

Submission Deadline: 6 December 2019

To the attention of :

The Director, Northern Region, Planning and Assessments,
(Department of Planning, Industry and Environment)

This is a comment for the Master Draft Plan – Iron Gates Residential Release.

Environmentally Sensitive and Rare Coastal land

The area surrounding this development site has been identified as a littoral forest. This area should be protected to help prevent further degradation to ecosystems currently in existence in the proposed development area, specifically relating to wetlands and waterways that are slow flowing. I believe that the consultation process involving Planit Consultation has clearly been biased to support Developer Mr Ingles/Gold Coral Pty. Ltd. interests and further independent evaluations are needed to identify just how special this area is because it is clear that Planit Consultation have not identified or represented the area accurately. Planit Consultation have failed to mention or acknowledge the *endangered* species Oxleyan Pygmy Perch among other flora and fauna that need to be preserved for future generations. The area being considered has active management planning in place by other departments including The Department of Industries (fisheries) that manages the protection and management of endangered species. It has been suggested in the proposal that this proposed development:

does not impact upon fish, marine vegetation or estuarine habitats

This statement cannot be seen as truthful, anyone can see that developments close to waterways have a very substantial impact on the environment regardless if they are scientists or apparent consultants. The Department of Industries have identified the The Oxleyan Pygmy Perch as being “a small freshwater fish that has been listed as ‘endangered’ under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 and the NSW Fisheries Management Act 1994. It has also been listed as ‘vulnerable’ under the Queensland Nature Conservation Act 1992. Oxleyan pygmy perch are irregularly distributed in small numbers in swamps, streams and lakes of lowland, coastal ‘wallum’ heaths between north-eastern New South Wales and south-eastern Queensland. These wallum heath communities once formed an almost continuous band along the eastern coastline from Coffs Harbour in northern NSW, to Bundaberg in southern Queensland. However, the practice of land clearing for urban development, agriculture, forestry and mining has significantly reduced and fragmented these habitats.”

(<https://www.dpi.nsw.gov.au/fishing/threatenedspecies/conservation/what/recovery/opp>)

The impacts will include more sediment and run off into the Evans River and surrounding wetlands not only from the early stages of the proposed development but from the residents living there over a longer period of time that will ultimately increase not decrease. There

appears to be a real lack of concern shown in this proposed development application towards the unique environment at Evans Head and it is very concerning. Previous research into the effects of urban development in environmentally sensitive areas such as Morten Bay Island, Hinchbrook Island and Curtis Island are available and should be considered when looking toward the future of developing the site outlined in this submission and the impacts that can already be seen occurring elsewhere. It is up to people like myself to stand up against these types of developments to try and do what is necessary to protect the future of the National Parks and environmentally sensitive areas such as Iron Gates before it is too late. The new highway has significantly already had an impact on the Broadwater National Park as well as the bush land around Wardell devastating Koala and other fauna habitat. Key threats already identified to animals large and small in these areas include; Landclearing; Native forest logging; Urban development; Transport; Climate change; Logging dieback. Clearing the bush around this area to make way for a new highway has ultimately changed the local environment putting pressure on the remaining habitat of all mammals, fish, birds and aquatic life within a wide radius, this includes Bundjalung National Park native fauna and flora and Evans Head nature reserves as well as Broadwater National Park. I find it perplexing that none of this information freely available on line has made any sense to Planit Consultation and they have not even considered the impact from a macro perspective. The Department of Planning, Industry and Environment should not be fooled into believing what they have presented in their findings. I am truly gobsmacked by it and you should be too.

Fortunately a response to the research papers presented by Gold Coral Pty. Ltd. has already come under scrutiny and is available for viewing by author David Milledge (Landmark Ecological Services Pty.Ltd). I have attached it to my submission for your convenience if you have not already seen this, as it is certainly worth considering when making evaluations such as the one under consideration here.

Controversial, Unethical and Unreasonable Past Actions of Mr. G. Ingles

I do not think Planit Pty. Ltd's comments in this Revised Master Plan - *October 2019* bring the local the community in and around Evans head any peace of mind, such as

"If the measures that Goldcoral Pty Ltd is indicating will be undertaken for the proposal in its letter of 14 May 2018 are included in the proposal and implemented, then the OEH has no further comments in relation to this proposal or the draft Master Plan." (The OEH being the Office of Environment and Heritage).

Given the controversy surrounding the proposed development and past actions from Developer Mr G. Ingles this statement undermines what has occurred in the past as being unlawful. To ensure that this developer is going to act in a way that considers the importance and sensitivity of the area and given the negligence of orders given to Mr Ingles regarding his lack of remediation as directed by the law, I would hope that the OEH and Department Planning, Industry and Environment would not be as forgiving as it appears they have been during their *lengthy* negotiations with Gold Coral Pty. Ltd. I feel that the Department reconsider recommendations to further support this developer to attempt to finish what he started under another company name that went *bankrupt* in order to avoid the remediation orders. Some people would consider Mr Ingles latest company *Gold Coral Pty. Ltd.* a *Phoenix* company and it should reported to the Australian Commission Into Corruption (ACIC) based on the past decisions and actions taken by Mr Ingles and his company Iron Gates Pty. Ltd. to avoid recompense that they should have dutifully administered.

