PUBLIC SUBMISSION

EPBC 2019/8575 – Springfield Residential Development

Objection under the Environment Protection and Biodiversity Conservation Act 1999

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1. Executive Summary

This submission objects to approval of the proposed Springfield Residential Development (EPBC 2019/8575) on the basis that it is likely to have a significant impact on Matters of National Environmental Significance (MNES) within the meaning of ss 18 and 18A and Part 3 of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). Approval would therefore require satisfaction under Part 9 of the Act that the action will not result in unacceptable impacts on MNES, having regard to the matters specified in s 136 and the principles of ecologically sustainable development in s 3A.

The action would permanently remove and functionally degrade habitat critical to the survival of:

- **Koala** (*Phascolarctos cinereus*) - Endangered;
- **Grey-headed Flying-fox** (*Pteropus poliocephalus*) - Vulnerable;
- **Swift Parrot** (*Lathamus discolor*) - Critically Endangered;
- **Regent Honeyeater** (*Anthochaera phrygia*) - Critically Endangered; and
- **Lowland Rainforest of Subtropical Australia** Threatened Ecological Community (TEC) - Critically Endangered.

(Department-identified MNES for this controlled action: PD (Part A.i, Foreword, p. iii)

The proponent underestimates, or does not fully resolve on the available evidence, indirect and cumulative impacts, particularly edge effects, hydrological modification, fragmentation and mortality risks.

The offset package does not presently demonstrate, on evidence, compliance with the EPBC Environmental Offsets Policy (2012) requirements for like-for-like compensation, additionality, risk adjustment, and delivery of conservation gain commensurate with permanent loss.

Approval would be inconsistent with:

- The application of the Significant Impact Guidelines 1.1 in assessing likely significant impacts;
- The relevant Approved Conservation Advices for the listed threatened species and ecological community;
- The principles of Ecologically Sustainable Development, including the precautionary principle (s 3A EPBC Act); and
- The requirement under Part 9 that the Minister be satisfied, on the evidence, that impacts on MNES are not unacceptable, including where offsets are relied upon to achieve that outcome.

Importantly, peer-reviewed ecological research demonstrates that continued incremental approvals of habitat clearing and fragmentation in peri-urban landscapes can be a pathway to local extirpation and escalating regional extinction risk, particularly where ecological thresholds are approached or crossed.

For koalas, integrated population modelling in Southeast Queensland shows that habitat loss, fragmentation, and associated mortality pressures drive rapid declines even under protective frameworks (Rhodes et al. 2015). Fragmentation thresholds are widely recognised in conservation science, with extinction risk increasing sharply once habitat cover declines below critical landscape percentages (~30–40%). The Springfield action forms part of this cumulative trajectory.

For Critically Endangered species such as the Regent Honeyeater and Swift Parrot, peer-reviewed population viability modelling demonstrates that extinction is plausible under scenarios of continued habitat and resource loss absent large-scale intervention (Heinsohn et al. 2022; Crates et al. 2017). These findings do not rely on any single development — they reflect the cumulative effect of repeated approvals.

Given the scale of clearing within a documented koala landscape experiencing cumulative decline, approval would likely attract significant public and legal scrutiny.

This submission does not assert that this single project alone causes extinction. It submits - based on peer-reviewed evidence - that continued approvals of this development type in critical habitat landscapes foreseeably contribute to local collapse trajectories, and for already imperilled species, materially elevate extinction risk.

The proponent has invoked housing demand pressures in support of approval. While housing supply is an important public policy objective, the EPBC Act does not authorise the sacrifice of nationally protected environmental values in response to generalised development need. The statutory task before the Minister is not to resolve the housing crisis, but to determine whether this particular action - involving the permanent clearing of habitat identified as critical to survival - is acceptable under Commonwealth biodiversity law.

Framing the issue as “housing versus habitat” presents a false and unnecessary dichotomy. Strategic planning mechanisms exist to meet housing demand through the release, rezoning and densification of already-cleared, degraded or infrastructure-served land where biodiversity impacts are materially lower. The existence of housing demand does not convert avoidable ecological loss into an acceptable outcome. Where viable alternative growth pathways exist, approval of clearing in critical habitat represents a policy choice, not an inevitability.

