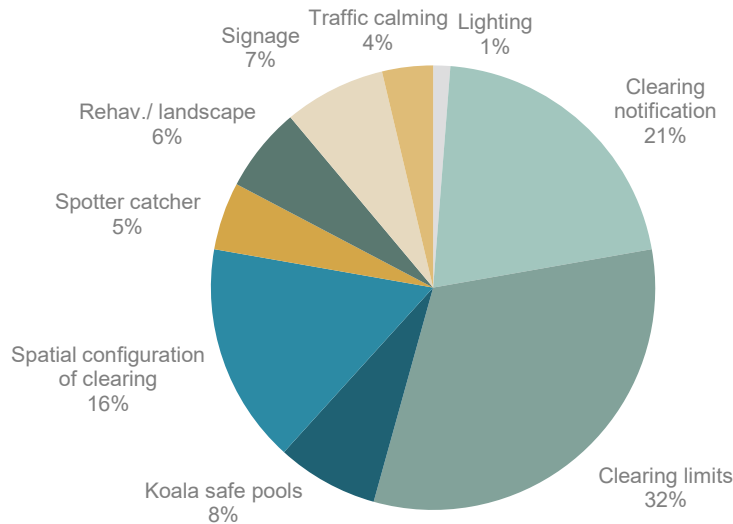


The varied use of conditions to require koala conservation outcomes suggests that the SARA assessment process and application of the SDAP Code 25 were effective at applying the mitigation hierarchy, which is intended to limit as far as possible the negative impacts of development on biodiversity. The framework also emphasises best-practice approach of avoiding and minimising any negative impacts to habitat, before finally considering the need to

offset any residual impacts.

The extent of avoidance behaviour encouraged through the development assessment process is difficult to quantify, however analysis of additional conditions placed on SARA approved developments indicates avoidance occurring through changes to the spatial configuration of clearing (such as to avoid fragmentation of important habitat), was applied to 13 applications in total or just over a quarter of all applications reviewed. 32 percent of development approvals imposed clearing limits, which are also very important to providing applicants with certainty about what is approved clearing. Additional conditions indicative of efforts to minimise impacts to koalas (e.g. mitigation) includes clearing notification, koala safe pools, traffic calming, signage and spotter catcher requirements (Figure 12).

Figure 12. Additional conditions placed on SARA approved DAs (n=48) in SEQ since Feb 2020



In stakeholder surveys, SEQ local governments noted that their ability to track or maintain oversight of the SARA assessment process and resulting outcomes for the 2020 koala regulations was limited overall. SEQ local governments were typically aware of koala-related conditions being applied to developments including environmental offsets, revegetation/ rehabilitation conditions, koala friendly and exclusion fencing, covenants, and requirements for koala management plans.

Some SEQ local governments raised concerns that the avoid, minimise, offset hierarchy was not always consistently applied. A key area of concern was perceived acceptance of (financial) offset conditions without any reasonable demonstration of prior avoidance and mitigation behaviour. Some SEQ local governments also noted that conflicting approaches are being used to measure the area of koala habitat impacted across development applications, and that further guidance may be required to address this. SEQ local governments were also concerned that exempted developments of significant scale were allowed to impact on significant areas of koala habitat without any assessment requirements or conditions to avoid, minimise or offset impacts to koala habitat.

UDIA members were also asked about whether the 2020 koala regulations had changed infrastructure arrangements for a project. Around half of respondents made note of economic impacts to infrastructure delivery, impacts to road networks, sewer alignments and operational works applications. It is presumed that these impacts were associated primarily with the cost of delivering offsets for these works. Conditions such as koala-friendly or koala-exclusion fencing or crossing infrastructure were not specifically noted, nor the cost impacts of these conditions explored by UDIA members.

SEQ local government assessment against Schedule 11 Benchmarks

Where an application is located on a premises with koala habitat areas and within koala priority area but does not propose to clear koala habitat on the property, SEQ local governments are responsible for assessing developments against safe koala movement benchmarks outlined in Schedule 11 of the Planning Regulation 2017. Some SEQ local governments were concerned that this assessment effort was inconsistent with the provisions for exempted development, which allow removal of potentially significant areas of koala habitat without any assessment requirements. SEQ local government assessment was reported to have benefits, with one SEQ local government stating the mechanism was successfully used to apply conservation conditions to development that could not otherwise be achieved, for example on-site revegetation with koala friendly species and requirements for exclusion fencing.

Some SEQ local governments suggested that the Schedule 11 benchmarks could be improved by removing irrelevant benchmarks relating to weeds, soil condition and hydrological flows. One SEQ local government stated that not having Schedule 11 provisions outside of the koala priority area was allowing for edge effects to occur, and that additional consideration could be given to the cumulative impacts of development and enhancing guidance materials to support interpretation.

Of the urban development sector stakeholders that had experienced local government assessment roughly half of respondents felt that the outcomes were consistent with the Schedule 11 benchmarks. SEQ local governments were concerned that applicants had frequently argued their development had met the criteria set in assessment benchmark b (2) as a means to avoid providing a 50 meter buffer requirement in assessment benchmark b(1). SEQ local governments expressed concern that this was enabling development encroachment into koala habitat and thereby increasing exposure to edge effects such as vehicle strikes, movement barriers, dog attacks and disease.

Given these mixed reviews on Schedule 11 and the unclear impacts on koala, further engagement with SEQ local governments on this issue through this Consultation PIR will be helpful to improve the departments understanding of these issues and develop potential solutions.

Stakeholder feedback on development assessment

Both assessment managers and applicants consulted in the preparation of this PIR raised that it was difficult to determine from the outset if a development was exempt or assessable development. This is because the exempted development definition provides for a range of different exempt clearing purposes that could be associated with a single development (such as clearing for a firebreak or necessary fence). This has led to scenarios where the assessing agency has interpreted that a development application containing exempted development is only partially assessable.

Stakeholders noted that the drafting of the 2020 koala regulations is unclear about what aspects of clearing is assessable, and the timing that assessment must occur. SEQ local governments noted it is not uncommon for an application to seek separate development approvals for a Material Change of Use, Reconfiguration of Lot and Operational Works – meaning that the development plans and vegetation clearing applications are not always lodged at the same time. This has resulted in the potential for missed referrals associated with subsequent development applications, as applicants consider that their approval to clear koala habitat was granted at an earlier stage when this is not in fact the case.

The Department of State Development, Infrastructure, Local Government and Planning also report confusion among stakeholders about the area of clearing that could be subject to environmental offsets. For example, whether a development application for a Material Change of Use for a warehouse would be assessed based on the development footprint or building envelope alone or should also consider consequential clearing such as for establishing firebreaks around infrastructure or for a necessary fences, roads or track.

While clearing for essential management purposes such as fire management is not currently subject or proposed to be subject to environmental offset conditions, the department acknowledges feedback from stakeholders including SEQ local governments that all clearing associated with development, including consequential clearing, should be assessable.

4.3.4 Environmental offsets for koala MSES in SEQ

Environmental offsets requirements for impacts to SEQ koala habitat have been in place since 2010 and were formalised under the Environmental Offsets Act in 2014. Offsets for koala habitat can be delivered through several frameworks, including the 2020 koala regulations which are subject to this review, the Commonwealth Environmental Protection and Biodiversity Conservation Act 1999 and the non-statutory State Government Supported Infrastructure Koala Conservation Policy (SI Policy) and Economic Development Act 1992 for impacts within Priority Development Areas.

The Queensland offset framework acknowledges matters of national environmental significance under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 and does not allow for an offset condition to be imposed for impacts on SEQ koala habitat where one is required by the Commonwealth Government for the same matter. All environmental offsets frameworks require use of environmental offsets only as a last resort. Applicants must demonstrate that impacts to habitat have been reasonably avoided and mitigated before an offset condition may be imposed.

Of the 101 development applications decided between February 2020 and May 2022, 65 percent of applications included conditions to counterbalance impacts to koala habitat through environmental offsets or another mechanism. A total of 24 environmental offset conditions were applied between February 2020 and January 2022, representative of just over a quarter of all development approvals from that period (n = 70). This totals 15.4 hectares of koala habitat impacted and counterbalanced with an offset. Of the 24 conditions, 7 offsets were delivered as a financial settlement payment. The method for delivery for the remaining 17 conditions is yet

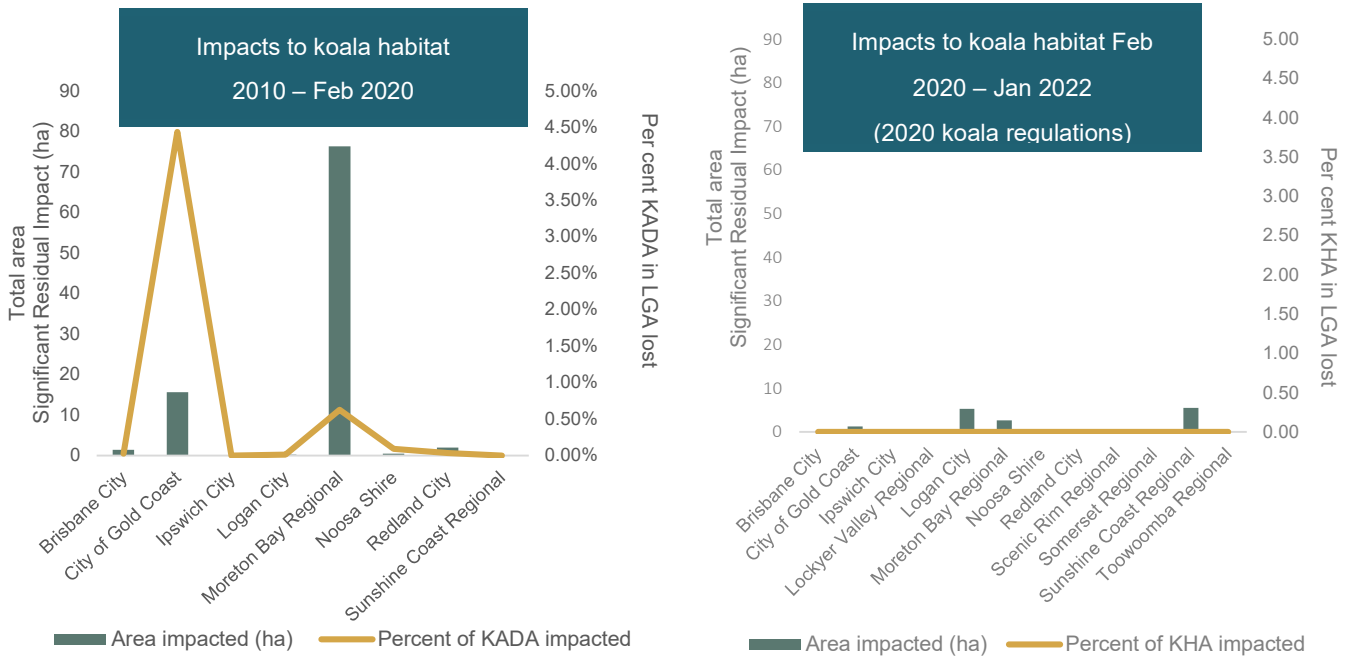
undetermined. Compared with previous regulations, land-based offsets or a combination of land-based and financial offsets accounted for roughly a third of all conditions (n = 23, 34 percent of records).

Offset conditions imposed under the Commonwealth framework for impacts on koala habitat in SEQ currently apply to a greater area of impact. Since the 2020 koala regulations came into effect, nine offset conditions for a total of 1,543 hectares was imposed by the Commonwealth (compared to 15.4 hectares of impacts subject to offset conditions imposed by the State during the same period). However, the portion of this which applied to areas exempt from assessment under Code 25 of the State Development Provisions is unknown.

Figure 13 provides an in-depth comparison of environmental offset liabilities arising under previous and 2020 koala regulations, showing that while the average impact area and cost of offsetting has increased slightly per hectare under the 2020 koala regulations, overall, the financial settlement offset cost per hectare has declined. As Figure 14 demonstrates, trends may in part be explained by a shift in environmental offset liabilities triggered across a broader range of SEQ local government areas from 2020 onwards. While Moreton Bay accounted for most offset liabilities under previous regulations, Logan and Sunshine Coast have increased significantly under the 2020 koala regulations. Differences in costs are likely to be attributed to variation in the statutory land valuations across Local Government Areas, which are an important input into the Queensland Government's environmental offset calculator.

Figure 13. Comparison of environmental offset liabilities

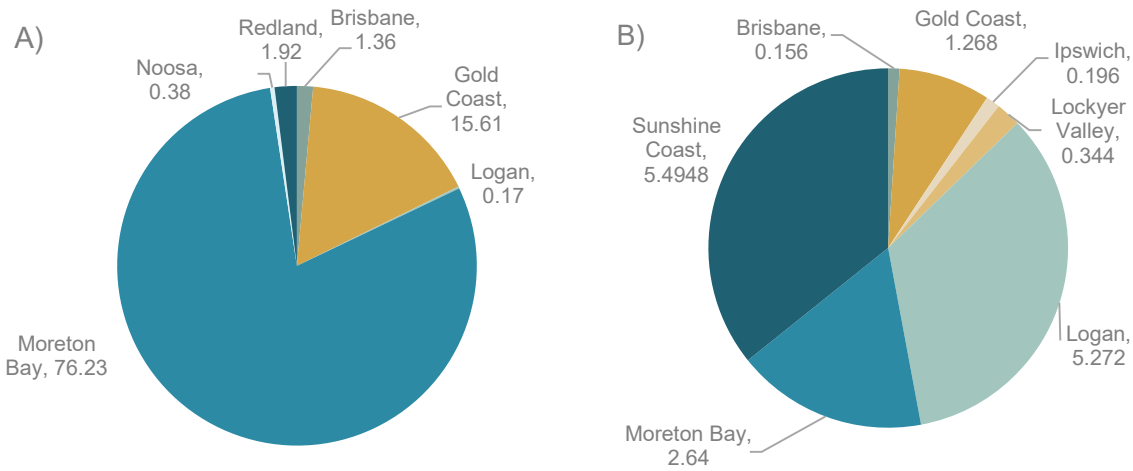
Showing offsets delivered under previous regulations which were in place for 10 years (baseline) and the 2020 koala regulations which were in place for two years. Note that the offset delivery method for 17 conditions imposed during this period are undetermined.



45	Financial offsets	7
36.5 hectares	Total impact area (financial settlements only)	8.3 hectares
\$6,736,521	Total financial settlements	\$1,296,946
\$149,700	Average financial settlements (per authority)	\$185,278
\$184,815	Average financial settlements (per hectare)	\$156,787

Figure 14. Comparison of significant residual impacts triggering environmental offset liabilities by SEQ local government area

(A) offsets delivered under previous regulations which were in place for 10 years and (B) the 2020 koala regulations which were in place for two years



When considering the two-year period either side of the regulatory change (i.e. the last two years of the previous regulations 2018, 2019 and the first two years of the new regulations 2020, 2021), two spatial trends emerge with respect to requirements for koala offsets in SEQ. First, most offsets have been triggered by impacts inside the urban footprint. Second, most offsets have been triggered by impacts close to the coast. Further monitoring of these trends is needed to determine whether the 2020 koala regulations have incentivised developers to site projects away from sites where large areas of habitat remain, or whether clearing of these areas is not triggering offsets due to on-site rehabilitation.

As only two years have passed since the 2020 koala regulations came into effect it is difficult to draw conclusions from this data. It is particularly difficult to understand the extent that regulatory changes have driven these impacts, as opposed to market demand for land for development in SEQ. There is also a need to improve data collection and sharing under the various programs. For instance, of the 70 approvals granted under the previous regulations, it is uncertain how many of these relate to development that was also assessed under the Commonwealth Environmental Protection and Biodiversity Conservation Act 1999.

Implications of the koala uplisting for environmental offsets

In early 2022, the Commonwealth and Queensland Governments announced the reclassification of the status of koalas from 'Vulnerable' to 'Endangered'. Offset requirements under the Environmental Offsets Act 2014 are the same for Vulnerable and Endangered species and there is no immediate change to offset requirements under Queensland laws. A consultation Regulatory Impact Statement proposing reforms to the Queensland Environmental Offsets Act 2014 is expected to be released for consultation in mid-2023. Consultation on proposed reforms will include opportunity to comment on how offset requirements for koalas are calculated and delivered.

Stakeholder feedback on environmental offsets

SEQ local governments raised concerns that the rules used to determine area of clearing that is assessable was inconsistent across development applications, and that these applications sometimes excluded areas of habitat up to potential exemption thresholds. For example, case studies were cited where proposed clearing of 600 square meters for a building envelope may only be assessed for 100 square meters of impact (with the first 500 square meters considered exempted development under provision k). SEQ local governments were concerned that this has led to environmental offset conditions being applied for the SEQ koala habitat MSES which are disproportionately small compared to the actual impact, and that this is contributing to an overall net loss of koala habitat.

Several SEQ local governments also raised that replacement planting is being conditioned as a mitigation action in place of an environmental offset condition (see case study). When replacement planting is deemed as mitigation the conditions are less prescriptive, with less maintenance requirements and no strict protection mechanism, compared with what would be required under an offset. SEQ local governments indicated that overall, there appeared inconsistent decision-making and reasoning provided for developers to not require an environmental offset.

Finally, stakeholder feedback from conservation groups, collated by The Wilderness Society, highlighted concerns with the time lag for offset sites to support koalas and the distance of offset sites from the impact site.

For example, in their review report on the 2020 koala regulations, GHD noted that there may be a disconnect between the delivery of Target 2 under the SEQ Koala Conservation Strategy 2020-2025: a net gain in the core koala habitat area, and the delivery mechanism of offsets through a financial settlement.

Case study of a subdivision in SEQ

Clearing of 64 non-juvenile koala habitat trees was approved for a subdivision in 16 lots including an access road and public open space. The applicant was conditioned to plant three times the stem count back within a reserve that was being dedicated to local government as a mitigation measure. Local government feedback indicated that this condition lacks additionality as the local government planning scheme already required the area to be rehabilitated, and this replanting was a mitigation measure rather than an offset.

4.3.5 Impacts to stakeholders

Impacts to landholders

Analysis of enquiry data from the department's Koala Assessment and Compliance team showed that concerns from landholders were primarily related to the new koala habitat mapping on their property, and implications for land management practices. Once landholders were informed about the availability of exempted development provisions (discussed in Section 4.3 of this report), they were able to continue land management practices without disruption.

Most SEQ local governments commented they were not aware of any changes in the costs for individual landholders or developers to comply with the 2020 koala regulations. Anecdotal evidence suggested that some projects are being inappropriately referred to SARA for assessment when they should be exempted development, incurring an unnecessary cost for the applicant, as well as time and resourcing implications of assessment and technical advice agencies. This is understood to result from the exempted development definition being too complex and confusing for interpretation by applicants and is explored further in section 4.3.

Other economic impacts associated with assessable development under the 2020 koala regulations may relate to ecological assessment and development application fees. This only applied to a small number of landholders seeking to clear above the exempted development thresholds for infrastructure development, and for properties outside of koala priority areas. Anecdotally, SEQ local governments reported that several applicants had needed to engage more than one environmental consultancy, when under previous regulations there was no need. For example, larger projects now require additional reporting such as tree surveys required to calculate offset. According to a stakeholder survey undertaken by UDIA, the reported cost for an environmental consultant ranged between \$1,000 - \$5,000 depending on site-specific factors.

Impacts to urban development sector

The UDIA invited members to share their experiences in applying the new assessable development regulations. Common issues raised included that greater certainty was needed regarding what can occur on sites with koala habitat. This sector also raised a desire for clear, consistent, and practical guidance material on approval processes.

UDIA members reported that the koala regulations were having an impact on both housing yield and infrastructure delivery, however the extent of this impact was unable to be quantified. The outcomes of this survey also determined that half of the UDIA respondents felt that assessment against State Code 25 did not proceed as anticipated, citing the following concerns:

- lack of an objective standard, interpretation of the code varies
- timeframe pressures resulting in acceptance of conditions that undermine the project
- additional requirements from the department
- assessment did not respond to on-the-ground evidence.

More than half of UDIA respondents said they do not have a clear understanding of what is permitted within a koala habitat area, including where expert ecological advice was needed.

62 percent of members indicated they sought pre-lodgement advice from SARA to resolve guidance for development of a site, and of those, half were able to schedule a meeting. Respondents raised concerns with the

time taken to obtain meetings, and that the advice received lack specificity to their project. Some respondents also noted that pre-lodgement advice was not upheld throughout the later application process. Around half of the UDIA respondents indicated that their relevant SEQ local government required confirmation from SARA that no referral was required.

Questions for consultation:

The questions in this box are for stakeholders who undertook development subject to the 2020 koala regulations.

- **Thinking about your experiences in the koala habitat area, which outcome best describes how the 2020 koala regulations affected your development?**

For example:

- *Did not proceed with any development*
- *Was able to proceed with a modified development*
- *Still awaiting outcome (e.g. still in planning and assessment stage)*

- **Can you describe the size of koala habitat clearing (square meters)?**

- **Can you describe the type of development proposed?**

- **Did you utilise any exemptions as part of your development approval application?**

- **Did you experience any costs?**

For example:

- *Engaging a specialist to provide advice during planning stages*
- *Development approval conditions to minimise impacts (such as koala friendly fencing)*
- *Development approval conditions to offset an impact (such as an offset or compensatory planting)*

- **Did you experience any challenges?**

For example:

- *Accessing mapping applicable to your property*
- *Interpreting level of assessment required for the development*
- *Obtaining advice from local government*
- *Obtaining advice from the State Assessment and Referral Agency*
- *Time delays*

4.3.6 Estimated costs of assessable development

The 2020 koala regulations introduce new costs for applicants who trigger referral to SARA. This includes an application fee of \$3,313 and additional time to prepare the application. The department sought information about the cost impacts of the assessable development requirements from relevant external stakeholders including the twelve SEQ local governments and representatives of the urban development sector. The known cost implication of development assessment of the 2020 koala regulations are summarised in Table 5.

Table 5. Overview of the estimated cost impacts on applicants under previous and 2020 koala regulations.

Cost category	Average cost under previous regulations	Average cost under 2020 koala regulations
Ecological assessment costs	\$1500 per hectare (New Ground report, 2019)	\$1000 - \$5000 per hectare (2021 UDIA member survey)
Environmental offset costs per hectare (financial)	\$184,813 per hectare (GHD report, 2022)	\$156,787 per hectare (GHD report, 2022)

Development application fees	Variable SEQ local governments are encouraged to provide views and information	\$3,313 (Fees at time regulations were passed)
Average development assessment business days provided by SARA	Not applicable	50 business days (Other SARA assessments are 21 days on average)
Fines for illegal clearing/ incorrect use of exemptions	Unknown SEQ local governments are encouraged to provide views and information	up to \$620,325 (max. 4500 penalty units at 1 July 2021)
Other conditions (e.g., koala management plans and friendly fencing)	Unknown Stakeholders, are encouraged to provide views and information	Unknown Stakeholders are encouraged to provide views and information

Administrative burden on state and local government resources

Queensland Government agencies have incurred administrative and financial costs since the 2020 koala regulations came into effect, which overall increased resourcing requirements compared to the previous regulations.

From February 2020 to May 2022, the Department of State Development, Infrastructure, Local Government and Planning reported that 188 development applications have been lodged for interference with SEQ koala habitat areas. This includes applications to the Queensland Government agencies as referral agency, assessment manager, early referral requests and post-approval change applications. Of these 188 applications, 101 have been decided.

The State Assessment and Referral Agency (SARA), the administering authority for the 2020 koala regulations, has incurred the highest administrative cost since commencement of the regulations, followed by the Department of Environment and Science's Koala Assessment and Compliance team.

Administrative activities which have increased since the commencement of the 2020 koala regulations include:

- resourcing in SARA to review development applications
- resourcing for DES Koala Assessment and Compliance to provide technical advice on development applications
- resourcing for SEQ local governments to assess developments within koala priority areas outside of koala habitat areas
- resourcing for DES Koala Assessment and Compliance and SEQ local governments to investigate and progress compliance matters.

It is estimated that the costs for SARA to administer development assessment under the 2020 koala regulations were around \$460,000 since February 2020. Notably, this is a \$127,000 increase compared with costs modelled for the same number of applications under a different State assessment code, or additional \$55,000 per year. This is because in comparison to other matters referred to SARA for assessment, the time cost associated with the 2020 regulations is estimated to be an additional 29 business days, which is 138 percent longer than for other non-koala related developments. Applications involving koalas as an assessable matter have represented 2 percent of the total SARA decisions made in the time since the 2020 koala regulations came into effect. It was not possible to present a baseline of how this compares to previous koala habitat regulations– which limits analysis of whether these administrative costs represent an overall increase or decrease compared to the previous framework.

The Department of Resources has also received numerous koala related enquiries through their Vegetation Hub (the Hub) call centre. The Hub received 11,163 calls between 7 February 2020 and 7 February 2022, and 413 of those calls included koala related topics. 4,404 calls related to clearing exemptions and 976 calls that were assessable development enquiries. Given the nature of the data collected by the Hub, it is not possible to exactly how many clearing and development assessment enquiries involved koala habitat, or the total amount of time spent by Department of Resources staff on koala-related enquiries.

The majority of SEQ local governments also reported an increased administrative burden since implementation of the koala regulations. All SEQ local governments have reported increases in the number of hours provided by town planners, assessment officers and GIS specialists to assist constituents in interpreting the exempted development provisions. SEQ local governments noted that general enquiries and correspondence can take between 25 mins to 2 hours, while site specific project enquires have taken upwards of 40 hours to resolve.

At least two SEQ local governments reported they have hired more than 1 full time equivalent employee to meet increased demands. At least two SEQ local governments reported they have incurred costs to obtain additional advice from environmental planners and legal experts on matters of interpretation and application of the framework, and in relation to unexplained clearing. At least one SEQ local government has indicated it is likely to increase its fees and charges to recoup the additional hours spent due to the 2020 koala regulations.

SEQ local governments have also reported increased burden to undertake compliance activities was significant, particularly for SEQ local governments that did not currently have koala habitat areas under state mapping. Resource requirements were highest at the commencement of the regulations. SEQ local governments report that the administrative burden has reduced over time but is still estimated to be significant:

Quote: "Initially, compliance officers required extensive assistance from Council's legal team and technical officers as to how to interpret the reforms (particularly the application of exempted development). This resulted in an increase in staffing costs as more work hours were spent on education and assistance. Ongoing additional cost arises from time spent investigating complaints of illegal clearing where exemptions may apply."

