Proposed Warner Residential Development, Warner, Qld (EPBC Referral 2017/8022)

Request for reconsideration of decision under section 78(1) (a) and (aa) of the EPBC Act

21 December 2017

Report prepared on behalf of Ausbuild Development Corp Pty Ltd

TABLE OF CONTENTS

Executive Summary

Ausbuild Development Corp Pty Ltd is the proponent for a proposed residential development at Warner, in the Moreton Bay Regional Council local government area of South East Queensland. The Site is in a peri-urban landscape adjoining existing development, and provides a logical focus for infill development. This is recognised by the Site's inclusion in the Warner Structure Plan area. However, the Site also contains koala habitat, and koala has been recorded from the Site.

In order to address its legal obligation under the *Environment Protection and Biodiversity Conservation Act 1999*, Ausbuild submitted a Controlled Action Referral for the proposed action. After assessment, the proposed action was declared a *Controlled Action* based on impact to koala (a Matter of National Environmental Significance).

Subsequent to the decision on the Controlled Action Referral, changes to the Warner Structure Plan have brought about substantial changes to the proposed action. These changes to the proposed action include: removing residential development south of Conflagration Creek; altering the road network to minimise impact on koala bushland habitat; minimising vehicle strike on koala through a reduction in the number of habitat corridor road crossing points, and providing underpass infrastructure where such conflict cannot be reasonably avoided; enlarging the Conflagration Creek, and Northern habitat corridors; and providing further detail in regard to exclusion of domestic dogs from corridors. These changes, in turn, allow the provision of substantial new information on the impacts of the proposed action.

The amended development will substantially reduce impact on koala, ensuring that the proposed action's overall impact remains under the threshold of a Significant Impact, as defined by the Significant Impact Guidelines 1.1. Accordingly, Ausbuild seeks a reconsideration of the original Controlled Action decision under Section 78(1)(a) and (aa) of Act. Ausbuild submits that the proposed action should now be deemed *Not a Controlled Action*.

1.0 Background and Purpose

In September 2017, 28 South Environmental lodged a Controlled Action Referral (**CAR**) (EPBC Reference No 2017/8022) on behalf of Ausbuild Development Corp Pty Ltd (**Proponent**) for the proposed Warner residential development at Warner, South East Queensland (**Proposed Action**)[1]. The locality of the proposed action is shown by **Figure 1**. The Site of the proposed action is shown by **Figure 2**. The layout of the proposed action (as submitted with the CAR)[2] is shown in **Attachment 1**.

On 16 October 2017, the Department of the Environment and Energy (**DoEE**) issued a referral decision notice notifying that the proposed action was a controlled action, and that it would require further assessment and approval under the *Environment Protection and Biodiversity Conservation Act 1999* (**Act**) before it could proceed. The decision notice identified the relevant controlling provision as *listed threatened species and communities*, while associated correspondence identified the Matter of National Environmental Significance (**MNES**) of interest as *Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)* (**Koala**). The decision notice and associated correspondence are provided in **Attachment 2**.

The proponent seeks a reconsideration of the decision in accordance Section 78(1)(a) and (aa) of Act, which provides the following:

(i) Section 78(1)(a) allows the Minister to revoke and substitute an earlier decision based on the availability of substantial new information on impacts to MNES (in this case Koala); and

(ii) Section 78(1)(aa) allows the Minister to revoke and substitute an earlier decision based on there being a substantial change in circumstances that were not foreseen at the time of the first decision.

The purposes of this correspondence are to:

[1] The application was accepted as valid, and posted on the EPBC Act Referrals list page on 5 September 2017.
[2] Note: One of the purposes of this report is to introduce an amended design.

(i) describe the proponent's assessment of a substantial change to the proposed action in order to reduce the impact on koala - thereby addressing Section 78(1)(aa);

(ii) provide substantial new information on the impacts of the proposed action on koala[3] – thereby addressing Section 78(1)(a); and

(iii) more generally, to clarify the habitat values of the Site, and its role in the broader landscape – thereby addressing issues raised in the DoEE information request dated 2 November 2017 (**DoEE Information Request**) (**Attachment 3**).