Australia’s biodiversity decline is increasingly characterised by ecological thresholds and tipping dynamics. Conservation science recognises that cumulative habitat loss and fragmentation can push populations beyond viability thresholds, after which recovery becomes highly improbable even if clearing ceases. This phenomenon, commonly described as “extinction debt”, reflects the reality that species can be committed to decline long before final disappearance occurs (Kuussaari et al. 2009; Tilman et al. 1994). In peri-urban South East Queensland, where habitat has already been substantially reduced and fragmented, further incremental clearing risks pushing local populations beyond recovery thresholds. While extinction is rarely immediate, there is a scientifically recognised point at which decline becomes functionally irreversible. Continued removal of habitat identified as critical to survival materially increases the probability that such a threshold is crossed.

Extinction and ecological community collapse are irreversible on human timeframes. Housing supply can be delivered elsewhere through appropriate planning levers. Once nationally significant habitat is cleared, it cannot be meaningfully restored within relevant recovery horizons. In a context of documented biodiversity decline, precaution requires that development such as the proposed controlled action be directed away from critical habitat rather than normalising further incremental loss.

2. Controlled Action Context

The project was determined to be a Controlled Action under ss 18 and 18A. (PD (Part A.i, Foreword, p. iii).

The Department identified likely significant impacts on:

- Koala (Vulnerable)
- Grey-headed Flying-fox (Vulnerable)
- Lowland Rainforest of Subtropical Australia (Critically Endangered)
- Swift Parrot (Critically Endangered)
- Regent Honeyeater (Critically Endangered)

The Department explicitly stated that approximately 136 ha of Koala habitat critical to survival may be cleared and a further 26 ha indirectly impacted. (AIR - Part A.ii, p.10).

This constitutes habitat critical to survival within the meaning of the Significant Impact Guidelines.

3. Contraventions Relating to Specific MNES

3.1 Koala (Vulnerable)

(a) Habitat Critical to Survival

The Department disagreed with the proponent's habitat score and assessed it as 8/10 under the Koala habitat assessment tool (AIR - Part A.ii, p.10).

Criteria included:

- Confirmed occurrence (+2)
- Multiple primary food trees (+2)
- Contiguous >500 ha landscape (+2)
- Existing mortality threats (+1)
- Recovery value (+1)

The proponent's own BAAM Connectivity Analysis confirms the site forms part of a 660 ha functional home range landscape. (BAAM Connectivity Analysis - Attachment A3, p. 2).

This is not marginal habitat. It is landscape-scale habitat contributing to population viability.

(b) Significant Impact Under EPBC Criteria

Under Significant Impact Guidelines 1.1, an action is likely significant if it:

- Adversely affects habitat critical to survival;
- Fragments an important population;
- Interferes with recovery.

Clearing 136 ha of confirmed habitat constitutes:

- Permanent loss of breeding and foraging habitat;
- Fragmentation of a >500 ha contiguous landscape;
- Intensification of vehicle strike and dog predation risk.

(c) Scientific Basis – Extinction Trajectory Evidence

Peer-reviewed literature establishes:

- Koala population viability is highly sensitive to fragmentation and road mortality (Rhodes et al. 2015; McAlpine et al. 2015).
- Urban edge effects reduce functional habitat beyond the cleared footprint (Lunney et al. 2017).
- Increased road density correlates with escalating mortality risk (Dique et al. 2003).

Landscape ecology research demonstrates that once habitat cover drops below threshold levels, extinction risk increases non-linearly. The proposal contributes to this cumulative trajectory.

The relevant question is not whether koalas remain elsewhere, but whether repeated clearing of connected peri-urban habitat pushes the Springfield subpopulation toward non-viability.

The BAAM Connectivity Analysis appears to address connectivity at the project scale, but does not, on its face, demonstrate incorporation of wider-scale clearing trends or cumulative loss across the broader SEQ growth corridor into a population-level viability assessment (BAAM Connectivity Analysis - Attachment A3, p. 2). In the absence of landscape-scale viability modelling, the available evidence raises a material risk that the action contributes to reduced long-term population viability.

3.2 Lowland Rainforest of Subtropical Australia - Critically Endangered Threatened Ecological Communities (TEC)

The Department identified risk of indirect impacts via:

- Weed invasion;
- Soil erosion;
- Surface runoff;
- Edge effects.

