Ethical assessment of Lendlease's Mount Gilead development

Summary

- We should avoid investing in a company known to be engaging in an activity that has a direct adverse impact on a population of a vulnerable species in a way that could (in isolation or together with other reasonably foreseeable impacts) threaten the viability of that population (section 1).
- 2. Where it is known a company is engaging in an activity that has the potential to adversely impact a population of a vulnerable species, they have the burden of proof to demonstrate that it is not reasonably foreseeable that their proposed activity will (in isolation or together with other reasonably foreseeable impacts) threaten the viability of that population (section 1).
- 3. Lendlease is developing a site with the potential for significant adverse impacts for an important koala population. Koalas are endangered in NSW (section 2).
- 4. While it is taking significant steps to mitigate adverse impacts and we consider it is *possible* the development could on balance have positive impacts for koalas, we have concerns about several potential impacts (section 2).
- To demonstrate that it is not reasonably foreseeable its development will have these adverse impacts that will (together with other reasonably foreseeable impacts) threaten the viability of the population, we think Lendlease needs to
 - at least ensure its stage 2 proposal:
 - provides corridors that are a minimum 250m wide, particularly at the critical juncture between corridor A, corridor B and the Nepean River corridor (i.e. at the confluence of the Nepean River and Menangle Creek);
 - ii. provides corridors that are an average minimum width of 390-425m and be transparent about the methodology used and its application;
 - iii. leaves open the possibility of providing koalas an alternative east-west connection to the Nepean River that meets all the recommendations made by the expert Panel of the Office of the NSW Chief Scientist with respect to koala corridors;
 - b. demonstrate that there will be no net loss of territory or quality habitat for koalas, taking into account the value of the cleared paddock areas currently accessible to them over residential development, and the value of established koala habitat over newly planted trees; and
 - c. demonstrate that its koala protection infrastructure will be maintained under the strongest legal mechanisms available (conclusion).
- 6. If Lendlease commences (or states its intention to commence) stage 2 of the Mount Gilead development without meeting the above requirements, then based on our current understanding, continued investment in Lendlease would not be aligned with the Australian Ethical Charter (conclusion).

Section 1: proposed test under the Australian Ethical Charter

The Australian Ethical Charter relevantly provides that we should avoid any investment which is considered to unnecessarily have a harmful effect on non-human animals or the environment.

Applying this element of the Charter, we should avoid investing in a company known to be engaging in an activity that has a direct adverse impact on a population of a vulnerable (or endangered) species in a way that could threaten

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the viability of that population. It is often the case that the loss of a population of species cannot be attributed to the actions of one company. Further, such a loss may take place slowly over a period including post the activity in question. Therefore, adverse impacts should not be considered in isolation but also together with other immediate and reasonably foreseeable future impacts.

The loss of a population or an ecosystem is usually irreversible. Therefore we should take a precautionary approach and apply a high burden of proof to a company that is known to be engaging in an activity that has the potential to adversely impact a population of a vulnerable (or endangered species). The onus is on the company to demonstrate that it is not reasonably foreseeable that their proposed activity will have adverse impacts that will (in isolation or together with other reasonably foreseeable impacts) threaten the viability of the population.

Section 2: Lendlease is developing a site with the potential for significant adverse impacts for an important koala population

Lendlease is conducting two stages of large-scale residential development at Mount Gilead, just south of Campbelltown. The first stage, Fig Tree Hill, is already underway. The second stage is currently going through regulatory approvals.

Mount Gilead is presently rural. It contains remnant patches of native vegetation, heavily vegetated riparian corridors and gullies, and otherwise cleared agricultural land. It is a uniquely important site for the Campbelltown koala population, which is a healthy and potentially growing koala population and one of the few koala populations that were largely unaffected by the bushfires in the 2019/2020 summer. Mount Gilead provides east to west connectivity between two larger areas of koala habitat, the Georges River corridor and the Nepean River corridor, and helps to ensure that the Nepean River corridor is not a functional dead-end for koalas (wildlife corridors with no connection to other habitat can be a considerable risk).

The Panel notes a particular concern regarding the Nepean Corridor, which is to prevent a functional 'dead-end' at its north end. Observing maps and images of the northern reach of the corridor, it appears to end in the vicinity of the MGS2 site where the Hume Highway crosses the Nepean River. Wildlife corridors that end with no connection to other habitat can be a considerable risk, in particular where the habitat exposes wildlife to threats, and in doing so can create population sinks, where wildlife kills occur, causing vacancies in the location which subsequently attract more animals.