In making this reconsideration request, the proponent does not seek to circumvent its obligation for reasonable environmental management. Rather, the concern is that the proposed action's declaration as a controlled action suggests a level of impact far greater than that which is likely to occur, particularly with amendments brought about by the amended Warner Structure Plan. This in turn generates unnecessary community concern, and significantly complicates Moreton Bay Regional Council's (**MBRC**) assessment of the proposed action at a local government level. Unnecessary delays and costs are secondary concerns for the proponent.

2.0 The Site's Landscape Setting

The Site's landscape setting was discussed by the CAR, but it is important to reiterate its peri-urban setting, and the significance of recent development in the vicinity of the Site[4]. Before progressing to consideration of Section 78(1)(a) and (aa), the Site's landscape setting and inherent values are discussed in (this) Section 2, and the following Section 3.

Figure 1 (which has been updated with more detail than provided in the CAR) shows that the Site is located between the existing residential suburbs of Warner (to the north) and Eatons Hill (to the south). Vegetated land to the immediate east of the Site is identified as medium/high value

[3] And the manner in which they will be mitigated.
[4] Including development considered under the EPBC Act.

bushland habitat for koala[5] (**Attachment 4**). Beyond this vegetation lies Old North Road, and beyond that the industrial suburb of Brendale.

Year 2031 traffic projections for Old North Road[6] predict traffic volumes of 28,000 – 31,000 vehicles/day without the proposed action, and an additional 4,500 vehicles/day with the proposed action. The relatively small predicted increase in traffic on what is already a high-volume road is unlikely to generate significant additional threat for koala.

During a recent upgrade of Old North Road (from a two-lane to a four-lane road), fauna underpass and overpass structures were established on a waterway to the Site's north (**Figure 1** and **Plates 1-2**). The culverts conveying Conflagration Creek[7] under Old North Road into Brendale were not upgraded to improve fauna passage[8] (**Plates 3-4**), providing clear indication that east-west connectivity in this locality was to be provided by the waterway further north, rather than Conflagration Creek. In regard to areas east of Old North Road, this decision reflects: the highly cleared nature of Conflagration Creek to the east of Old North Road; the zoning of the land (industrial); and existing (but yet to be constructed) approvals. These circumstances effectively limit koala movement along Conflagration Creek to areas west of Old North Road (**Figure 1**).

Areas to the immediate southeast of the Site support rural residential lots of approximately 6000m^2, and larger vegetated lots. Koala persists in this area, but there is very limited connectivity to the south through the densely configured Eatons Hill residential area, or across the heavily-trafficked South Pine Road to the open space areas that lie beyond.

Areas further southeast (beyond South Pine Road) are zoned Recreation and Open Space, and contain the partly vegetated Wantima County Club (golf course); the South Pine Sports Complex; and other open lands that will transition to active open space uses over time. These areas are also likely to support koala, but the existing high traffic volumes on South Pine Road will create a significant

[5] As identified by the regulatory habitat map supporting the *Planning Regulation 2017*.
[6] Lambert and Reibein consulting engineers.
[7] The Site's major waterway, and focus for fauna movement.
[8] They create a broad soak on the upstream (western side) of the culverts, and the base of the culverts appear to be continuously wet.

threat to movement across the road. Connectivity into this area is likely to be created by the riparian zone of the South Pine River.

Koala movement in areas to the southeast of the Site is likely to be in a north-south direction across Coorparoo Road and Warner Road (east)[9], to and from habitat between the Site and Old North Road (**Figure 1**).

Before its recent clearing, there was a strong connection further north through the CSR quarry land to habitat adjoining Kremzow Road[10]. However, that connection has now been almost completely cleared (**Figure 3**). DoEE's decision in regard to the CSR quarry expansion[11] is discussed further in Section 6. Habitat connectivity for areas east of the Site must now be re-established, and this can be achieved by the corridor revegetation works proposed as part of the controlled action.

Properties to the immediate west of the Site are heavily vegetated, creating north-south habitat connectivity (**Figure 1**). During the Proponent's due diligence phase, these sites were considered for inclusion in a broader development area. However, they were excluded from consideration when the environmental constraint became apparent.