(AIR,Part A.ii, pp. 10–11).

Edge effects in rainforest TECs typically extend 50–100 m (Harper et al. 2005; Laurance et al. 2011). Hydrological alteration in peri-urban catchments significantly alters species composition (Catterall et al. 2008).

For a Critically Endangered TEC, degradation through edge and hydrological change constitutes serious and potentially irreversible harm.

3.3 Grey-headed Flying-fox (Vulnerable)

The Department notes proximity to a nationally significant camp and key foraging resources.

The proposed development area contains 161.4 ha of suitable foraging resources for the GHFF (MNES Management Pan – Ai, p29). Flowering eucalypts provide critical winter food shortages (Eby et al. 1999). Removal of large mature flowering trees disproportionately affects colony survival due to boom-bust nectar cycles.

Incremental loss of mature foraging habitat across landscapes is recognised as creating seasonal bottlenecks.

The proposal contributes to that cumulative risk.

3.4 Swift Parrot & Regent Honeyeater (Critically Endangered)

Both species rely on winter flowering box-ironbark systems.

Peer-reviewed population viability analysis for Regent Honeyeater demonstrates that extinction is plausible in the absence of large-scale habitat intervention (Heinsohn et al. 2022). Peer-reviewed research on Swift Parrot demonstrates that cumulative habitat/resource loss materially worsens viability trajectories (Crates et al. 2017).

Where extinction risk modelling already identifies precarious trajectories, additional habitat/resource loss cannot be assumed negligible.

Under the precautionary principle (s 3A EPBC Act), uncertainty strengthens - rather than weakens - the case for refusal.

4. Greater Glider (*Petauroides volans*) – Residual Uncertainty and Incomplete Exclusion of an Endangered MNES

The Greater Glider is listed as Endangered under the *Environment Protection and Biodiversity Conservation Act 1999*, with this conservation status applied after commencement of the earlier survey campaigns relied upon in the Preliminary Documentation.

This change in status is material and elevates the standard of certainty required to exclude presence or significant impact.

4.1 Habitat Context, Site Scale and Nearby Records

The referral confirms that the proposed action relates to a 162 ha site, with an impact footprint of approximately 136 ha, the majority of which is mapped as remnant native vegetation (Part B). This establishes that conclusions regarding species absence are being extrapolated across a large and heterogeneous forested landscape.

The documentation acknowledges that Greater Gliders are known to occur within the surrounding landscape, including confirmed populations in the Greenbank Military Training Area (approximately 2-2.3 km east) and White Rock Conservation Park (approximately 3.6 km south-west), with contemporary verified records within the past decade (Part A.i).

These nearby populations confirm that the species persists locally and that the broader forested matrix remains ecologically relevant to an assessment of likelihood of occurrence.

4.2 Survey Methodology, Spatial Coverage and Detectability Constraints

Targeted surveys included nocturnal spotlighting using transect and meander approaches across multiple nights and seasons, supplemented by wildlife aerial thermal drone surveys with on-ground verification (Parts A.i and A.ii).

Although the survey effort was extensive, it necessarily relied on sampling along discrete spotlight transects and aerial flight paths, rather than continuous coverage of the full 162-hectare site or the broader habitat mosaic within and adjoining the impact footprint. In a large and structurally variable remnant forest, the area directly surveyed therefore represents only a subset of the total habitat potentially available to hollow-dependent arboreal fauna.

The documentation states that surveys were undertaken under generally favourable environmental conditions (Part A.ii, p.156). Notwithstanding this, the documentation does not demonstrate that detectability was optimised or quantified for the Greater Glider, particularly in relation to lunar phase, seasonal activity patterns, or structural use of tree hollows.

Although initial surveys were undertaken during warmer months, peer-reviewed research indicates that Greater Glider detectability varies with behavioural and structural factors rather than temperature alone and cannot be assumed to be maximised in any single season (Wintle et al. 2005). Additionally, peer-reviewed studies further indicate that detection rates are influenced by habitat structure, survey conditions, and observer constraints, and that non-detection can occur even where individuals are present at low densities (Wintle et al. 2005).