. . .

As addressed above, the importance of the Mount Gilead site to the east-west movement of koalas is amplified by its location at the north end of the Nepean corridor. Koalas currently can move through the landscape in an easterly direction towards the

¹ https://www.chiefscientist.nsw.gov.au/ data/assets/pdf file/0005/318830/Koalas-Advice-Final.pdf

² There are currently some obstacles to koala movement across the site including fencing along the upper canal that dissects stage 2 of the development north to south (impeding east to west movement), lantana in some of the riparian corridors, and the presence of cows and horses. These obstacles notwithstanding, koalas have been using the site as a corridor and can move east to west to an extent. Koalas can cross where the canal is elevated and piped at Menangle and Woodhouse Creeks. An independent expert panel established by the Office of the NSW Chief Scientist found that koalas presently use the second stage of the Mount Gilead site as a corridor at the moment; and that at the north end of the Nepean corridor koalas can presently 'move through the landscape in an easterly direction towards the Georges River'. The Campbelltown Koala Habitat Connectivity Study (BioLink 2017) confirmed 'utilisation of koalas and usage of the corridors linking the Nepean and Georges River catchments' through the Menangle Creek Corridor (referred to as corridor A in this document) and the Woodhouse Creek corridor (referred to as corridor (which is south of the Mount Gilead site).

³ The independent expert panel established by the Office of the NSW Chief Scientist made the following observations about stage 2 of the Mount Gilead site:

Lendlease's proposal to convert Mount Gilead to an urban development, and in particular stage 2 of the development, has the potential to adversely impact the koala population by:

- A. introducing risks to koalas (increased traffic, dogs, and noise and light pollution)
- B. potentially cutting off east-to-west connection and potentially turning the Nepean River corridor into a functional dead-end for koalas
- C. causing a net reduction in koala territory or habitat
- D. permanently barring the option for the site to become a protected koala corridor

Lendlease has proposed measures to mitigate these risks. A panel of independent experts, established by the Office of the NSW Chief Scientist (the Panel), assessed stage 2 of Lendlease's proposed development and gave advice on the adequacy of Lendlease's proposed efforts to protect koalas. Lendlease has said it will comply with all the Panel's recommendations.

We have still found it necessary to make our own assessment. This is because the recommendations made by the Panel are ambiguous in some respects, there is a lot of room for judgment when it comes to their application, and significant issues were left unresolved in their advice. The advice of the Panel does not answer our overarching question which is whether it is reasonably foreseeable that Lendlease's development will have adverse impacts that will (together with other reasonably foreseeable impacts) threaten the viability of the Campbelltown koala population.

A. Introducing risks to koalas (increased traffic, dogs, and noise and light pollution)

Urban development introduces risks to koalas including increased traffic, dogs, and noise and light pollution. Lendlease is taking significant steps to mitigate these risks. Our understanding is that Lendlease is proposing to fence Appin Road with koala exclusion fencing and to effectively fence-in all the residential areas. This would help protect koalas from cars and dogs. Lendlease's proposed koala corridors are expected to have 30m buffers that would help mitigate noise and light pollution to an extent.

Lendlease's development will also provide koalas with two safe crossings under Appin Road. Currently koalas are killed trying to cross Appin Road at Mount Gilead. It is expected that traffic on Appin Road will increase in the future, even in a future without Lendlease's development, due to other developments south of Mount Gilead. From this perspective, Lendlease's development is critical to protecting the Campbelltown koalas from the impacts of future development. There is no proposal to build the two underpasses independent of Lendlease's development.

We do not have a good understanding of what legal mechanisms Lendlease can rely on to demonstrate that these koala protections (fencing, corridors, buffers and underpasses) will remain in place post development. If stage 2 of the development proceeds and we continue to be invested in Lendlease, we may need to explore this further.

B. Potentially cutting off east-to-west connection and turning the Nepean River corridor into a functional dead-end

Failing to provide east-to-west connectivity for koalas at Mount Gilead is an adverse impact that could, together with other reasonably foreseeable impacts (including climate change and associated extreme weather events, and other

Georges River. However, once housing development occurs along the western flank of the MGS2 site, the route for koalas to move east or west will be through a narrow strip of habitat at the confluence of the Nepean River and Menangle Creek.

