



KOALA KOALITION  
ECONETWORK PORT STEPHENS INC.

PO Box 97 Nelson Bay NSW 2315  
koalakoalition@econetworkps.org

26/07/2022

Mr Wayne Wallis  
General Manager  
Port Stephens Council

**Re: DA 16-2022-529-1, two storey dwelling and swimming pool at 509 Gan Gan Road, One Mile 2316 NSW (LOT: 2 DP: 810866)**

Dear Sir,

The Koala Koalition EcoNetwork Port Stephens (KKEPS) welcomes the opportunity to comment on the application to build a two storey dwelling and swimming pool on land designated as C4 Environmental Living that includes core koala habitat and preferred koala feed trees.

The site is identified (under B2 natural Resources) as containing environmental significance (biodiversity, wetland and threatened species). <sup>1</sup>

KKEPS acknowledges the plan to incorporate methods and practices to limit harm to native fauna as detailed in the submission documents, but has concerns regarding a number of key issues.

**Limited fauna surveys and the impact of not recognising koala activity**

The submission documents looking at the biodiversity of the Study Area/ Project Site/ IBVMP Area present a confusing picture when it comes to threatened fauna living in or using the project site.

*“No threatened or migratory species listed under the EPBC Act were detected during the assessment.”<sup>2</sup>*

*“No koalas were observed during the fauna survey and there was no evidence (scats or scratches) of current Koala habitation recorded from the study area”<sup>3</sup>*

Yet the documents state that:

*“Koalas have been recorded onsite and the property has been utilised as release point for Koala based upon BioNet records”.<sup>4</sup>*

*“Fifty-one threatened fauna species were identified as a result of the database searches... as occurring or having potential to occur within the locality of the study area... No threatened fauna species were identified within the subject property at the time of the surveys”.<sup>5</sup>*

Not finding the species that were expected to be on site is perhaps not surprising given the surveys were relatively limited. Threatened Species Surveys for fauna were undertaken over four days on 22 May, 2-4 June 2021 to assess and map the presence of 'candidate species credit species'.<sup>6</sup> Spotlighting for koalas, sugar gliders and other nocturnal species was completed between 7.30-9.30pm on two consecutive nights: 13-14 April 2021.<sup>7</sup>

EnviroEcology warn in their report that the results are unlikely to be complete with species not detected due to the duration and timings of the surveys.<sup>8</sup>

The impact of not finding evidence of threatened species is mixed. Regarding State Environmental Planning Policy (Koala Habitat Protection) (SEPP) 2021 compliance, the Biodiversity Development Assessment Report (BDAR) states "As no Koalas or evidence of Koalas were detected within the subject site no further assessment under this Policy is required."<sup>9</sup> When it came to calculating species credits, however, the Koala and the Sugar Glider were assumed present due to past records adjacent to the project site.<sup>10</sup> How can they be assumed present for one process but not another?

The Koala and the Sugar Glider are not the only threatened species believed to use or live in or around the subject site (which contains the IBVMP Area/ Project Site/ Study Area). An indication of the locations of known sightings can be garnered from SEED.

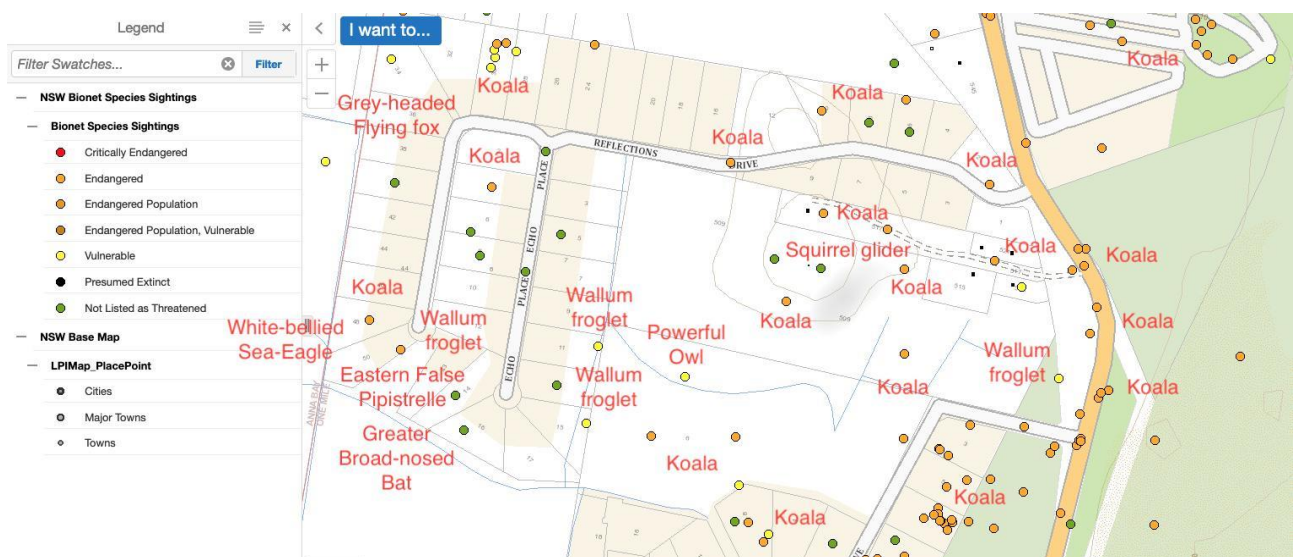


Figure 1. BioNet Species sightings with recorded locations of vulnerable and endangered species with species common names.<sup>11</sup> The legend in Figure 1 explains the species threatened status, eg bright orange is Endangered, yellow is Vulnerable.