Further west is the rural residential suburb of Cashmere, which is almost wholly comprised of 6000m^2 - 1ha lots. The suburb remains well-vegetated, and supports koala, but: there are no dog restrictions; no fencing standards requiring koala permeability; and many unmitigated roads. Koala persists in this area despite the threatening processes.

3.0 The Site's Inherent Koala Habitat Values

Baseline ecological assessment involved survey of all non-juvenile koala habitat trees[12] (**NJKHT**) on the Site. The tree survey plan submitted with the CAR has now been updated to include trees on Lot 3 RP87086, and in the north of Lots 9 and 10 RP79062 (**Figure 4**). As shown in **Figure 4**, the vegetation character of these sites reflects the broader Site.

---

[9] East of the Coorparoo Road intersection.

[10] Baseline ecological survey found the level of koala activity on the CSR Quarry site to be medium to high (Saunders Havill Group, 2016).

[11] Not a Controlled Action (Referral 2016/7728).

[12] Species in the genera *Eucalyptus, Corymbia, Lophostemon, Melaleuca and Angophora* with a diameter at breast height of > 10cm, or a height of 4m.

Item 1 of the DoEE information request (**Attachment 3**) indicates that habitat assessment only considered the Regrowth Lowland Sclerophyll Forest as koala habitat. This is incorrect. In our response to the Koala Habitat Assessment Tool in the CAR[13] we stated that "*the scattered paddock trees provide some value for koalas, but did not exhibit signs of significant use*[14]*. By comparison, the more intact and contiguous vegetation on Conflagration Creek was more heavily used by koala*[15]*, and was the area in which all direct observations of koala were made."*. Our findings indicate that the Site's best quality koala habitat occurs in Conflagration Creek. The scattered paddock trees are in some cases also used by koala, but it is apparent that the highly fragmented nature of this vegetation provides habitat of much lower significance than that which occurs on Conflagration Creek.

Figure 4 shows the location of NJKHT clumps in the development footprint. **Plates 5-8** show the character of clumps 1-4, which are the better-quality examples of habitat in the development footprint. Outside of these clumps, the survey makes it clear that the remaining trees in the development footprint are scattered paddock trees, or species that are not recognised as koala habitat trees (e.g. Acacia regrowth, landscape planting, and weeds). An example is provided by the reasonable contiguous area of vegetation on Lot 9 on RP79062 (Clump 5), which as shown by **Plates 9-11** is largely comprised of common landscape species and Bamboo. NJKHTs in this clump have been recorded as individual trees. Further examples of the development footprint's disturbed character are shown by Plates 12-23 & 25-37 of the CAR. By comparison, the regrowth sclerophyll forest in Conflagration Creek corridor is mid-mature, and beyond the edges, reasonably weed free (**Plates 12-14**).

Removal of scattered NJKHTs and clumps from the development area will cause a minor reduction in koala habitat values, and opportunities for movement through the landscape. However, the minor connections to be lost as a result of development are unlikely to be significant when considered in light of: (i) the broader and more robust connections that will continue to frame the Site; and (ii)

[13] Attachment (g) Habitat Critical to the Survival of Koala (p.1).
[14] As determined by scat survey.
[15] Again, as determined by scat survey.

dedication of the Conflagration Creek corridor, and northern corridor as open space to MBRC[16] (**Figure 5**). Importantly, these corridors will reinstate habitat connectivity for areas east of the Site, where connectivity has been largely compromised by clearing of the CSR Quarry site.

4.0 Consideration of Substantive Changes to the Proposed Action

4.1 Synopsis

Section 78(1)(aa) allows the Minister to revoke and substitute an earlier decision based on there being a substantial change in circumstances that were not foreseen at the time of the first decision. This section discusses substantial changes to the proposed action that have arisen through amendments to the Warner Structure Plan (**WSP**)[17].

When the CAR was submitted the WSP was in draft form. The WSP has since undergone community consultation, and the community feedback arising out of this process has prompted MBRC to alter landuse designations, and reposition the east-west district collector road. This in turn has prompted substantial changes to the proposed action, which reduce impact on koala. The amended structure plan is shown in **Attachment 5**. The amended development layout is shown in **Figure 5**. The substantive changes are as follows.