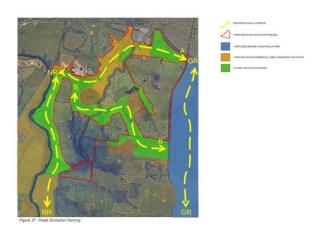
https://www.chiefscientist.nsw.gov.au/__data/assets/pdf_file/0005/318830/Koalas-Advice-Final.pdf

developments in the Greater McArthur region), threaten the viability of the Campbelltown koala population. This connectivity is critical to koalas:

- It is important that koalas can move between the Georges River and the Nepean River in order that the population can expand. Without this connectivity, koalas would have to be intensively actively managed, including translocation for breeding.⁴ We understand these types of initiatives are rarely successful.
- It is particularly important that koalas can move east to west at Mount Gilead to ensure that the Nepean River corridor is not a functional dead-end.⁵ This north-south corridor is a primary corridor containing high quality habitat and connects populations to the south east in the Sydney Catchment and then further to the Southern Highlands. Wildlife corridors that end with no connection to other habitat can be a considerable risk, in particular where the habitat exposes wildlife to threats, and in doing so can create population sinks, where wildlife kills occur, causing vacancies in the location which subsequently attract more animals.⁶

We need sufficient assurance of this critical east-west connectivity

Lendlease proposes to provide a passage for koalas to move east-west across the site from Noorumba Reserve through Menangle Creek to the Nepean River (corridor A) and from Beulah Reserve up to Menangle Creek to the Nepean River (corridor B).⁷



https://www.chiefscientist.nsw.gov.au/__data/assets/pdf_file/0005/318830/Koalas-Advice-Final.pdf at vii and at x.

⁴ https://www.chiefscientist.nsw.gov.au/__data/assets/pdf_file/0005/318830/Koalas-Advice-Final.pdf at vii.

⁵ "The Panel notes a particular concern regarding the Nepean Corridor, which is to prevent a functional 'dead-end' at its north end." ... "As addressed above, the importance of the Mount Gilead site to the east-west movement of koalas is amplified by its location at the north end of the Nepean corridor."

⁶ https://www.chiefscientist.nsw.gov.au/__data/assets/pdf_file/0005/318830/Koalas-Advice-Final.pdf at vii.

⁷ https://www.lendlease.com/-/media/llcom/figtreehill/documents/211205ecologylendleaser05koalaconservationplan.pdf?la=en&hash=1B5EAA1D00775288539F52F80420FA3EF940 414F

We have two concerns about Lendlease's proposed corridors.

First, all three of the proposed corridors on Lendlease's site (corridors A and B, and the Nepean River) converge at the confluence between the Nepean River and Menangle Creek. It is therefore critical that koalas pass through this section of the corridor. If koalas do not pass through it, three corridors will be functional dead-ends.

Under Lendlease's plans as put to the Panel, this critical section of koala corridor was narrow, and would pass under new road infrastructure associated with the Lendlease development. The Panel raised serious concerns about whether this section of the proposed corridor will be used by koalas because of how narrow it is and because of the road infrastructure.⁸

It is not immediately clear how wide this section of the corridor should be. The Panel recommends that corridors A and B should be an *average* width of 390-425m. It is open to interpretation whether the Panel also recommended the application of a *minimum* width. We think the better view is that the Panel did recommend a minimum width, for two reasons:

- In its initial advice, the Panel said work should be undertaken to 'understand whether there is a minimum width to make a viable corridor, as well as how this minimum is affected by vegetation density of the corridor

⁸ "As addressed above, the importance of the Mount Gilead site to the east-west movement of koalas is amplified by its location at the north end of the Nepean corridor. Koalas currently can move through the landscape in an easterly direction towards the Georges River. However, once housing development occurs along the western flank of the MGS2 site, the route for koalas to move east or west will be through a narrow strip of habitat at the confluence of the Nepean River and Menangle Creek. However, the Panel notes that planning for future transport corridors (Figure 1) includes an indicative transport corridor to potentially run through this strip of habitat, while the MGS2 biodiversity certification application and conceptual plans illustrate (Figure 2 and Figure 8) this habitat being potentially surrounded by three roads. The biodiversity certification application notes two elevated bridge crossings and possibly a third, designed to maintain vegetation and koala movement. Some clarity needs to be provided as to the vision for this linking habitat, including whether all three bridges would be built at the same time, and some insights into whether koalas would use this area of the landscape with this density of infrastructure. The Panel notes that other wildlife also benefit from corridors. If koalas don't use this connection, options may potentially be needed to confirm the ongoing viability of the link between Corridor B and the northern end of the Nepean Corridor at Menangle Creek."