The BioNet Koala sightings data (from 1960 onwards) in SEED<sup>12</sup> give a clear indication of the likelihood of koalas on the project site; limited sightings within the project site are to be expected given it is private land. While the intensity of sightings vary, koalas have been sighted to the east, west, north and south of the development footprint. See Figures 2 and 3.

The sightings include a 2022 sighting on Reflections Drive at or near the start of the proposed new driveway for this property, recent sightings on the adjoining land to the south of the (3/1266056, 6 Eucalyptus Drive) where it meets the properties on Melaleuca Drive, to the west on Echo Place, to the east on Gan Gan Road, in the land between Reflections Drive and Frost Road, and to the east of Port Stephens Koala Sanctuary/Hospital and Middle Rock Home Village.

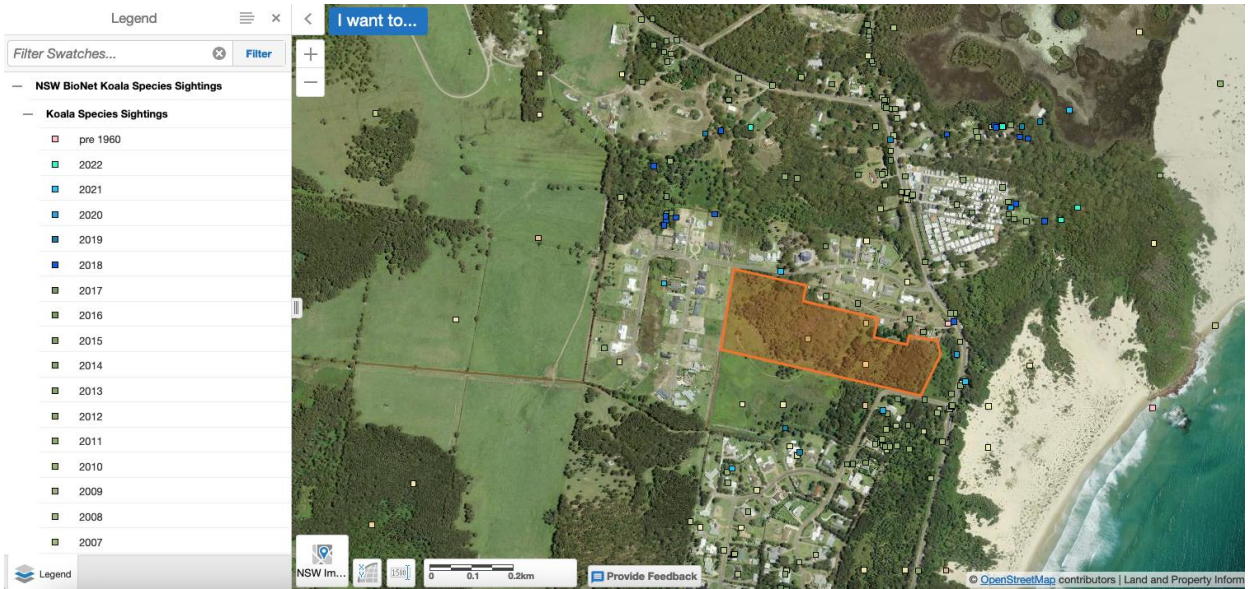


Figure 2. BioNet koala sightings data as presented in SEED. <sup>13</sup>

A more detailed look at the sightings in the area immediately surrounding the Study Area/ Project Site/ IBVMP Area is given in Figure 3.