4.2 Residential Development Excluded South of Conflagration Creek

The CAR showed residential development in the southeastern corner of the Site. This was separated from other residential areas by a ~100m habitat corridor centred on Conflagration Creek. The Conflagration Creek corridor largely achieved the 100m minimum corridor width for koala identified by Table 8 (Barriers to Dispersal) of the Koala Referral Guideline.

The amended WSP has excluded residential development from areas south of Conflagration Creek, and this area will retain its current rural residential designation, restricting development to five rural

[16] Dedication of the Conflagration Creek corridor is the proposed action's primary mitigation measure. While subsequent establishment of offsets in the corridor cannot be considered at the referral stage, it is relevant to consider local offset opportunities that arise as a result of the land dedication. Further, even without formal establishment of offsets, progression of the already existing regeneration would improve koala habitat values over time.

[17] The MBRC planning document guiding future development in Warner.

residential lots. This change will provide greater opportunity for retention of existing vegetation, and buffering of Conflagration Creek. Dog controls[18], and fencing that permits free movement of koala will also be required. An indicative layout is shown in **Figure 5**. More detailed design will be undertaken as development planning progresses.

Removing residential development from the southern side of Conflagration Creek also removes the need for a new north-south road across the creek. As such, the proposed development will require no new crossings of Conflagration Creek (refer **Figure 5**), but offers an opportunity to establish an effective fauna underpass on Warner Road. The existing (ineffective) underpass is shown by **Plate 15**.

4.3 Options for the East-west District Collector Road

In Section 1.2 of the CAR, it was noted that a new road connection was to be established between Warner Road and Old North Road (the east-west district collector road) to overcome the limitations of the existing road network. It was proposed that the road be co-located with a gravity sewer that required a similar clearing footprint to construct.

In response to Section 8 of the Koala Referral Guideline[19], the CAR indicated that the east-west district collector road would traverse an area of contiguous vegetation identified as bushland habitat on the koala habitat regulatory map. The impact area was in the order of 8000m^2. Exclusion fencing, and underpass structures were proposed to mitigate vehicle strike, and permit continued koala movement underneath the road[20].

In an effort to reduce habitat loss caused by the proposed action, the proponent investigated the feasibility of removing the east-west district collector road, and redirecting traffic to the existing road network and proposed future roads. The co-located gravity sewer could not be moved, but reassessment of the design found that it could be constructed by tunnel boring underneath the vegetation, thereby avoiding vegetation loss[21]. However, the investigation found that redirecting

[18] For example, placement of dogs in dedicated enclosures rather than permitting free movement across lots.
[19] *Could your action substantially interfere with the recovery of the koala.* Attachment (g)(p.2) of the CAR.
[20] Table 8 of the Koala Referral Guideline identifies these as moderately effective mitigation measures.
[21] Calibre Consulting, consulting engineers.

traffic from the proposed action onto the existing road network would result in *multiple, ongoing koala mortalities*, causing a likely Significant Impact on koala. Further discussion is provided **Attachment 6**. Such impact was considered unacceptable, and dictated that other options be considered.

A resolution arose through the amended WSP, which proposed an alternate alignment for the east-west district collector road. The amended WSP identified that the future district collector road was to be positioned to the north of the powerline easement on the CSR Quarry land (**Attachment 5**), which as shown by **Figure 2** is cleared land, and does not provide corridor function. The alignment of the future district collector road offers advantage over the current options, insofar that: (i) it does not require clearing or fragmentation of bushland habitat for koala; and (ii) will not cause *multiple, ongoing koala mortalities* that would otherwise arise from increased traffic on the existing road network.

The WSP shows a direct north-to-south alignment for the north-south district collector road (**Attachment 5**). However, at a site scale the alignment will be repositioned (to the west) so that it no longer traverses the koala bushland habitat in the southwestern corner of the CSR Quarry land. This will reduce direct loss and fragmentation of koala bushland habitat. An east-west habitat corridor will be maintained through this area, requiring retention of the previously proposed fauna underpass.

5.0 Consideration of Substantial New Information

5.1 Synopsis

Section 78(1)(a) of the Act allows the Minister to revoke and substitute an earlier decision based on the availability of substantial new information on impacts to MNES. Section 4 of this report discusses substantial changes to the proposed action that bring about a substantial reduction in impact on koala. The most significant *new information* relates to consideration of road design, and options for gaining access to Old North Road, and South Pine Road (refer Section 4.2).