I was there in 1996 when the land of interest in this review *Iron Gates* was trashed by the Gold Coral Pty. Ltd. lead by the Director Mr G Ingles company previously Iron Gates Pty Ltd. And I am aware of the damage they caused to the *midden* among other Indigenous artifacts and the natural landscape, and it is ludicrous that Gold Coral Pty. Ltd. are suggesting that they will offer to remove it shell by shell to another location to preserve what is left having been significantly destroyed by them in the early stages of the original development and which they shamelessly did so. As this area has been identified as a *Sensitive Coastal Location*, it should be given the attention it actually deserves. I do not know how land was cleared in 2016 without consent and why this has been allowed by departments mentioned regardless of sanctions and laws in place. It is not o.k that this developer is being supported by these departments to behave this way irrespective of current laws and guidelines that have been put in place. Mr Ingles apparent lack of consideration to follow reasonable steps and act within the law and his lack of accountability should be seen as contempt towards the laws set in place to bring justice to the case in which the Environmental Defenders Office along with the High Court set as an example many years ago. If I break the law I should not be able to return to the scene of the crime and re-attempt finishing a job that was regarded as detrimental to the natural landscape and potential water pollution of the Evans River, it is just so criminal. Mr Ingles should have been wiser and explored other options in less cultural and environmentally sensitive areas and yet his re-attempt has shown the community otherwise. Whatever occurred in the Q.L.D Courts all those years ago between Richmond Valley Council (RVC) after the RVC spent almost 1 million dollars defending its actions against Iron Gates Pty Ltd. because of their careless involvement with Mr Ingles is clearly questionable. The public have a right to the information surrounding this controversy and the outcome should have been transparent given that it involved rate payers money. I am sure the community could raise funds to buy this area back to preserve it for future generations and for the protection and management of both the threatened and endangered species that exists in this location *Rather than spending it on court costs* that I feel will be inevitable if this goes ahead as the Community in Evans Head and surrounding communities will be ready to oppose and fight against in the courts again.

Acknowledging Significant Cultural & Historical Events

I do not believe that the importance and significance of the area in question is being genuinely considered when comments such as those above are supporting this development without more foresight into what makes this area so sensitive and why the Aboriginal Heritage is being overlooked from a First Nations perspective. Culturally I am aware of several reasons why this area should not be desecrated further and acknowledgment of the significance should be first priority in cases such as this one. I do not feel that the local Custodians or the Community has been addressed appropriately in a engaging or consultative way as has been inferred in the documents associated with this development in the proposal. In the Master plan reference is made to the local Custodians and yet I have first hand been witness to see opposition from this group against this development because of the significance of both cultural and historical reasons. I do not believe that Developer Mr Ingles cares one bit about this significance and has done what other developers in the past have done and disregarded the meaning of local Aboriginal connections to their land in pursuit of increasing their financial fortunes. The Aboriginal people of this area have been recognised as a friendly and caring tribe in the past from people I know who have first hand experience growing up along the rivers in this area in 1945 with them. The Aboriginal people have been

disregarded for so long in this country that I feel it is time that they had more say over areas of significance such as Iron Gates than people like Mr Ingles because of the diminishing areas that have been allocated as significant. It appears Mr Ingles interest is money, and money cannot replace the natural environment that will be significantly changed if this development goes ahead. Mr Ingles does not live there how would he know? If the Department of Industry and Environment have been doing their research they you would know that Evans Head is the *Birth Place* of the *Bundjalung* Tribe that stretches as far south as Grafton and as far North as Tweed Heads. It has one of the last known active restoration of language and culture in Australia and should be given the support to be preserved from departments such as the OEH, DoPE and the Department of Planning, Industry and Environment.

Changing the local Community from a quiet coastal town to a thorough fare:

Allowing the developer back into this area is not only ethically wrong, it is a reminder that people with money can get away without following through with lawful orders or making reasonable effort to explain why they ignored these orders. This development is not for the benefit of locals as outlined as potential buyers. It is a money making development that is going to bring up to \$50 Million plus into the hands of developer Mr G. Ingles and from his latest comments given at the local Surf Club at Evans Head *affordable* housing for *locals* is not on the agenda given the economical demographic of people who live in this area and surrounding towns who have visited the area generation after generation from Casino and Kyogle (this area is recognised as having the lowest income on the North Coast). I can see the future of the area locals owning homes here potentially harder to do if this development goes ahead. Mr Ingles should be satisfied that he has already developed many coastal areas on the Gold Coast and I do not think his vision is the right one for Evans Head and consequently he should not be allowed by the Department of Planning, Industry and Environment regardless of certain consents as outlined by the OEH and DoPE to destroy this area any further. If it does go ahead the need for infrastructure will be necessary to meet the demands that potentially 500 or more people living at the site will bring with them. Infrastructure such as a hospital (not a medical clinic that is already under construction). The extra two hundred rubbish bins will also impact on the current waste management processing that is also located in an environmentally sensitive area in the Broadwater National Park to name only two.