One SEQ local government noted that its compliance officers were predominantly from law enforcement backgrounds and do not have necessary expertise in determining rehabilitation requirements. Other SEQ local governments have commented that responsibilities for compliance within prohibited and assessable development areas for SEQ koala habitat area are not clear and sought increased support from the State.

4.3.7 Estimated benefits of assessable development

This review has identified that the extent of assessable development area across SEQ increased by 225,103 hectares relative to the baseline of previous regulations. The review also found that the 2020 koala regulations have also been effective at achieving improved the consistency of development assessment for koala habitat across the SEQ region.

Historical woody vegetation clearing rates within koala habitat areas where assessable development applies, gives some indication of the potential benefits of the 2020 koala regulations. State-wide Landcover and Trees Study (SLATS) imagery of woody vegetation in SEQ that was curated from the 2010 - 2020 period indicates that prior to the commencement of the 2020 koala regulations, up to 273 hectares per year of koala habitat where assessable development now applies had been cleared. If these clearing rates had been allowed to continue, it is estimated that within a timeframe of 30 years at least 8,190 hectares of SEQ's remaining koala habitat outside of the priority areas would have been depleted.

As habitat within these areas will now be assessed to consider requirements to avoid, minimise and offset impacts, and developers and landholders may seek to further avoid fees associated with development assessment, the 2020 koala regulations are expected to deliver a significantly reduction in clearing and improved counterbalancing of impacts compared to previous settings.

Within koala habitat areas where assessable development applies, projects are required to follow the avoid, minimise, and offset mitigation hierarchy in accordance with the Queensland Environmental Offsets Policy 2014. Benefits observed from this process included conditions on clearing extent and configuration, measures to mitigate impacts to koalas, as well as on-site rehabilitation and the use of offsets to counterbalance any significant residual impact.

Since the 2020 regulations commenced, some 15 hectares of impacts to SEQ koala habitat have been required to deliver an environmental offset, with a further 5.4 hectares of rehabilitation conditions applied. Offsets conditioned from larger impacts to SEQ koala habitat are assessed by the Commonwealth under the Environmental Protection and Biodiversity Conservation Act 1999. The environmental offset policy identifies the need to recognise the SEQ Koala Conservation Strategy as an input to locating offsets and directs offsets into non-statutory restoration areas within the koala priority areas. It is noted that further monitoring over time is required to confirm if the settings for environmental offset delivery will ensure that losses of koala habitat areas from assessable development are counter-balanced, including within the koala priority areas.

Most SEQ local governments and stakeholders consulted through this review reported that it was difficult to determine the extent of improvements to koala conservation outcomes delivered since the commencement of the regulations, compared with baseline of the previous regulatory framework. However, during the preparation of this Consultation PIR, the department has become aware of instances where the development assessment was proven to be effective at reducing loss of habitat and conditioning offsets in koala habitat areas.

Two case studies are presented below which demonstrate how the regulations have delivered benefits to date:

1. In Moreton Bay, a development approval relating to a subdivision of a lot into 15 smaller lots had several conditions which improved koala conservation outcomes. This included a perimeter road between the new lots and koala habitat area to allow for community surveillance, reduced clearing for fire management and a reduction in the spread of weeds from private gardens.

2. In the Lockyer Valley, koala conservation outcomes were also achieved for two subdivisions. SEQ local government officers confirmed that through the state development assessment process, conditions were added to the development which reduced the amount of tree cleared overall through mandating a smaller building envelope. A larger conservation covenant and environmental offset condition were also placed, which was an improvement from would otherwise have been achievable without support from SARA to impose these conditions.

4.4 Exempted development

4.4.1 Overview

The exempted development provisions have minimised the economic impacts on stakeholders and played an important role in allowing practical land management within koala habitat areas and protecting the property rights of private landholders, as well as cultural rights of First Nations peoples. However, learnings from the first two years of the 2020 koala regulations have found that the provisions are complex, which has created considerable time and resource challenges for assessment managers, technical advice agencies and applicants. While the practical benefits of providing necessary exempted development are acknowledged, opportunities to improve these aspects of the regulation have been identified.

As development undertaken using the exempted development provisions is not assessable or notifiable, it has not been possible to quantify the exact costs, benefits and the frequency of their use across the SEQ region. To address this limitation, the department engaged an independent review of case studies of interference with koala habitat undertaken using exempted development provisions that were nominated by SEQ local governments, to better understand how exemptions were being applied and possible impacts this was having on koala habitat areas.

Exemptions for interfering with koala habitat (e.g. clearing of vegetation) on properties that are overlapped by koala habitat area and koala priority area have been widely used since February 2020. The SEQ local government case studies identified exempted development as the most frequent type of clearing, comprising 22 out of 50 clearing events.

The case studies also indicated that the exempted development provisions have been applied sequentially to maximise clearing, avoid prohibited development and reduce environmental offset requirements. For example, stacking the exhaustible 500 square meters allowance (k) to construct a building envelope, an additional 500 square meters allowance for non-linear infrastructure such as a shed (l.i), followed by unspecified clearing around these structures for firebreaks (n.vii), adding 200 – 300 square meters for on-site waste-water (l.iii), plus a 5 – 10 meter wide access road and can lead to up to 10,000 square meters clearing for a single development. This was not the intended use of the exempted development provisions.

4.4.2 Exempted development under current and previous regulations

In their recommendations to Government, the Koala Expert Panel noted that the number and complexity of exemptions under the previous framework for regulating development in SEQ koala habitat was directly impacting on koala habitat. The Panel recommended reducing the number and complexity of exemptions when remaking the regulations. Exemptions that were retained that were considered essential to balancing the competing need for the protection of SEQ koala habitat with the need to cater for growth, essential services, and public safety situations.

Importantly, the 2020 koala regulations also exempt interfering with koala habitat (e.g. clearing) that was approved before the commencement of these provisions.

Exemptions retained under the 2020 koala regulations already applied to either mapped SEQ koala habitat or to native vegetation under the Vegetation Management framework. In remaking the regulations, two specific exemptions that the Koala Expert Panel identified as contributing to excessive clearing of koala habitat were removed, including:

- clearing for urban purposes in urban areas
- clearing for a lot of less than five hectares.

Amendments were also made to ADVCCs to align the Vegetation Management framework with the 2020 koala regulations by specifying circumstances in which vegetation clearing is acceptable.

Table 6 outlines a high-level comparison of the scope of exempted development provisions under the current and previous SEQ koala habitat regulations. The exemptions which apply to the koala habitat regulatory framework are detailed within the definition of exempted development in Schedule 24 of the Planning Regulation 2017. A comprehensive list of exemptions and stakeholder feedback received through this review is available as Appendix D and Appendix E of this report.

Table 6. High-level comparison overview of exempted development that applied under previous and 2020 koala regulations for koala habitat areas in SEQ, to provide an overview of what was transitioned

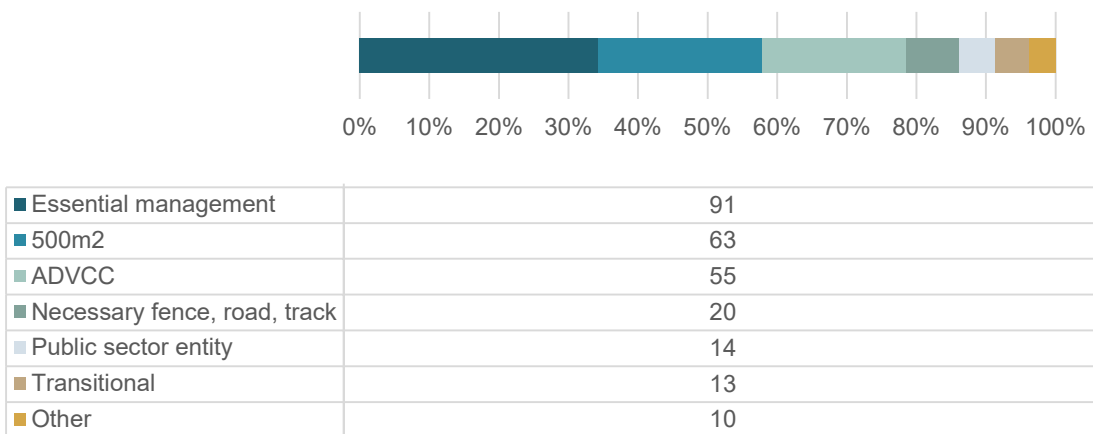
Previous regulations	2020 koala regulations
<p>Development applications properly made or carried out under an approval that has not lapsed for an application made prior to commencement of the former South East Queensland Koala State Planning Regulatory Provisions (February 2010)</p>	<p>Development that is carried out and consistent with a development approval for an application that was properly made before the commencement of the 2020 koala regulations.</p>
<p>Development for:</p> <ul style="list-style-type: none"> • a domestic activity • that involves under 500square meters per premises of native vegetation clearing including for development • under 5,000 square meters or less of gravel, rock or sand extraction or excavation/ filling. 	<p>Development that can be undertaken using a once-off allowance for native vegetation clearing of up to 500 square meters per premises (provision k).</p>
<p>Reconfiguring a Lot that will not result in the creation of an additional lot.</p>	<p>No equivalent under 2020 koala regulations.</p>
<p>Development that is exempted under Schedule 21 Part 2 of the Planning Regulation 2017 which exempts development for urban purposes in urban areas as well as Material Changes of Use and Reconfiguration of Lots under five hectares.</p>	<p>No equivalent under 2020 koala regulations – these clearing provisions were removed in accordance with recommendations of the Koala Expert Panel.</p>
<p>Development in an area shown on a Property Map of Assessable Vegetation as a category X area under the <i>Vegetation Management Act 1999</i>.</p>	<p>Development in an area shown on a Property Map of Assessable Vegetation as a category X area under the <i>Vegetation Management Act 1999</i>.</p>
<p>Development that is self-assessable or accepted development, for example operational work that is clearing of native vegetation under an Accepted Development Vegetation Clearing Code (ADVCC).</p>	<p>Development that is or involves operational work that is native vegetation clearing under an Accepted Development Vegetation Clearing Code (ADVCC), other than for items listed (i) to (v) including a fence, road or track more than five meters wide, and airstrips, non-linear infrastructure, extractive industry, or channel diversion if the cleared area is more than 500 square meters. This also includes clearing for essential management activities such the removal of dangerous trees and the establishment and maintenance of necessary firebreaks.</p>
<p>Development that is, or is in:</p> <ul style="list-style-type: none"> • compliance assessment • the area of a development control plan • a significant project under the <i>State Development and Public Works Organisation Act 1971</i> • a state development area • for community infrastructure • for a public sector entity. 	<p>Development that is, or is in:</p> <ul style="list-style-type: none"> • a state development area • a coordinated project • the area of a development control plan • for a public sector entity • a PDA-related development • a forest reserve or protected area under the <i>Nature Conservation Act 1992</i> • a state forest or timber reserve under the <i>Forestry Act 1959</i> or a forest entitlement area under the <i>Land Act 1994</i> • for public housing.

4.4.3 Exempted development enquiries data

Enquiries data from the department's Koala Assessment and Compliance team identified 624 enquiries that related to exemptions. Most were general enquiries about the types of clearing and development that could be undertaken in compliance with the 2020 koala regulations and were frequently related to the sale or a purchase of land.

Enquiries data provides a useful indication of the exempted development purposes that stakeholders intended to clear under (Figure 15). Clearing for essential management such as fire management and safety was the most frequent purpose, followed by the exhaustible 500 square meter exemption provision (k) which can be used for example as a building envelope. Operational work to clear native vegetation under an ADVCC was the next most common purpose, followed by clearing for a necessary fence, road, or track, clearing for public infrastructure and clearing under transitional arrangements such as for developments approved under the previous regulations.

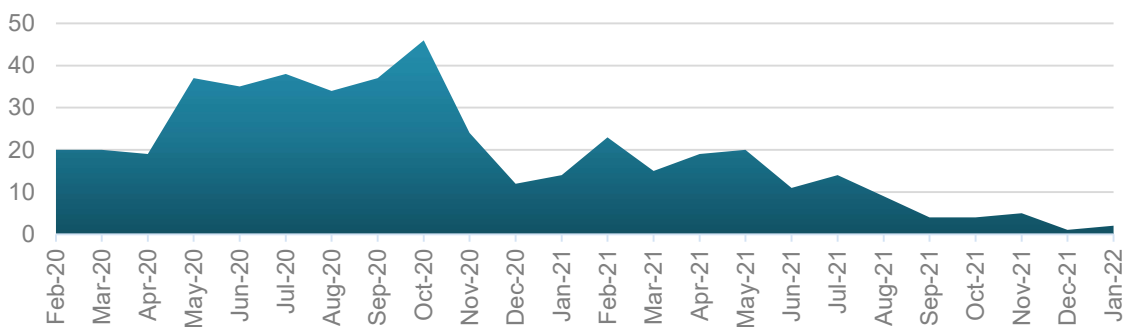
Figure 15. Exempted development enquiries where an intention to clear koala habitat areas was notified, by exemption category (n = 266)



Processing these enquiries presented some administrative burden on the department, with 316 hours of processing time estimated to respond to the 624 exempted development queries. The average time for an assessment officer to process an enquiry was 31 minutes. This represents \$17,400 in staff hours which is a notable impact on departmental resourcing, however other evidence suggests that the volume of enquiries is reducing over time (Figure 16). Possible explanations of this trend may be that demand for clearing is reducing over time, that stakeholders are increasingly avoiding sites containing koala habitat areas or that stakeholder awareness and confidence applying the exempted development provisions has increased over time.

SARA's considerable role and resource cost in providing advice to the community is not included in this data.

Figure 16. Exempted development enquiries over time since 7 Feb 2020

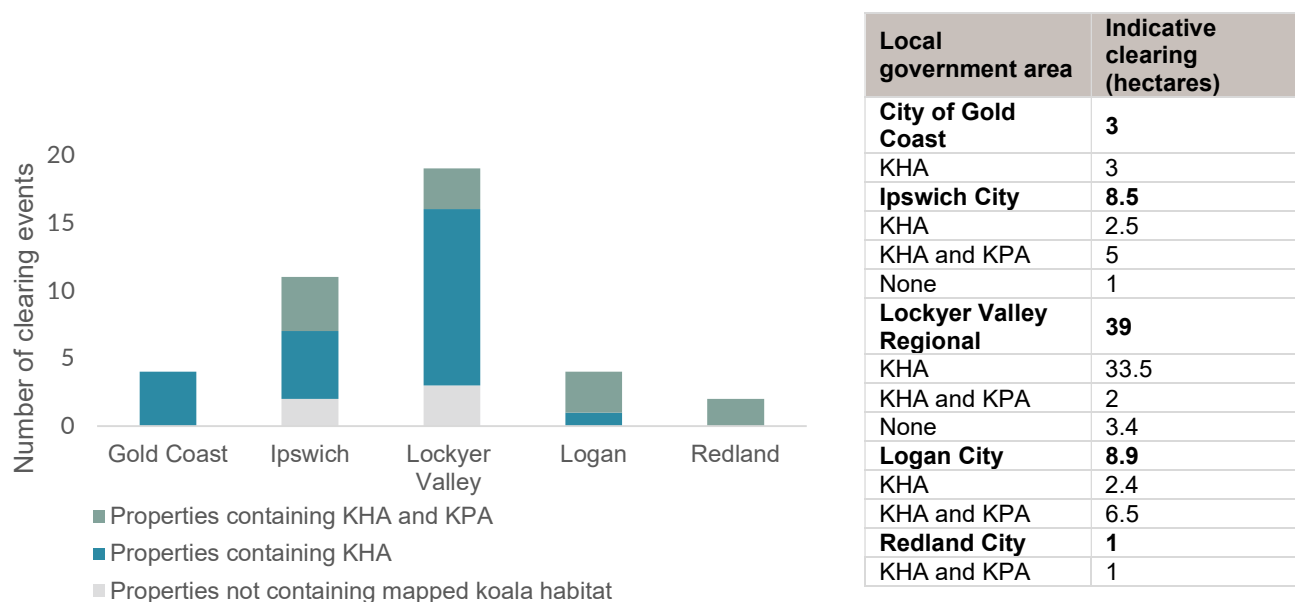


4.4.4 Local government case study data

Analysis undertaken by GHD Pty Ltd explored 50 case study clearing events on properties across SEQ since February 2022. These sites represent a subset of clearing events which potentially interfere with SEQ koala habitat since the 2020 regulations came into effect, and were restricted to sites nominated by Gold Coast, Ipswich, Lockyer Valley, Logan and Redland councils. Sites were mixed inside and outside the urban footprint (n = 26 for inside, n = 26 for outside), and were spread from between 0-25km from the coast, up to 100-150km.

Most SEQ local governments observed clearing events reported to GHD (32 out of 50 events) involved the removal of less than 2 hectares of vegetation. Most clearing occurred outside of the koala priority area (Figure 17). Exempted development was the most prevalent type of clearing, representing 22 out of 52 events, with a further 9 events unexplained. In total, the 52 clearing events represented an indicative clearing area of up to 61.3 hectares of koala habitat. This data represents the upper threshold of clearing on a property (where clearing was not able to be specified by the SEQ local government) and is therefore an over-estimation of actual clearing.

Figure 17. Indicative clearing footprints (hectares) on properties that overlap with koala habitat areas (KHA) and koala priority areas (KPA)



Clearing events were observed within and outside of the koala priority areas, with 14.5 hectares of the 60 total observed across 12 properties occurring inside the koala priority area. These events were determined to be either exempted or unexplained development, consistent with the regulatory requirement that development approval involving interference with koala habitat cannot be granted within the koala priority areas. Outside of koala priority areas, 41.4 hectares was reported across 23 clearing events. Exempted development accounted for about half of all clearing outside of koala priority areas.

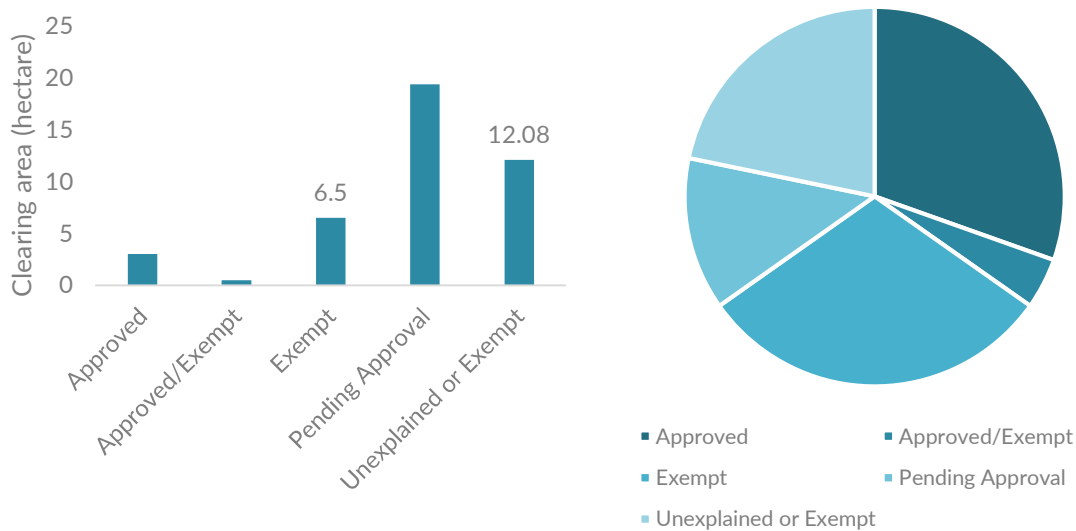
GHD found that the average area of vegetation loss per clearing event on properties within the koala priority area was less than the average loss on properties outside the priority area (Table 7, Figure 18). For properties in the KPA, there was an average of 1.2 hectares of clearing per property and median of 0.5 hectares. For properties outside the KPA the average clearing size was an average of 1.8 hectares per property or median of one hectare. Subject to the limitations identified above, GHD made a general conclusion that the KPA is having an effect on the quantum of koala habitat area being, but that exempt and unexplained clearing continue to cause (uncompensated) losses on properties where koala habitat occurs.

Table 7. Average clearing footprints on properties containing koala habitat areas and koala priority areas

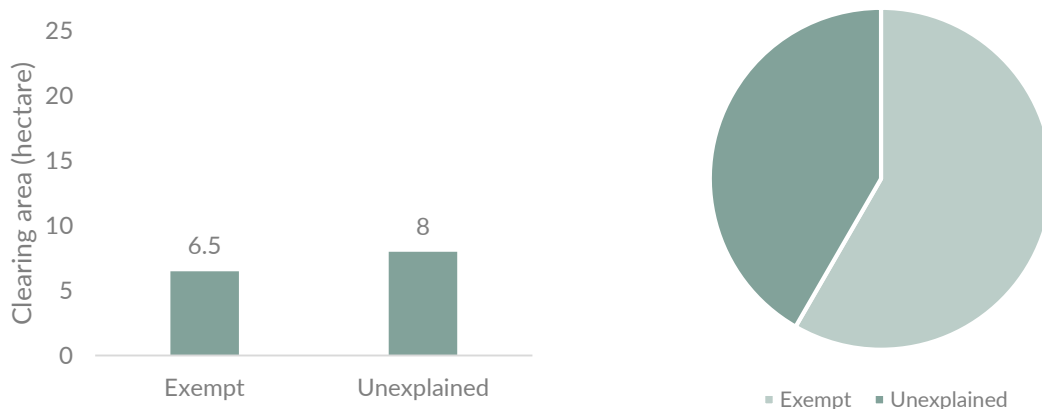
	Properties containing koala habitat, outside a koala priority area			Properties containing koala habitat, within koala priority area		
	#	Average clearing (hectares)	Median clearing (hectares)	#	Average clearing (hectares)	Median clearing (hectares)
Gold Coast	4	0.75	0.75	0	-	-
Ipswich	5	0.50	0.50	4	1.25	1.25
Lockyer Valley	13	2.58	1.50	3	0.63	0.50
Logan	1	2.40	2.4	3	2.17	1
Redland	0	-	-	2	0.50	0.50
TOTAL	23	1.8	1	12	1.2	0.50

Figure 18. Clearing by purpose in properties containing koala habitat area (A) and within a koala priority area (B)

A) Properties containing koala habitat area, outside of a koala priority area



B) Properties containing koala habitat area, within a koala priority area



Explanatory notes provided alongside clearing data by SEQ local governments revealed that multiple exemptions were being applied in some instances, for example (anonymised):

- *“500 square meters of clearing for a house, 200-300 square meters of clearing for on-site wastewater, with further clearing of up to 500 square meters allowable at the same time or a later date. A landholder may also clear to establish significant firebreaks (unspecified) around the structures, plus 5-10 meters wide clearing for a fence, road, or track (depending on property size)”*
- *“Clearing entirely within KHA/KPA carried out to create an access track/fire management line. Clearing met Planning Regulation 2017 definition of exempted development under point (o). Also accepted development under Schedule 7, Part 3, s13 of the Regulation”.*
- *“Clearing entirely within KHA/KPA. Clearing determined to be exempt when considered against items of the exempted development definition. Item (l) applied – 500 square meters for non-linear infrastructure; Item (k) applied for additional 500square meters; Item (n) applied for establishing a necessary firebreak”.*
- *“Total clearing of more than 500square meters, but because it covers multiple reasons it is allowed”.*

The above case studies demonstrate the use of multiple exempted development provisions to allow significant clearing for which no assessment was undertaken, or offsets were conditioned. However, SEQ local governments noted that most exempted developments they were aware of fell below the 500 square meters threshold or were prior development approvals. One SEQ local government highlighted the extension of an existing approval owing to delays caused by the COVID-19 pandemic. This suggests that while stacking of exempted development provisions was an issue, many instances of exempted development demonstrated reasonable and fair application.

Questions for consultation:

The questions in this box are for stakeholders who undertook development subject to the 2020 koala regulations.

- **If you undertook clearing under an exemption (i.e., without a development application), which exemptions were used?**

For example:

- *Once-off 500 square meters clearing allowance per premises*
- *Clearing for essential management , such as safety*
- *Clearing for fire management, such as a firebreak*
- *Clearing for a necessary fence, road or track*
- *Infrastructure Accepted Development Vegetation Clearing Code (ADVCC)*
- *Weed management ADVCC*
- *Native forest practice ADVCC*
- *Clearing vegetation shown on a PMAV as category X*
- *An Aboriginal or Torres Strait Islander cultural activity*

- **Can you describe the size of the clearing (square meters)?**

- **Did you experience any challenges?**

For example:

- *Accessing mapping applicable to your property*
- *Interpreting level of assessment required for the development*
- *Obtaining advice from local government*
- *Obtaining advice from the State Assessment and Referral Agency*
- *Time delays*

4.4.5 Accepted development under the Vegetation Management framework

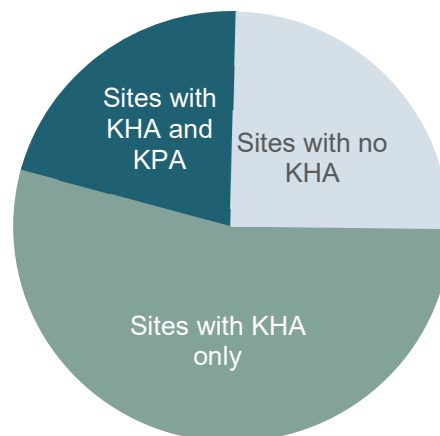
Accepted development vegetation clearing codes (ADVCCs) provide for small scale, low ecological risk clearing as is based on the best available science. This includes clearing activities such as weed management and necessary environmental clearing. ADVCC clearing is accepted development under the Vegetation Management framework and is exempted development under the 2020 koala regulations up to the limits described in exempted development (I). Though considered exempt development under the koala regulation, notification and compliance with the relevant ADVCC under the Vegetation Management framework is still required.

GHD reviewed a total of 557 ADVCC clearing notifications on properties within the SEQ region, from February 2020 – January 2022. Of these, 462 provided sufficient information to inform statistics on clearing areas, and 377 provided sufficient information to be spatially referenced. Almost three quarters (74 percent) of properties where an ADVCC notification occurred also contained mapped koala habitat areas, of which less than a quarter were within koala priority areas (Figure 19). The total extent of vegetation cleared or permitted to be cleared was 20,039 hectares. Multiple accepted development purposes on an individual property was identified at 51 sites.

The ability to quantify the extent of loss of koala habitat areas from ADVCC notification records was constrained, as details of the spatial configuration of clearing on the property was not available. The GHD analysis was therefore unable to indicate the actual loss of koala habitat which has occurred in this timeframe and can only provide an indication of the potential extent of impacts.