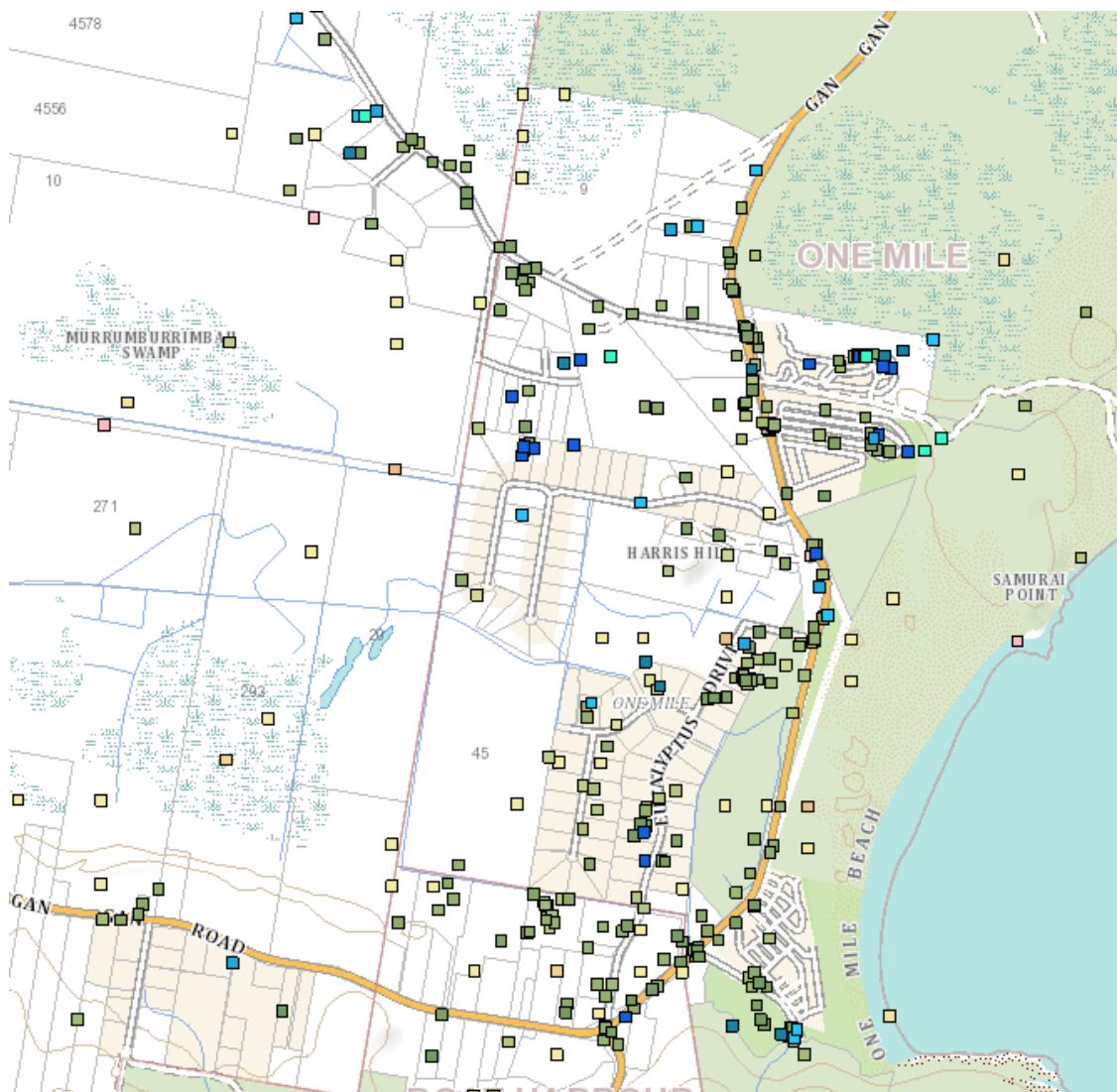


Figure 3. BioNet koala sightings data immediately around the project site as presented in SEED. <sup>14</sup>

While the visual representation may vary between screens, the varying shades of blue markers in Figures 2 and 3 indicate koala sightings in the last four years, with the light blue markers showing sightings from 2022. The Green markers are for 1995 to 2017; the lighter the green, the older the sighting. Yellow markers are for 1990 to 1995, orange markers are for 1960 to 1989; the darker the orange, the older the sighting.

### **The type and presence of Preferred Koala Feed Trees (PKFTs)**

Koalas are known to have local preferences when it comes to feed trees which make the availability of certain species very important to their survival. Port Stephens Council recognises and promotes the planting of the following PKFTs:

Swamp Mahogany (*Eucalyptus robusta*), Forest Red Gum (*E. tereticornis*), Parramatta Red Gum (*E. parramattensis*), Tallowwood (*E. microcorys*), Grey Box (*E. molucanna*) and Grey Gum (*E. propinqua/punctata/canaliculata*).<sup>15</sup>

Port Stephens Koala Hospital also considers *Melaleuca quinquinervia*, *E. haemastoma*, *E. scoparia*, and *E. nicholii* to be PKFTs within Port Stephens LGA.<sup>16</sup>

As a side note, the BDAR also mentions the presence of *Angophora costata*, *Corymbia gummifera*, *Eucalyptus acmenioides*, and *E. pilularis* as koala feed trees yet these species are not known to be primary PKFTs within Port Stephens LGA.<sup>17</sup> These species are known to be supplementary koala habitat and are important for koala corridors and are habitat for many local wildlife species.

A detailed Arboricultural Impact Assessment by EnviroEcology looking at the trees located in the study area/ project site/ Integrated Bushfire and Vegetation Management Plan (IBVMP), identified at least 39 PKFTs from more than one species.<sup>18</sup>

#### **a) Potential habitat within the IBVMP area for twenty (20) threatened fauna<sup>19</sup>**

Given the recent koala sightings in the vicinity and the presence of more than one species of Port Stephens PKFTs, it is clear that for at least one species, the koala, the habitat is not only 'potential'.