The following section provides substantial *new information* on: (i) the proposed location and design of underpass infrastructure intended to minimise koala vehicle strike; (ii) habitat corridors that are

intended to mitigate the loss of movement opportunity; and (iii) impact and management in regard to domestic dogs.

5.2 Fauna Underpasses

The provision of fauna underpasses was discussed in the CAR[22] . To expand on this discussion, and clearly offer substantial new information on the proponent's commitment to establishing safe passage for koala, we note the following.

Removing residential development from the southern side of Conflagration Creek also removes the need for a new north-south road across the creek. As such, the proposed development will require no new crossings of Conflagration Creek (refer **Figure 5**), but offers an opportunity to establish an effective fauna underpass on Warner Road. The existing (ineffective) underpass is shown by **Plate 15**. The road network crosses only one other habitat corridor (the north-south district collector road in the Site's north) (**Figure 5**). The underpass structures will adopt the Koala Referral Guideline's design parameters as follows:

(i) they will be dedicated dry passage underpasses, set at a height above culverts conveying normal stormwater flow;

(ii) they will be no more than 40m long;

(iii) they will have a minimum 2.4m X 2.4m dimension; and

(iv) directional fencing will be in place for at least 100m on either side of the underpass.

5.3 The Conservation Corridor – Size and Intent

The DoEE information request queried whether the Conflagration Creek corridor was of sufficient width to allow effective koala movement. As shown by **Figure 5**, the Site is already framed by robust corridors. The Conflagration Creek corridor will establish significant greenspace along the southern,

[22] Refer P.2 of Attachment (g) - in response to *Could your Action Substantially Interfere with the Recovery of Koala*.

eastern and northern sides of the proposed development, and significantly improve habitat connectivity in this locality for koala.

The desired minimum corridor width of 100m[23] is achieved in most parts of the Conflagration Corridor (either wholly on site, or in combination with adjoining lands that are likely to remain undeveloped). The corridor is narrower at Warner Road, but this is in any case a pinch point, because koala is restricted to moving through the underpass.

The northern corridor will provide significant new east-west movement opportunities by expanding and extending the existing east-west link in the CSR Quarry land. Some planting restrictions are established by the powerline easement, but vegetation structure providing safe haven for koala can still be created by planting powerline-compatible species in planting beds.

The conservation corridors are intended to be fully vegetated passive open space. They may contain minor infrastructure to encourage passive use and surveillance[24] (low-key walking paths and the like), and revegetated stormwater infrastructure, but they will not accommodate more formal recreation uses such as sporting fields and courts.

Dedication of the Conflagration Creek corridor, and Northern corridor as open space and drainage reserve is the proposed action's primary mitigation measure. While subsequent establishment of offsets in the corridor cannot be considered at the referral stage, it is relevant to consider local offset opportunities that arise as a result of the land dedication. Further, even without formal establishment of offsets, progression of the already existing regeneration would improve koala habitat values.

5.4 Impact and Management of Domestic Dogs

The proposed action has the potential to increase the occurrence of dogs at the Site, but the significance of this outcome needs to be considered in light of: (i) the existing occurrence of wild dogs in the locality; and (ii) the relative contribution made by wild and domestic dogs to koala attack, particularly in tightly configured new urban development.

[23] Table 8 (Barriers to Dispersal) of the Koala Referral Guideline.
[24] Surveillance being important to stop vandalism, lighting of fires and the like.

In South East Queensland, wild dog populations exist on the outskirts of suburbs within Brisbane, the Gold Coast and Sunshine Coast. These dogs often go un-noticed, and residents regularly mistake them for domestic dogs without collars. Australian Koala Foundation and Queensland Parks and Wildlife data on koala deaths from these areas show that mortality due to dog attack is far more frequent in the western and northern areas of the greater Brisbane area where wild dogs are prevalent. Given the general public's ignorance of wild dogs living within some areas of Brisbane and surrounds, it would be very easy to blame domestic dogs for every koala found mauled by a dog (Mifsud undated).