Most ADVCC notifications within SEQ were for native forest practice. The native forest practice ADVCC provides for the retention habitat trees and recruitment habitat trees which might be used for food, nesting, and shelter for native wildlife. The native forest practice ADVCC is currently under review by the Queensland Government and will include consideration of potential impacts on habitats associated with threatened species, including koalas.

Figure 19. ADVCC clearing activities on properties in koala habitat areas (n = 337 sites)



According to advice provided by the Department of Resources in consultation with the Queensland Herbarium and CSIRO, activities allowable under the ADVCCs may be selective and may not have involved the complete removal of koala habitat areas. Depending on the code being used, there may be requirements landholders to retain native vegetation on their properties, or where vegetation is removed for an accepted land management practice (such as weed control), clearing thresholds or the delivery of a legally secured exchange area may be required.

Use of the Infrastructure ADVCC was raised by SEQ local governments as a potential issue, as when used in combination with other exempted development provisions in the Planning Regulation 2017 this had allowed additional clearing. Some SEQ local governments suggested that the codes would benefit from more effective compliance. It was also reported to be challenging to understand how the ADVCCs applied to koala habitat, due to complexities about how the legislative frameworks overlap.

The Infrastructure ADVCC is an important self-assessable code under the Vegetation Management framework which provides guidance on clearing of remnant vegetation and regulated regrowth vegetation to establish or expand infrastructure, for example a building, or other structure, that includes but is not limited to, residential housing and associated structures, commercial and industrial buildings and structures, a stock yard, shed, feed

pad, dam, windmill, solar panels, water tank, or telecommunication tower.²⁴

Notifications to clear native vegetation under ADVCCs represent an intention to clear and do not necessarily reflect the scale of actual clearing. GHD analysis of infrastructure ADVCC notification records containing koala habitat was therefore not able to accurately determine the extent of koala habitat clearing. Clearing for linear infrastructure under the infrastructure ADVCC permits small scale low ecological risk clearing up to a maximum clearing width and does not require applicants to record the proposed length, accordingly no total intended cleared area is recorded.

In total, 46 Infrastructure ADVCC notifications were received for premises containing koala habitat, across nine of the twelve local government areas the SEQ region, since commencement of the 2020 koala regulation. Of the 14 notifications registered within a koala priority area, nine included spatial clearing data, totalling two hectares. Of the 15 notifications outside of koala priority areas that included spatial clearing data, over 17 hectares of clearing was reported. The remaining 22 notifications were linear infrastructure and did not report on clearing area.

Total intended notified clearing across SEQ was below that observed by SEQ local governments, which is expected given this clearing also accounts for exempt clearing (clearing that does not require notification and clearing under an ADVCC). The Infrastructure ADVCC notification register is not designed and has never functioned as a monitoring database for the koala protection framework, and given the above, would not be suitable for this purpose in future.

Queensland Government agencies consulted on this review found that the relationship between the provisions for exempted development under the 2020 koala regulations and the ADVCCs under the Vegetation Management framework would benefit from review to ensure clarity and consistency. For example, use of the exhaustible 500 square meter clearing exemption (k) can be used for a building envelope, while the 500 square meter exemption provision under (l)(iii) for non-linear infrastructure, can also be used for a building envelope. Additionally, allowances for different vegetation categories, and thresholds for clearing a necessary fence, road, or vehicular track are neither clear or consistent across the two frameworks. Addressing this complexity through regulatory amendments and providing improved guidance on the relationship between these frameworks was a desired outcome from state and local government alike.

4.4.6 Findings from stakeholder consultation

A comprehensive summary of stakeholder feedback on the different purposes of exempted development has been compiled and presented in Appendix E of this report. This exercise has been useful to identifying specific issues within the exempted development definition which could be subject to regulatory review and improvement. Broadly, stakeholders raised that several unintended consequences have occurred, which specifically relate to the exempted development definition. These issues are described under two problem areas outlined below.

Problem 1: Unintended clearing of koala habitat areas and ineffective monitoring

SEQ local governments have expressed concerns around the complexity of exempted development provisions under the 2020 koala regulations, and the extent to which these provisions can be stacked to maximise clearing. Some SEQ local governments noted particular concern that large areas were able to be cleared under exempted development, without the need for mitigation or offsets.

While some stacking of exempted development purposes was intended to be allowable, stacking to maximise the clearing of koala habitat areas to over several thousand square metres was not an expected outcome of the policy change. SEQ local governments have observed applicants seeking to stack exemptions to avoid the prohibition. Stacking of exempted development for different purposes has also led to potential for increased areas of clearing which avoids development assessment. Many examples of exempted development clearing for new dwellings were observed, with some examples as high as 10,000 square meters. As these developments are not assessable, behaviour to avoid or minimise impacts cannot be encouraged.

²⁴ DNRME (2020) *Accepted development vegetation clearing code: Clearing for infrastructure* Department of Natural Resources, Mines and Energy. Queensland Government.

Case studies – Stacking of exemptions

Local government case study one:

exemptions were utilised to allow for more than 6,000 square meters of clearing for a material change of use for a dwelling house. This included the use of 1,000 square meters for the building envelope, 3,667 square meters for firebreaks and 1,350 square meters for a driveway. Because the development was exempted, environmental offsets were not applied, resulting in uncompensated loss of habitat.

Local government case study two:

exemptions were used to allow for well over 1,000 square meters of koala habitat area clearing for the establishment of a house, shed, helipad and road access. The development was not required to be consolidate. Exemptions used included 500 square meters for a house in one area, 500 square meters for a shed in another area, an unknown amount of clearing for firebreaks around the infrastructure, for access roads and for the helipad.

Most SEQ local governments noted their specific concern with exempted development (k), which allows 500 square meters of clearing for development of an unspecified purpose, with additional allowances for clearing for infrastructure, fences, or roads under exempted development (l) and (o). SEQ local governments noted that the use of allowances reduced the incentive to minimise clearing or consider koala conservation outcomes:

Quote: "Applicants can clear 500 square meters anywhere on site with no assessment requirements. This creates perverse outcomes in relation to avoiding habitat fragmentation and severing of wildlife corridors."

Stacking of exempted development was reported to have led to ongoing loss and fragmentation of important koala habitat in the SEQ region, which increases the exposure of koala populations to threats. This is of particular concern for SEQ local governments in relation to larger and more densely vegetated lots, where the stacking of exemptions can result in larger areas of koala habitat being cleared. Landholders are not currently encouraged to consolidate clearing for different structures associated with development- which is reported to have led to increased koala habitat loss.

To address this matter, some SEQ local governments have recommended that exempted development provisions be related to the purpose of the clearing and draw distinction between new development and existing uses. Some SEQ local governments recommended that the exempted development provisions should only apply to a smaller subset of clearing purposes than what is currently allowable under the 2020 koala regulations. SEQ local governments viewed that narrowing the exempted development provisions down to new uses would simplify application of the exempted development provisions overall.

Case studies were provided relating to clearing under the fire management exempted development provision (n = 8), which is commonly used in the SEQ region (n = 57 enquiries). Investigation of these case studies determined that up to 3,667 square meters of koala habitat was cleared for a single firebreak, with four SEQ local governments providing examples of clearing over 1,000square meters for this purpose. Most SEQ local governments were concerned that this provision was being used with limited guidance about actual bushfire risk. Some SEQ local governments have sought stricter bushfire management provisions and guidance on how much clearing is appropriate to achieve a suitable setback.

Following the 2019-20 bushfire season which had devastating impacts on native wildlife including koalas, the Royal Commission into National Natural Disaster Arrangements Report released in October 2020 and made important recommendations focussed on Australia's national natural disaster arrangements²⁵. The report acknowledged the importance of state and local government support for private landholders to develop bushfire risk management plans and maintain firebreaks, fire management lines and asset protection zones around key infrastructure. Recommendation 17.2 of the report also stated that state governments should review the assessment and approvals processes including for vegetation management to ensure there is clarity about the requirements and scope for landholders and land managers to undertake bushfire hazard reduction activities.

The Department of Resources and the Department of Environment and Science will consider this recommendation in the development of vegetation management policy and any supporting guidance materials. In lieu of feedback from SEQ local governments, consideration is being given to non-regulatory improvements to guidelines to ensure

²⁵ Binskin, Mark & Bennett, Annabelle & Macintosh, Andrew (2020). *Royal Commission into National Natural Disaster Arrangements - Final Report*. Royal Commission into National Natural Disaster Arrangements. Australian Government.

that landholders are supported to manage fire risk on their property, in a way that appropriately considers avoidable or unnecessary impacts on wildlife including koalas.

Another key issue raised by stakeholders was the difficulty in enforcing 'once off' clearing allowances where there is no requirement for notification, and no mechanism to track past clearing. This issue is difficult to regulate in situations where land was sold to new landholders, who may not be aware of whether the exempted development provision was exhausted by previous landholders. Some SEQ local governments reported that they only became aware of this clearing after complaints were received. To address this issue, several SEQ local governments recommended that a process for tracking and recording exempted development clearing would assist in reducing their assessment and compliance burden.

Quote: "There is no surveillance, monitoring, data collection or reporting program for the koala habitat Matter of State Environmental Significance (MSES). Data is needed on the instances where exempted development provisions have been applied, so that council's can maintain an understanding of the processes threatening conservation in our Local Government Areas and modify our Matter of Local Environmental Significance planning controls accordingly, if possible or appropriate."

Quote: "On relatively smaller lots (<2000 square meters), the exempted development provisions allow for all or substantial amounts of koala habitat to be cleared, both for properties with dwellings and vacant lots. This is concerning for local koala populations as it is 'death by a thousand cuts'. As landholders are not required to record keep or notify exempt clearing, compliance officers need to make additional effort to investigate the clearing and confirm if the exempted development provisions were applied correctly, or in breach."

It was noted that a lack of understanding and education about the 2020 koala regulations means that the regulations are not actively discouraging vegetation clearing, particularly by small scale private landholders.

Quote: "Building certifiers are not educated regarding exemptions and tend to 'lodge and wait' for Council's response. This shifts the burden on Council to review hundreds of applications to determine whether the exemption will be triggered."

Quote: "Most applicants are determined to place their dwellings etc. in the location of their choosing and are utilising the exemptions to do this."

Quote: "Council compliance officers have reported that no private landholder being investigated for illegal clearing has been aware of the KHA/KPA mapping and its implications for their property. Given that many landholders were unaware that their vegetation was protected before these reforms, adding another layer of protection via the prohibition is pointless without widespread community education to ensure that landholders are aware so to what the protections mean for them. Without education, landholders are bound to unknowingly commit illegal clearing offences."

One SEQ local government reported an increase in the number of unlawful vegetation clearing cases received and the time spent on investigating these cases since February 2020. The increase in investigation time was attributed to difficulty in determining whether clearing was lawfully in line with exempted development provisions or not. Two SEQ local governments provided anecdotal evidence of property owners clearing habitat as they were unaware of regulations.

Since the commence of the 2020 koala regulations, compliance activities have included the commencement of legal proceedings and issuance of rehabilitation requirements. Most SEQ local governments raised the need to improve clarity, training, and guidance for SEQ local government officers in relation to compliance issues. Improvements to monitoring and notification of exempted development were also requested to effectively resolve this issue.

Problem 2: Unnecessary complexity, costs, and limited certainty for users

Determining whether a referred application is exempted development is a complex and lengthy process. This is primarily due to drafting of the exempted development definition under the Planning Regulation 2017, which describes a range of different development purposes and aspects of development that could be exempted development. As a result of these different purposes, several issues have arisen including the problem of partial assessment and partial prohibition, which are also discussed in sections 4.1 and 4.2 of this review.

To support the development of the PIR, a Queensland Government working group including members of the Department of State Development, Local Government, Infrastructure and Planning, the Department of Resources and the Department of Environment and Science was established. The purpose of this group was to identify key issues with the regulations based on learnings, legislative review, and consideration of stakeholder feedback. A summary of identified legislative issues which have contributed to unnecessary complexity and delays in development assessment are included in Table 8. Based on this evidence, the working group have come to the view that the 2020 koala regulations have not effectively delivered a strong, simplified planning framework.

Table 8. Summary of legislative issues identified by the working group

Issues	Issue description
Assessable and prohibited development	For a development to be determined as assessable or prohibited development, assessment managers must at first determine whether the development is, in an overall sense, exempted development. This is reported to be difficult for all users of the framework (local government planners, planning consultants and Queensland Government assessment managers) and is due to the complex drafting of the exempted development definition which describes allowances for different aspects for a development (e.g. roads, firebreaks, envelopes). This has given rise to the problem of partial assessment and partial prohibition, which is inconsistent with other state matters described in the Planning Regulation 2017.
Exempted development definition	The complexity and drafting of the various subsections of the exempted development definition under the Planning Regulation 2017 creates interpretation issues. For example: <ul style="list-style-type: none"> • there are 46 paragraphs in the definition (limbs (a) to (p) plus roman numerals), some of which relate to overall location of the development, others the total area of clearing • some provisions pertain to other schedules of the Planning Regulation 2017 while other limbs rely on the use of definitions and matters in other legislation, specifically the <i>Vegetation Management Act 1999</i>. The reliance on other schedules and legislation makes the exempted development definition particularly difficult to interpret. In addition, the inclusion of both general and specific exempted development purposes makes it highly challenging to determine if all or parts of a development are prohibited, assessable or exempted.
Stacking of exemption limbs	Some exemption development provisions are stackable meaning that several or more limbs of the exempted development definition can be applied to allow for additional clearing. For example, the exhaustible 500 square meter allowance (k) can be paired with other allowances for accepted development under (l.iii), and with further uncapped clearing for a necessary road, fence or track up to 5m wide and for fire management purposes such as a firebreak.
Interactions with vegetation management framework	The reliance of the 2020 koala regulations on the Vegetation Management framework has led to some confusion among stakeholders about how the two mechanisms regulate different aspects of development in koala habitat areas. Accepted Development Vegetation Clearing Codes (ADVCCs) made under the Vegetation Management framework enable small scale low-risk clearing activities without development approval. Certain limbs of the 2020 koala regulation's exempted development definition (l) require that the development also meet the requirements of the ADVCCs, however there are some inconsistencies between these instruments. This review has identified a need to provide certainty to landholders about their ability to continue to undertake these low-risk clearing activities; and to examine the use of the exhaustible 500 square meter allowance of exemption (k) (which can be used for any purpose including a building envelope) and the interaction with exemptions provided for under (l). There is also a need to clarify the exemptions applying to clearing within different vegetation types (e.g. Category X vegetation) and clearing widths for a necessary fence, road, or track.
Subdivision of parent lots into child lots	The 2020 koala regulations are not well structured to manage the issue of subdivision, including tracking clearing which is occurring within 'Child Lots' created from larger 'Parent Lots'. When a Child Lot becomes a Parent Lot in its own right, local governments and the state are unable to identify whether an applicant is eligible to make use of the 500 square meter clearing allowance for a building envelope (e.g., k of exempted development). This is because it is not clear whether the allowance has been previously used for the Parent Lot, or for other Child Lots. Regulatory amendment is recommended to clarify how the exhaustible 500 square meter allowance (k) for any purpose for example a building envelope must be shared between Child Lots when subdivision occurs. Mechanisms to record and monitor clearing are also recommended to resolve this issue.

SEQ local governments were also consulted through their review process and expressed their concerns at the time taken by SEQ local government officers to consider exempted development. Determining whether a development is assessable, prohibited or wholly exempted development was onerous for both applicants and assessment managers. This was attributed to the complexity of exempted development definition and its numerous provisions, some of which are spread across different regulatory instruments.

This complexity resulted in unintended costs for SEQ local government and applicants, such as the need to engage an environmental planner for advice interpreting the 2020 koala regulations. SEQ local governments also provided examples of applicants receiving advice to lodge a development application and incurring fees, only to later receive advice that the development is considered exempted development. This is an adverse outcome for applicants, and the department is interested in feedback from stakeholders about these impacts.

4.4.7 Estimated costs and impacts of exempted development

Costs associated with exempted development under the 2020 koala regulations relate mostly to the increased administrative effort to interpret and apply the exempted development provisions. To inform this analysis of costs, information about the administration effort from the twelve SEQ local governments, state agencies and representatives of the urban development sector was collected.

Depending on the complexity of each application, time costs to users and government agencies varied. Based on departmental records, the average processing time for an enquiry about the exempted development provisions was 31 minutes. The Department of State Development, Infrastructure, Local Government and Planning report that since February 2020, 433 formal pre-lodgement advice requests were made for developments considering assessment under the 2020 koala regulations. In addition to pre-lodgement advice requests, numerous phone or email enquiries were received.

Complexity of exempted development provisions was cited as a concern of most SEQ local governments, who noted that additional resourcing for compliance activities was required to undertake investigation and analysis of exempted clearing. Reviewing exempted development will potentially improve efficient and effective use of governmental resources.

Administrative effort associated with accepted development under the Vegetation Management framework was not quantified, as this framework continues to be triggered by vegetation clearing irrespective of the 2020 koala regulations.

4.4.8 Estimated benefit of exempted development

Exempted development provisions are used by landholders (agriculture/residential) and the urban development sector. The most common purposes that exemptions have been used for since the commencement of the 2020 koala regulations has included clearing for:

- safety purposes
- fire management
- establishing an individual dwelling house
- establishing associated infrastructure
- establishing fences, roads or tracks.

The exempted development provisions have an important role in allowing practical land management within koala habitat areas and protecting the property rights of private landholders, as well as cultural rights of First Nations peoples. Specific exemptions allow for the distinct cultural rights of First Nations people to practice culture on land containing koala habitat. The 2020 koala regulations therefore recognise First Nations rights and interests and support delivery of the department's Gurra Gurra Framework 2020-26 and the Statement of Commitment to reframe the relationship with Aboriginal and Torres Strait Islander Queenslanders and the Queensland Government.

The strong uptake of exemptions evidences the necessity of providing allowances for smaller developments, are not disproportionately and adversely economically impacted by the 2020 koala regulations. For example, the exempted development provisions that provide for the establishment of new infrastructure such as a single dwelling with a firebreak, driveway and fence allows realisation of substantial ongoing cost savings for stakeholders.

Under the current exempted development provisions, the estimated costs savings for development assessment and environmental offsets for 800 square meters of clearing for a dwelling house is approximately \$17,400. This includes approximately \$12,500 in offsets \$1500 in ecological assessment and \$3,300 for the development assessment (see Table 5 for costs).

Questions for consultation:

Please indicate to what extent you agree or disagree with the following:

- Exemptions are important to allow landowners undertake reasonable and low-risk clearing activities
- Stacking of exemptions can lead to unreasonably large areas of clearing
- The wording and structure of the exemptions are too complex

Please indicate to what extent you agree or disagree that the following activities should be exempt from development assessment:

- Once-off clearing allowance per lot for a new house
- low risk clearing in accordance with an Accepted Development Vegetation Clearing Code (ADVCC)
- clearing for a fence, road or track
- clearing for essential management, such as safety
- clearing for fire management, such as a firebreak
- clearing vegetation shown on a PMAV as category X
- clearing for an Aboriginal or Torres Strait Islander cultural activity

4.5 Mapping

4.5.1 Overview

In response to the Koala Expert Panel's recommendation to broaden the spatial scope of the statutory koala habitat mapping, the Queensland Government developed and adopted new state-of-the-art koala habitat mapping based on internationally recognised modelling techniques. Using a habitat suitability model approach, new koala habitat areas were identified that represent the highest quality habitat for koala populations in SEQ. This is based on biophysical measures such as altitude and climate, mapping of suitable koala vegetation and two decades of koala occurrence records.

The new Koala Conservation Plan Map and koala habitat definitions were introduced to the Nature Conservation (Koala) Conservation Plan 2017 in February 2020, and replaced outdated mapping that was developed in 2009. By comparison, the methodology for this new mapping is repeatable, more contemporary and scientifically robust, and importantly allows for the model to be rerun and updated annually to incorporate changes to regrowth and remnant vegetation over time. Importantly, the maps also apply a consistent methodological approach to the identification of koala habitat areas across the SEQ region, which was previously mapped sectionally by the twelve SEQ local governments using a range of different methodologies.

The new mapping was independently reviewed and endorsed by the CSIRO, which described the updated methodology and continuous improvement processes as a 'significant step forward in koala mapping'. The CSIRO was supportive of the habitat suitability modelling approach taken by the department, and the future refinements that would be undertaken iteratively through the annual update process. The new maps were also endorsed by the Koala Expert Panel, which includes experts in environmental planning, koala conservation, academia and the development sector, prior to their release.

Amendments made to the Nature Conservation (Koala) Conservation Plan 2017 were reviewed as part of this PIR. The map and definitions were determined to be effective and efficient. No stakeholder feedback received to date has identified any need to improve the conservation plan or its mechanisms for protecting koalas. The 2020 koala regulations amendments to the conservation plan are consistent with the objective of the *Nature Conservation Act 1992* (primary legislation), which is to provide for the conservation of nature while allowing for the involvement of Indigenous people in the management of protected areas in which they have an interest under Aboriginal tradition or custom.

4.5.2 Annual map update process

A feature of the new maps is an improved ability to update and refine the map as new data becomes available. The koala habitat mapping uses regional ecosystem and high-value regrowth mapping provided by the Queensland Herbarium and koala sightings data provided through citizen science and SEQ local government data bases.

Vegetation and koala habitat maps are updated annually, allowing the Queensland Government to continue to accurately identify the best quality koala habitat and track any changes in habitat extent over time and as regrowth vegetation regenerates.

Annual map updates therefore reflect on-ground changes to the extent of koala habitat area which may occur over time. This ensures that the maps are highly consistent with koala conservation outcomes and principles of continuous improvement, which are also facilitated through the incorporation of new koala sightings data that may be supplied by the community and local governments. The annual map update process is therefore considered a critical mechanism for ensuring that the best quality habitat for koalas is protected now and into the future.

Limitations of mapping

Not every tree or bushland area that SEQ koalas live in is mapped as koala habitat under the new model. The state's mapping of koala habitat areas represents the best quality koala habitat, based on modelling of biophysical measures (such as climate), suitable vegetation (for food and shelter) and koala sightings records.

Koalas that live in areas that are not mapped as koala habitat, and individual non-juvenile koala habitat trees outside of koala habitat areas are not protected under the 2020 koala regulations and remain subject to clearing pressures. In some of these areas, there are fewer deterrents to clearing than what existed under the previous regulatory regime. To address this problem, SEQ local governments are working to clarify the ability and role of local government to regulate these issues as Matters of Local Environmental Significance.

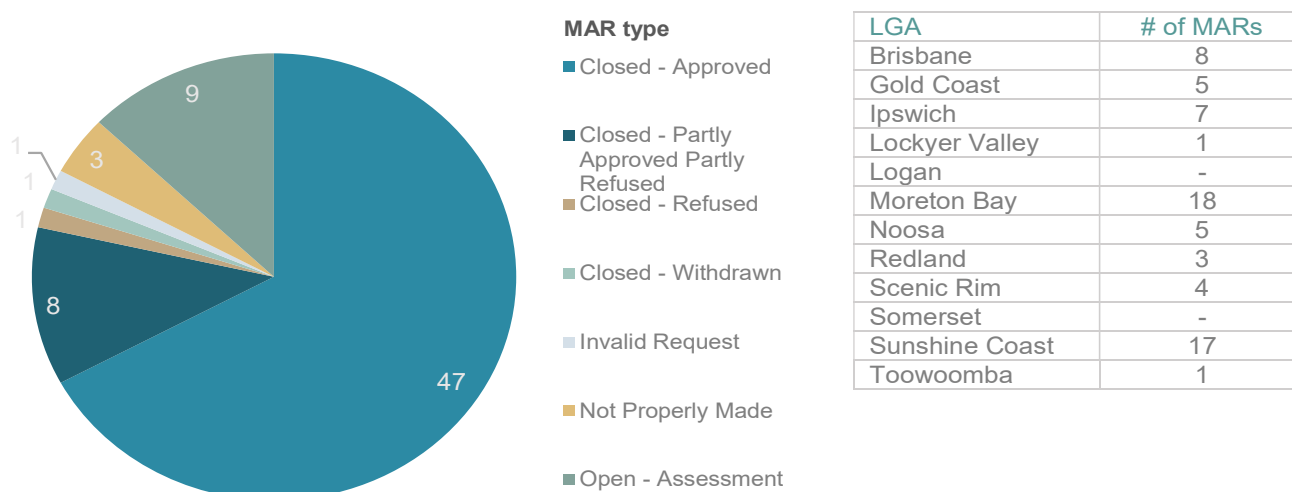
The department is engaging closely with SEQ local governments to improve identification of MLES matters and to facilitate increased protections under local government planning schemes as they are iteratively updated. In addition, a process has been established to allow local governments and community members to have input into the annual update to the koala habitat map. A Koala Technical Advisory Group (KTAG) was recently formed as an independent advisory body, which will provide a scientific review function for unresolved mapping matters and suggestions raised by community members, prior to decision by the Queensland Government.

4.5.3 Map Amendment Request (MAR) process

Under the Nature Conservation Act 1992, a landholder may apply to make, amend, or revoke koala habitat mapping on their land. These changes take immediate effect if a determination is made that the map requires amendment. When approved, map amendments are published on the department's website. If an application is refused, landholders can seek an internal review in the first instance or refer the decision to the Queensland Civil and Administrative Tribunal for review.

Approved map amendment requests are incorporated into the annual map update process. From February 2020 – January 2022, 47 map amendment requests were approved by the department (Figure 20). Only one map amendment request was refused outright, but a small number were partially refused. Of the requests partially refused, three applicants requested a review of the outcome, and one applicant referred the matter to the Queensland Civil and Administrative Tribunal for investigation.

Figure 20. Breakdown of Map Amendment Requests (MARs) considered since February 2020



LGA	# of MARs
Brisbane	8
Gold Coast	5
Ipswich	7
Lockyer Valley	1
Logan	-
Moreton Bay	18
Noosa	5
Redland	3
Scenic Rim	4
Somerset	-
Sunshine Coast	17
Toowoomba	1

Most MARs resulted in very minor changes to the statutory koala habitat maps. 30 requests were validated by ecological advice and incorporated into v2.0 KHA and v1.1 LRKHA mapping, resulting in a correction to around 61 hectares of koala habitat area across SEQ (Table 9). These determinations are highly consistent with koala conservation outcomes, as any updates are in line with the scientifically rigorous criteria that underpins the mapping and based upon the advice of ecological consultants.