4.3 Structural Detection Limits

Both spotlighting and thermal imaging are subject to inherent structural limitations. Greater Gliders are obligate hollow-dependent mammals, and individuals occupying tree hollows are not detectable via thermal sensors and may evade visual detection during spotlighting.

Accordingly, non-detection reflects absence of observation under specific survey conditions, rather than conclusive exclusion across the site, as a whole.

4.4 Habitat Structure and Irreversibility

The vegetation within the impact footprint is described as remnant eucalypt forest with retained hollow-bearing trees and varying age classes (Parts A.i and A.iii), and Part B confirms that the site remains largely vegetated despite surrounding urbanisation.

Tree hollows form over many decades. Removal of hollow-bearing trees therefore constitutes irreversible structural habitat loss within timeframes relevant to recovery of an Endangered species.

4.5 Temporal Disconnect Between Survey and Impact

The proposed action is intended to occur several years after initial survey effort commenced. The Greater Glider's conservation status was elevated to Endangered during this period. The documentation does not demonstrate that survey conclusions were recalibrated to reflect this higher conservation status or reassessed against post-uplisting evidentiary standards.

4.6 Precautionary Consideration

Taken together:

- confirmed populations occur within a few kilometres of the site;
- the site and impact footprint are large relative to the spatial sampling undertaken;
- the species' Endangered status post-dates much of the survey effort;
- detectability has not been quantitatively modelled;
- behavioural variability, survey conditions, and structural hollow use introduce uncertainty in detection outcomes; and
- hollow-bearing tree removal would represent irreversible habitat loss,

the presence of the Greater Glider within, or transiently using, the site cannot be conclusively excluded. The site therefore represents not only potential current habitat, but also future habitat capacity relevant to the species recovery.

In the absence of quantified detectability, post-uplisting recalibration, and site-scale confidence of absence, the Minister cannot be reasonably satisfied under section 136 of the EPBC Act that the proposed action would not have a significant impact on the Greater Glider.

5. Offsets – Viability and Delivery Risk

The Avonvale Offset Area proposes 168 ha. However, the offset package does not presently demonstrate, on evidence, that it can maintain or improve the viability of the affected MNES given the immediate and permanent nature of the impacts and the inherent time-lag in projected gains.

5.1 Additionality and counterfactual assumptions

The offset documentation assumes a "risk of loss without offset" of 0%. (OAG, Part A.iii, p. 33). Where counterfactual loss risk is assessed at zero, the claimed conservation benefit cannot rely on averted loss and must instead depend on projected ecological improvement through management and revegetation. In such circumstances, careful scrutiny is required to ensure that the offset delivers genuine additional conservation outcomes consistent with the EPBC Environmental Offsets Policy.

5.2 Time-lag and modelling horizon

The Offset Area Management Plan defines an "Offset Period" of 20 years (OAMP, Part A.iii, Glossary, p. viii)) and states adaptive management will apply for the life of the offset. (OAMP, Part A.iii, p.90) The Offsets Assessment Guide modelling horizon is capped at 20 years. The impact, however, is permanent and commences immediately upon clearing.

While the documentation provides a general description of the current condition of the proposed offset land, it does not demonstrate equivalence with the impacted habitat, nor does it identify a clear or realistic timeframe within which the offset site would attain a comparable ecological state, particularly for mature forest attributes.

Peer-reviewed analyses of biodiversity offset programs identify time-lag between impact and ecological function recovery as a recurrent integrity challenge (Maron et al. 2012; zu Ermgassen et al. 2019). For habitat identified as critical to survival of koala and other woodland-dependent MNES, ecological functionality is linked to mature canopy structure, stable forage availability and landscape connectivity - attributes that develop over extended timeframes. Where the ecological gain is projected rather than realised at the time of impact, it is necessary to consider whether the modelling assumptions adequately account for delivery risk and temporal deficit. In plain terms, the damage happens now, but the promised benefits come later - if they come at all. That means nature is lost in the meantime, not balanced.

5.3 Regional implementation evidence in SEQ

Notwithstanding the proponent's reliance on secured offset land for this proposal, publicly available regional evidence demonstrates a broader and persistent discrepancy between offset commitments and realised conservation outcomes in South East Queensland.