KKEPS challenges the assumption that "the project site is not considered to be 'Core Koala Habitat' as defined by State Environmental Planning Policy (Koala Habitat Protection) 2021"<sup>20</sup> given the presence of PKFTs and koalas, and the admission by EnviroEcology that the surveys were limited. The assumption also ignores the Port Stephens Koala Habitat Planning map which lists Plant Community Type (PCT) 1648 - Smooth-barked Apple - Blackbutt heathy open forest of the Tomaree Peninsula as preferred habitat and that preferred habitat extends to the west, south-west and north-west of the project site.<sup>21</sup> Even the IBVMP document states that the "focus of the IBVMP is to retained [sic] foraging habitat for Koala whilst implementation installation [sic] of the asset protection zone."<sup>22</sup>

#### **b) Connectivity from the site is limited across the local landscape<sup>23</sup>**

**vs Habitat links must be maintained during clearing to allow fauna species to move safely from the site to adjacent areas<sup>24</sup>**

The BDAR states that "existing connectivity to large tracts of habitat is considered suitable only for mobile species such as birds and bats"<sup>25</sup> which seems at odds with the plans to clear the site in a way that fauna can move to adjacent habitat.

With increasing habitat fragmentation any habitat that provides wildlife corridors, stepping stones and the opportunity to expand or join habitat with planting/ regeneration is beneficial.<sup>26</sup> As well as indicating the areas that koalas are using, Figure 2 also suggests how the vegetation connects with land to the north, east and south.<sup>27</sup> Although roads and other landscape features increase

fragmentation, koalas are known to cross roads to reach other habitat, hence the risk of vehicle strike.

**c) Avoidance measures will ensure Preferred Koala Habitat and the ecological value of the site will not be impacted**

These three statements are very bold:

*“Avoidance measures have been implemented to ensure that no areas of Preferred Koala Habitat will be directly impacted by the proposed development”*<sup>28</sup>

*“No adverse impact on the ecological value of the site and existing character or amenity of the area will result”*<sup>29</sup>

*“The development can suitably manage or mitigate environmental impacts”*<sup>30</sup>

While the documents state that the Project Site and building footprint have been selected to avoid the removal of vegetation identified on the NSW biodiversity values map and to reduce the loss of large mature Forest Red Gum (*Eucalyptus tereticornis*) located to the west of the subject property, KKEPS is aware that this application as it stands will see the removal of nearly half of the trees in the development zone.

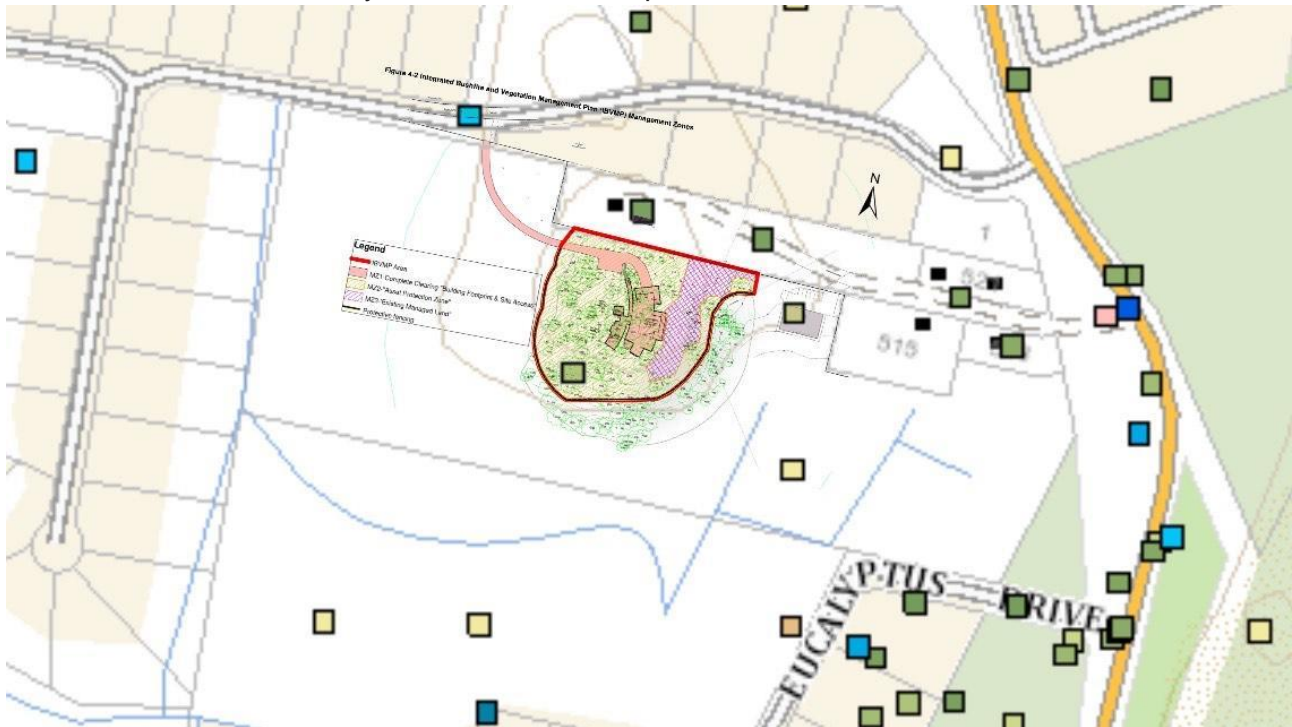
Table 3.1 of the Arboricultural Impact Assessment identifies at least ten *E. tereticornis* trees as needing to be removed as part of plans to clear 123 trees with a DBH (diameter at breast height) greater than 150 centimetres out of a total of 250 trees. We note that three *E. tereticornis* specimens are listed as to be retained and two swamp mahoganies are planned to be retained in the managed zone.<sup>31</sup> As *E. tereticornis* is a preferred koala food tree (PKFT), we do not see how losing at least 10 PKFTs can not be seen as activity that directly impacts core koala habitat on this site.