Table 9. Koala habitat area removed from mapping under Map Amendment Requests (MARs)

LGA	KHA removed from v1.0 (ha)	LRKHA removed from LRKHA v1.1 (ha)	# of MARs incorporated into KHA v2.0
Brisbane	0.99	0.00	3
Gold Coast	0.68	0.22	2
Ipswich	9.19	0.00	2
Lockyer Valley	0.00	0.00	0
Logan	0.00	0.00	0
Moreton Bay	15.55	0.13	8
Noosa	0.00	0.00	0
Redland	2.55	0.00	1
Scenic Rim	2.37	1.11	3
Somerset	0.00	0.00	0
Sunshine Coast	17.95	9.95	10
Toowoomba (urban extent)	0.00	0.00	1 (refused)
TOTAL	~49 hectares	~11 hectares	30 requests

The map amendment process does not present a risk for koala conservation but allows for unnecessary and unjustified burdens on landholders to be minimised. Despite this, some SEQ local governments noted they were not supportive of the MAR process allowing areas to be removed from the koala habitat area map. Some SEQ local governments also commented that there was a lack of communication materials on the scale and accuracy of the map and accessibility of the mapping products to the general public could be improved.

The UDIA member survey reported that the MAR process had been used by 27 percent of respondents. Of these, 43 percent found outcomes reasonable, however reasons for these views were not provided. Some UDIA members commented that the MAR process took a long time to complete and cited concerns that there are no statutory timeframes. Some members were also not supportive that new koala habitat areas can be expanded by the map amendment process, however only 1 MAR has resulted in an increase to koala habitat area maps since the regulation commenced.

4.5.4 Estimated costs of mapping

The administrative and actual costs of developing and administering new mapping were estimated based on departmental records and known costs including for ecological assessment and fees described under the 2020 koala regulations (Table 10). Because a comparable process to continuously improve mapping was not established under the previous regulations, it was not possible for this review to compare costs to a baseline.

It is important to note that to further minimise the impacts of economic errors in the koala habitat mapping on stakeholders, an initial two-month map validation process was completed following the regulatory change and release of associated koala habitat area maps. This purpose of this process was to remove of any obvious errors in the mapping via 'ground-truthing'. Landholders and industry were also provided opportunity to review the maps, and over 400 requests were made to amend the draft map during the consultation. This process was considered critical to reducing any adverse economic impacts on stakeholders which would have otherwise resulted due to initial map errors.

While MARs submitted by stakeholders may have been initially high post the release of new mapping, as the accuracy of the mapping improves over time there is estimated to be time and cost savings for government, landholders and industry.

Table 10. Overview of the cost impacts on stakeholders under 2020 koala regulations

Costs to Government	
Map amendment request processing	\$1,600 per annum (based on FTE costs for average 2 hour processing time)
Costs to proponents	
Ecological assessment costs	\$1000 - \$5000 per hectare (based on 2021 UDIA member survey)
Map amendment request application fees	\$0 (No fees or charges currently apply)

4.5.5 Estimated benefits of mapping

Achieving a consistent, region wide methodology for mapping and continuously improving statutory maps of koala habitat has delivered numerous benefits to stakeholders, including significantly increasing the extent of habitat to which prohibited and assessable development applies. Indirectly, this has attributed to benefits discussed in Sections 4.1 and 4.2 of this report with respect to reducing the loss of koala habitat areas in SEQ through both avoidance behaviour and delivery of environmental offsets and mitigation conditions (e.g. on-site revegetation), which counterbalances any significant residual impacts from development.

The Koala Conservation Plan Map provides improved certainty to landholders and the development sector compared to previous regulations, by making the Queensland Government's intentions to conserve high quality koala habitat transparent and easy to consider in future planning. The strategic identification of koala priority areas using rank-prioritisation methodology is a core feature to improve the cost-effectivity of conservation outcomes. Identification of these large, connected areas of habitat can assist governments, industry and the conservation sector help to direct effort and investment in habitat protection, restoration, and threat mitigation into these areas with the highest chance of optimising conservation outcomes for koalas.

Non-statutory koala habitat restoration maps have also provided clearer guidance to stakeholder about where environmental offsets should be delivered to enhance outcomes, however the actual impacts and effectiveness of these maps were not able to be considered for this review.

Aside from the once-off cost of map development, the annual costs of continuous improvement to the SEQ koala habitat maps are low and relate to ongoing to staff resourcing. The department considers that these costs are substantially outweighed by the broader benefits which are delivered to koalas, their habitat, government, industry, and the community.

5 Effectiveness of the regulations

5.1 Are the regulations meeting their objective?

The primary objective of the 2020 koala regulations was to provide 'increased protection to koala habitat areas in SEQ.' As described in Section 1.3 the regulations aim to achieve this outcome through four primary mechanisms, with desired outcomes outlined below:

1. Prohibited development

Prohibitions cost-effectively protect the best quality koala habitat in the long term and are effective at reducing complexity and costs to stakeholders.

2. Assessable development

Strong, simplified planning regulations deliver best-practice koala conservation outcomes in alignment with no net loss principles; and are supported by appropriate administration, monitoring, and compliance to provide clarity and certainty of requirements and to improve efficiency of assessment processes for users of the framework.

3. Exempted development

Exemptions balance the objective to protect koala habitat areas with the objective to enable limited clearing activity for existing uses, essential services, and public safety.

4. Mapping

Mapping is based on the best available science to identify valuable koala habitat with the greatest potential for supporting koala populations in the long term and is supported by mechanisms to address errors and continuously improve science.

To undertake an effective review in accordance with these indicators, it is also important to be able to measure the impacts (both positive and negative) the regulations have had on:

1. The benefits provided to koalas as a species, and indirect benefits to communities with respect to minimising and managing impacts to koala habitat to achieve koala conservation outcomes.
2. The impacts and costs on stakeholders directly affected by the regulations, including but not limited to landholders, industry, community, and government resources required to implement the regulations.

Despite the extensive data gathered and analysed as part of this Consultation PIR impact assessment, it has been challenging to quantify exactly how the benefits attributable to the regulations have outweighed the costs since commencement. The 2020 koala regulations were in effect for a relatively short period of time (two years) prior to this review and many clearing events observed were attributable to development approvals lawfully issued under the previous regulations.

Limitations in data availability are discussed throughout Section 4 of this report, but includes the lack of koala population modelling data, spatial koala habitat clearing data, as well as information on the financial impacts on stakeholders directly affected by the regulations. To compensate for these limitations, targeted consultation with state government and local government agencies, and the conservation and urban development sector has provided a wealth of feedback and case studies, that have informed departments understanding of how the 2020 koala regulations have been interpreted and applied. This stakeholder information has been critical to informing a robust impact assessment for evaluating the 2020 regulations.

The greatest impact of the 2020 koala regulations has been the significant increase in the overall extent of assessable development and prohibited development provisions applying to koala habitat areas across SEQ. Costs to stakeholders which may otherwise have arisen from the prohibited development and assessable development requirements were overall reduced due to the availability of exempted development provisions intended to provide for reasonable uses of the land. The impacts associated with mapping were limited to map amendment and map update process, with actual costs to stakeholders assessed as being relatively minor and reducing over time.



A key challenge for the impact assessment was the lack of robust information about the application of exempted development provisions. While effort was made to retrieve information from a representative sample of case study areas and to review the underlying causes of clearing, it was difficult to determine the exact scale and quantity of exemption use. Most SEQ local governments observed that exempted development was impacting koala habitat within their jurisdiction, but that the processes for monitoring or undertaking compliance were ineffectual.

Stakeholders consulted in the preparation of this Consultation PIR also noted the influence of other factors, including the increased demand for urban development in SEQ observed since the COVID-19 pandemic. It was reported that this accelerated growth may have resulted in more exempted and assessable clearing of koala habitat areas than might otherwise had been expected.

Stakeholders also reported positive impacts of the policy, including that both the prohibitions and environment offsets were effective at deterring development on koala habitat areas. Due to the lack of koala population monitoring data, there was little evidence to suggest that the 2020 koala regulations have had direct impacts on koala populations in the SEQ region, however this may become apparent over time and with improved monitoring.

The assessment of the overall impacts, effectiveness, and efficiency of the different aspects of the 2020 koala regulations, relative to a baseline of the previous regulations, is provided in Table 11. Overall, it is acknowledged that the 2020 koala regulations have delivered improvements upon the previous regulations. However, the assessment found that while the 'Mapping' mechanism met the performance criteria, there was opportunity to improvement mechanisms including 'Prohibited Development' and 'Assessable Development'. 'Exempted Development' was also key area of concern and was assessed as 'Inadequate'.

Table 11. Assessment against the regulatory performance indicators

Mechanism	Assessment	Assessment against performance indicator
<p>Prohibited development</p> <p>Prohibitions cost-effectively protect the best quality koala habitat in the long term and are effective at reducing complexity and costs to stakeholders.</p>	 Potential to improve	<p>The exact costs and other impacts of prohibited development were difficult for all stakeholders to determine. Costs were primarily administrative (e.g. additional time to liaise with administering agencies) with the possibility of some reduced developable land area potential, however, adverse economic impacts to stakeholders were minimised as far as practically possible by the availability and uptake of exempted development provisions.</p> <p>There was some concern that these provisions were resulting in adverse scenarios where a development might be partially prohibited, which weakened the effectiveness of the prohibition overall and increased administrative costs</p> <p>Benefits of the prohibition overall were comparable to the koala conservation outcomes that could have been delivered via a nature refuge funding model. This was estimated to be in the order of \$1.65 billion, which was assumed to outweigh the reported administrative costs to stakeholders.</p>
<p>Assessable development</p> <p>Strong, simplified planning regulations deliver best-practice koala conservation outcomes in alignment with no net loss principles; and are supported by appropriate administration, monitoring, and compliance to provide clarity and certainty of requirements and to improve efficiency of assessment processes for users of the framework.</p>	 Potential to improve	<p>There was a relative increase in costs to governments, industry and other clients associated with assessable development, compared with the previous regulations. This was primarily due to the increased extent of koala habitat which consequently has triggered more referrals for assessment and enquiries for stakeholders.</p> <p>Costs for local and state governments and developers increased due to administrative challenges in interpreting and applying the regulations. This mostly relates to difficulty in determining what is assessable or prohibited, due to interactions with the exempted development definition and provisions. All stakeholders identified a need to improve clarity and consistency of the 2020 koala regulations to ensure a strong and simplified planning framework.</p> <p>Review of development approvals showed that conditions were applied to minimise and counterbalance impacts to koala habitat areas. Roughly a third of all projects were required to deliver an environmental offset, and to date all elected to be delivered were as financial settlement payments. Other conditions applied to development approvals included covenants, rehabilitation conditions, koala management plans and friendly/exclusion fencing. The costs or benefits associated with these conditions were not able to be determined.</p>
<p>Exempted development</p> <p>Exemptions balance the objective to protect koala habitat areas with the objective to enable limited clearing activity for existing life and property rights, essential services, and public safety.</p>	 Inadequate	<p>Analysis of clearing case studies and feedback from SEQ local governments has provided evidence of exempted development provisions being 'stacked' with an apparent intent to maximise clearing that can be undertaken in koala priority areas or to avoid environmental offsets in koala habitat areas were assessment applies.</p> <p>The interactions between the exempted development definition and the prohibited development and assessable development provisions have resulted in administrative burdens and protracted wait times for applicants. Further to this, inadequate mechanisms for monitoring exemption use and koala habitat clearing generally has led to challenges undertaking effective compliance and has limited knowledge about what koala conservation outcomes are being achieved by the 2020 koala regulations.</p>
<p>Mapping</p> <p>Mapping is based on the best available science to identify valuable koala habitat with the greatest potential for supporting koala populations in the long term and is supported by mechanisms to address errors and continuously improve science.</p>	 Meets criteria	<p>The koala habitat area map gazetted under the 2020 koala regulations identifies habitat with the greatest potential to support koalas in the long term.</p> <p>The mapping is supported by efficient and effective mechanisms for stakeholder engagement to enable continuous improvement to the science. Overall, the administrative burden to stakeholders is low and appears to be decreasing over time as the accuracy of mapping is improving.</p>

Question for consultation:

- **Are you aware of any other impacts or benefits the 2020 koala regulations have had on landholders, industry, koalas, government, or community since February 2020 that have not been identified in the PIR?**

6 Should the regulations be retained?

6.1 Does a problem requiring regulation still exist?

As discussed in Section 2, the original problem that led to the introduction of the 2020 koala regulations was the ongoing and potentially accelerating loss of koala habitat areas in the SEQ region. Given this, the Koala Expert Panel identified a need to 'simplify and strengthen' the regulations under the state's planning framework to protect koala habitat from ongoing loss.

In SEQ, the key driver of koala habitat loss is population growth and economic activity. In SEQ, the economy and population are predicted to grow as domestic demand for land supply for housing, agriculture, forestry, fisheries, and minerals increases. SEQ is among Australia's fastest growing areas, and according to the SEQ Regional Plan 2017, will increase in population from 3.5 million to 5.3 million people over the next 25 years, requiring more than 30,000 new dwellings each year. Accommodating Queensland's growing population and primary industries will have implications for conserving Queensland's biodiversity, including koalas.

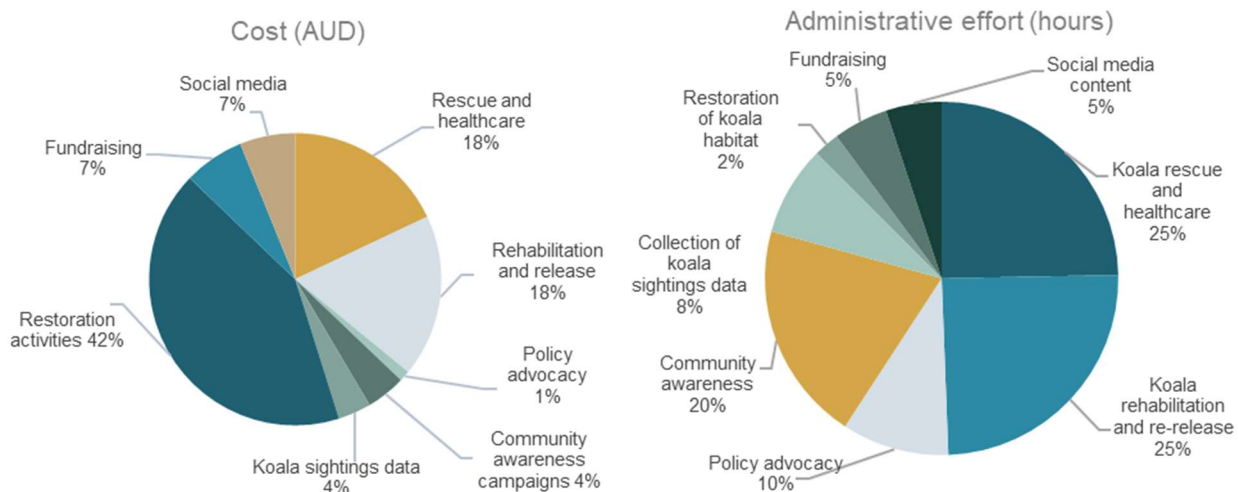
Analysis presented in Section 4 of this report demonstrated that the 2020 regulations delivered a net benefit compared to the previous regulatory approach. While the costs impacts associated with the 2020 koala regulations were difficult to estimate, it is evident that primary impacts to stakeholders are administrative, and that by and large costs can be minimised through avoidance of sites with mapped koala habitat. Overall, the spatial area subject to prohibitions and regulations has increased significantly compared to the previous regulations, and the state administered development assessment process has achieved a range of koala conservation outcomes.

If the clearing rates under previous regulations had been allowed to continue, it is estimated that within a timeframe of 30 years, some 16,500 hectares or 17 percent of the remaining very high-quality koala habitat would have been depleted. Prohibited development under the 2020 koala regulations is predicted to facilitate retention of an additional 10,500 hectares or 11 percent of the very high-quality koala habitat, based on historical rates of clearing. A further amount of very high-quality koala habitat outside of koala priority areas will also benefit from increased regulation, however it is difficult to estimate what additional habitat retention will be achieved due to challenges modelling avoidance behaviour.

Other important benefits of the 2020 koala regulations include cost-savings for governments and wildlife care associations to manage the problem of displaced and injured koalas. A survey of SEQ koala conservation, and carer and rescue groups undertaken for this review, which was facilitated by The Wilderness Society as a member of the Koala Advisory Council, sought feedback on activities undertaken by these groups since commencement of the regulations. The groups noted that pre-approved developments had been a major contributing factor to koala habitat losses since commencement of the 2020 regulations. While it was not possible to determine how the 2020 koala regulations had altered the costs associated with managing koala welfare it was evidence that there were ongoing indirect cost impacts of koala habitat loss on conservation groups.

For example, habitat restoration was reported as the most expensive activity undertaken by koala conservation groups, which costed over 20 times as much as koala rescue, rehabilitation, and re-release actions (Figure 21). On average 45 percent of the annual expenditure of SEQ groups koala conservation activities went into habitat restoration activities. By comparison, groups invest most of their time in koala rescue, rehabilitation, and release activities, which are substantially undertaken by volunteers that invest significant effort unpaid work hours.

Figure 21. Estimation of cost and administrative effort for koala rescue and conservation groups



The 2020 koala regulations also have linkages and dependencies with a range of the government programs. For example, much work is underway under the broader SEQ Koala Conservation Strategy 2020-25 to identify threat priority areas and implement threat mitigation programs. In addition, the SEQ-wide koala population modelling study is currently on track to deliver baseline population density modelling in late 2022.

Since the commencement of the SEQ Koala Conservation Strategy, the Koala Research and Monitoring Program has conducted population surveys at 62 sites ranging in size from 8 to 635 hectares. In total, 130 koalas were directly sighted within sampled areas. Koala density across all sampled areas was estimated at 0.07 koalas per hectare. A new methodology is being developed to utilise this survey data for population trend analyses, which will over time enhance our understanding of whether koala populations in the region are stabilising or increasing because of the 2020 koala regulations.

Planning regulations are an important mechanism to support sustainable development outcomes and are widely used by governments worldwide including for the preservation of habitat important for threatened species. Given the high social and cultural value for the koala, and the predicted impacts of unregulated development activity for this endangered species, allowing the 2020 koala regulations to expire, or not amending the framework to improve consistency of outcomes for koala, is anticipated to result in ongoing and unsustainable net loss of koala habitat in SEQ and further endangerment of this iconic species.

Removing requirements to prohibit and regulate development within areas of important koala habitat would inevitably lead to unacceptable ongoing and accelerated loss in the condition and extent of that habitat. This would not support the Queensland Government's overarching vision outlined in the SEQ Koala Conservation Strategy which is to "halt the decline of koala populations in the wild in SEQ and secure their long-term survival."

On 11 February 2022, the Commonwealth announced the status of koalas under the *Environment Protection and Biodiversity Conservation Act 1994* has been reclassified from 'Vulnerable' to 'Endangered' for the combined koala populations of New South Wales, the Australian Capital Territory, and Queensland. The Commonwealth Government's decision follows the release of scientific information that found koalas are negatively impacted by both acute and chronic stressors including ongoing habitat loss, the 2019-20 bushfires, climate-induced drought, and temperature stress.

The advancement of scientific knowledge around the threatening processes to threatened koala populations since the 2020 koala regulations came into effect is considerable and is also important to consider in this review. Climate change has been modelled 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. There is also new evidence of the impacts of native forest practice, altered fires regimes and increased wildfire frequency on koala populations²⁶.

²⁶ DAWE 2022 National Recovery plan for the Koala: *Phascolarctos cinereus* (combined populations of Queensland, New South Wales, and the Australian Capital Territory). Department of Agriculture, Water and the Environment, Australian Government.

The 2019/20 Australian bushfire caused impacts to wildlife of an unprecedented scale, with estimates of 3 billion native animals killed including 61,000 koalas killed, injured, or affected in some way²⁷. Though primary impacts were to New South Wales koala populations, some areas of koala habitat in Queensland were directly impacted by the fires including estimated impacts to 2 percent of the full extent of koala habitat in SEQ, according to Commonwealth Government modelling²⁸.

The loss of koala populations in the wild in Queensland would have a significant cost impact on Queensland tourism economy. According to Tisdell's 'Human Values and Biodiversity Conservation' the koala is a unique species having both private and public good components. Private beneficiaries from the existence of the koala, include organisations such as wildlife parks and zoos, and tourism bodies that directly benefit from funding for conservation, breeding programs and the tourism value of wildlife encounters for koalas.

The koala is regarded as a significant international tourism attraction for Australia, which in 1996 contributed to the revenue of the Australian tourism industry in the order of AUS \$1.1 billion and 9,000 direct jobs²⁹. These figures were extrapolated based on a survey of foreign tourists departing at airport, and there has been no substantive evaluation of the koala's economic value since. This survey found that koalas were a primary attraction with 72 percent of tourists wanting to see this species during their visit. 67 percent of inbound tourists said that nature-based experiences were also quite important or very important to their experience in Australia.

Other studies have noted the importance of the koala's central role in motivating people's attitudes towards conservation, habitat protection, and climate change awareness^{30,31}. This includes a social survey undertaken by Griffith University Social Marketing, which determined that within SEQ, koala conservation attitudes are high to very high, with stakeholders supportive of their responsibilities to preserve koala habitat, slow down while driving in koala zones, report sick or injured koalas and conserve koalas within their neighbourhoods (Figure 22).

Figure 22. Estimation of koala awareness and conservation attitudes across the SEQ general public



Source: Griffith University (2022)

It is difficult to place an economic value on the koala's cultural symbolism which indirectly benefits a vast array of environmental movements. Protecting and restoring koala habitat in SEQ contributes to retention of greenspace, strengthening amenity values and regional liveability. The presence of koalas in the wild is both a visitor attraction and incentive for interstate migration, which benefits SEQ's regional economies through increased visitation to

²⁷ van Eeden, LM, Nimmo, DG, Mahony, M, Herman, K, Ehmke, G, Driessen, J, O'Connor, J, Bino, G, Taylor, M & Dickman, CR 2020, Impacts of the unprecedented 2019-2020 bushfires on Australian animals, World Wildlife Fund Australia, Ultimo, NSW.

²⁸ Consultation on species listing eligibility and conservation actions: *Phascolarctos cinereus (Koala)*. 2021. The Commonwealth of Australia, Department of Agriculture, Water and Environment.

²⁹ Hundloe, T & Hamilton, C. 1997. 'Koala and tourism: an economic valuation', Discussion Paper No. 13, The Australia Institute, Lyneham, ACT.

³⁰ Schlagloth, R., Santamaria, F., Golding, B., & Thomson, H. 2018. Why is it important to use flagship species in community education? The koala as a case study. 7(1), 127- 148

³¹ McAlpine, CA, Lunney, D, Melzer, A, Menkhorst, P, Phillips, S, Phalen, D, Ellis, W, Foley, W, Baxter, G, de Villiers, DL, Kavanagh, R, Adams-Hosking, C, Todd, C, Whisson, D, Molsher, R, Walter, M, Lawler, I & Close, R 2015, 'Conserving koalas: a review of the contrasting regional trends, outlooks and policy challenges', Biological Conservation, vol. 192, pp. 226–236

national parks, reserves, and wildlife areas. These contribute to ShapingSEQ outcomes.

The department also recognises the unique cultural and spiritual value koalas have to First Nations peoples. In the words of Cameron Costello, a Quandamooka Yoolooburrabee man and member of the Koala Advisory Council, it is recognised that 'the story of the koala starts with First Nations peoples.' Koalas feature in the dreaming stories of many Aboriginal nations across Australia and some First Nations peoples have enduring stewardship responsibilities and obligations to koalas as important totemic animals.

Quote: "The koala was once a food source in many areas, but more importantly, it is the habitat that koalas live in which has intrinsic significance for traditional owners. Habitat is everything, not just for food but also dreaming areas, songlines, stories and tales of connection, life, and survival.

Once the land is gone, the dreaming and songlines are gone. To preserve the land and all its inhabitants we need strong protections for their habitat and to ensure they can travel safely across the landscape and waterways."

Clinton Brewer, Yugambeh Traditional Owner.

Questions for consultation:

Section 6 of the PIR describes the social, cultural and economic benefits of protecting koala habitat. Information quantifying these values within Queensland is limited. The following questions seek to better understand how the koala is valued by stakeholders in our communities.

- **What do you value about koalas in South East Queensland?**

For example:

- *How important is it to you personally to know that koalas are in your local area?*
- *What benefits or value does having koalas in South East Queensland bring?*
- *Can you share any perspectives about the unique cultural and spiritual value koalas have to First Nations peoples?*
- *What impact would there be if koalas no longer lived in natural habitats across South East Queensland?*
- *What economic value do koalas have?*

- **If you were building a development in koala habitat area, what would be your order of preference to minimise impacts on koalas:**

For example:

- *Reduce the development footprint to avoid koala habitat clearing*
- *Keeping the development footprint and make up for habitat clearing with an offset*
- *Find an alternative site that did not require clearing of koala habitat*

- **Would you pay a higher purchase price or higher rent for a property that had avoided koala habitat clearing or incorporated koala sensitive design?**

- **How would you prioritise koala conservation funding?**

For example:

- *Habitat restoration (e.g. planting habitat trees, weed management)*
- *Threat management (e.g. fencing, safe corridors over roads, wildlife hospitals)*
- *Habitat protection (e.g. restricting clearing in koala habitat areas)*
- *Improved research, monitoring and mapping (e.g. koala surveys, disease research)*
- *Partnerships and Community Engagement (e.g. working with others on local projects, citizen science)*

6.2 Is there a need for improvement?

This PIR has demonstrated that the 2020 koala regulations have delivered on their original intent of providing increased protection to koala habitat areas in SEQ, compared to the baseline of the previous regulations. However, the review has also identified that the settings for prohibited development, assessable development and most urgently, exempted development are not adequate and are likely to require improvement.

The original objective of the 2020 koala regulations was to provide increased protection for koala habitat areas in SEQ. This objective is not specific, measurable, attainable, relevant, or time-bound (SMART), which has created some challenges in designing a methodology for this PIR to evaluate the effectiveness of the regulations and

identify potential policy solutions that would ensure the objectives of government action are met in the long term.