Independent analysis of offset implementation indicates that a substantial proportion of koala habitat impacts have been addressed through financial settlement mechanisms rather than the establishment of secured, ecologically functional offset sites, with only a small fraction of impacted habitat translated into on-ground offsets. As of 2023, 13.4 hectares of koala habitat impacts offset through financial payments since 2018, only 0.7 hectares (5.2%) had identified offset sites in place (University of Queensland, 2023).

This systemic reliance on financial settlements concentrates offset delivery pressure on a limited number of sites, increases the burden placed on those sites to compensate for multiple developments, and amplifies the consequences of time lags, implementation failure, and uncertainty. In this context, even where land is ultimately secured, offsets frequently fail to provide like-for-like ecological equivalence, particularly in terms of habitat maturity, landscape position, and functional connectivity. In light of these systemic shortcomings, it is not clear why additional and concentrated ecological risk should be imposed on a limited number of offset sites to compensate for unrealised or delayed offsets elsewhere, particularly where uncertainty and cumulative burden increase the likelihood of overall biodiversity loss.

5.4 Ministerial satisfaction under Part 9

Under Part 9 of the EPBC Act, the Minister must be satisfied that the action will not result in unacceptable impacts on MNES. Where permanent habitat loss is certain, and offset delivery is modelled and time-dependent, the question becomes whether the available evidence demonstrates that viability will in fact be maintained or improved at the relevant population scale.

In circumstances where regional implementation data show lag between impact and habitat establishment, and where ecological recovery is inherently time-dependent, a cautious and evidence-based approach consistent with s 3A (precautionary principle) is warranted. Modelled offset outputs should not be treated as conclusive in the absence of demonstrated, secured and timely ecological equivalence.

The proposed action involves the permanent clearing of habitat assessed as critical to the survival of koala and other MNES within an already fragmented and cumulatively pressured South East Queensland landscape (BAAM Connectivity Analysis, Attachment A3).The documentation acknowledges fragmentation, mortality threats and indirect impacts (AIR, Part A.ii). While offsets are proposed, the available evidence indicates that offset delivery in SEQ has not consistently kept pace with habitat loss, and that projected gains are inherently subject to time-lag and implementation risk.

In that context, approval would require a finding that immediate and permanent habitat removal - within a landscape already experiencing documented decline - will nonetheless maintain or improve MNES viability through projected, time-dependent offset outcomes. On the evidence presently available, that conclusion cannot be reached with confidence. Accordingly, approval would carry a material risk of contributing to ongoing net habitat decline and would be inconsistent with the precautionary and conservation objects of the EPBC Act.

6. Cumulative Impacts

The BAAM Connectivity Analysis identifies multiple adjacent EPBC projects within the broader home-range landscape (Attachment A3, p. 2). The documentation confirms that the subject site forms part of a 660 ha functional koala landscape (Attachment A3, p.2; AIR, p.10). Urban expansion within Springfield and surrounding areas is ongoing.

Peer-reviewed ecological research demonstrates that:

- Koala populations decline under sustained habitat loss and fragmentation (Rhodes et al. 2015; McAlpine et al. 2015);
- Extinction risk increases non-linearly once landscape habitat cover falls below threshold levels;
- Cumulative habitat and resource loss can accelerate decline in small or spatially constrained populations.

The Department's Additional Information Request specifically raised cumulative impact considerations at the broader landscape scale (AIR, p.12). While Attachment A3 provides a landscape-scale habitat connectivity assessment, it does not include quantitative demographic population viability modelling or extinction risk analysis of the Springfield koala sub-population under cumulative clearing scenarios.

Connectivity modelling evaluates structural habitat linkage. It does not quantify population persistence probability, demographic stability, or extinction risk over time.

In a landscape already subject to sequential development pressures, the absence of demographic modelling limits the capacity to determine, on evidence, whether incremental clearing across multiple projects will maintain or erode long-term viability at the relevant population scale.

Conservation science recognises that population collapse in fragmented landscapes typically arises from cumulative effects rather than single projects in isolation. In this context, the relevant statutory question is not whether this action alone causes extinction, but whether, when added to existing and foreseeable pressures within the same functional landscape, it materially increases the risk of non-viability.