In the western part of the MBRC local government area the impact of wild dogs is sufficient for Council to proactively manage the threat through its Hinterland and Rural wild dog management program. Given the Site's direct connection to rural residential and rural areas to the west, it is apparent that wild dogs will already predate koala at the Site. Further, it is relevant to note the significant disparity between mortality caused by wild dogs (a very high proportion of overall deaths) and domestic dogs (a very low proportion of overall deaths) observed during the Moreton Bay Rail Link Koala Monitoring Program[25].

In the longer term, the proposed action's conservation corridors will create focal points for the management of wild dogs[26]. It is anticipated that Council will manage the corridors in a manner similar to other nearby urban areas. **Attachment 7** shows MBRC's wild dog management areas and pathways for urban areas to the Site's northeast.

In the CAR, we submitted that the development configuration would create little opportunity for interaction between dogs and koalas, except where dogs were outside of their designated property, and so *at large*[27]. The proposed action's configuration is significant, because it creates precincts that are either: (i) wholly committed to development, and actively exclude koala (while containing dogs) by way of fencing; and (ii) wholly committed to conservation and rehabilitation, and actively exclude dogs (while containing koalas) by way of fencing. By comparison, the rural residential development

[25] Endeavour Veterinary Ecology Moreton Bay Rail Link Koala Monitoring Program.
[26] As the corridors are transferred to Council ownership, Council will inherit the general biosecurity obligation established by the *Biosecurity Act 2014*.
[27] MBRC Local Law 2 (Animal Management) 2011; and Subordinate Local Law 2 (Animal Management) 2011 govern control of roaming dogs.

in adjoining Cashmere retains koala habitat on large lots, and so offers little opportunity to segregate dogs from koalas.

To further segregate dogs from koalas on the Site, the proponent will establish fencing along the edge of the conservation corridor. In the CAR for referral no. 2014/7338[28], DoEE accepted that a combination of boulder retaining walls and fencing would create an effective barrier against dogs entering the corridor, and koalas entering the development area on that particular development site. The key explanatory diagram used to reach that agreement is provided in **Attachment 8**. That project is now under construction, with fencing installed along the corridor interfaces. The proponent will adopt a similar dog exclusion fence solution for the proposed action.

6.0 The CSR Quarry Decision

The proponent considers this reconsideration request is consistent with the department's decision on the adjoining CSR Quarry referral (2016/7728). In particular, the proponent notes:

- The CSR Quarry site directly adjoins the proponent's site;
- The CSR Quarry referral decision is contemporary (22 July 2016), and was subject to the same legislative framework and guidelines;
- The CSR quarry development proposed removal of 8.52 hectares of remnant vegetation, and 7.99 hectares of regrowth vegetation. As shown by **Figure 3**, in September 2016[29] the vegetation formed a reasonably contiguous block that was not traversed by roads, or subject to significant edge effect. It also provided a clear and significant north-south habitat connection;
- On page 15 of the CSR Quarry CAR, under the heading of SAT survey results, it was noted that *"overall, evidence of koala usage in the form of scats was considered to be medium to high across the site".* Cross-referencing Plan 3 of the referral (showing scat survey sites) with Table 2 (outlining scat survey results) shows that 4 of the 5 SAT sites within the quarry

[28] A 1300 lot residential development with linear corridors of similar width.
[29] The period in which the DoEE was assessing the CSR application.

clearing area exhibited levels of use consistent with the East Coast Medium-High activity category (as per Phillips and Callaghan 2011). This lead the consultant to conclude that the entirety of the CSR site comprised *habitat critical to the survival of koala* (refer Plan 2 of the referral) (**Attachment 9**);

- By comparison, the proposed action will clear only small patches of vegetation, and widely scattered trees in a paddock setting. Major habitat corridors framing and traversing the Site will be maintained, and corridors traversing the Site will be dedicated to MBRC as open space. The Conflagration Creek corridor protects the Site's most intact and significant habitat, and provides significant future opportunity for the establishment of offsets. While the beneficial impact of offsets cannot be considered at this point, dedication of the land to Council establishes significant mitigation.