"Close attention should be paid to test the feasibility of the design of the koala connectivity at the confluence of Menangle Creek and Nepean River, near the Hume Highway and possibly under three bridges."

"Corridor C protects as much habitat connected to Beulah as possible. Corridor C should be re-examined for maintaining connections to Nepean Corridor if the MGS2 connectivity at the Menangle Creek and Nepean River confluence is compromised with road infrastructure."

"Particular care needs to be paid to the design and construction of the habitat at the confluence of the Menangle Creek and Nepean River where a number of road bridges are planned, to ensure koalas will use the connection."

https://www.chiefscientist.nsw.gov.au/__data/assets/pdf_file/0005/318830/Koalas-Advice-Final.pdf at xiv, 43, 53.

⁹ https://www.chiefscientist.nsw.gov.au/ data/assets/pdf_file/0005/318830/Koalas-Advice-Final.pdf at xiv. Lendlease says it will meet this recommendation but has not published its methodology for calculating this so this claim cannot be independently verified. We understand that the main method of calculating an average width of a corridor is to draw transects at regular intervals, measure the widths of the transects, and presumably calculate the average transect width. But the angles at which the transects are drawn can have a significant impact on the end result. This was demonstrated by the assessment made by the Panel of a previous attempt by Lendlease to measure the average corridor widths of its proposed corridors. The Panel criticised Lendlease's methodology and recommended that Lendlease provide 'a clearly articulated, transparent and defendable method for calculating the corridor widths and the orientation of the transects'. It has not done this publicly, but this detail may be provided in a public exhibit. See https://www.chiefscientist.nsw.gov.au/ https://www.chiefscientis

- and urban density of the surrounding developments. The Panel noted the fact stakeholders have proposed a minimum width of 200m and raised concerns about sections of the corridors that are only 85m and 115m.¹⁰
- In response to questions about the initial advice, the Panel seemed to adopt a methodology for calculating the average width that incorporates a minimum width of 250m. In its initial advice, the Panel relied heavily on the research of Dr Steve Phillips. His methodology for calculating the average width involves 'a series of width measurements at 200 m intervals along the entire length [of the corridor] each of which must evidence the minimum width requirement of 250m' [emphasis added]. In response to questions about the initial advice, the Panel assessed Lendlease's proposed corridors against this methodology, arguably giving it implicit endorsement.

While the Panel did not make explicit a recommended minimum width, we think it did make implicit a recommended minimum width of 250m. In our view, Lendlease's proposed corridor must at least meet a 250m minimum width particularly at the critical junction between corridors A and B and the Nepean River corridor.

Second, the corridors must also meet the average width recommendations and the method and application of that method for calculating the average width must be fair and transparent. We note Lendlease was strongly criticised by the Panel for how it applied Steven Phillips methodology in calculating the average widths. ¹² This makes it even more important that Lendlease and the government set out the methodology for how they calculated the average width of the corridors and show how that methodology was applied over the landscape.

Addressing potential counter arguments

Lendlease has said environmental experts in the relevant NSW government departments have not raised concerns about its proposed corridors including at the critical junction between corridors A and B and the Nepean River corridor. Government endorsement of Lendlease's plans does not give us sufficient certainty. Successive governments have failed to prevent the decline of native species, including koalas, particularly where there have been conversions from agriculture to urban environments and even where there have been attempts to reduce habitat loss through planning regulation.¹³

https://www.chiefscientist.nsw.gov.au/__data/assets/pdf_file/0005/318830/Koalas-Advice-Final.pdf at ix and 52.