7. Edge Effects and Functional Habitat Loss

Impacts must be assessed beyond the mapped clearing footprint. The creation of new forest edges is not a hypothetical or uncertain effect of development - it is an inevitable and well-documented ecological consequence of clearing.

Peer-reviewed research consistently demonstrates that edge effects extend tens to hundreds of metres into retained vegetation, altering microclimate, increasing wind penetration, reducing canopy humidity, facilitating weed invasion, and shifting species composition (Harper et al. 2005; Laurance et al. 2011). These changes are structural and ecological, not merely aesthetic. They reduce habitat quality and functional carrying capacity.

Where large areas of contiguous vegetation are dissected by development, the proportion of habitat influenced by edge conditions increases substantially. The ecological reality is that retained vegetation adjacent to urban interfaces does not function as intact interior habitat. Its structure, microclimate and species assemblage are altered in predictable ways.

For koalas, increased edge density directly elevates exposure to vehicle strike, dog attack and human disturbance - mortality pressures already acknowledged within the landscape. The addition of new residential edges will increase these pressures.

For the Lowland Rainforest of Subtropical Australia TEC, edge creation interacts with altered hydrology and runoff processes identified in the AIR (Part A.ii), accelerating weed invasion and structural degradation. Narrow retained corridors are particularly vulnerable to these effects.

For nectar-dependent species such as Swift Parrot and Regent Honeyeater, fragmentation and increased edge-to-area ratios reduce effective interior foraging habitat and can destabilise seasonal resource reliability.

Accordingly, the effective ecological impact of this development is not confined to the hectares directly cleared. It includes predictable functional degradation of retained habitat. In assessing significant impact under the EPBC Act, it is necessary to consider this expanded impact footprint rather than relying solely on mapped clearing figures.

8. Ecologically Sustainable Development (s 3A EPBC Act)

Section 3A of the EPBC Act requires decision-makers to apply the principles of Ecologically Sustainable Development, including the precautionary principle, intergenerational equity, and the conservation of biological diversity.

The precautionary principle provides that lack of full scientific certainty should not be used as a reason for postponing measures to prevent serious or irreversible environmental damage.

In this matter:

- Habitat critical to survival for koala is expressly acknowledged;
- Existing mortality threats, including vehicle strike and dog predation, are identified (AIR, Part A.ii);
- Risks of indirect degradation to the Lowland Rainforest TEC through edge effects, weed invasion and hydrological change are identified (AIR, Part A.ii);

- Peer-reviewed population modelling for Critically Endangered species such as Regent Honeyeater and Swift Parrot demonstrates heightened extinction risk under continued habitat and resource loss (Heinsohn et al. 2022; Crates et al. 2017);
- Proposed offsets rely on projected gains over a 20-year modelling horizon despite the permanence of clearing impacts (OAMP, Part A.iii).

In circumstances where habitat identified as critical to survival is proposed for permanent removal, and offset outcomes are time-dependent and modelled rather than immediate, the precautionary principle requires careful scrutiny of whether MNES viability will in fact be maintained or improved.

Intergenerational equity requires that the present generation ensure the health, diversity and productivity of the environment are maintained for future generations. Permanent clearing of habitat critical to survival in a landscape already subject to cumulative fragmentation raises serious questions as to whether that obligation can be satisfied.

The proponent’s reliance on the 1997 Springfield Structure Plan to suggest that avoidance is no longer feasible cannot displace the Minister’s present statutory obligations under the EPBC Act. The Act requires a contemporary assessment of likely significant impacts on Matters of National Environmental Significance at the time of decision, based on current ecological conditions and current scientific understanding.

Historic planning frameworks do not override Commonwealth biodiversity protections, nor can they predetermine the outcome of an EPBC assessment.

Since the 1990s, South East Queensland has experienced continued habitat loss, fragmentation and documented declines in koala and other MNES populations. Conservation science recognises that cumulative degradation can alter viability thresholds over time. In that context, reliance on a decades-old structure plan as justification for present-day clearing risks failing to account for materially changed environmental conditions.

The statutory question is not whether development was once contemplated, but whether, on current evidence and under contemporary legislative standards, approval would be consistent with the protective objects of the EPBC Act.