7.0 Reappraisal of the Significant Impact Guideline

The EPBC Act Matters of National Environmental Significance Significant Impact Guidelines 1.1 (DoE 2013) (**SIG 1.1**) establishes significant impact criteria for MNES. Koala is a vulnerable MNES, and so considered against the vulnerable species significant impact criteria.

A central consideration for vulnerable MNES is whether the proposed action will impact an *important population* (as defined by the SIG 1.1). Given that the Site is in the Priority Koala Assessable Development Area; is connected to more contiguous koala habitat; and exhibits use by koala, we conclude that the proposed action does have potential to impact on an *important population*.

Since submission of the CAR, there have been substantial changes to the proposed action, which significantly reduce impact on koala. Further, this report provides substantial new information on impact to koala that was not available at the time the CAR was submitted. As such, it is appropriate to provide a reappraisal of the significant impact criteria (**Table 1**).

Table 1 – Reappraisal of the Significant Impact Criteria for Vulnerable Species

An action is likely to have a significant impact on a vulnerable species if there is a real chance or possibility that it will:	
(i) Lead to a long term decrease in the size of an important population.	The proposed action will remove scattered koala habitat trees and small tree clumps from the development area, but retain the more contiguous areas of habitat in the Conflagration Creek corridor. Loss of scattered trees will cause some loss of movement opportunity in the landscape, but the retention of the Conflagration Creek corridor in the south, and a further corridor in the north will mitigate this loss. Further, the Site will remain framed by robust habitat corridors (refer **Figure 5**). While the beneficial impact of offsets cannot be considered at the referral stage, dedication of the corridors (a mitigation measure) provides significant opportunity to address habitat loss from the site (and potential future adjoining development). As a minimum, this will maintain the extent of habitat already occurring in the locality. The proponent has considered various traffic management solutions for the proposed action (refer Section 4.2), but has settled on an option that will direct roads around all areas of major habitat. **Figure 5** shows the proposed location of fauna underpass structures intended to provide grade separation between koala movement corridors and roads. The koala referral guideline identifies such structures as a moderately effective means of minimising koala roadkill. The proposed action has the potential to increase the number of domestic dogs in this locality, but the potential impact needs to be considered against the background of existing wild dog attack, and the potential for better management of wild dogs in the future revegetated conservation corridors. Effective fencing will be provided to limit movement of domestic dogs into the conservation corridors. The proposed action will not lead to a long term decrease in the size of the important population occurring in this locality.
(ii) Reduce the area of occupancy of an important population.	The proposed action will remove scattered koala habitat trees and small tree clumps from the development area, but retain the more contiguous areas of habitat in the Conflagration Creek corridor. Loss of scattered trees and clumps will reduce the area of occupancy in the short term, but dedication of the conservation corridors will mitigate this loss. The proposed action will not reduce the area of occupancy for an

	important population.
(iii) Fragment an existing population into two or more populations.	The proposed action is framed by robust habitat corridors, and will dedicate conservation corridors providing southwest-northeast movement, and east-west movement (**Figure 5**). Increased vehicle movements through corridors within the proposed action will be addressed by provision of fauna underpass structures at fauna corridor – road interface points. This will ensure that the population is not fragmented through the effects of vehicle strike. The proposed action will generate very little traffic movement to the west, and there is seen to be no need for mitigation infrastructure in areas west of the Site. The proposed action will not fragment an existing population into two or more populations.
(iv) Adversely affect habitat critical to the survival of a species.	Considering the Site's values as a whole, we assigned a Koala Habitat Assessment Tool score of 7. However, there are marked difference in habitat quality across the Site. In the CAR we noted that "*the scattered paddock trees provide some value for koalas, but did not exhibit signs of significant use*[30]*. By comparison, the more intact and contiguous vegetation on Conflagration Creek was more heavily used by koala*[31]*, and was the area in which all direct observations of koala were made."*[32] Our findings indicate that the Site's best quality koala habitat occurs on Conflagration Creek. The scattered paddock trees are in some cases also used by koala, but it is apparent that the highly fragmented nature of this vegetation provides habitat of much lower significance than that which occurs on Conflagration Creek. While the beneficial impact of offsets cannot be considered at the referral stage, dedication of the corridors (a mitigation measure) provides significant opportunity to address habitat loss from the site (and potential future adjoining development). As a minimum, this dedication will maintain the extent of habitat already occurring in the locality. The proposed action will cause only minor impact on the most important areas of habitat critical to the survival of koala.
(v) Disrupt the breeding cycle of an important	Disruption to the breeding cycle might arise via two means: (i) Habitat fragmentation – discussed in point (iii) above; and