Developing forward-looking objectives for the 2020 koala regulations is a priority outcome of this review. Two SMART objectives are presented in this PIR for public feedback:

Objective 1: No net loss of SEQ koala habitat areas within koala priority areas from February 2020 levels, measured in terms of losses (indicated by woody vegetation clearing data and clearing notifications) and gains (environmental offset and functional on-site restoration conditions imposed under state and commonwealth frameworks).

Objective 2: That objective 1 minimises costs to industry, community, and government through appropriate exemptions and assessment thresholds and appropriately resourced development assessment and compliance functions.

Due the relatively short period of time that has passed since the 2020 koala regulations came into effect and the lack of available satellite imagery or data on exempted development clearing, it was not appropriate to model the predicted impacts the 2020 koala regulations are likely to have on protecting koalas and their habitat in the long term.

Accordingly, this Consultation PIR does not consider hypotheticals, but has identified two priority problem areas which were used as criteria to compare the adequacy of options for improvement.

Problem 1: Unintended clearing of koala habitat areas and ineffective monitoring

The impact assessment and stakeholder consultation presented in Section 4 identified several problem areas where the 2020 koala regulations have unintentionally enabled clearing of koala habitat as exempted development that is beyond reasonable limits. This is referred to throughout this review as 'unintended clearing', as the actual clearing which has occurred does not align to the original policy intent when the 2020 koala regulations were passed.

Specifically, the problem of unintended clearing of koala habitat areas and ineffective monitoring is evidenced by:

- case studies of areas up to 10,000 square meters of koala habitat being cleared due to stacking of exempted development provisions
- unclear wording of the exempted development definition has led to partial assessment, which reduces the area of clearing that can be assessed and subsequently offset
- there is no ability to encourage landholders and developers to avoid or minimise impacts of development that meets the requirements of exempted development, resulting in poor outcomes for koalas and koala habitat including within koala priority areas
- no ability to monitor clearing that is either approved or undertaken as exempted development, which has limited the ability of government agencies to perform effective compliance.

Stakeholders have identified that the above issues are allowing for continued, unreasonable koala habitat losses across the SEQ region, which by nature of being exempted development are unmonitored, unregulated, and uncompensated by means of environmental offsets or rehabilitation conditions. There is also concern among stakeholders that these clearing activities pose unacceptable threats to koalas as there is no consideration given to ensuring safe koala movement and retaining connectivity where possible. This is a particular concern for developments occurring within koala priority areas.

The full list of stakeholder concerns raised with the definition of exempted development are fully described in Section 4 and Appendix E of this report.

It is difficult monitor the exact losses (clearing) and gains (such as through offsets, rehabilitation, and passive restoration) which have occurred across SEQ within the short timeframe since the 2020 regulations commenced, and to understand how the issues associated with the application of exempted development may have contributed to koala habitat losses overall. This includes supporting achievement of the Queensland Government's five-year target of a net gain in koala habitat areas across SEQ.

Problem 2: Unnecessary complexity, costs, and limited certainty for users

Section 4 of this report identified from data analysis and stakeholder feedback that the regulations have resulted in unnecessary complexity, costs, confusion and limited certainty for assessment managers, technical advice agencies and end users. In response, the working group reviewed whether the regulations have effectively delivered on the Koala Expert Panel's recommendation.

Specifically, the problem of unnecessary complexity, costs and limited certainty is evidenced by:

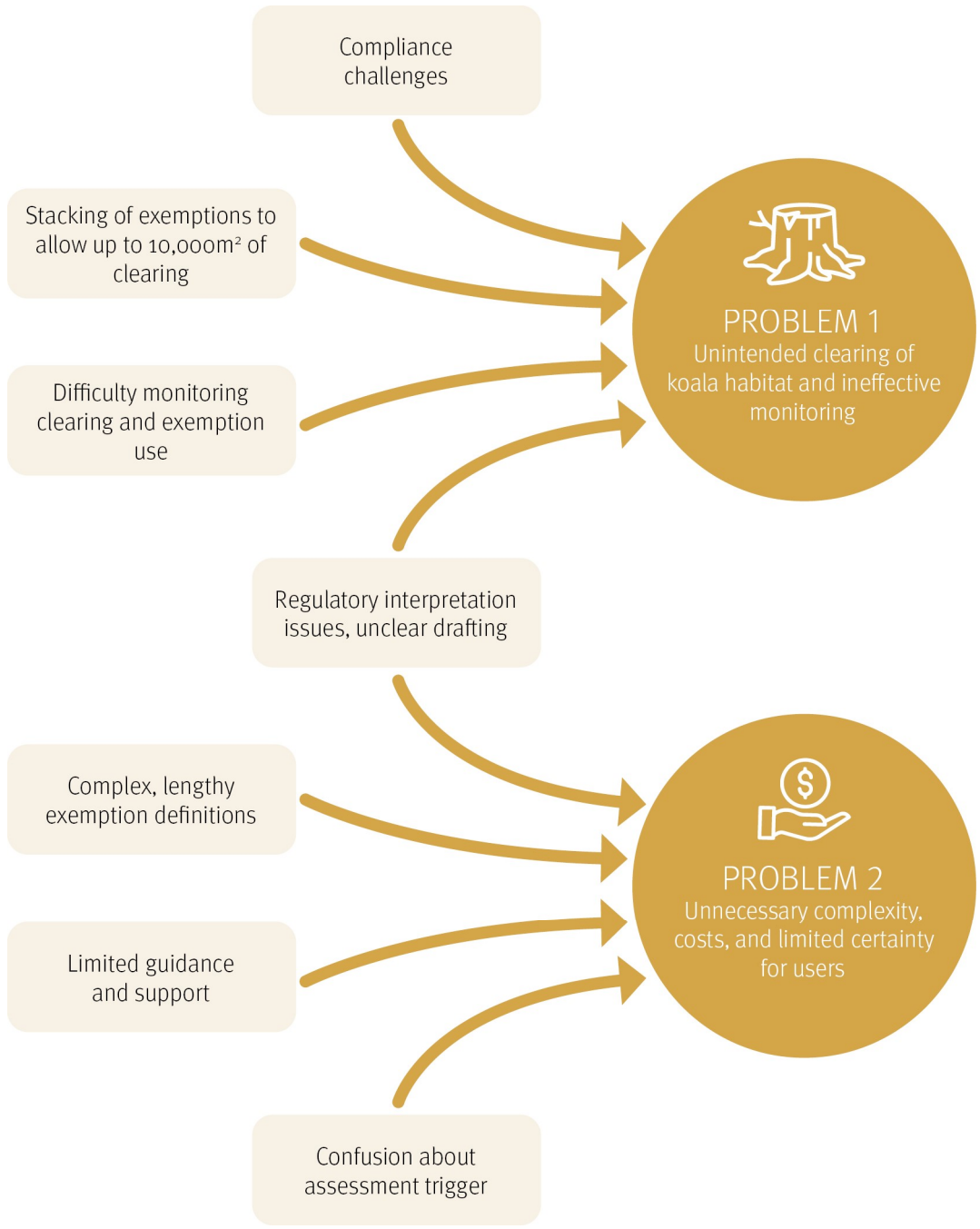
- the exempted development definition which is complex and lengthy with 46 separate limbs, and which cross references other legislation and schedules of the Planning Regulation 2017

- some limbs of exempted development are overly complex with similar purposes, and there may be opportunity to consolidate to improve clarity and consistency
- reliance on the Vegetation Management framework has led to some confusion and inconsistencies, for example the exhaustible 500 square meter clearing allowance (k) for any purpose such as for a building envelope, and allowable widths for constructing a necessary fence, road or track differ between the 2020 koala regulations and ADVCCs
- it is unnecessarily difficult to determine whether a development is assessable, prohibited, or exempted as a whole, due to some exempted development provisions resulting in a project becoming partially exempted
- it is unclear how the policy should be applied to different aspects of development, and how the exhaustible 500 square meter allowance under exempted development (k) can be relied upon for different purposes over time and as subdivisions occur creating new Child Lots from Parent Lots.

The complexity of the exempted development definition impacts the effectiveness and efficiency of the 2020 koala regulations, resulting in unnecessary time and cost imposts on stakeholders, as well as resourcing implications for assessment managers, technical advice agencies and SEQ local governments alike. Stakeholders have reported financial and resource implications in the form of increased staffing requirements, and delays associated with development assessment timeframes (up to 29 business days compared with other state matters), delays in responding to enquiries, and a small number of instances where fees for incorrect referral were incurred.

The Queensland Government working group considered the findings of the impact assessment and concluded that overall, the complexity of the 2020 koala regulations and in particular the exempted development definition had resulted in protracted delays and unnecessary costs for users. The working group concluded that regulatory amendment is advisable to clarify the assessable development provisions and exempted development definition under the Planning Regulation 2017, to better achieve the Koala Expert Panel's recommendation of a more simplified planning framework.

Figure 23. Graphic overview of the drivers contributing to the two problem areas



7 Impact analysis of options

This Consultation PIR seeks to ensure that the proposed recommendations are effective and appropriate, and do not impose an unnecessary burden on stakeholders. In line with the requirements of the Queensland Government's Guide to Better Regulation (2019) and Queensland Treasury's Project Assessment Framework for Cost-Benefit Analysis, the following sections evaluate three potential policy options that address the two problem areas identified through this review.

The purpose of this evaluation is to identify the option that will deliver the greatest net benefit for Queensland and fulfill the expectations of stakeholders including the community, industry and government. There are three options presented for consideration in this PIR, which are described below.

Option 1 Status quo

Retaining the 2020 koala regulations without any changes of a regulatory or non-regulatory nature.

Option 2 Clarification of regulatory requirements

This option involves minor regulatory amendment to:

- clarify the intended application of the prohibition, development assessment and exempted development provisions
- develop a process for notification to the department of koala habitat clearing
- establish a new self-assessment pathway which supports small scale rural and residential development to minimise impacts on koalas.

Option 3 Regulatory improvement to provide a stronger, more simplified framework for koala conservation

This option involves regulatory review and amendment to:

- reduce complexity of exemptions and remove ambiguity of partial exemptions and interaction with other legislation
- establish clear thresholds above which development assessment or prohibition is required
- clarify the intended application of the prohibition, development assessment and exempted development provisions (same as option 2)
- develop a process for notification to the department of koala habitat clearing (same as option 2)
- establish a new self-assessment pathway which supports small scale rural and residential development to minimise impacts on koalas (same as option 2).

Cost-benefit analyses have been used to assess these options. In this forward-looking analysis, costs and benefits have been forecast into a time horizon of 10 years into the future. One limitation of these analyses is difficulty expressing costs in purely monetary terms, as some impacts relate to social or environmental values. For this reason, a qualitative assessment of risks and impacts for different stakeholder groups has also been included.

Stakeholder feedback is invited on all the options in this review and is encouraged in relation to any forecast of the costs, benefits or impacts presented in this section.

7.1 Option 1: Status quo

Option 1 proposes to retain the status quo by retaining the 2020 koala regulations, without any policy change either of a regulatory or non-regulatory nature. This option would not see any new Queensland Government legislative intervention to address any of the issues identified in this review. This option has been considered as a baseline against which the relative benefits and costs of alternative regulatory intervention can be considered. There are no new financial costs to stakeholders associated with this option, beyond the continuation of costs described in section 4 of this report.

Retaining and maintaining the 2020 koala regulations in their current form would continue to provide a clear regulatory framework for the prohibition, assessment, and management of impacts to SEQ koala habitat areas. Importantly, this would respond to the rapid urban growth in the region and provide certainty to the development sector about project siting considerations. Based on analysis in Section 4 of this report, the 2020 koala regulations have delivered improved outcomes compared to the previous regulations, and their removal is not recommended.

Despite this, retaining the 2020 koala regulations in their current form is forecast to perpetuate ongoing unintended clearing of koala habitat areas resulting from new development which is exempted from assessment under the framework. This development will continue to impact upon habitat within koala priority areas, which are identified

using scientifically robust methods as the most important and valuable habitat for conserving koala populations in the long term.

Option 1 is also forecast to result in ongoing inefficiencies associated with the interpretation and implementation of the 2020 regulations, that are resulting in unnecessary time delays and other costs to stakeholders. This includes ongoing resourcing implications for assessment agencies, technical advice agencies and SEQ local governments. This option does nothing to address Problem 1 and Problem 2 of this report, which speak to the unnecessary complexity and costs to stakeholders, and unintended clearing of koala habitat areas which has been identified through the Section 4 impact assessment of this report.

Option 1 is unlikely to satisfy community expectations for the Queensland Government to act in relation to koala conservation, particularly in context of the recent up-listing of koalas from a Vulnerable to an Endangered species under the Environmental Protection and Biodiversity Conservation Act 1999 and the Nature Conservation Act 1992. It is also unlikely to be supported by stakeholders including SEQ local governments and environmental groups.

Option 1 is also unlikely to satisfy the expectations of industry, private landholders, and developers to receive clear guidance and advice on the applications of the 2020 regulations, and for government to take reasonable action to ensure that cost impacts on this sector can be minimised as far as is practically possible.

Forecasted impacts, costs and benefits

Retaining the Status Quo is not a spend nothing or do-nothing scenario, as it will continue to reflect the significant koala conservation benefits and minor cost increases to stakeholders which have resulted from the 2020 koala regulations. All forecasts presented in this report are based on actual observations of impacts and benefits from the first two years application of the 2020 koala regulations relative to a baseline of the previous regulations, as described in Section 4 of this report.

Over a 10-year timeframe, it is forecast that the development prohibitions will result in the retention at least 1,700 hectares of koala habitat with the greatest conservation potential, based on the actual historical rates of clearing under the previous regulations. Over the same period, 2,730 hectares of koala habitat of koala priority areas is also expected to benefit from the regulatory changes, due to observed behaviour among the development sector to avoid any sites containing koala habitat. The impact of this behaviour on koala habitat clearing rates could not be quantified through this review. As a result of annual map update processes that continuously improve the mapping, it is anticipated that over a 10-year period, several hundred hectares of high value regrowth koala habitat areas will be incorporated into the maps as vegetation regenerates over time.

The benefits the 2020 regulations will deliver to koala populations over a 10-year timeframe are more challenging to forecast, as to establish overall impacts on populations sizes an appropriate period of examining is three generations or 18 – 24 years, as consistent with the current best practice for assessing the conservation status of species. However, based on estimates of average koala densities of 0.07 koalas per hectare across the SEQ region as reported by the department's koala research and monitoring program, it can be shown that the increase in prohibited development area of 272,360 hectares overall (excluding prohibitions under previous regulations and existing protected areas) would support the ongoing protection of habitat with potential to support a koala population of up to 19,000 individual koalas into the future.

There are significant uncertainty in these estimates, which are not based on scientifically robust modelling methods, and do not consider the impacts of threatening processes and stochastic events that are predicted to increase over time, such as climate change and bushfires.

Since the 2020 regulations commenced, some 15 hectares of impacts to SEQ koala habitat have been required to deliver an environmental offset at a 3:1 ratio, with a further 5.4 hectares of rehabilitation conditions applied through development assessment. Forecast over a 10-year period, it is possible that the 2020 koala regulations will the trigger delivery of around 225 hectares of koala habitat offsets, which in accordance with the Environmental Offsets Policy 2014 are most likely to be delivered within koala priority areas that are proximate to impact sites. Offsets conditioned from larger impacts to SEQ koala habitat which are assessed by the Commonwealth under the Environmental Protection and Biodiversity Conservation Act 1999 will further increase the expected gain in habitat over time – however this has not been modelled for this analysis.

The exempted development provisions (k, l and p) which can be stacked to establish new infrastructure such as for a building envelope and reasonably associated infrastructure provide cost savings to stakeholders of around \$17,400. While the actual frequency of uptake of this important life and property exemption unknown, there were 63 enquiries relating to this exemption use over two years. If it is taken conservatively that 10 developments per year have utilised these exemptions, over a 10-year period this represents \$1.75 million in cost savings to stakeholders. Importantly, this exemption allows for a significant reduction to administrative burden for state assessment managers and technical advice agencies, by reducing the volume development applications that would otherwise be referred, although these cost savings could not be estimated for this review.

The above-described benefits do incur some costs to government and stakeholders which are not insignificant.

Aside from the once-off costs described in this report which included development of new koala habitat maps, regulatory reform package and associated guidance materials, the primary impacts of the regulations on stakeholders including the maximum total average cost of development assessment, consultancy, and offset costs for an average offsetable impact area in SEQ is estimated around \$105,700. There are other additional costs associated with avoidance behaviour and time delays in development assessment, however these are considered minor in comparison.

Table 12. Summary of expected benefits, impacts, and costs of Option 1: Status quo compared to a baseline of the previous regulations

Expected impacts and costs over 10 years	Expected benefits over 10 years
<p>Koala conservation</p> <ul style="list-style-type: none"> Ongoing unintended, unmonitored, and unregulated losses of SEQ koala habitat including within the koala priority area, due to stacking of exempted development limbs to maximise clearing. Based on estimates from extrapolating case studies provided from five local government areas to across the SEQ region, this could mean average annual losses of up to 180 hectares in koala priority areas over 10 years and up to a further 216 hectares of unregulated losses outside of the koala priority areas that would otherwise require assessment and possibly offsets. <p>Landholders and industry*</p> <p><small>*Based on assumptions including average annual applications (n=35) assessed across the SEQ region</small></p> <ul style="list-style-type: none"> Ongoing development assessment time delays for applicants in the order of 10,000 business days over 10 years. SARA assessment costs (\$3,300) and environmental consultants fees around \$2,000 AUD per application, amounting to about \$1.85 million in costs over 10 years. This is primarily absorbed by industry, as individual landholders are generally able to utilise exemptions for small-scale infrastructure and routine land management practices. Environmental offset financial settlement payments in the order of \$12 million, which are around \$105,700 for the average impact area in SEQ. <p>Government</p> <ul style="list-style-type: none"> Cost inefficiencies for local governments including additional administrative hours, staff / resourcing requirements and ad hoc requirements for environmental planning and legal advice. Time taken and administrative hours for state agencies to respond to enquiries to the Department of State Development, Infrastructure, Local Government and Planning (not estimated), the Department of Resources (\$9,900 over 10 years) and the Department of Environment and Science (\$91,300 over 10 years). Additional annual administration costs for the Department of State Development, Infrastructure, Local Government and Planning resulting from increased time to assess koala applications, estimated to be an additional \$55,000 per year. Increased administrative hours to complete monitoring and compliance. 	<p>Koala conservation</p> <ul style="list-style-type: none"> Prohibitions applied to an additional 159,636 hectares of koala habitat across SEQ, a benefit valued in the order of \$1.65 billion for habitat protection under a nature refuge model. This has the potential to support a koala population over 19,000 individuals, based on average koala density estimates. Based on historical clearing rates, the prohibition will prevent up to 1,700 hectares of koala habitat from being cleared, and assessment requirements will disincentive clearing allowing up to a further 2,730 hectares outside of priority areas being retained. Conditions to deliver environmental offsets for around 225 hectares of koala habitat, as compensation for 75 hectares of impacts. This represents a net gain of 150 hectares of SEQ koala habitat which is directed into koala priority areas with the highest conservation potential. Through the annual map amendment process, incorporation of several hundred hectares of regrowth habitat into the statutory map over a 10-year period. <p>Landholders and industry</p> <ul style="list-style-type: none"> Ongoing cost savings of around \$17,400 for a once-off new development to establish a dwelling and associated infrastructure, involving up to 800 square meters of exempt clearing. For a conservative estimate of 10 developments per year over 10 years, this is a cost saving of \$1.74 million for land holders. <p>Government</p> <ul style="list-style-type: none"> Support the Queensland Government's vision and targets outlined under the SEQ Koala Conservation Strategy 2020-25 including progress toward Target 2: a net gain in the core koala habitat area.

The department acknowledges there are limitations and deficiencies in the data collected from stakeholders to inform this PIR to date. Stakeholders are invited to have their say about the actual impacts of the 2020 koala regulations on their property or industry, and to provide their views about how the regulations have or have not improved outcomes for SEQ koala habitat to date. The following questions have been prepared to guide information stakeholders may wish to provide.

7.2 Option 2: Clarification of regulatory requirements

To address problem 1 and 2 using the existing planning controls for koala habitat, option 2 proposes minor regulatory changes (Table 13).

Table 13: Relationship between the problems and Option 2

Problem 1: Unintended clearing of koala habitat areas and ineffective monitoring	Problem 2: Unnecessary complexity, costs, and lack of certainty for stakeholders
<ul style="list-style-type: none"> • Clarifying how the total clearing impact of a development should be considered in assessment. • Clarify the use of exhaustible exempted development provision (k) which allows up to 500 square meters of clearing for any purpose, and how this interacts with other limbs of the exempted development provisions (l) through to (p). • Introducing a provision to allow new infrastructure below assessment thresholds to be subject to requirements of a self-assessable code. • Introducing a process for notifying koala habitat clearing. 	<ul style="list-style-type: none"> • Clarifying the prohibition and assessable development provisions apply to developments as a whole (i.e., in full, not partially) • Clarifying how the provisions apply to each aspect of development • Amend the exempted development provisions to clarify their application, including: <ul style="list-style-type: none"> ○ which limbs can be stacked ○ how the total clearing impact of development should be considered.

The policy intent of option 2 with respect to problem 1 of this review is to address the unintended clearing of SEQ koala habitat through amendments to the exempted development definition to limit the extent of exempt clearing that may occur. This option also ensures that the entire development footprint is assessable unless exempt in its entirety, which would reduce confusion about how significant residual impacts to SEQ koala habitat and any resulting environmental offset requirements are to be calculated to ensure losses are counterbalanced. It would also improve koala conservation outcomes through establishment of a self-assessment pathway and improved monitoring.

The policy intent of option 2 with respect to problem 2 of this review is to provide greater clarity around the assessable development and prohibited development provisions and to reduce complexity of the exempted development definition. Amendments have the anticipated outcomes of providing some improved clarity and certainty to stakeholders about the interpretation of the regulations, including how they relate to each aspect of development, which may improve timeframes for development assessment.

Option 2 seeks to achieve the above expected outcomes through minor regulatory changes to the 2020 koala regulators, which would clarify what developments are intended to be assessed, prohibited, or exempted, establish a requirement for clearing notification and introduce requirements for interference with koala habitat for infrastructure development that is currently exempted, to ensure greater consideration of koala conservation outcomes.

It is noted there are some limitations to the regulatory amendments proposed under this option including that it does not fully resolve the issue of unintended, unmonitored, and unregulated losses of SEQ koala habitat including within the koala priority areas. This option does not fully resolve the issue that assessment managers will still be required to calculate how exempted development limbs stack to determine whether the development is exempted development. It is expected this will result in ongoing cost inefficiencies for government and stakeholders.

Benefits of a self-assessment pathway for new rural and residential infrastructure

Currently, clearing of koala habitat areas under an exemption does not require any agency assessment. Landholders are directed to a guideline to self-determine if the clearing is exempt and are not required to report when clearing under an exemption. The complexity of exemptions has resulted in ongoing requirements for landholders to seek clarification on their obligations and in some cases, delayed projects.

The pathway would provide certainty to landholders when legally clearing and support new small-scale development by applying consistent assessment benchmarks for safe movement and reduce impacts on koalas and their habitat.

This pathway would also require that clearing with koala habitat below set thresholds consider whether the clearing is necessary and consider opportunities to avoid impacts to improve outcomes for koala conservation.

A self assessment approach is intended to reduce confusion unnecessary enquires from landholders. If clearing does not meet the requirements of the self-assessable pathway it would be either assessable development or prohibited.

The self-assessment tool would operate in a similar way to the Accepted Development Vegetation Clearing Codes under the Vegetation Management Framework.

The self-assessable pathway would include online guidance requiring applicants to assess that the development:

- Avoids impacts on koala habitat, by ensuring that clearing is necessary as there are no other cleared areas on the site that could be utilised, or opportunities to consolidate clearing.
- Minimises impacts on koalas and koala habitat, by having regard to:
 - Maintaining connectivity between koala habitat patches to allow koalas to feed, rest and move around.
 - Koala safety and movement through the design and layout of the development.
 - Managing risks to koalas on-site during construction phases.

The department is seeking feedback on the options for implementing the self-assessable pathway.

Clearing of necessary firebreaks, safety buffers and fire management lines would remain exempt, consistent with the Queensland Government's commitments to implement recommendations of the bushfire Royal Commission.

About clearing notification

Currently there is no requirement to notify the department when clearing of koala habitat occurs, which limits ability to monitor koala habitat losses and gains and also limits effective compliance.

Online notification of koala habitat area clearing is proposed to be required for clearing under the self-assessable pathway. Notification of clearing for other purposes, including under the fire management exemption and for approved development would be encouraged. Establishing a comprehensive database for tracking losses of koala habitat areas within SEQ will deliver substantial benefits to state agencies and SEQ local governments including enhanced compliance functions and is expected to create cost efficiencies in the long term by improving recordkeeping, reducing wait times for stakeholders to notify the department via email. This information will also help to ensure that unregulated losses of koala habitat are being adequately compensated through habitat restoration programs.

The department proposes to develop a new online reporting form where applicants would be able to enter information about the proposed interference and/or the exemption being utilised, including the configuration and area of koala habitat area clearing (in square meters), and the allotment where clearing is being undertaken. These records would be maintained on a publicly accessible register. For self-assessable clearing, applicants would also be required to confirm at the time of notification that they understand and will comply with the self-assessable requirements.

Similar reporting exists for some ADVCCs under the Vegetation Management Framework, and any new reporting form would be developed in consultation with the Department of Resources.