**d) The existence of *Eucalyptus parramattensis***

In Appendix C of the BDAR, mention is made of a targeted survey to find *Eucalyptus parramattensis* ssp. *Decadens* within the subject site was undertaken and no specimens were found. An observation by KKEPS members while on Reflections Drive found three *E. parramattensis*, near where the proposed new driveway joins Reflections Drive.<sup>32</sup>

As *E. parramattensis* or Earp’s Gum is Vulnerable at State and Commonwealth levels and is a PKFT in the Port Stephens LGA, we suggest that a detailed survey is undertaken for the remainder of the subject property area. This information may assist with conservation options for this site.

Figure 4. IBVMP plan showing proposed new driveway overlaid on SEED map with 2022 sighting at the entry point. 33, 34



### Environmental stressors resulting from clearing and development works

While the survey results did not indicate that koalas were using the IBVMP Area/ Project Site/ Study Area, KKEPS requests that any works proceed assuming that koalas are in the vicinity and take necessary care. Of particular concern is the risk of increased traffic and visitation, noise and light pollution, and any introduction of feral animals.

These environmental stressors can impact their immune systems making koalas more susceptible to disease such as Chlamydia, and can reduce their fertility, reduce fecundity and increase mortality. As koalas will seek drinking water at ground level, pollution such as chemical spills may have an immediate impact. Dust covering the leaves they eat can also be a health threat.<sup>35</sup> Noise can be very stressful to koalas; since koalas are known to be in the area, some consideration to the amount of noise made should be given. For example, if the basalt knoll of Harris Hill needs to be drilled for construction, this activity would create excessive noise for wildlife in the IBVMP Area/ Project Site/ Study Area and surrounding land.

### Contradictory, poor information regarding fauna care

Should koalas or other fauna require care as a result of the works in the IBVMP Area/ Project Site/ Study Area, the information made available in the submission documents provides conflicting information. KKEPS recommends that a single set of guidelines is agreed.

In the BDAR, injured fauna are to be taken to a vet or wildlife carer.<sup>36</sup>

In the IBVMP document, one section says to call WIRES<sup>37</sup>, another says to go to Salamander Bay Veterinary Clinic<sup>38</sup>, but Port Stephens Veterinary Clinic in Anna Bay is to be called before commencing works to see if injured animals can be taken there.<sup>39</sup>

KKEPS recommends that any injured koalas, or other wildlife, are taken to the **Port Stephens Koala Hospital** that is open 7 days per week, and which is close to the IBVMP Area/ Project Site/ Study Area. If care is needed outside opening hours, the 24/7 rescue number is 1800 775 625. The Koala Hospital is now licensed for other species.

KKEPS advises that WIRES should be removed from any wildlife care options, as it does not operate in this area. The vet clinics are not specialised in the care of wildlife and are further away. Apart from Port Stephens Koala Hospital, the relevant wildlife rescue organisation in the area is Wildlife in Need of Care (WINC), but their response would naturally be slower than from the nearby Hospital.

### **Koala specific care**

It is alarming that any arboreal animal that does not move and can't be caught will have to remain in the tree when it is felled, with animals being recovered and relocated to "suitable adjacent habitat"<sup>40</sup>. Previous documented experiences of trees being felled with koalas still in situ have resulted in the loss of the koalas' lives.

KKEPS would like some assurance that the now endangered koala will not be subjected to such processes.

KKEPS also suggests that when a wildlife carer or ecologist is attending felled habitat, any care and relocation of koalas is undertaken with the involvement of Port Stephens Koala Hospital.<sup>41</sup> Koalas have been known to climb even with broken limbs after vehicle strikes, making medical attention vital whether injuries are immediately visible, or not.

### **Comprehensive Koala Plan of Management (CKPOM) mapping**

The development area forms part of "an approved Koala plan of management being mapped within the Port Stephen Koala Habitat Planning Map as 'preferred/cleared'. The subject property is also mapped as containing supplementary Koala habitat which is to be retained and protected."<sup>42</sup> Port Stephens Council is aware that the CKPOM mapping is out of date having been prepared over 20 years ago with limited resources.