¹⁰ "A number of different reports have been produced over time that aim to provide measurements for the scale or width of corridors – these are summarised and discussed in Chapter 2. These analyses tend to calculate the average width of a corridor over an area, and range from 300 m to 425 m. Every opportunity to maintain or increase the width of corridors should be taken and work to understand whether there is a minimum width to make a viable corridor, as well as how this minimum is affected by vegetation density of the corridor and urban density of the surrounding developments. The Panel notes that some stakeholders have recommended a minimum width of 200m. It is noted that within MGS2, in both Corridor A and B, there are locations with narrow widths – including 85 m in Corridor A and 115 m in Corridor B. Efforts to widen the habitat in these areas is important and this could contribute to addressing any koala habitat offset deficits (koala credits) if possible."

[&]quot;Corridor B is a continuous corridor that has a mean width of 316 m, a minimum width of 100 m and no part of the corridor separated by more than 220 m (minimum distance between stepping stone habitat areas (Figure 8). It is noted that previous studies identified a minimum width of 200 m, opportunities to widen this corridor should be explored."

¹¹ https://www.chiefscientist.nsw.gov.au/__data/assets/pdf_file/0005/485924/OCSE-Response-to-questions_Campbelltown-Koalas-Feb-2021.pdf at 9.

¹² https://www.chiefscientist.nsw.gov.au/__data/assets/pdf_file/0005/485924/OCSE-Response-to-questions_Campbelltown-Koalas-Feb-2021.pdf at 9 and 10.

¹³ https://www.chiefscientist.nsw.gov.au/__data/assets/pdf_file/0005/318830/Koalas-Advice-Final.pdf at 31.

Lendlease has also noted that the intersection between the three corridors will be wider than the proposed underpasses at Appin Road. On one view it is arguable that if it is permissible for koala corridors to narrow and pass under major road infrastructure at Appin Road, why not under a new road at Menangle Creek? We think there are several reasons to assess these differently:

- (1) Installing underpasses at Appin Road is an improvement on the status quo and does not risk the Georges River corridor becoming a functional dead-end. The Georges River corridor is not dependent on these crossings to continue as a functional corridor. By contrast, at the Nepean River, Lendlease's proposed development is a downgrade on the status quo as it involves the construction of new road infrastructure and will significantly reduce the area of possible koala movement, and the continued functionality of the Nepean River corridor will become dependent on the proposed crossing at the confluence of the Nepean River and Menangle Creek.
- (2) At Appin Road, the koala corridors immediately widen significantly on both sides of the road. This is different to a scenario where a corridor narrows for a longer stretch.
- (3) It is also possible that the terrain at the confluence of the Nepean River and Menangle Creek is less friendly to koalas than the proposed crossing at Appin Road, as koalas will be funnelled into steep creek banks.

C. Causing a net reduction in koala territory and quality habitat

Lendlease claims that under its proposal, koalas will have access to more koala habitat trees onsite than there is currently.¹⁵ But in assessing the overall impact of the development on koalas, it is necessary to consider not only what is being provided to koalas but also what is being taken away. Even with more trees, koalas may be losing out in two respects:

- Cleared paddock with cattle and horses is significantly worse for koalas than intact habitat, but koalas can still move through this landscape and have been doing so at Mount Gilead. Residential developments by contrast are an entirely hostile landscape for koalas. Further, cleared paddock does not create as significant an adverse impact on adjacent corridors as residential developments, with their additional noise and light pollution and other edge effects. Koala exclusion fencing and buffers can mitigate these impacts to an extent, but a corridor adjacent to residential development is still a downgrade compared to a corridor adjacent to cleared paddock. Of course, when calculating the net effect of the development on total koala territory and habitat, the relative benefit of different types of land must be taken into account, i.e. land with koala habitat trees is more valuable to koalas than cleared paddock. It may be possible for Lendlease to provide koalas with a net benefit (or at least no net loss) by proving more quality territory, even if it is over less space, than koalas had pre-development.
- Established koala habitat may be more valuable to koalas (and other biodiversity) than newly planted trees including by offering more certainty and more resilience to climate threats; newly planted trees may not be

¹⁴ According to the Panel, koalas presently use all of the second stage of the Mount Gilead site as a corridor https://www.chiefscientist.nsw.gov.au/ data/assets/pdf_file/0005/318830/Koalas-Advice-Final.pdf at 22 and at the north end of the Nepean corridor koalas can 'move through the landscape in an easterly direction towards the Georges River' https://www.chiefscientist.nsw.gov.au/ data/assets/pdf_file/0005/318830/Koalas-Advice-Final.pdf at x. This also seems consistent with koala tracking records, which suggests koalas move throughout the Mount Gilead site (see Appendix).