Table 13. Summary of expected benefits, impacts, and costs of Option 2: Clarification of regulatory requirements

Expected impacts and costs	Expected benefits
<p>Impacts and costs are as described as per Table 12, Status Quo, in addition to:</p> <p>Koala conservation</p> <ul style="list-style-type: none"> • Nil additional adverse impacts to koala habitat are anticipated. • Although illegal clearing is subject to penalties, failure to report clearing will not be an offence subject to penalty if the clearing is consistent with regulatory requirements. <p>Landholders and industry</p> <ul style="list-style-type: none"> • Reducing exempted development clearing and clarifying that developments are wholly assessable, prohibited or exempted is expected to have the following impacts on landholders: <ul style="list-style-type: none"> ○ increasing slightly the number of projects outside that are referred for development assessment (< 5 per year) ○ increasing slightly the number of projects that are prohibited development (<5 per year). • These additional assessable projects will be required to pay current fees estimated in Table 12, which are around \$5,300 in total assessment costs, including ecological advice, and up to \$105,700 for an average environmental offset. • Clarifying use of the exhaustible 500 square meter exemption for any purpose would prevent industry from combining this exemption with the 500 square meter allowance under the Infrastructure ADVCC. Based on case studies, this may impact from several up to ten projects per year which have avoided development assessment and environmental offset obligations (if outside the priority areas). • Clarifying the exhaustible 500 square meter exemption for any purpose would also prevent several projects per year from avoiding the prohibition within priority areas. • Minor time impost to read and understand requirements of guideline prior to undertaking clearing. • Minor time impost in the order of 15 minutes to complete a simple online notification form, with no associated fees required. Options to reduce the administrative burden in circumstances where notification is also required under an ADVCC will be developed in consultation with the Department of Resources. <p>Government</p> <ul style="list-style-type: none"> • Once-off cost for the department to prepare regulatory amendments and associated guidance material, retrain staff in state agencies and SEQ local governments on the simplified framework. • A once-off cost for the department to develop a self-assessable code and update web materials, within very minimal ongoing cost predicted to maintain and host the code on the departmental website. 	<p>Benefits described as per Table 12, Status Quo, in addition to:</p> <p>Koala conservation</p> <ul style="list-style-type: none"> • Some improved counterbalancing of losses and reduced koala habitat clearing that can be discounted because of exempted development (under 50 hectares over 10 years). • The self-assessment code will enhance retention of koala habitat through greater community understanding of and increased regulation of avoidance behaviour. • Improved guidance for use of exemptions including for fire management, and to provide clarity on what development is assessable will reduce unnecessary clearing. • Notification will enable improved monitoring and oversight of clearing that is currently unregulated and may benefit Queensland Government's understanding of the scale of habitat losses. This will enhance tracking against Target 2 of the SEQ Koala Conservation Strategy: a net gain in the core Koala Habitat Area. • Enhanced compliance ability, including the benefit which is derived from compliance as a deterrent to illegal clearing activities. Over a 10-year period, this may result in improved retention for SEQ koala habitat (unknown). <p>Landholders and industry</p> <ul style="list-style-type: none"> • Expected that landholders and industry will be required to make fewer enquiries to state agencies and time delays to receive advice and experience some benefit in a reduction in time taken to receive advice or assess applications. This is achieved through both regulatory amendments to clarify the framework and to improve guidance materials relating to the utilisation of exemptions for clearing associated with safety, fire management and routine land management purposes. • Self-assessment would achieve a stronger, more simplified planning framework by reducing complexities, simplifying linkages between legislative instruments, and addressing legislative interpretation issues. • Greater certainty and clarification of obligations for development that currently not assessable, by establishing clear and easily understood regulatory standards that fill the current void of information regarding compliance. This will increase transparency and build capacity of landholders to understand how their clearing complies with statutory requirements. • As online notification is an instantaneous process which can be completed by a stakeholder at any time, a very substantial reduction in time costs can be expected compared to processes under Status Quo which require an enquiry and response time. • Notification can also provide stakeholders with added certainty about clearing that is allowable on their property, without referral to SARA for assessment consideration. <p>Government</p> <ul style="list-style-type: none"> • A reduction in pre-lodgement advice sought from governments may be achieved, due to added certainty about what can be cleared. • Improved alignment between the 2020 koala regulations and Vegetation Management framework's ADVCCs, and guidelines including for Koala Sensitive Design.

Expected impacts and costs	Expected benefits
<ul style="list-style-type: none"> Once off cost for the department to develop a simple web notification tool, with minimal site maintenance costs anticipated over a 10-year period. Notification that provides for the collection of spatial data could be slightly more costly, however existing government systems could potentially be replicated. Ongoing effort on behalf of state agencies and SEQ local governments to ensure landholders are aware of requirements, which may initially increase because of regulatory amendment. Some minimal administrative effort would be required to ensure actual clearing undertaken as self-assessable accepted development complies with the code. 	<ul style="list-style-type: none"> Notification that provides for the collection of spatial data will improve compliance, monitoring, review, and reporting. There will reduced administrative burden for governments by shifting more responsibility onto applicants to undertake clearing lawfully. The Department of Resources also note that notification provides substantial benefits for compliance monitoring including increasing administrative efficiencies, which are also likely to have flow on benefits to SEQ local governments. This will substantially reduce time taken to investigate clearing activity and differentiate between exempted and suspected illegal clearing.

7.3 Option 3: Regulatory improvement to provide a stronger, more simplified framework for koala conservation

To address problem 1 and 2 through amendments to the existing planning controls for koala habitat, option 3 proposes to adopt all elements of option 2, with the following additional amendments to further reduce complexity, improve certainty and fully address unintended clearing (Table 14).

Table 14: Relationship between the problems and Option 3

Problem 1: Unintended clearing of koala habitat areas and ineffective monitoring	Problem 2: Unnecessary complexity, costs, and lack of certainty for stakeholders
<ul style="list-style-type: none"> Placing a clear threshold on the amount of clearing that may occur under one or more of the exempted development provisions, while recognising the need for clearing for essential management purposes. Removing certain exempted development limbs through redrafting of the prohibited development and assessable development provisions to: <ul style="list-style-type: none"> reduce complexity of exemptions remove ambiguity of partial exemptions clarify interaction with other legislation. 	<ul style="list-style-type: none"> Clarifying how the provisions apply to each aspect of development, including requirements for preliminary approval, staged development and building and plumbing works. Amending the exempted development provisions to clarify their application, including: <ul style="list-style-type: none"> simplifying and consolidating the 46 limbs of the definition by grouping together any similar subsections ensuring alignment with the Vegetation Management frameworks ADVCCs clarifying which exemptions may apply sequentially up to clear thresholds for the maximum amount of clearing.

Option 3 differs from Option 2 in that it involves more extensive amendments to the assessable development and prohibited development provisions, and more extensive amendments to the exempted development definition. This includes establishing clear thresholds for maximum clearing allowable as exempted development and to remove certain limbs which are contributing to unreasonable clearing. Option 3 would make interpretation of what developments are intended to be prohibited, assessable and not assessed by the state unambiguous, to fully address unintended administrative burdens and cost impacts on stakeholders.

The above amendments have been identified under the objective of reducing the length and complexity of the exempted development provisions, allowing for rapid determination of assessment responsibilities and an overall reduction of the assessment complexity. It is acknowledged that consequently, non-regulatory changes to departmental websites and guideline documents will be required so that users of the framework can clearly understand how their development is exempted, assessable or prohibited.

The policy intent of Option 3 in relation to Problem 1 is to reduce unnecessary complexity, administrative burdens and time delays associated with determining whether a development should be referred for assessment or if a prohibition applies. This regulatory change would improve efficiency of assessment, allowing rapid determination of whether proposed development is directed into either assessable or prohibited development categories. This option also seeks to resolve the issue of partial assessment and partial prohibition, to ensure that developments can be rapidly sorted into a relevant stream according to clear thresholds which if exceeded a development is assessable or prohibited in its entirety. Simultaneously, the amendments will clarify how the policy is intended to be applied when subdivision occurs. This option would also improve koala conservation outcomes through establishment of a

self-assessment code and improved monitoring.

The policy intent of Option 3 in relation to Problem 2 is to address the issue of exempted development provisions that can be cumulatively applied to maximise clearing of koala habitat areas. This has resulted in large areas of koala habitat being cleared for new development and has avoided both environmental offset obligations and the prohibition in koala priority areas. This option would clarify is the entire footprint of a development is intended to be assessed against State Code 25 against the avoid, minimise, offset mitigation hierarchy. This amendment has the intended outcome of reducing the size of impacts within koala priority areas and clarifying requirements for assessable development such as how environmental offsets are to be calculated.

Importantly, any limits imposed for developments will not be inclusive of essential land management practices for example for fire and safety purposes, to ensure that risk to life, person and property is not compromised. Supporting improvements to guidance materials would accompany this option, to provide stakeholders with certainty that they may undertake clearing for fire management that is necessary and appropriate to reduce fire risk, as is consistent with the findings of the Royal Commission³².

Consultation on thresholds for exempted, prohibited and assessable development

Regulatory amendment is being considered to establish a threshold for clearing that can occur for a smaller scale rural/residential development, which includes most single dwelling houses. This development, which is currently able to be undertaken by stacking different limbs of the exempted development definition, would be subject to a self-assessable reasonability test to confirm that the clearing is necessary (i.e. there are no existing cleared areas on premises that could be utilised) and it is within the regulated threshold.

A key challenge with establishing clear thresholds for development assessment and prohibition is ensuring they are of an appropriate scale and have regard to variability in allotment sizes. Including the exempted development provision (n) which allows essential management activities (such as firebreaks, fire management and safety) within this threshold is not considered appropriate, as limiting this activity may endanger life and property, and not be consistent with the recommendations of the Royal Commission.

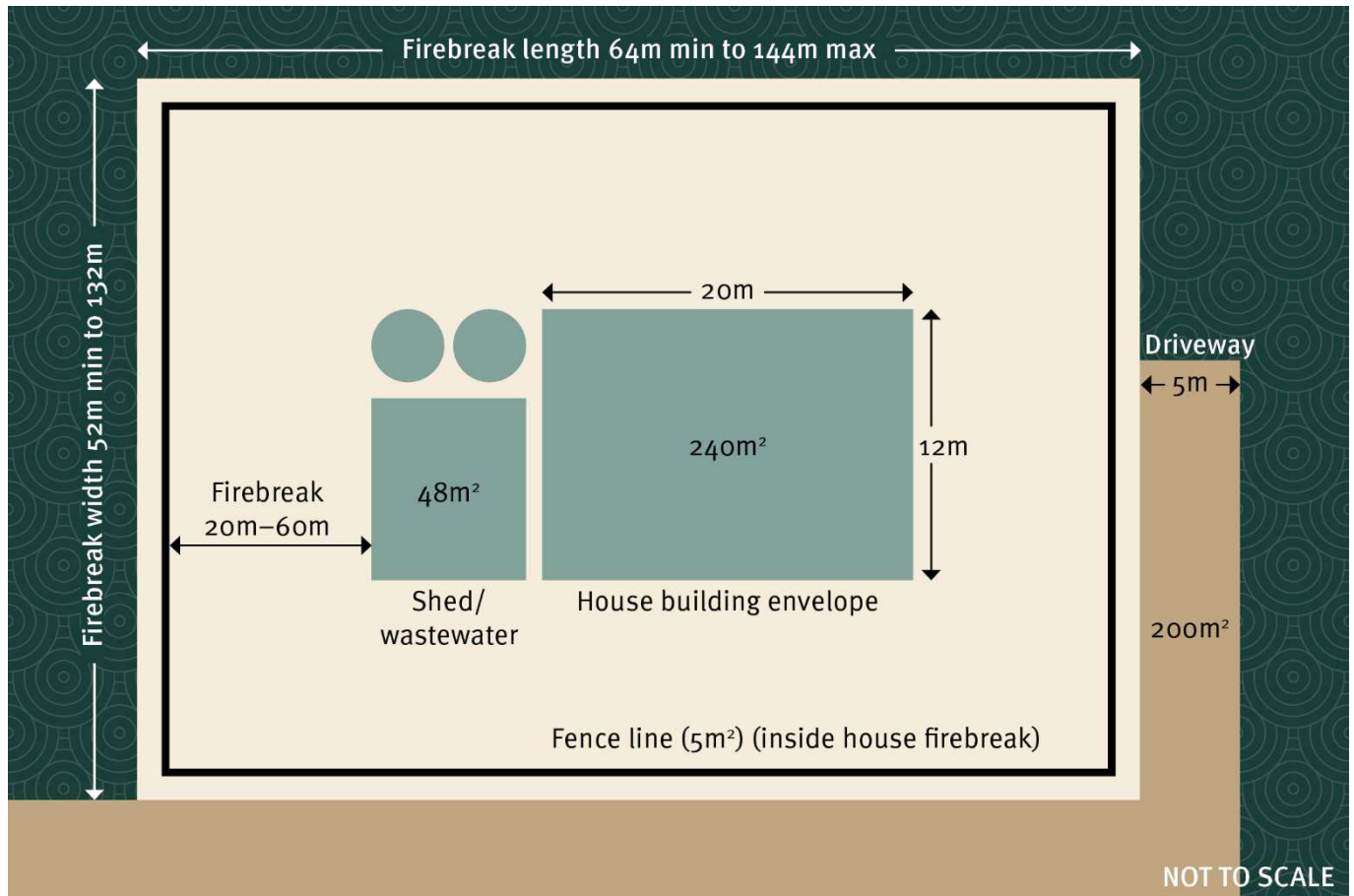
Tiered thresholds will provide for once off clearing for new rural/residential development that is up to 500square meters on an urban zoned lot and 800 square meters on a rural zoned lot. This tiered approach appropriately recognises the potential need to accommodate some additional clearing for access tracks and on-site wastewater for rural properties. Figure 24 demonstrates the different aspects of development that would contribute to calculating the threshold in a rural zoned lot.

Proposed thresholds are inclusive of all clearing associated with a new development, excepting of necessary clearing for a firebreak as is consistent with the findings of the Royal Commission. Calculation of whether the threshold is exceeded is achieved by adding together all other clearing associated with a new development, including for example the building envelope for houses or other infrastructure such as a shed, any necessary roads, fences or tracks, clearing for on-site wastewater, and any setbacks between infrastructure. In figure 24 the green and dark brown areas would contribute toward the threshold, while the light brown area of the firebreak would be excluded. Detailed supporting materials on calculating against thresholds will be provided through the self-assessment pathway for new rural and residential infrastructure.

If proposed clearing is beyond these thresholds, the development will become prohibited (if within a koala priority area) or will be assessable development, requiring referral to SARA for assessment. The entire development footprint, inclusive of the firebreak, will be considered when assessed against performance outcomes, including environmental offset calculations, if required.

³² Binskin, Mark & Bennett, Annabelle & Macintosh, Andrew (2020). *Royal Commission into National Natural Disaster Arrangements - Final Report*. Royal Commission into National Natural Disaster Arrangements. Australian Government.

Figure 24. Aspects of development on a rural zoned lot



The 500 square meters and 800 square meters proposed thresholds are based on Australian Bureau of Statistics data on the average building envelopes and lot sizes across SEQ³³, and the precedent of the previous koala regulations which set a clear threshold for which over 500 square meters of clearing for a Material Change of Use or Reconfiguration of Lot was assessable. Benefits of introducing clear thresholds include providing necessary certainty and simplicity to stakeholders and addressing the unintended clearing of koala habitat areas which has resulted from excessive stacking of exempted development provisions. It is noted that overall, these clearing thresholds are smaller than what is currently provided for under the Vegetation Management framework's ADVCC for Infrastructure, which appropriately reflect the Queensland Government's intention to provide a greater level of protection to koala habitat areas.

³³ ABS (2022). ABS Land and Housing Supply Indicators – June 2022 release, Australian Bureau of Statistics, Australian Government,

Benefits of a self-assessment pathway for new rural and residential infrastructure*

Currently, clearing of koala habitat areas under an exemption does not require any agency assessment. Landholders are directed to a guideline to self-determine if the clearing is exempt and are not required to report when clearing under an exemption. The complexity of exemptions has resulted in ongoing requirements for landholders to seek clarification on their obligations and in some cases, delayed projects.

The pathway would provide certainty to landholders when legally clearing and support new small-scale development by applying consistent assessment benchmarks for safe movement and reduce impacts on koalas and their habitat.

This pathway would also require that clearing with koala habitat below set thresholds consider whether the clearing is necessary and consider opportunities to avoid impacts to improve outcomes for koala conservation.

A self assessment approach is intended to reduce confusion unnecessary enquires from landholders. If clearing does not meet the requirements of the self-assessable pathway it would be either assessable development or prohibited.

The self-assessment tool would operate in a similar way to the Accepted Development Vegetation Clearing Codes under the Vegetation Management Framework.

The self-assessable pathway would include online guidance requiring applicants to assess that the development:

- Avoids impacts on koala habitat, by ensuring that clearing is necessary as there are no other cleared areas on the site that could be utilised, or opportunities to consolidate clearing.
- Minimises impacts on koalas and koala habitat, by having regard to:
 - Maintaining connectivity between koala habitat patches to allow koalas to feed, rest and move around.
 - Koala safety and movement through the design and layout of the development.
 - Managing risks to koalas on-site during construction phases.

The department is seeking feedback on the options for implementing the self-assessable pathway.

Clearing of necessary firebreaks, safety buffers and fire management lines would remain exempt, consistent with the Queensland Government's commitments to implement recommendations of the bushfire Royal Commission.

**Note that this section is also discussed under Option 2*

About clearing notification*

Currently there is no requirement to notify the department when clearing of koala habitat occurs, which limits ability to monitor koala habitat losses and gains and also limits effective compliance.

Online notification of koala habitat area clearing is proposed to be required for clearing under the self-assessable pathway. Notification of clearing for other purposes, including under the fire management exemption and for approved development would be encouraged.

Establishing a comprehensive database for tracking losses of koala habitat areas within SEQ will deliver substantial benefits to state agencies and SEQ local governments including enhanced compliance functions and is expected to create cost efficiencies in the long term by improving recordkeeping, reducing wait times for stakeholders to notify the department via email. This information will also help to ensure that unregulated losses of koala habitat are being adequately compensated through habitat restoration programs.

The department proposes to develop a new online reporting form where applicants would be able to enter information about the proposed interference and/or the exemption being utilised, including the configuration and area of koala habitat area clearing (in square meters), and the allotment where clearing is being undertaken. These records would be maintained on a publicly accessible register. For self-assessable clearing, applicants would also be required to confirm at the time of notification that they understand and will comply with the self-assessable requirements.

Similar reporting exists for some ADVCCs under the Vegetation Management Framework, and any new reporting form would be developed in consultation with the Department of Resources.

**Note that this section is also discussed under Option 2*

Table 15. Summary of expected benefits, impacts, and costs of Option 3 Regulatory improvement including thresholds for small-scale infrastructure

Expected impacts and costs	Expected benefits
<p>Impacts and costs are as described in relation to Option 2 (regulatory clarification), with the following additional impacts and costs:</p> <p>Koala conservation</p> <ul style="list-style-type: none"> • Nil additional adverse impacts to koala habitat are anticipated. <p>Landholders and industry</p> <ul style="list-style-type: none"> • Establishing clear thresholds for small-scale new development that is not prohibited or assessed (500 square meters and 800 square meters) would further reduce exempted clearing compared with Option 2. Based on case studies reviewed for this PIR, this may result in up to ten additional developments per year being referred for assessment, though this may vary with clearing demand over the 10-year forecast period. • Impacted projects that are referred for assessment, will be required to pay application fees, ecological assessment costs and if required, an environmental offset. • Clear thresholds will also increase the number of projects which are prohibited development. Up to five additional developments per year are expected to be impacted by this change, which is primarily anticipated to effect individual landholders. • The above cost impacts are likely to be reduced overall by behaviours to avoid or minimise impacts to koala habitat through changes to the siting and design of developments (e.g. by consolidating clearing to reduce the development footprint). <p>Government</p> <ul style="list-style-type: none"> • Nil additional costs to prepare regulatory amendments, compared to Option 2. 	<p>Benefits described are as described in relation to Option 2 (regulatory clarification), with the following additional benefits:</p> <p>Koala conservation</p> <ul style="list-style-type: none"> • Resolves unintended losses of SEQ koala habitat that were intended to be assessed and counterbalanced. Clear thresholds for assessment will ensure consistent consideration of impacts, calculation of offsets and application of development conditions. • Based on estimates from extrapolating case studies provided from five local government areas to across the SEQ region, this could mean retaining up to 180 hectares in koala priority areas over 10 years. • Outside of priority areas, up to a further 216 hectares of unregulated losses would require assessment and possibly offsets over 10 years. <p>Landholders and industry</p> <ul style="list-style-type: none"> • Clear thresholds will reduce time delays associated with development assessment, which may be up to 10,000 business days over 10 years. • The proposed low-impact thresholds for assessment will ensure that landholders are not unjustly impacted by the assessment or prohibition requirements. Small scale development, such as for establishing a single house and reasonably associated infrastructure, will continue to be allowable. • In the event of a change of ownership of a property, new owners will still not be eligible for exhausted infrastructure allowances. Their development may be able to proceed if outside of a koala priority area. <p>Government</p> <ul style="list-style-type: none"> • Significant cost savings are anticipated for state and local governments – through reductions to enquiries and response time due to the significantly improved clarity, certainty, and guidance to stakeholders. • Improvements to the assessment efficiency could result in cost savings for the Department of State Development, Infrastructure, Local Government and Planning of up to \$550,000 over 10 years.

The department acknowledges there are limitations and deficiencies in the data presented in this analysis on the costs associated with the regulatory improvements proposed for this option. Stakeholders are invited to have their say about the actual impacts of the proposed changes on their property or industry, and to provide their views about whether changes are likely to improve outcomes for stakeholders or for SEQ koala habitat conservation. Stakeholders are also invited to have their say on these thresholds and reasonability test, including providing the department with information about how their property or industry may be impacted.

Question for consultation:

- **Which option do you think provides the best outcomes for developers, government, community and koalas?**
- **To what extent do you agree with the proposed thresholds for new development above which development approval or prohibition would be triggered? (i.e., up to 500 square meters on an urban zoned allotment and 800square meters on a rural zoned allotment)**
- **Should alternative thresholds be considered and why?**
- **To what extent do you agree with introducing a self assessable pathway for development below the thresholds to minimise impacts to koalas and their habitat?**
- **To what extent do you agree with a process for notifying the department before undertaking clearing in koala habitat?**
- **To what extent do you agree that areas that have been legally cleared should be recorded on a publicly accessible register?**
- **Penalties apply for conducting development without an appropriate permit. What would be an effective deterrent to unauthorised assessable development?**
- **Are there any other impacts the options would have on landholders, industry, koalas, government or community since February 2020 that have not been identified?**

8 Recommendations

8.1 Recommended option

As discussed in this report, the objective of the 2020 koala regulations was to 'increase protection for koala habitat areas in SEQ'. Based on the outcomes of this Consultation PIR, the department is confident that the 2020 koala regulations have delivered on this objective and that the regulatory framework should remain in place. The estimated costs on stakeholders are reasonable and in proportion to the policy problem of koala habitat conservation.

However, the Consultation PIR has identified two problem areas that have limited the achievement of regulatory performance indicators established in Section 1.3 of this review:

Problem 1: unintended clearing of koala habitat areas and ineffective monitoring, and

Problem 2: unnecessary complexity, costs, and limited certainty for users.

To address these two problem areas, regulatory amendments to the 2020 koala regulations are recommended to improve the overall effectiveness and efficiency of the framework. Three options for addressing these problem areas have been identified and were considered in Section 7 in relation to the costs and benefits that would be delivered to koala conservation, government and landholders and industry. This impact assessment determined that all options would deliver a net benefit and are worthy of consideration, including retaining the Status Quo with no change of either a regulatory or non-regulatory nature.

However, the cost-benefit analysis was useful to demonstrate that Option 1 would result in ongoing and unnecessary cost impacts for uses of the koala framework, as well as ongoing unintended koala habitat clearing. Over a 10-year period, based on current rates of uncompensated clearing, the losses of koala habitat could be significant, at least 400 hectares. Delays in development assessment could amount to 10,000 business days over the same period, which is a significant inefficiency.

Option 2 explored minor regulatory clarification to address these problem areas and was modelled to deliver some additional benefits. This included a reduction in the volume of enquiries due to improved clarity and guidance, some enhanced outcomes for koala conservation including some slightly improved habitat retention and assessment outcomes, as well as significantly improved monitoring of the framework overall. These benefits would be delivered at the cost of some minor administrative impacts to all stakeholders and costs for between five to ten projects to be referred to development assessment per year (if avoidance is not possible).

Option 3 explored regulatory improvement including amendments to clarify the assessable and prohibited development provisions, consolidate the exempted development definition and establish a clear threshold for small-scale infrastructure. In addition to the benefits associated with Option 2 regulatory clarification, Option 3 was found to deliver significantly greater benefits with respect to the retention of koala habitat (400 hectares over 10 years) and reducing stakeholder confusion and development assessment delays (up to 10,000 business days over 10 years). There were some minor additional costs which were primarily administrative, and which were associated with up to ten additional projects per year to be referred to development assessment and five projects to the prohibition. It was anticipated that most costs could be avoided by developers and landholders electing to change or consolidate their development proposals to avoid assessment fees.













Overall, it was determined that Option 3 would deliver the greatest net benefit to government, community and industry than the other options considered.

To further clarify the appropriateness of options, each individual option was again assessed against the original regulatory performance indicators which were used to evaluate the impacts, effectiveness, and efficiency of the 2020 koala regulations in Section 5 of this report. Outcomes of this assessment are presented in Table 16.

Questions for consultation:

- Overall, to what extent do you agree that Recommended Option (Option 3) would improve the 2020 koala regulations by establishing a clear prohibition and assessable development threshold, reducing the complexity of the exempted development definition, and establishing a new self-assessment pathway and online clearing notification?
- Are there other options, either of a regulatory or non-regulatory nature that should be considered?

Table 16. Summary of expected benefits, impacts, and costs

	Option 1 Retain the status quo	Option 2 Clarification of regulatory requirements	Option 3 Regulatory improvement to simplify and strengthen
<p>Prohibited development</p> <p>Prohibitions cost-effectively protect the best quality koala habitat in the long term and are effective at reducing complexity and costs to stakeholders.</p>	 Potential to improve	 Meets criteria	 Meets criteria
<p>Assessable development</p> <p>Strong, simplified planning regulations deliver best-practice koala conservation outcomes in alignment with no net loss principles; and are supported by appropriate administration, monitoring, and compliance to provide clarity and certainty of requirements and to improve efficiency of assessment processes for users of the framework.</p>	 Potential to improve	 Potential to improve	 Meets criteria
<p>Exempted development</p> <p>Exemptions balance the objective to protect koala habitat areas with the objective to enable limited clearing activity for existing life and property rights, essential services, and public safety.</p>	 Inadequate	 Potential to improve	 Meets criteria
<p>Mapping</p> <p>Mapping is based on the best available science to identify valuable koala habitat with the greatest potential for supporting koala populations in the long term and is supported by mechanisms to address errors and continuously improve science.</p>	 Meets criteria	 Meets criteria	 Meets criteria

Following the cost-impact analysis and above multicriteria assessment, it is the recommendation of the department and other agencies consulted in the preparation of this Consultation PIR that the following option is adopted to improve the 2020 regulations:

Option 3 Regulatory improvement including thresholds for small-scale infrastructure

This option involves the following elements:

- reduce complexity of exemptions and remove ambiguity of partial exemptions and interaction with other legislation
- establish clear thresholds above which development assessment or prohibition is required
- clarify the intended application of the prohibition, development assessment and exempted development provisions
- develop a process for notification to the department of koala habitat clearing
- establish a new self-assessment pathway which supports small scale rural and residential development to minimise impacts on koalas.