The 'preferred/cleared' status clearly incorrect, as the presence of *E. tereticornis* is a preferred koala food tree (PKFT), and only small portions of this block are cleared. If the vegetation is such that PKFTs comprise 10% or more of the species present, remapping will be required under CKPOM. The development application must be considered as currently having the subject property within **core koala habitat**.

### **Excluded prescribed biodiversity values**

Section 6 of the Biodiversity Assessment Method requires 'prescribed biodiversity values' to be identified. These values include karts, caves, cliffs and occurrences of rock. According to the BDAR, the Study Area/ Project Site/ IBVMP Area does not contain any of the values listed.<sup>43</sup>

KKEPS notes that Harris Hill is directly behind or within the development footprint for the house. It has a rocky knoll and significant crevices.

### **Feral animals**

In addition to being potential stressors to resident fauna such as the koala, feral animals can also impact the Biodiversity Value of a site. When the presence of goats on this site was reported in 2021, Port Stephens Council responded by saying they would be removed in September 2021. Goats can over-graze native plants, reducing the diversity of plant species by over-grazing and allowing those plants resistant to grazing to replace original forest.<sup>44</sup> While at the perimeter of the site last week, I counted 20 goats free-ranging across the site. While there may be no evidence that goats attack koalas, both cattle and horses do, so the presence of these animals could explain the lack of evidence of koalas found at the time of the surveys. Fencing around the property may also be causal.

### **Local knowledge**

I live 2km from 509 Gan Gan Rd on a small property, but I have seen koalas, gliders and possums in the area where the subject site can be found. I regularly hear the mopoke (barking) owl, powerful owl, and see sea eagles flying over, as well as a myriad of native birds including a pheasant coucal that nests here. I have seen the endangered giant dragonfly here once, and I've seen microbats and other bats depending on when the trees are flowering. There are many frogs, and some lizards. There are ground orchids such as the crimson bearded orchid, blue sun orchid, pink ladies finger orchids, hyacinth orchids and others I can't identify, that flower at different times of the year. None of these are listed in BDAR appendix C <sup>45</sup>, yet some of these species are given in the BioNet species sighting data (see Figure 1). <sup>46</sup>

Local knowledge and sightings makes it clear that the surveys were definitely incomplete, and completely inadequate if no arboreal threatened species were found. The goats on the property will no doubt have eaten anything on the ground; it is clear from the following photos (Photos 3.1 and 3.2 from the BDAR) <sup>47</sup> that clearing of all undergrowth was done prior to the surveys.



According to the BDAR, “No threatened or migratory species listed under the EPBC Act were detected during the assessment.” <sup>48</sup> White bellied sea eagles regularly fly over this property (I saw two when I was nearby) and local residents in this area, myself included, see and hear them as do the staff in the nearby koala sanctuary/hospital where I volunteer frequently. Since the powerful owl has been seen in the area and the BioNet species data shows it to be in the area <sup>49</sup>, it must be present despite not being found by the surveyors.

Despite saying that no threatened species were found, they mention the Wallum Froglet <sup>50</sup> which is vulnerable in NSW. <sup>51</sup> This species might be affected by site works, as may many other species that haven't yet been located.

### **Further surveys and ways to retain PKFTs**

Surveys and reports have only been completed for the Study Area/ Project Site/ IBVMP Area and do not include any surveys of the proposed new driveway connecting with Reflections Drive. Three *E. parramattensis* were spotted at the start of the proposed new driveway, clearly visible from Reflections Drive with many arboreal animal scratchings evident. As this tree is listed as Vulnerable at State and Commonwealth levels, and is a preferred koala food tree (PKFT) in the Port Stephens LGA, and since the Arboricultural Impact Assessment report on the limited project area has actually identified core koala habitat due to the presence of *E. tereticornis* and *E. robusta* and *M. quinquinervia*, KKEPS requests that further investigations, studies and reporting be prepared for the whole property.

This should include detailed consideration of how to reduce the clearing of PKFT *E. tereticornis* in particular (Forest Red Gum). This species is in limited locations in the area. Further consideration



must be given to minimising any clearing required, and especially to siting the house so that PKFT removal is minimal.

If we look at the reasons why trees will be removed, over 30 trees are to be cleared to provide for an asset protection zone (APZ) around the dwelling. Other reasons include preparing land for the dwelling, for the driveway, to avoid encroachment, and because trees are dead, dying or dangerous. It has come to our attention that APZ is not the only option to protect properties in high fire risk locations; rather than creating an APZ with a BAL-29 requirement for the building, two higher categories may be achievable which require less trees to be cleared. These two categories are Flame Zone (BAL-FZ) and BAL-40. According to Bushfire Control, “most buildings in bushfire-prone areas are now required to be built to BAL-40 or BAL-FZ requirements”.<sup>52</sup>

If the plans to create an APZ are actioned, we ask if there is any scope to retain additional *E. tereticornis* specimens or to regenerate/rehabilitate other areas on the property with additional PKFTs suitable for koala habitat in Port Stephens LGA.

Given that 123 trees are intended to be removed for this single residence<sup>53</sup>, we also question if the APZ would be smaller if the residence was not sited on the top of the hill.