¹⁵ According to Lendlease, its development proposal will increase koala habitat onsite and the koala carrying capacity onsite relative to a future with no development https://www.lendlease.com/-/media/llcom/figtree-hill/documents/211205ecologylendleaser05koalaconservationplan.pdf?la=en&hash=1B5EAA1D00775288539F52F80420FA3EF940414F

¹⁶ Lendlease disputes this but see note 13 above.

able to withstand extreme weather as well as established habitat. To the extent Lendlease is clearing established koala habitat it is taking something away that cannot be replaced in the short term.

D. Permanently barring the option for the site to become a protected koala corridor

Right now, it may not seem probable that Mount Gilead would ever be designated a protected koala corridor, its unique importance to koalas notwithstanding. But it is possible (indeed we are hopeful!) that as the public, government, and the private sector gain a better understanding of the biodiversity crisis and what is needed to achieve the global goal to halt and reverse nature loss, there will be a significant change in Australia's approach to protecting koalas and other native wildlife. In that scenario, it is reasonably foreseeable that this site would be designated a protected koala corridor (and revegetated, with existing koala barriers removed). By developing this site now, Lendlease is irreversibly preventing such an outcome.

Conclusion

Lendlease is taking significant steps to protect the Campbelltown Koala population. We accept it is potentially going above and beyond what any other developer of a greenfield site has done to protect native wildlife in Australia. But this is not the test. Urban development of greenfield sites, including conversion of sites previously cleared for agriculture, have precipitated rapid declines in koala numbers. Australian environmental protection laws and regulations are acknowledged to be ineffective at preventing unsustainable environmental destruction, as demonstrated by the Graeme Samuel review of the EPBC Act. The most recent State of Environment Report shows almost every aspect of nature is in decline in Australia. We therefore do not apply a business-as-usual standard when it comes to impacts on nature and we do not simply compare Lendlease's efforts to those of other developers.

We want to believe that this development will be the exception, and set a new standard for urban development that respects native wildlife and avoids adverse impacts. We have not ruled out the possibility that is what Lendlease is providing. But we need sufficient certainty that this development will not threaten the viability of the local koala colony.

Lendlease needs to

- 1. ensure its stage 2 proposal:
 - a. provides corridors that are a minimum 250m wide, particularly at the critical juncture between corridor A, corridor B and the Nepean River corridor (i.e. at the confluence of the Nepean River and Menangle Creek);
 - b. provides corridors that are an average minimum width of 390-425m and be transparent about the methodology used and its application;
 - c. leaves open the possibility of providing koalas an alternative east-west connection to the Nepean River that meets all the recommendations made by the Panel with respect to koala corridors;
- 2. demonstrate that there is no net loss of koala territory or habitat at any point in time, from what koalas have access to pre-development, accounting for the value to koalas of cleared landscape over residential development, and of established habitat over newly planted koala habitat trees; and
- demonstrate that its koala protection infrastructure will be maintained under the strongest legal mechanisms available.

If Lendlease proceeds with the development of stage 2 without meeting these requirements, we think it would be engaging in an activity that has a direct adverse impact on the koala colony and it is reasonably foreseeable that these impacts, taken together with other immediate and reasonably foreseeable future impacts, could threaten the viability of the colony. (It is also possible that even if it meets all these requirements, the development is



fundamentally incompatible with the ongoing viability of the local koala colony. But we would need to see the evidence for this.)

We also think Lendlease should commit to achieving biodiversity *outcomes* relating to active koala use of the corridors and underpasses. There is a significant difference between a commitment to take steps and a commitment to achieve outcomes. We recognise it is difficult for Lendlease to make promises about koala behaviour. But there are ways Lendlease could address this including by providing contingency plans about what it will do if its corridors and underpasses are not actively used. In this way Lendlease would wear some of the risk of its koala protections plans not working as intended, rather than externalising this risk.

We also think Lendlease and other property developers should make biodiversity commitments that apply to all greenfield developments. These should include a commitment to conduct their own assessments of the public interests of greenfield developments, in consultation with independent conservation experts (rather than simply relying on government approvals) and a commitment to make these assessments available for public scrutiny.