The department is of the view that Option 3 is most appropriate to fully address the two problem areas of this review and therefore is the Recommended Option. Option 3 is also the only set of actions that would fully address the two problem areas and would best fulfill the Koala Expert Panel's recommendations that the Queensland Government 'simplify and strengthen the planning framework to ensure the effective and consistent long-term protection of koala habitat across SEQ and resource incentive and partnership mechanisms to protect koala habitat on private land.'

Based on stakeholder consultation completed to date, Option 3 would fulfill the expectations of SEQ local governments, community and industry as reflected in feedback provided (Appendix A). Release of this Consultation PIR is an opportunity for the department to give further consideration of stakeholder views and feedback, which will be reflected in the final recommended option presented in the Decision PIR report.

The impacts of Option 3 were determined to be minor overall and will largely depend upon the willingness and ability of landholders and developers to avoid and mitigate impacts to SEQ koala habitat. While there may be some increased administrative effort associated with self-assessment and notification of clearing, these requirements are not onerous or costly for stakeholders to implement and would be commensurate to what is required under the Vegetation Management framework. They are not likely to be overly burdensome for government to administer and have potential to result in significant cost and time savings compared with the status quo.

All cost impacts associated with the recommended option are considered proportionate to the level of risk to koalas and koala habitat, and commensurate with the wider communities' expectations for the conservation of the koala as a now Endangered species.

The department is interested to understand stakeholder views on the recommended option and invites feedback on the adoption of this new framework.

9 Implementation, evaluation and compliance support strategy

9.1 Implementation of regulatory amendments

Regulatory amendments to improve the current 2020 koala regulations will be prepared following consideration of stakeholder feedback on this Consultation PIR and Queensland Government consideration of the recommended option presented in the Decision PIR report.

The department will continue to work with partners, including the Koala Advisory Council and SEQ local governments to support the development and implementation of the recommended option.

Question for consultation:

- How can the way we communicate regulatory change to the community be improved?

9.2 Implementation of non-regulatory improvements

In addition to the regulatory approaches explored in Section 7 of this review, the department acknowledges the need to resolve some stakeholder issues raised in this review, through non-regulatory approaches. In addition to the schedules and definitions under the Planning Regulation 2017, the 2020 koala regulations rely upon a range of supporting policies, tools and guidelines. This includes the Queensland Environmental Offsets Policy, Koala Sensitive Design Guidelines, Exempted Development guidance and SDAP Code 25 Guidelines for Assessment Benchmarks.

Improvements to supporting policies and guidelines will support the implementation of regulatory amendments outlined in the Consultation PIR and address any further policy issues identified from stakeholder feedback outlined in the Decision PIR report. Issues raised in Section 4 of this review that can be resolved in a non-regulatory manner will also be addressed. Pending outcomes from consultation on this PIR, it is likely that improvements will include updates to:

- clarify the application of the firebreak management exemption
- improve guidance for environmental offset delivery including the calculation of offset obligations based on the assessable development footprint
- clarify Schedule 11 assessment by SEQ local governments.

These improvements aim to ensure clear, useful, and accessible advice for stakeholders, to assist all users in interpreting and applying the 2020 koala regulations in a consistent manner.

9.3 Improvements to monitoring and evaluation

Throughout the preparation of this Consultation PIR, the department has identified several data limitations (including time lag effects) which substantially impacted the department's ability to provide a comprehensive assessment of the impacts, effectiveness, and efficiency of the regulations to date. Some of the options presented in Section 7 of this report have been specifically developed to address these data deficiencies and to ensure that the 2020 koala regulations can be effectively reviewed again within 10 years of commencement.

The measures used to evaluate improvements and effectiveness relate to proposed SMART objectives set out in this Consultation PIR and are summarised below:

Objective 1: No net loss of SEQ koala habitat areas within koala priority areas from February 2020 levels, measured in terms of losses and gains

- A reduction in the total hectares of SEQ koala habitat cleared (within and outside of koala priority areas), as determined through analysis of annually published satellite imagery.
- A reduction in the total amount in hectares of approved SEQ koala habitat clearing outside of koala priority areas as recorded through SARA development approval records.
- An increase in the amount in hectares of SEQ koala habitat gained (e.g., protected and restored) through the delivery of environmental offsets, covenants and on-site restoration conditioned through SARA assessment.
- Determination of the amount in hectares of SEQ koala habitat incorporated through annual map updates determined to be a gain through passive regeneration.

- An increase in the amount in hectares of exempted or accepted clearing notified.

Objective 2: That Objective 1 is achieved in an efficient manner that minimises costs to industry, community, and government, through appropriate exemptions and assessment thresholds.

- An increase in the annual number of development applications and environmental offset conditions triggered through the 2020 koala regulations.
- A reduction in the average time taken for officers to assess applications, and average delay in receiving an approval as an end-user.
- A decrease in the annual number of exempted/accepted developments undertaken.

The department acknowledges the need to improve existing reporting and monitoring tools in relation to the above measures. This includes the tracking of conditions applied to koala assessment records, particularly relating to approved clearing and restoration conditions that are not captured in the Queensland environmental offsets register. Over time as new data becomes available, further analysis of the relationship between koala habitat clearing and restoration rates, mitigation measures and on-ground koala populations will improve understanding of the benefits of the policy in 'securing the long-term survival of wild koala populations in SEQ'.

10 Next steps

10.1 Consultation strategy for the Consultation PIR

This Consultation PIR sets out the department's conclusions about the effectiveness of the koala habitat regulations, based on analysis of the available evidence and stakeholder feedback. The release of the Consultation PIR is an opportunity for any interested parties to provide a written submission to the Queensland Government on the findings and conclusions of this report.

Consultation on this report is a critical component in the PIR process, to determine whether the 2020 koala regulations have met their objectives and performance outcomes. Feedback will be used to inform final recommendations to the Queensland Government on the future of the 2020 koala regulations.

All submissions will be reviewed, before finalising a Decision PIR, which updates the Consultation PIR in response to feedback provided. The Decision PIR is then provided to the relevant Queensland Government Ministers to consider the future of the 2020 koala regulations.

The department has identified key interest groups which may be interested to have their say through this review, that include:

- environmental non-government organisations with an interest in koala conservation, including peak bodies, the SEQ wildlife hospital network and wildlife rescue groups
- the twelve SEQ local governments
- development industry and planning consultants
- peak bodies, including the Urban Development Institute of Australia, Local Government Association of Queensland (LGAQ) and the SEQ Council of Mayors
- private landholders or individual applicants who will prepare and lodge a development application proposing to impact koala habitat
- the wider community/ general public.

All interested stakeholders are encouraged to provide a submission on this Consultation PIR, which will be published on the department's website for a six-week consultation period. This Consultation PIR will also be circulated to interested parties, through established networks of the Queensland Government's Koala Advisory Council members.

Outcomes of consultation with stakeholders to date is included at Appendix A for reference.

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List of legislation

Environmental Offsets Regulation 2014 (Queensland) <https://www.legislation.qld.gov.au/view/pdf/inforce/2017-05-12/si-2014-0145>

Explanatory Notes, *Nature Conservation and Other Legislation (Koala Protection) Amendment Regulation 2020* (Queensland) <https://www.legislation.qld.gov.au/view/pdf/published.exp/si-2020-0009>.

Nature Conservation and Other Legislation (Koala Protection) Amendment Regulation 2020 (Queensland) <https://www.legislation.qld.gov.au/view/pdf/asmade/si-2020-0009> (referred to as the 2020 koala regulations)

Nature Conservation (Koala) Conservation Plan 2017 (Queensland) <https://www.legislation.qld.gov.au/view/pdf/inforce/current/si-2017-0152>

Planning Regulation 2017 (Queensland) <https://www.legislation.qld.gov.au/view/pdf/inforce/current/si-2017-0078> (referred to as the planning regulations)

Vegetation Management Act 1999 (Queensland) <https://www.legislation.qld.gov.au/view/pdf/2017-07-03/act-1999-090> (referred to as the Vegetation Management framework)

Appendix A – Stakeholder engagement for the PIR

The department consulted widely with koala conservation experts and state and local government assessment agencies during the development of the koala habitat protection regulatory amendments and throughout their implementation.

The department has undertaken this Consultation PIR with assistance from the Department of State Development, Infrastructure, Local Government and Planning (DSDILGP) and the Department of Resources. The review has also been conducted in consultation with the Queensland Treasury's Office of Productivity and Red Tape Reduction which supports agencies to apply effective and rigorous impact analysis and stakeholder consultation to inform policy development, and the Department of Premier and Cabinet.

During the development of the koala habitat regulations and throughout their implementation, the Department of Environment and Science has consulted widely with stakeholders including:

- the Koala Expert Panel (including experts in ecology, wildlife management, and planning and environment law)
- the Koala Advisory Council (including representatives state and local government, non-government organisations, industry, and community groups)
- the twelve SEQ local governments and the Local Government Association of Queensland.

Policy development also considered wider stakeholder views and feedback gathered through the extensive public consultation processes which informed development of the South East Queensland Koala Conservation Strategy 2020 – 2025, including:

Public Consultation on Koala Expert Panel Report

The Koala Expert Panel undertook extensive public consultation in 2016 – 17 including an online survey, written public submissions, face-to-face consultation, and engagement with selected experts to test strategy options through an expert elicitation process. A key finding was that habitat loss is the single biggest issue in koala conservation that causes the greatest public concern, closely followed by concerns with the planning and development framework leading to urban expansion. 84 percent of participants suggested a need for planning and development related changes to protect koalas, such as revising specific regulatory instruments and applying a regional approach to habitat protection.

Public Consultation on the Draft Strategy

When the department released the Draft South East Queensland Koala Conservation Strategy 2019 – 2024 (draft Strategy) for public consultation in 2019, almost 5000 Queenslanders shared their commitment to protecting the koala through an online survey, written submissions, community drop-in sessions, target stakeholder workshops and local government information sessions. Most respondents supported the new regulations, which were seen as a critical component to conserving koalas in the region.

Summary overview of feedback for the PIR

Targeted surveys of key stakeholder groups were undertaken to inform the Consultation PIR. General findings of the survey included:

- There was a strong consensus across all stakeholder groups that planning regulation is necessary to protect koala habitat.
- Some stakeholders commented positively that development prohibitions provide stronger protection for koala habitat areas within koala priority areas.
- Some stakeholders commented that the complexity of exemptions compromises the ability to protect habitat over time.
- There was strong support across all sectors for improving guidance, reducing complexity of exemptions, and improving compliance functions.

A summary of the key groups, along with their primary interests and key issues raised is included Table A1.

Table A1. Summary of stakeholder engagement feedback and issues for the PIR

Stakeholder	Primary interests	Key issues
<p>Local government Local Government Association of Queensland Local government Working group*</p>	<p>Development assessment processes Understanding obligations of compliance</p>	<ul style="list-style-type: none"> • Making the framework easy to understand and use • Accuracy and application of habitat mapping • Matters of local environmental significance • Interpretation and application of exemptions • Additional administrative burden (assessment and compliance)
<p>Urban development Urban Development Institute of Australia Queensland</p>	<p>Supporting land supply for urban development</p>	<ul style="list-style-type: none"> • Making the framework easy to understand and use. • Obtaining timely and consistent advice from government agencies. • Accuracy and application of habitat mapping.
<p>Conservation The Wilderness Society</p>	<p>Delivering conservation outcomes for wildlife</p>	<ul style="list-style-type: none"> • Ongoing and uncompensated loss of koala habitat from pre-approved development and exempted development. • Enhancing protections and limiting what can be cleared and offset.
<p>Science and research Griffith University</p>	<p>Research</p>	<ul style="list-style-type: none"> • Community perceptions on koala conservation initiatives.
<p>Koala Advisory Council**</p>	<p>Governance</p>	<ul style="list-style-type: none"> • Ensuring effective consideration of data limitations and appropriate regulatory impact assessment methodology. • Facilitating effective consultation with stakeholders through the PIR progress.
<p>Queensland Government PIR Working Group</p>	<p>Reviewing regulatory issues and identifying policy solutions</p>	<p>Department of Environment and Science</p> <ul style="list-style-type: none"> • Complexity in determining if an application requires referral and the interpretation of exemptions. • Monitoring vegetation clearing and ensuring compliance with the regulations. • Supporting achievement of the SEQ Koala Conservation Strategy 2020-25. <p>Department of State Development, Infrastructure, Local Government and Planning</p> <ul style="list-style-type: none"> • Complexity in determining if an application requires referral and the interpretation of exemptions. • Protracted assessment timeframes and incorrectly referred applications. • Relationship with other land use planning considerations such as zoning. <p>Department of Resources</p> <ul style="list-style-type: none"> • Complex interaction between the 2020 koala regulations and Vegetation Management framework. • Review of the native forest practice ADVCC yet to be completed. • Additional resource impacts.

*Local government Working Group includes Toowoomba Regional Council, Brisbane City Council, Scenic Rim Regional Council, Ipswich City Council, Somerset Regional Council, Lockyer Valley Regional Council, Redland City Council, Noosa Council, Moreton Bay Regional Council, City of Gold Coast, Logan City Council, and Sunshine Coast Council.

** The Koala Advisory Council (KAC) participated in the development of the Consultation PIR through assisting with data collection, stakeholder surveys, and providing feedback in the development of policy options. The KAC membership includes representatives from:

- Chair – Mr Mark Townend, former CEO, RSPCA
- Local Government Association of Queensland
- Healthy Land and Water
- Quandamooka Yoolooburrabee Aboriginal Corporation
- Urban Development Institute of Australia
- The Wilderness Society
- MOSAIC Property Group
- Australia Zoo Wildlife Foundation
- Timber Queensland
- The University of Queensland – School of Earth and Environmental Sciences, School of Agriculture and Food Sciences.

Representatives from Queensland Government agencies, including the Department of Environment and Science; State Development, Infrastructure, Local Government and Planning, Department of Seniors, Disability Services and of Aboriginal and Torres Strait Islander Partnerships.

Appendix B – Recommendations of the Koala Expert Panel

Recommendation

Simplify and strengthen the planning framework to ensure the effective and consistent long-term protection of koala habitat across SEQ and resource incentive and partnership mechanisms to protect koala habitat on private land.

Recommended actions

- a. The State Government to assume responsibility for the assessment of koala-related planning and development issues to ensure consistency of approach across SEQ. State responsibility in the context of the planning framework should ensure:
 - i) clear policy direction in the SPP and the SEQRP, about the importance of the koala as an iconic species for SEQ. The Panel's comments on this aspect have already been implemented in the 2017 versions of these instruments, but some further fine-tuning may be required, depending on the final approach taken by the State.
 - ii) that the Planning Regulation identifies the State as either the assessment manager or referral agency for all koala-related assessable development, as it is for certain other environmental issues. The State's policy framework should then reflect this position. Ensuring sufficient resourcing to fulfil this role will be crucial
 - iii) the development of standard conditions for development impacting on koalas, in the same way that the department has developed standard conditions for certain types of development impacting on other environmental values. Depending on the scope of the standard conditions, the State should consider whether it is necessary to amend the Planning Act to ensure that koala-related conditions cannot be challenged on reasonableness/relevance grounds, as it has done in the past for offsets and certain infrastructure conditions
 - iv) that SDAPs contain a specific koala-related assessment code, so as to ensure uniformity. This code could address both matters relating to the construction of works and, where appropriate, the ongoing use of land after works are complete
 - v) that when undertaking development, the State should, even if it is otherwise exempt from development assessment, ensure that the standards placed on State development are not less onerous than those placed on private sector proponents.
- b. Reduce the number and complexity of exemptions from development assessment and put in place a transparent system of conditional approval across different habitat classes and land uses. Two prominent examples of important exemptions that impact on koala habitat are:
 - i) Schedule 21 Part 2 item 2 of the Planning Regulation, exempts large amounts of development by providing that clearing of certain vegetation for urban purposes in urban areas is not assessable development under the Planning Act and cannot be made assessable development by a planning scheme
 - ii) Schedule 21 Part 1 item 1 of the Planning Regulation has the effect of exempting vegetation clearing from assessment for a material change of use or reconfiguring a lot if, among other things, the approval relates to premises of less than 5 hectares. Removing these exemptions, or substantially reducing their scope as they apply to koala habitat, is vital for effectively protecting koala habitat.
- c. Broaden triggers for koala-related development assessment in SEQ based on the new koala habitat mapping. This should ensure, at least, that self-assessment is not permitted, and that development assessment is triggered when there are potential development impacts on koala habitat, or koalas, in the following cases:
 - i) in identified priority areas for koalas (see Recommendation 1), regardless of whether inside or outside the Urban Footprint
 - ii) outside the Urban Footprint and within areas mapped as core and non-core koala habitat (remnant and regrowth)
 - iii) inside the Urban Footprint, but outside identified priority areas for koalas, and within areas mapped as core koala habitat (remnant and regrowth).

- d. Develop new development assessment requirements for SEQ that:
- i) do not permit clearing of core and non-core habitat (remnant, regrowth, and scattered trees) inside identified priority areas for koalas (see Recommendation 1), regardless of whether inside or outside the Urban Footprint
 - ii) do not permit clearing of core and non-core habitat (remnant and regrowth) outside of the Urban Footprint and outside of identified priority areas for koalas
 - iii) avoid clearing of core habitat (remnant and regrowth) inside the Urban Footprint, and outside identified priority areas for koalas, with any residual impacts offset as a last resort.

Justification and explanation

The lack of protection of koala habitat was one of the most prominent issues raised during the consultation process and almost always this was associated with issues identified in planning framework (Koala Expert Panel 2017).

It was therefore made very clear to the panel that the planning framework needs to be a core contributor to which the protection of koala habitat in SEQ is realised. However, the panel also recognise that the planning framework only deals with future development impacts and has limited ability to deal with existing threats and actions required for koala recovery.

This means that it is critical that the planning framework works in a coordinated fashion with other activities for threat mitigation and recovery. Strategies for achieving this coordination are outlined in Recommendation 1 and should be reflected in the planning framework.

Habitat loss and the planning framework

Analysis conducted for the panel's interim report (Koala Expert Panel 2017) demonstrated clear evidence for continuing loss of habitat, especially in the Urban Footprint and within Rural Living Areas (over 10 percent of koala bushland habitat in the Urban Footprint was cleared between 2008 and 2015).

Clearing rates outside of the Urban Footprint over the same time period were lower, but not insignificant (0.7 percent of koala bushland habitat was cleared in the Regional Landscape and Rural Production Area between 2008 and 2015). There is also no evidence for a reduction in clearing rates over time in SEQ (Koala Expert Panel 2017).

Given that the planning framework has been used as the primary way to protect koala habitat, this provides strong evidence that it has generally been ineffective at sufficiently reducing the loss of habitat, especially in the Urban Footprint.

The Panel's view is that the solution to koala conservation in SEQ must be more holistic than a sole focus on the planning framework, but it is an important part of the solution. As such, our consultation and analysis of habitat loss revealed that it requires some fundamental changes if it is to be sufficiently effective at protecting koala habitat in SEQ, although the Panel is supportive of the overall structure of the planning framework.

Mapping to underpin the protection of koala habitat

One of the most frequently raised issues by participants of the consultation was the mapping. Based on this feedback, the Panel identified several issues with the existing State Government habitat mapping that currently underpins the Planning Regulation (previously the SPRP). These include:

- lack of comprehensiveness
- coarse resolution
- the simplicity of the model that fails to fully account for vegetation communities
- no updating of the mapping over time.

Although mapping is also conducted by local governments, inconsistencies among local government methodologies, and with the Queensland Government mapping, also make a consistent approach to koala habitat protection across SEQ difficult. At the time of writing this report the Queensland Government were finalising koala habitat mapping for SEQ that splits habitat into three categories (core habitat, non-core habitat, and non-habitat) across remnant vegetation, regrowth vegetation, and scattered trees. Core habitat

represents those habitats in which koalas are most likely to occur and therefore maps the most important koala habitat values. Noncore habitat represents areas where koalas may occur, and these areas are important because of their role in providing important supplementary habitat and connectivity. The Panel is supportive of this ecological mapping, and believe it is an improvement over existing mapping, and that it reflects important koala habitat values across the region. The panel therefore recommends that this forms the basis of a consistent approach to the protection of koala habitat across SEQ.

The panel acknowledges that mapping and assessment framework decisions made by government which have the effects of reducing or restricting development may give rise to complex social and political questions for government, involving potential compensation issues.

A simplified and consistent approach to koala habitat protection

Some of the criticisms levelled at the planning framework during the consultation process focussed on the complexity of the framework that limits effectiveness and consistency in approach for the protection of koala habitat. Different mapping used for different regulatory instruments, different assessment managers (e.g. local governments, MEDQ, DILGP, the Coordinator-General, and the Federal Government) under the different regulatory mechanisms contribute to the complexity and lack of consistency (Koala Expert Panel 2017).

Further, different terminology used in each regulating instrument makes it difficult for both public and private sector entities to determine whether and how, in any given case, koala habitat may be impacted by development, and how any impact should be conditioned. The complexity of wording also leads to potentially unintended consequences (i.e. exceptions or unintentionally caught development). The Panel therefore believe that a more consistent and simplified approach to dealing with development related impacts on koalas would be more effective. This could be achieved by making the Queensland Government the assessment manager or referral agency in all koala-related development issues. The State has already achieved this under the Planning Regulation in relation to several key State interests, such as marine plants, State-listed heritage places and fish habitat. This would also enable a simplification of the approach to the assessment of koala-related development issues.

Appendix C – Detailed methodology for the Consultation PIR

This Post-implementation Review (PIR) has been prepared by the department, and has been conducted in three phases, including:

1. Methodology development and stakeholder identification
2. Stakeholder engagement and data collection, and
3. Data analysis and report preparation.

Phase 1: Desktop review, methodology development and stakeholder identification

An initial desktop review was conducted to gain an understanding of the policy context of the 2020 koala regulations, particularly as it related to the original policy problem and development of the regulatory framework in consultation with Queensland Government agencies. Data sources examined included:

- guidance materials on the process of completing regulatory impact assessment including the Queensland Government Guide to Better Regulation and the Queensland Treasury Project Assessment Framework for Cost-Benefit Analysis
- reports and policies by the Queensland Government and independent reviews including the interim and final reports of the Koala Expert Panel
- academic literature and internal government data relating to the problem of koala habitat loss
- internal government and Cabinet materials used in the development of the 2020 koala regulations and the *SEQ Koala Conservation Strategy 2020-25*
- other relevant public domain documents and reports.

Review of the above information sources informed the development of the problem statement, PIR project scope and methodology for data collection, stakeholder consultation and data analysis. Key stakeholders for this review were identified based on their respective level of involvement and/ or interest in the 2020 koala regulations. This includes stakeholders that are directly affected by the regulatory change which includes state agencies, SEQ local governments, landholders and the development sector, in addition to stakeholders that have a high level of interest in the regulatory framework and may be indirectly impacted, including koala conservation or community environmental groups.

At an early stage of the PIR, draft methodology and scope for was prepared and refined input of key stakeholders including:

- members of the Koala Advisory Council, which includes representatives state and local government, non-government organisations, industry, and community groups
- members of the PIR Queensland Government working group, which includes representatives of the Department of Environment and Science, Department of State Development, Infrastructure, Local Government and Planning and Department of Resources
- the Queensland Treasury's Office of Productivity and Red Tape Reduction, which is responsible for supporting, reviewing and assessing regulatory impact assessments under the Queensland Government Guide to Better Regulation.

This initial consultation process was helpful to allow for early identification of limitations with the proposed approach, so that data collection and analysis methods could be adjusted to better control for potential sources of biases. This includes consideration of how the PIR has measured the actual impacts, costs and benefits of the 2020 koala regulations compared to a baseline of the existing planning regulations for koala habitat.

To the extent possible, any assumptions made by the department and known limitations of datasets have been outlined in the Section 4 and Section 7 impact assessment presented in this review. This includes managing the impacts of data uncertainties relating to the costs and other impacts of the current and previous frameworks for regulating koala habitat, the value and benefits associated with koala habitat conservation that are delivered to Queensland communities.

Phase 2: Stakeholder engagement and data collection

The second phase of preparing this PIR focused on data collection from identified stakeholders and was conducted between July 2021 – February 2022. To ensure data was collected from a diverse and comprehensive range of stakeholders and to provide adequate avenues for stakeholder input, a range of data collection methods were utilised. These methods included consultation via established governance and working groups, one structured stakeholder workshop, three stakeholder surveys and requests for written feedback and quantitative data.

The use of multiple sources of data enabled the department to validate the emerging findings from stakeholder consultation wherever possible. Descriptions of each consultation method are provided in below sections.

Stakeholder surveys

To coordinate collection of stakeholder feedback and data on the impacts, effectiveness, and efficiency of the 2020 koala regulations, three stakeholder surveys were developed including:

- A survey of twelve SEQ local governments, distributed by the Local Government Association of Queensland (n = 11 responses).
- A survey of the urban development sector, distributed by the Urban Development Institute of Australia (n = 26 responses).
- A survey of the conservation sector, distributed by the Wilderness Society (n = 3 responses).

The department acknowledges that while the small sample size of survey results for the conservation sector is not statistically significant in terms of wider community perceptions, this survey does service to indicate how these groups are absorbing the economic impacts of koala habitat clearing through the provision of mitigating services such as restoration, rescue, and rehabilitation. This may serve as a practical foundation for broader public consultation.

All surveys were co-developed by departmental staff and distributing organisations, with input from the Department of State Development, Infrastructure, Local Government and Planning on the first two surveys listed. Questions varied depending on the stakeholder group and were designed to elicit as far as was possible quantitative information to support assessment of actual impacts on stakeholders. Qualitative questions were also included to elicit perspectives on the regulation's performance, and open-ended questions to allow stakeholders to provide other information they deemed relevant for this review.

Confidentiality of stakeholder responses and data has been maintained throughout this review, to ensure that stakeholder information is protected and that any future negotiations between stakeholders would not be adversely affected, such as through exposure of commercial-in-confidence information. This was achieved by presenting findings of workshops and stakeholder surveys in a de-identified form or aggregated as appropriate.