### **Biodiversity Offsets**

The Biodiversity Assessment Method AM Calculator was used on 18th of November 2021 “to determine the offset obligation for the removal of native vegetation within the project site...A variations options report is presented in Appendix I. Offset obligations can also be met by purchase and retirement of the credits listed in direct payment of \$59,980.93 (incl GST) into the Biodiversity Conservation Fund.”<sup>54</sup> While KKEPS cannot profess to understand these calculations, it is clear that it will be a lesser amount if koalas or squirrel gliders are not found, as per the surveys.

KKEPS strongly submits that should the DA be approved, that significant biodiversity conservation action be undertaken on this Study Area/ Project Site/ IBVMP Area and that the surrounding site become an identified conservation area, rather than paying offsets for habitat in another location which may not benefit wildlife including threatened species on the Tomaree peninsula.

### **Opportunities to protect/ regenerate the project site and surrounding land**

Protecting high-quality koala habitat, whether on public or private land, is a key pillar of the NSW Koala Strategy. It will help stabilise koala population and benefit other native plants and animals.<sup>55</sup>

There is mention that the IBVMP has been prepared specifically to “protect & promote regeneration of native species within lands within the subject property”.<sup>56</sup> While further information is given for the IBVMP Area, KKEPS would be interested to hear more about any plans to increase the number of Port Stephens relevant PKFTs in the wider subject area.

Given the C4 (formerly E4) status of the site, and the possibility that many more *E. tereticornis*, *Melaleuca quinquenervia*, and *E. robusta* are present outside of the study area, this property could be rehabilitated to become an even more important refuge or wildlife corridor than it has been for threatened species, such as the koala and squirrel glider and other endangered species in the vicinity, in an otherwise fragmented landscape. The land on the boundaries to east, north and to the west are all low lying and with planned planting of *E. robusta* and *M. quinquenervia* could provide an important koala corridor and increase the special environmental qualities of the property.

There are a number of initiatives that support landowners wishing to protect habitat and increase biodiversity on their land. The initiatives include voluntary private land conservation agreements with the Biodiversity Conservation Trust (BCT) to protect (koala) habitat on the landowner's land, either as an entry level temporary Wildlife Refuge Agreements or as an in-perpetuity Conservation

Agreement.<sup>57</sup> Another example is the Australian Wildlife Land Trust that runs a voluntary program with no costs or legal obligations.

## **Summary**

This application should be considered with due regard to the recently listed Endangered threatened status of the koala.

Given the presence of PKFTs and recent BioNet sightings, the application should expect koalas to utilise the Study Area/ Project Site/ IBVMP Area and the rest of the Subject Property and consider the habitat as Core Koala Habitat.

While habitat in Port Stephens LGA is fragmented, the Study Area/ Project Site/ IBVMP Area has connections with adjacent habitat even with roads intersecting areas. Any initiatives to protect and expand habitat will improve connectivity.

KKEPS requests that where possible *E. tereticornis* trees are retained. Two alternative options to APZ plans may help reduce the number of trees that need to be cleared. If this isn't possible, we recommend planting or regenerating PKFTs elsewhere in the Subject Property, not to pay Biodiversity Offset Credits in another locality.

We strongly recommend wider Arboricultural and Fauna assessments of the entire Subject Property, extending beyond the IBVMP. This information may be helpful if considering a voluntary arrangement to protect the Subject Property not within the Study Area/ Project Site/ IBVMP Area.

KKEPS also draws attention to the risks to koalas resulting from various stressors associated with project works and recommends a clear set of guidelines on fauna care to be used by all with the involvement of Port Stephens Koala Hospital for any koala relevant care and relocation.

I can confirm that I have not made a reportable donation to any political party.

Carmel Northwood  
Convenor, KKEPS  
Phone: 0422225437

## References

1. Perception Planning (2022) Statement of Environmental Effects: DCP compliance table: Dwelling house, associated earthworks, tree removal and proposed above ground swimming pool, 509 Gan Gan Road, One Mile, NSW, 2316 (Lot: 2 DP: 810866), p. 4
2. Enviro Ecology (2022) Biodiversity Development Assessment Report for No 509 Gan Gan Road, One Mile, p. 43
3. Ibid, p. 39
4. Ibid
5. Ibid, p. 38
6. Ibid, p. 15
7. Ibid, p. 16
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9. Ibid, p. 39
10. Ibid, p. 43
11. BioNet (2022) Species sightings for One Mile/ Anna Bay as provided in SEED: The Central Resource for Sharing and Enabling Environmental Data in NSW. Accessed 25th July 2022 via [https://geo.seed.nsw.gov.au/Public\\_Viewor/index.html?viewer=Public\\_Viewor&locale=en-AU](https://geo.seed.nsw.gov.au/Public_Viewor/index.html?viewer=Public_Viewor&locale=en-AU)
12. BioNet (2022) Koala species sightings for One Mile/ Anna Bay as provided in SEED: The Central Resource for Sharing and Enabling Environmental Data in NSW. Accessed 21st July 2022 via [https://geo.seed.nsw.gov.au/Public\\_Viewor/index.html?viewer=Public\\_Viewor&locale=en-AU](https://geo.seed.nsw.gov.au/Public_Viewor/index.html?viewer=Public_Viewor&locale=en-AU)
13. Ibid
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16. Port Stephens Koalas (2018) Training Volume One: Active Volunteer, p. 19
17. Enviro Ecology (2022) Biodiversity Development Assessment Report for No 509 Gan Gan Road, One Mile, p. 39
18. Enviro Ecology (2022) Arboricultural Impact Assessment for No 509 Gan Gan Road, One Mile NSW within Port Stephens Council LGA, p. 8
19. Enviro Ecology (2022) Integrated Bushfire & Vegetation Management Plan for No 509 Gan Gan Road, One Mile NSW within Port Stephens Council LGA, p. 18
20. Enviro Ecology (2022) Biodiversity Development Assessment Report for No 509 Gan Gan Road, One Mile, p. 39