Finally, we think Lendlease and other property developments should publicly acknowledge that existing environmental protection laws are failing, should advocate to government for stronger legal and policy protections for nature, and should ensure that both their direct and indirect (including through industry lobby groups) engagements and lobbying with government and regulators are aligned with the global goal of halting and reversing nature loss by 2030.

Appendix: Evidence of koalas using the Mount Gilead site

Location of 25 field sites used to assess koala occupation and habitat across Mount Gilead:

- Orange shading represents vegetation cover
- · Blue asterisks represent signs where evidence of koalas was detected
- · Red asterisks represent sights where no koala evidence was detected
- The approximate extent of Eucalyptus dieback arising from eutrophication is illustrated by red line work



Figure 12 - South Campbelltown Koala Habitat Connectivity Study (BioLink 2017)

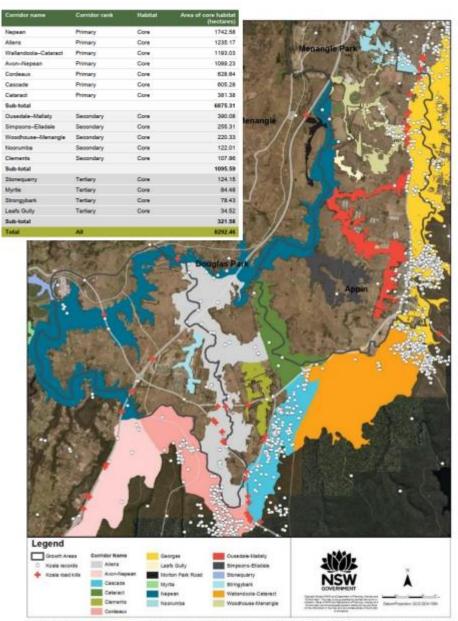
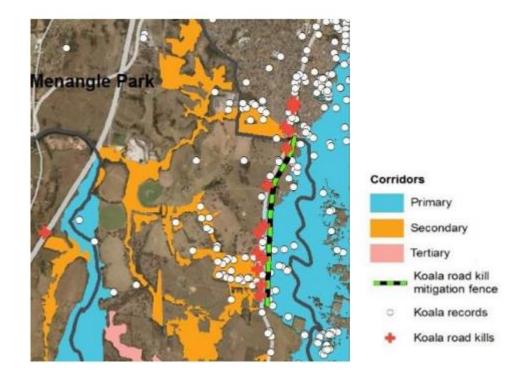


Figure 21 - Koala movement corridors across the Wilton and Greater Macarthur Growth Area (NSW Department of Planning Industry and Environment 2019)

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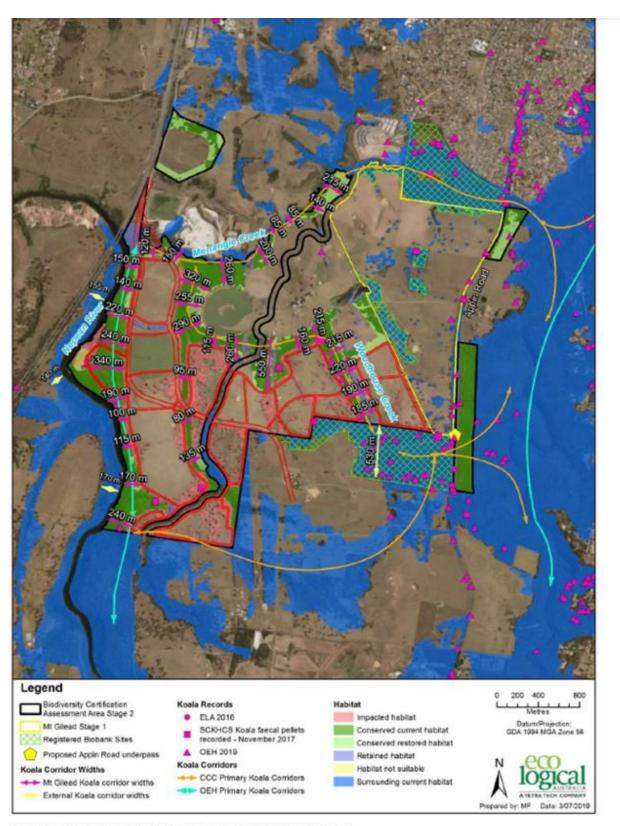


Figure 8: Corridor widths in the proposed MGS2 development

Source: Eco Logical Australia (2020)