Workshop with SEQ local governments

A stakeholder workshop was held on the 14th of December 2021, run by both the department and GHD Pty Ltd. Relevant representatives from each SEQ local government were invited to attend, and final representation included:

- Brisbane City Council
- City of Gold Coast
- Ipswich City Council
- Lockyer Valley Regional Council
- Logan City Council
- Moreton Bay Regional Council
- Noosa Council, and
- Redland City Council.

The objective of this workshop was to (1) describe the process of gathering case study data from the SEQ local government stakeholders; and (2) determine what data held by these respective SEQ local governments could inform the spatial analysis of the effectiveness, efficiency, and continued relevance of the new koala regulatory framework.

Participating SEQ local governments, who attended this workshop, and some councils that were not able to be in attendance provided details on a selection of observed or proposed clearing events within their respective jurisdictions for further analysis by GHD Pty Ltd. In total, 50 case study clearing events across the SEQ local governments of Gold Coast, Ipswich, Lockyer Valley, Logan, and Redland were considered.

Written feedback

As part of ongoing communications with the Koala Advisory Council, SEQ local government Koala Conservation Working Group and Queensland Government PIR working group, the department has invited stakeholders to provide written feedback on the PIR scope, method and to have input on the various drafts on this Consultation document during development. Feedback from stakeholders including The Wilderness Society, the Department of Resources and the Department of State Development, Infrastructure, Local Government and Planning has been reviewed and responded to through this process.

Data requests

The department sought quantitative data from a variety of reliable and accessible data sources to inform the PIR regulatory impact assessment and evaluation against established regulatory performance indicators. Agency staff, de A breakdown of the data collected for this review and how this data has been considered against performance indicators is provided below for reference.

Table 1. Summary of data collected and considered with respect to each performance indicator.

	Summary of data presented
<p>Prohibited development</p> <p>Prohibitions cost-effectively protect the best quality koala habitat in the long term and are effective at reducing complexity and costs to stakeholders.</p>	<ul style="list-style-type: none"> • spatial analysis of the extent of increase in mapped koala habitat areas within koala priority area where prohibitions apply, relative to the baseline of previous regulatory settings • publicly available records of State-wide Landcover and Trees Study data to assess historical clearing rates impacting koala habitat areas within koala priority areas • internal government modelling of properties and industrial land supply impacted by the prohibition, conducted by the Department of State Development, Infrastructure, Local Government and Planning • academic literature and external reports to assess the broader benefits koala habitat conservation has delivered to Queensland communities • stakeholder feedback.
<p>Assessable development</p> <p>Strong, simplified planning regulations deliver best-practice koala conservation outcomes in alignment with no net loss principles; and are supported by appropriate administration, monitoring, and compliance to provide clarity and certainty of requirements and to improve efficiency of assessment processes for users of the framework.</p>	<ul style="list-style-type: none"> • internal government modelling of properties and industrial land supply impacted by the assessable development requirements, conducted by the Department of State Development, Infrastructure, Local Government and Planning • internal government records of developments with proposed koala habitat area clearing that were assessed by the state since February 2020, as compiled by the Koala Assessment and Compliance team, including consideration of: <ul style="list-style-type: none"> ○ number of assessment records ○ total and average time taken to provide technical advice ○ outcomes of assessment records, including final conditions and approvals • publicly available records of environmental offset conditions directly related to development impacts on SEQ koala habitat, including consideration of: <ul style="list-style-type: none"> ○ spatial references ○ significant residual impact areas ○ cost of financial settlement offset obligations • costs of average ecological assessment fees provided by stakeholders within the urban development sector • costs of administering assessment sought from state agencies, including records of development assessment • academic literature and external reports to assess the broader benefits koala habitat conservation has delivered to Queensland communities • stakeholder feedback.
<p>Exempted development</p> <p>Exemptions balance the objective to protect koala habitat areas with the objective to enable limited clearing activity for existing life and property rights, essential services, and public safety.</p>	<ul style="list-style-type: none"> • spatial analysis of the extent of increase in mapped koala habitat areas outside of koala priority area where assessment applies, relative to the baseline of previous regulatory settings • time taken for agency staff to process and advise on exemption enquiries, including consideration of: <ul style="list-style-type: none"> ○ enquiry response time, and ○ type and number of enquiries where clearing was determined to be allowed to occur as exempted development. • publicly available records of accepted development clearing notifications across the SEQ region, including consideration of:

	<ul style="list-style-type: none"> ○ spatial references and extend of clearing overlap with properties containing mapped koala habitat areas. ● independent review by GHD Pty Ltd of SEQ local government clearing case studies that were determined to be exempted development, including consideration of: <ul style="list-style-type: none"> ○ spatial references ○ types of exemptions used, and ○ scale of koala habitat cleared. ● stakeholder feedback.
<p>Mapping</p> <p>Mapping is based on the best available science to identify valuable koala habitat with the greatest potential for supporting koala populations in the long term and is supported by mechanisms to address errors and continuously improve science.</p>	<ul style="list-style-type: none"> ● Findings of independent CSIRO review of mapping methodology ● Records of map amendment requests, including number of requests, time taken for agency staff to process and advise on requests and outcomes of requests (e.g. number of approvals and total area of koala habitat areas removed) ● stakeholder feedback.

Phase 3: Data analysis and report preparation

Stakeholder feedback analysis

The department organised and critically analysed stakeholder views received from the surveys and written feedback provided by the twelve SEQ local governments, the Urban Development Institute Australia, and the Wilderness Society.

Qualitative responses were analysed through a process of coding issues. The first step involved departmental staff interpreting the contents of the data provided, identifying what was relevant to the scope of the PIR and regulatory performance indicators, and grouping the content into themes or concepts derived directly from the text data. The second phase involved analysis of the initial themes then organising these into broader categories based on the four regulatory elements and performance indicators. From this process, emergent themes or problem areas were identified which provided the basis of Section 5.

Outlier responses and minor sub-themes were identified, further investigated and if out-of-scope for PIR reporting, handed over to other relevant areas for consideration.

Quantitative data provided in relation to questions regarding costs or other quantitative impacts were also used to present stakeholder data on impacts and or benefits of the policy, these have been presented as supporting figures in Section 4 and Section 6 of this review alongside summaries of qualitative data and recommendations.

Independent review by GHD Pty Ltd

The department engaged GHD Pty Ltd (GHD) to examine the effectiveness of the new regulations, based on data on observed or proposed vegetation clearing events, conditions placed on approved developments, exempt clearing activities, and offset requirements, at sites across SEQ. This data was provided to GHD by SEQ local governments and by departmental officers. Summary analyses, and examination of spatial patterns of clearing, were conducted on these datasets and presented in Section 4 of this review to support the department's assessment of actual impacts of the 2020 koala regulations.

GHD's final report including independent review recommendations is available as a supporting attachment to this Consultation PIR (Attachment 1).

Report writing

All policy options and recommendations presented in Section 7 and Section 8 of this review were developed and refined in consultation with the PIR Queensland Government working group. These options consider the impacts and issues raised by stakeholder feedback and through impact assessment conducted for this review and address the two major problem areas identified.

Appendix D – Definition of Exempted Development

Source: *Planning Regulation 2017 Schedule 24*

exempted development means—

- (a) development in a State development area; or
- (b) development for a coordinated project; or
- (c) development in the area of a development control plan that the old Act, section 857 applies to; or
- (d) development for infrastructure stated in schedule 5, if the development is carried out by or for the State or a public sector entity; or
- (e) PDA-related development; or
- (f) development in a forest reserve under the Nature Conservation Act 1992; or
- (g) development in any of the following protected areas under the Nature Conservation Act 1992—
 - (i) a national park (scientific);
 - (ii) a national park;
 - (iii) a national park (Aboriginal land);
 - (iv) a national park (Torres Strait Islander land);
 - (v) a national park (Cape York Peninsula Aboriginal land);
 - (vi) a conservation park;
 - (vii) a resources reserve;
 - (viii) a special wildlife reserve; or
- (h) development in a State forest or timber reserve under the Forestry Act 1959; or
- (i) development in a forest entitlement area under the Land Act 1994; or
- (j) development for public housing; or
- (k) development, other than development mentioned in any of paragraphs (a) to (j), that results in a total area on the premises of 500m² or less of 1 or more koala habitat areas being cleared of native vegetation since 7 February 2020, disregarding an area cleared of native vegetation if any of paragraphs (l) to (p) applies to the clearing; or
- (l) development that is or involves operational work that is the clearing of native vegetation and is accepted development under schedule 7, part 3, section 12 other than clearing for—
 - (i) the construction or maintenance of a fence, road, track, irrigation channel, contour bank or other linear infrastructure, other than a powerline or drainage and erosion control structure, if the cleared area is more than 5m wide; or
 - (ii) the construction or maintenance of an airstrip or helipad if the cleared area is more than 500m²; or
 - (iii) the construction or maintenance of non-linear infrastructure, other than an airstrip or helipad, in a category B area or category C area if the cleared area is more than 500m²; or
 - (iv) an extractive industry, other than clearing for a fence, road, track, irrigation channel, contour bank or other linear infrastructure, in a category C area if the cleared area is more than 500m²; or
 - (v) the diversion of a section of a watercourse or drainage feature, within the meaning of the Water Act 2000, schedule 4, in a way that replicates the section, in a category C area if the cleared area is more than 500m²; or

- (m) development that is or involves operational work that is the clearing of native vegetation in a koala habitat area on prescribed land if the clearing is clearing, or for another activity or matter, stated in—
 - (i) schedule 21, part 1, section 1(2), (3), (5), (6), (8), (9), (10) or (11); or
 - (ii) schedule 21, part 1 section 1(15), other than clearing necessary to prevent or minimise damage to the environment; or
 - (iii) schedule 21, part 1, section 1(16), (17), (18) or (19A); or
- (n) development that is or involves operational work that is the clearing of native vegetation in a koala habitat area if the clearing—
 - (i) is on freehold land and is for a forest practice; or
 - (ii) is on indigenous land, other than land on which the State owns the trees, and is for a forest practice; or
 - (iii) is on indigenous land and is gathering, digging or removing forest products for use under the Aboriginal and Torres Strait Islander Communities (Justice, Land and Other Matters) Act 1984, section 62; or
 - (iv) is on land dedicated as a road under the Land Act 1994 and is stated in schedule 21, part 2, section 5(a)(i) or any of paragraphs (b) to (h) of that section; or
 - (v) is on land that is trust land under the Land Act 1994, other than indigenous land, is carried out, or allowed to be carried out, by the trustee, is consistent with achieving the purpose of the trust and is—
 - (A) to remove non-native vegetation; or
 - (B) in accordance with a relevant biosecurity plan under the Biosecurity Act 2014; or
 - (vi) is on land that is unallocated State land, is carried out, or allowed to be carried out, by the chief executive of the department in which the Land Act 1994 is administered and is to control declared pests or non-native vegetation; or
 - (vii) is necessary for essential management and is qualifying clearing; or
 - (viii) is necessary for a purpose mentioned in definition routine management, paragraph (c) or (d);or
- (o) development on a lot that is or involves operational work that is the clearing of native vegetation in a koala habitat area if—
 - (i) the clearing is necessary to establish a necessary fence, road or vehicular track on an existing lot; and
 - (ii) the clearing is qualifying clearing; and
 - (iii) the vegetation is regulated regrowth vegetation or a least concern regional ecosystem in a category B area; and
 - (iv) the maximum width of the clearing for the fence, road or track is—
 - (A) for a lot that is 5ha or less—5m; or
 - (B) for a lot that is more than 5ha—10m; or
- (p) development that is or involves operational work that is the clearing of native vegetation in an area shown on a PMAV as a category X area if—
 - (i) an application for the PMAV under the Vegetation Management Act 1999, section 20C was made before 7 February 2020; and
 - (ii) the clearing—
 - (A) is qualifying clearing; or

(B) is on land dedicated as a road under the Land Act 1994 and is carried out by a local government, or by or for the chief executive (transport).

Appendix E – SEQ local government feedback on exempted development

Exempted development provision	Stakeholder feedback
(a) development in a State development area	No specific issues raised.
(b) development for a coordinated project	No specific issues raised.
(c) development in the area of a development control plan that the old Act, section 857 applies to	Some SEQ local governments observed that large areas of clearing between 2020 and 2022 have occurred in development control plan areas and were critical of time extensions granted to old approvals.
(d) development for infrastructure stated in schedule 5, if the development is carried out by or for the State or a public sector entity	Some SEQ local governments noted ambiguity in whether approvals for infrastructure (such as trunk sewer or water mains) are exempted development when the infrastructure construction was contracted to a developer. Some SEQ local governments were critical that the exemption provisions do not enable works identified in local government land use and infrastructure plans.
(e) PDA-related development	Some SEQ local governments observed that large areas of clearing between 2020 and 2022 have occurred in PDA-related developments.
(f) development in a forest reserve under the Nature Conservation Act 1992	No specific issues raised.
(g) development in any of the following protected areas under the Nature Conservation Act 1992— (i) a national park (scientific) (ii) a national park (iii) a national park (Aboriginal land) (iv) a national park (Torres Strait Islander land) (v) a national park (Cape York Peninsula Aboriginal land) (vi) a conservation park (vii) a resources reserve (viii) a special wildlife reserve.	No specific issues raised.
(h) development in a State forest or timber reserve under the Forestry Act 1959	No specific issues raised.
(i) development in a forest entitlement area under the Land Act 1994	No specific issues raised.
(j) development for public housing	No specific issues raised.
(k) development, other than development mentioned in any of paragraphs (a) to (j), that results in a total area on the premises of 500m ² or less of 1 or more koala habitat areas being cleared of native vegetation since 7 February 2020, disregarding an area cleared of native vegetation if any of paragraphs (l) to (p) applies to the clearing	Most SEQ local governments provided anecdotes or examples of large areas of koala habitat clearing occurring when exemption (k) is stacked with other exemptions such as (l) through to (p).
(l) development that is or involves operational work that is the clearing of native vegetation and is accepted development under schedule 7, part 3, section 12 other than clearing for—	The intent of this exemption is to enable low risk clearing activities which comply with an Accepted Development Vegetation Clearing Code (ADVCC) under the Vegetation Management framework. These codes specify the practices with

Exempted development provision	Stakeholder feedback
<p>(i) the construction or maintenance of a fence, road, track, irrigation channel, contour bank or other linear infrastructure, other than a powerline or drainage and erosion control structure, if the cleared area is more than 5m wide; or</p> <p>(ii) the construction or maintenance of an airstrip or helipad if the cleared area is more than 500 m²; or</p> <p>(iii) the construction or maintenance of non-linear infrastructure, other than an airstrip or helipad, in a category B area or category C area if the cleared area is more than 500 m²; or</p> <p>(iv) an extractive industry, other than clearing for a fence, road, track, irrigation channel, contour bank or other linear infrastructure, in a category C area if the cleared area is more than 500 m²; or</p> <p>(v) the diversion of a section of a watercourse or drainage feature, within the meaning of the Water Act 2000, schedule 4, in a way that replicates the section, in a category C area if the cleared area is more than 500 m².</p>	<p>which a landholder must comply to ensure that the clearing achieves environmental outcomes, including koala conservation.</p> <p>Several SEQ local governments commented that the relationship between exempted development provisions in the 2020 koala regulations and the Accepted Development Vegetation Clearing Codes (ADVCC) is confusing and needs to be simplified.</p> <p>Inclusion of the ADVCCs in the exempted development definition has led to perverse outcomes due to the language which allows the list to be interpreted sequentially.</p> <p>SEQ local governments provided examples where the exemption for clearing of 500 square meters for non-linear infrastructure under (I)(iii) is being stacked with the 500square meters exemption under (k), affording developments over 1,000 square meters of exempt clearing (i.e., development that is not subject to any assessment).</p> <p>Additionally, clearing under ADVCCs do not have limits on how many times they can be applied per premises.</p> <p>SEQ local governments also commented that landholders are uncertain on the extent to which the codes apply in koala habitat areas, and what obligations apply, which may be leading to landholders failing to meet notification requirements.</p>
<p>(m) development that is or involves operational work that is the clearing of native vegetation in a koala habitat area on prescribed land if the clearing is clearing, or for another activity or matter, stated in—</p> <p>(i) schedule 21, part 1, section 1(2), (3), (5), (6), (8), (9), (10) or (11); or</p> <p>(ii) schedule 21, part 1 section 1(15), other than clearing necessary to prevent or minimise damage to the environment; or</p> <p>(iii) schedule 21, part 1, section 1(16), (17), (18) or (19A); or</p>	<p>Some SEQ local governments were critical of the range of purposes provided for in Schedule 21 of the Planning Regulation 2017.</p>
<p>(n) development that is or involves operational work that is the clearing of native vegetation in a koala habitat area if the clearing</p> <p>(i) is on freehold land and is for a forest practice; or</p> <p>(ii) is on indigenous land, other than land on which the State owns the trees, and is for a forest practice; or</p> <p>(iii) is on indigenous land and is gathering, digging, or removing forest products for use under the Aboriginal and Torres Strait Islander Communities (Justice, Land and Other Matters) Act 1984, section 62; or</p> <p>(iv) is on land dedicated as a road under the Land Act 1994 and is stated in schedule 21, part 2, section 5(a)(i) or any of paragraphs (b) to (h) of that section; or</p> <p>(v) is on land that is trust land under the Land Act 1994, other than indigenous land, is carried out, or allowed to be carried out, by the trustee, is consistent with achieving the purpose of the trust and is—</p> <p>(A) to remove non-native vegetation; or</p> <p>(B) in accordance with a relevant biosecurity plan under the Biosecurity Act 2014; or</p> <p>(vi) is on land that is unallocated State land, is carried out, or allowed to be carried out, by the chief executive of the department in which the Land Act 1994 is administered and</p>	<p>Most SEQ local governments expressed concerns that the essential management exemption enables clearing of large areas without assessment or offset.</p> <p>A key issue raised is the lack of criteria around what constitutes acceptable fire risk, and the use of the term 'infrastructure' which includes any building or structure used or built for any purpose.</p> <p>SEQ local governments were also critical that the exemption allows for clearing for 'essential management' for both existing and proposed infrastructure.</p> <p>SEQ local governments commented that the exemption does not consider actual bushfire risk and acceptable and tolerable exposure. Under the exemption an applicant can clear 1.5 times the height of the vegetation which would be more than 40m around any infrastructure, irrespective of the actual bushfire hazard. The clearing could be around infrastructure that does not merit a bushfire setback (e.g. clothesline, garden shed) or be more than what could be accepted from a bushfire perspective.</p> <p>SEQ local governments also noted this can contribute to incremental clearing that is exempt across the site over separate clearing events.</p> <p>Some SEQ local governments were of the view that the exemption should not apply to proposed development, or in the case that it remains, that it should have stricter qualifiers around when it applies and how much clearing is appropriate to achieve suitable bushfire setback.</p>

Exempted development provision	Stakeholder feedback
<p>is to control declared pests or non-native vegetation; or</p> <p>(vii) is necessary for essential management and is qualifying clearing; or</p> <p>(viii) is necessary for a purpose mentioned in definition routine management, paragraph (c) or (d); or</p>	
<p>(o) development on a lot that is or involves operational work that is the clearing of native vegetation in a koala habitat area if—</p> <p>(i) the clearing is necessary to establish a necessary fence, road, or vehicular track on an existing lot; and</p> <p>(ii) the clearing is qualifying clearing; and</p> <p>(iii) the vegetation is regulated regrowth vegetation or a least concern regional ecosystem in a category B area; and</p> <p>(iv) the maximum width of the clearing for the fence, road or track is—</p> <p>(A) for a lot that is 5 hectares or less—5m; or</p> <p>(B) for a lot that is more than 5 hectares —10m; or</p>	<p>Some SEQ local governments commented that the exemption is confusing and that the relationship with the ADVCCs needs to be clarified.</p> <p>Some SEQ local governments sought further guidance on defining 'necessary'.</p> <p>Some SEQ local governments noted that internal access for rural land can result in considerable linear clearing when this exemption is applied sequentially with exemption (k), such as for a new dwelling house or shed.</p> <p>Some SEQ local governments suggested that clearing for this purpose could be subject to a notification process to enable tracking and compliance monitoring.</p>
<p>(p) development that is or involves operational work that is the clearing of native vegetation in an area shown on a PMAV as a category X area if—</p> <p>(i) an application for the PMAV under the Vegetation Management Act 1999, section 20C was made before 7 February 2020; and</p> <p>(ii) the clearing—</p> <p>(A) is qualifying clearing; or</p> <p>(B) is on land dedicated as a road under the Land Act 1994 and is carried out by a local government, or by or for the chief executive (transport).</p>	<p>A property map of assessable vegetation (PMAV) is a map certified by the chief executive showing the vegetation category areas for a statutory area (e.g. Category C area, Category X area).</p> <p>Some SEQ local governments were critical of exemptions applying to Category X areas of PMAVs made before 7 February 2020.</p>

Appendix F – General guidance for written submissions

The following questions are provided as a guide for written feedback on the Consultation PIR:

Questions for stakeholders who undertook development subject to the 2020 koala regulations.

- Since February 2020, have the new regulations affected your activities?
For example:
 - *I have been impacted by the prohibition in a koala priority area*
 - *I have been impacted by the requirement to obtain development approval in a koala habitat area*
 - *I have undertaken clearing under an exemption*
- Is your property or business located in a koala habitat area and/or koala priority area?
- Thinking about your experiences in the koala priority area, which outcome best describes how the prohibition affected your development?
For example:
 - *Did not proceed with any development*
 - *Was able to proceed with a modified development*
 - *Still awaiting outcome (e.g. still in planning and assessment stage)*
- Thinking about your experiences in the koala habitat area, which outcome best describes how the 2020 koala regulations affected your development?
For example:
 - *Did not proceed with any development*
 - *Was able to proceed with a modified development*
 - *Still awaiting outcome (e.g. still in planning and assessment stage)*
- If you undertook clearing under an exemption (i.e., without a development application), which exemptions were used?
For example:
 - *Once-off 500 square meters clearing allowance per premises*
 - *Clearing for essential management, such as safety*
 - *Clearing for fire management, such as a firebreak*
 - *Clearing for a necessary fence, road or track*
 - *Infrastructure Accepted Development Vegetation Clearing Code (ADVCC)*
 - *Weed management ADVCC*
 - *Native forest practice ADVCC*
 - *Clearing vegetation shown on a PMAV as category X*
 - *An Aboriginal or Torres Strait Islander cultural activity*
- Can you describe the type of development?
- If relevant, can you describe the size of koala habitat clearing (square meters)?
- Did you experience any challenges?
For example:
 - *Accessing mapping applicable to your property*
 - *Interpreting level of assessment required for the development*
 - *Obtaining advice from local government*
 - *Obtaining advice from the State Assessment and Referral Agency*
 - *Time delays*
- Did you experience any costs?
For example:
 - *Engaging a specialist to provide advice during planning stages*
 - *Development approval conditions to minimise impacts (such as koala friendly fencing)*
 - *Development approval conditions to offset an impact (such as an offset or compensatory planting)*

Questions related to the impact assessment:

- Are development prohibitions in koala priority areas an effective way to protect koala habitat?
- Please indicate to what extent you agree or disagree with the following:
 - Exemptions are important to allow landowners undertake reasonable and low-risk clearing activities
 - Stacking of exemptions can lead to unreasonably large areas of clearing
 - The wording and structure of the exemptions are too complex
- Please indicate to what extent you agree or disagree that the following activities should be exempt from development assessment:
 - Once-off clearing allowance per lot for a new house
 - low risk clearing in accordance with an Accepted Development Vegetation Clearing Code (ADVCC)
 - clearing for a fence, road or track
 - clearing for essential management, such as safety
 - clearing for fire management, such as a firebreak
 - clearing vegetation shown on a PMAV as category X
 - clearing for an Aboriginal or Torres Strait Islander cultural activity
- Are you aware of any other impacts or benefits the 2020 koala regulations have had on landholders, industry, koalas, government, or community since February 2020 that have not been identified in the PIR?

Questions related to the proposed options:

- Which option do you think provides the best outcomes for developers, government, community and koalas?
- To what extent do you agree with the proposed thresholds for new development above which development approval or prohibition would be triggered? (i.e., up to 500 square meters on an urban zoned allotment and 800 square meters on a rural zoned allotment)
- Should alternative thresholds be considered and why?
- To what extent do you agree with introducing a self assessable pathway for development below the thresholds to minimise impacts to koalas and their habitat?
- To what extent do you agree with a process for notifying the department before undertaking clearing in koala habitat?
- To what extent do you agree that areas that have been legally cleared should be recorded on a publicly accessible register?
- Penalties apply for conducting development without an appropriate permit. What would be an effective deterrent to unauthorised assessable development?
- Are there any other impacts the options would have on landholders, industry, koalas, government or community since February 2020 that have not been identified?
- Overall, to what extent do you agree that Recommended Option (Option 3) would improve the 2020 koala regulations by establishing a clear prohibition and assessable development threshold, reducing the complexity of the exempted development definition, and establishing a new self-assessment pathway and online clearing notification?
- Are there other options, either of a regulatory or non-regulatory nature that should be considered?
- How can the way we communicate regulatory change to the community be improved?

Other questions:

- What do you value about koalas in South East Queensland?

For example:

- *How important is it to you personally to know that koalas are in your local area?*
 - *What benefits or value does having koalas in South East Queensland bring?*
 - *Can you share any perspectives about the unique cultural and spiritual value koalas have to First Nations peoples?*
 - *What impact would there be if koalas no longer lived in natural habitats across South East Queensland?*
 - *What economic value do koalas have?*
- If you were building a development in koala habitat area, what would be your order of preference to minimise impacts on koalas:

For example:

- *Reduce the development footprint to avoid koala habitat clearing*
 - *Keeping the development footprint and make up for habitat clearing with an offset*
 - *Find an alternative site that did not require clearing of koala habitat*
- Would you pay a higher purchase price or higher rent for a property that had avoided koala habitat clearing or incorporated koala sensitive design?
- How would you prioritise koala conservation funding?

For example:

- *Habitat restoration (e.g. planting habitat trees, weed management)*
 - *Threat management (e.g. fencing, safe corridors over roads, wildlife hospitals)*
 - *Habitat protection (e.g. restricting clearing in koala habitat areas)*
 - *Improved research, monitoring and mapping (e.g. koala surveys, disease research)*
 - *Partnerships and Community Engagement (e.g. working with others on local projects, citizen science)*
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Attachment 1 – Independent review by GHD Pty Ltd

Attachment 1 is available to download on the [Department of Environment and Science](#) website.