21. Ibid, p. 38
22. Enviro Ecology (2022) Integrated Bushfire & Vegetation Management Plan for No 509 Gan Gan Road, One Mile NSW within Port Stephens Council LGA, p. 38
23. Enviro Ecology (2022) Biodiversity Development Assessment Report for No 509 Gan Gan Road, One Mile, p. 25
24. Ibid, p. 48
25. Ibid, p. 25
26. Saura, S., Bodin, Ö., & Fortin, M.J. (2014) Stepping stones are crucial for species' long-distance dispersal and range expansion through habitat networks. *Journal of Applied Ecology* 51: 171- 182. DOI:10.1111/1365- 2664.12179.
27. BioNet (2022) Koala species sightings for One Mile/ Anna Bay as provided in SEED: The Central Resource for Sharing and Enabling Environmental Data in NSW. Accessed 21st July 2022 via [https://geo.seed.nsw.gov.au/Public\\_Viewor/index.html?viewer=Public\\_Viewor&locale=en-AU](https://geo.seed.nsw.gov.au/Public_Viewor/index.html?viewer=Public_Viewor&locale=en-AU)
28. Perception Planning (2022) Statement of Environmental Effects: Dwelling House, Assoc Earthworks, Tree Removal and Proposed Above Ground Swimming Pool, 509 Gan Gan Road, One Mile, NSW, 2316 (Lot: 2 DP: 810866), p. 23
29. Ibid, p. 3
30. Ibid
31. Enviro Ecology (2022) Arboricultural Impact Assessment for No 509 Gan Gan Road, One Mile NSW within Port Stephens Council LGA, p. 8
32. Enviro Ecology (2022) Biodiversity Development Assessment Report for No 509 Gan Gan Road, One Mile Appendix C: Threatened flora species recorded in the locality
33. BioNet (2022) Koala species sightings for One Mile/ Anna Bay as provided in SEED: The Central Resource for Sharing and Enabling Environmental Data in NSW. Accessed 21st July 2022 via [https://geo.seed.nsw.gov.au/Public\\_Viewor/index.html?viewer=Public\\_Viewor&locale=en-AU](https://geo.seed.nsw.gov.au/Public_Viewor/index.html?viewer=Public_Viewor&locale=en-AU)
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35. Enviro Ecology (2022) Biodiversity Development Assessment Report for No 509 Gan Gan Road, One Mile, pp. 44 -45
36. Ibid, p.49
37. Enviro Ecology (2022) Integrated Bushfire & Vegetation Management Plan for No 509 Gan Gan Road, One Mile NSW within Port Stephens Council LGA, p. 25
38. Ibid, p. 67
39. Ibid p. 66

40. Enviro Ecology (2022) Biodiversity Development Assessment Report for No 509 Gan Gan Road, One Mile, p.49
41. Enviro Ecology (2022) Integrated Bushfire & Vegetation Management Plan for No 509 Gan Gan Road, One Mile NSW within Port Stephens Council LGA, Attachment D: Wildlife Management Strategy, p. 66
42. Enviro Ecology (2022) Biodiversity Development Assessment Report for No 509 Gan Gan Road, One Mile, p. 38
43. Ibid. pp. 43
44. Sampson, M. (2021) Protecting Koala habitat from Goats and Compliance for E4 Land, News of the Area, 21st September 2021, Accessed 23rd July 2022 via <https://www.newsofthearea.com.au/protecting-koala-habitat-from-goats-and-compliance-for-e4-land-77733>
45. Enviro Ecology (2022) Biodiversity Development Assessment Report for No 509 Gan Gan Road, One Mile Appendix C: Threatened flora species recorded in the locality, from p.66
46. BioNet (2022) Species sightings for One Mile/ Anna Bay as provided in SEED: The Central Resource for Sharing and Enabling Environmental Data in NSW. Accessed 25th July 2022 via [https://geo.seed.nsw.gov.au/Public\\_Viewor/index.html?viewer=Public\\_Viewor&locale=en-A](https://geo.seed.nsw.gov.au/Public_Viewor/index.html?viewer=Public_Viewor&locale=en-A)
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