[30] As determined by scat survey.
[31] Again, as determined by scat survey.
[32] Refer p1 of CAR Attachment G.

	population.	(ii) Introduce disease (Chlamydia) affecting reproductive success. Chlamydia is already likely to be present in the local populations. In the short term, stress response to development might increase the expression of chlamydia, but in the medium term, the protection and revegetation of robust habitat corridors will improve habitat values, and so reduce stress response. The proposed action will not cause significant long-term disruption to the breeding cycle of an important population.
(vi)	modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.	For reasons outlined in points (i)-(v) above, the proposed action will not affect the availability or quality of habitat to the extent that koala is likely to decline.
(vii)	result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat	The proposed conservation corridors will be transferred to MBRC as open space. Invasive weeds will be removed from the corridors before the transfer takes place. The land will then become a Council asset, and subject to Council's ordinary open space weed management measures. Further, as revegetation of the corridor advances, so the prevalence of weeds threatening regeneration of koala habitat reduce. The occurrence of wild and domestic dogs in the conservation corridors has been discussed in Section 5.5. The proposed action will not result in the establishment of invasive species that are harmful to continued occupation of the Site by koala.
(viii)	introduce disease that may cause the species to decline	Chlamydia is already likely to be present in the local populations. In the short term, stress response to development might increase the expression of chlamydia, but in the medium term, the protection and revegetation of robust habitat corridors will improve habitat values, and so reduce stress response.
(ix)	interfere substantially with the recovery of the species	For reasons outlined in points (i)-(viii) above, the proposed action will not substantially interfere with the recovery of koala.

8.0 Summary and Conclusion

The proponent requests that the CAR decision be reconsidered pursuant to Section 78(1) of the Act, for the following reasons:

- Changes to the Warner Structure Plan, brought about by community consultation, have led to a *substantial change* (a reduction) in the extent of the proposed action. The structure plan changes have also led to an altered road network that will reduce loss and fragmentation of koala habitat, and minimise the potential for multiple, ongoing mortalities from vehicle strike.

- Secondly, this reconsideration request has provided *substantial new information* (S.78(1)(a)) on: (i) fauna underpasses and exclusion fencing proposed to minimise vehicle strike at road-conservation corridor interface points; (ii) the width of conservation corridors, and their proposed conservation use; and (iii) the expected impact of (and management for) domestic dogs.

The proponent has also reappraised the Significant Impact Guideline 1.1, to demonstrate with a high degree of certainty that the amended proposed action *will not* cause a Significant Impact on koala. Accordingly, Ausbuild seeks a reconsideration of the original Controlled Action decision under Section 78(1)(a) and (aa) of Act. Ausbuild submits that the proposed action should now be deemed *Not a Controlled Action*.

References

28 South Environmental. 2017. *Petrie Mill Redevelopment Project – Moreton Bay Local Government Area, Queensland: Preliminary Documentation Report for EPBC Referral 2016/7839*. Report Prepared on Behalf of Moreton Bay Regional Council.

Department of the Environment.2013. *Matters of National Environmental Significance-Significant Impact Guidelines 1.1*. Australian Government.

Department of the Environment. 2014. *EPBC Act Referral Guideline for the vulnerable koala (combined populations of Queensland, New South Wales and the Australian Capital Territory).* Commonwealth of Australia

Mifsud, G. (undated). *Wild dogs and their impacts on koala's a very real threat – a Submission to Senate Committee Inquiry into the Status, Health and Sustainability of Australia's Koala Population*: Accessed at https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/Completed_inquiries/2010-13/koalas/submissionsaccessibilitytrial/sub018

Saunders Havill Group. 2016. Ecological Assessment Report EPBC Act Referral, 107-109 Kremzow Rd, Warner: Report to Boral CSR Bricks Pty Ltd.