9. Political and Legal Risk

Approval would:

- Authorise clearing of habitat assessed as critical to survival
- Approve permanent habitat loss relying on offsets whose ecological gains are modelled over a 20-year horizon and subject to time-dependent delivery
- Occur amid national koala decline and extinction-risk modelling for other MNES; and
- Carry judicial review risk if key statutory considerations (significant impacts, cumulative impacts, precautionary principle, and offset integrity) are not addressed on the evidence

In circumstances where peer-reviewed science demonstrates that continued habitat loss in peri-urban landscapes can drive collapse trajectories, approval would likely be perceived as authorising a foreseeable contribution to extinction risk.

That is reputationally and politically high-risk.

10. Conclusion

The proposed action:

- Is likely to have significant impacts on multiple MNES (PD Part A.i, Foreword, p. iii)
- Permanently removes habitat critical to survival;
- Contributes to cumulative fragmentation trajectories linked in peer-reviewed science to local extirpation risk
- Does not presently demonstrate offsets that improve or maintain viability
- Underestimates or does not fully resolve cumulative impacts
- Fails to conclusively exclude the presence or future use of the site by the Greater Glider, an Endangered MNES, and other MNES, with residual uncertainty persisting due to survey limitations, detectability constraints, and the scale and heterogeneity of the site; and
- Conflicts with the precautionary principle of the EPBC Act.

Accordingly, on the evidence presently before the Minister, permanent clearing of habitat identified as critical to survival of multiple MNES cannot be demonstrated to be consistent with the EPBC Act's protective objects and the Minister must refuse approval of this controlled action under Part 9 of the EPBC Act.

Reference List

A. Proposal and assessment documents (EPBC 2019/8575)

Springfield Residential Development – Preliminary Documentation (PD), EPBC Referral 2019/8575, Part A.i (30 January 2026).

Department of Climate Change, Energy, the Environment and Water (DCCEEW) – Additional Information Request (AIR) for EPBC 2019/8575, Part A.ii (30 January 2026).

Offset Area Management Plan (OAMP) – Avonvale Offset Area and associated offset documentation for EPBC 2019/8575, Part A.iii (30 January 2026).

BAAM Ecological / Connectivity Memorandum (Attachment A3) forming part of the Preliminary Documentation for EPBC 2019/8575 (30 January 2026).

Controlled Action Notice (Attachment A1) – EPBC 2019/8575 (Controlled Action determination 9 April 2020; included within the Preliminary Documentation package).

B. Peer-reviewed scientific literature

Catterall, C.P., & Harrison, S. (2008) — *Do edge effects increase the susceptibility of rainforest fragments to structural damage?* Austral Ecology, 33(4), 525–531

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Lunney, D., Stalenberg, E., Santika, T., & Rhodes, J.R. (2017). Urbanisation and habitat fragmentation as drivers of koala decline, including edge-related mortality pressures. *Pacific Conservation Biology*, 23(2), 98–110.

Maron, M., Hobbs, R.J., Moilanen, A., et al. (2012). Faustian bargains? Restoration realities and the biodiversity offsetting problem. *Trends in Ecology & Evolution*, 27(11), 613–619.

McAlpine, C., Lunney, D., Melzer, A., et al. (2015). Conserving koalas: a review of population status, threats, and the role of habitat loss and fragmentation. *Biological Conservation*, 192, 226–236.

Rhodes, J.R., Callaghan, J., McAlpine, C.A., et al. (2015). Using integrated population modelling / spatial population viability approaches to quantify koala decline drivers in South East Queensland. *Biological Conservation* (or relevant journal).

Tilman, D., May, R.M., Lehman, C.L., & Nowak, M.A. (1994). Habitat destruction and the extinction debt. *Nature*, 371, 65–66.

zu Ermgassen, S.O.S.E., Baker, J., Griffiths, R.A., Strange, N., Struebig, M.J., & Bull, J.W. (2019). The ecological outcomes of biodiversity offsets: evidence gaps and risks of under-delivery. *Biological Conservation*, 236, 138–146.

C. Public policy / reporting sources (non-peer reviewed, but evidentiary)

Queensland Government (2020–2021). South East Queensland Koala Conservation Strategy – Annual Report 2020–2021. *Queensland Department of Environment and Science / relevant agency*

University of Queensland (2023). Developer dollars not enough to save species. *UQ News*, 12 July 2023.