Lack of Ongoing Community Consultation:

The community can already access this river and the presentation as 'providing new opportunities' is invalid. It is a natural landscape. Not everything or everyone wants to have 'new facilities'... compared to the serenity that already exists. You cannot monopolize areas such as these as they are important just as they are.

RFS Disapproval

After a review of the Master Plan it is clear that substantially more vegetation will need to be removed to meet the requirements that the RFS have outlined as being considered safe in line with recommendations from them which adds to the already large proportion of native

vegetation being further considered for removal by the proposed 184 sub lot division. As already mentioned clearing this area is not they way to go as already discussed.

I apologise for the lack of editing and grammar in this submission as I have run out of time and need to submit this. I feel that I have let myself down by doing this but at least I have made an effort. I am not the best writer and I have made a reasonable attempt to get my points across. I hope that you seriously consider my submission as I am deeply concerned about what is going to happen to this sacred ground and overall the master Plan has serious faults that need to be reckoned with.

Yours concerningly,

A solid black rectangular box used to redact the signature of the sender.

Review of the ecological assessment component of the Draft Master Plan for the proposed Iron Gates Residential Release development

David Milledge

18 February 2016

Introduction

1. The ecological assessment component of the Draft Master Plan for the Iron Gates Residential Release development proposal is provided as two annexures. These comprise Annexure 1 - Part 1 Ecological Assessment (Annexure 1 Part 1) and Annexure 1 - Part 2 Original Flora and Fauna Assessment (Annexure 1 Part 2). However, Annexure 1 Part 1 cannot be claimed to represent an ecological assessment as it consists predominantly of a collection of poorly argued and invalid responses to questions and criticisms made in relation to the information presented in Annexure 1 Part 2 (as previously reviewed by Milledge 2014, attached as Appendix 1). Unfortunately Annexure 1 Part 1 suffers from the same level of confusion, error and omission that characterises Annexure 1 Part 2 and with regard to the latter, it is difficult to understand how this document has not been substantially revised following the results of the claimed peer review (Annexure 1 Part 1, comment under Richmond Valley Council's RFI dated 18/11/14, Point 8).

2. No additional field investigations of the site appear to have been undertaken to address the failings of the original ecological assessment (Annexure 1 Part 2; see Milledge 2014) apart from a check on the identity of the 159 stems of the ground orchid that was previously identified and mapped as one of two species of swamp orchids (*Phaius australis* or *P. tancarvilleae*). These plants have now been confirmed as the Christmas Orchid *Calanthe triplicata* (Annexure 1 Part 1, comment

under David Millage (sic) Public Submission Response - Dated 4/12/2014), which is not listed as a Threatened species (*TSC Act 1995*).

3. Further, no Threatened fauna species additional to those seven species assessed in Annexure 1 Part 2 (s.6) have been considered under the "7-part test" for assessment of significance (s.5A, *EPA Act 1979*). This represents a failure to fully comply with the requirements for preparation of a Draft Master Plan under State Environmental Planning Policy (SEPP) No. 71 - Coastal Protection (*EPA Act 1979*), considering several additional Threatened fauna species are likely to occur in the site and to be significantly affected by the proposed development.

Overall design of the proposal

4. Despite a number of claims that the proposal "has been designed to avoid environmental impacts" (Annexure 1 Part 1, comment under OEH letter dated 22/12/2014, Indirect Impacts and Buffers, Points 4 and 5, and elsewhere), this is clearly erroneous as the lot and road layout physically isolates the most important stand of an Endangered Ecological Community (EEC) in the site. The stand conforms to the description of the Littoral Rainforest of the South East Corner, Sydney Basin and North Coast Bioregions EEC (*TSC Act 1995*) and is surrounded by roads which in turn appear to be bordered by 1m high concrete walls positioned against the rainforest (Hyder Consulting 2015, Sediment and Erosion Control Plan Sheet 2 of 5). Residential development is also proposed to surround the EEC, apart from a small section in its south-eastern corner, and to claim that connectivity is maintained to an adjoining area of the EEC to the south via "twin 300mm culverts" (Annexure 1 Part 1, comment under Points 9 and 10) demonstrates little understanding of the operation of fauna corridors and road underpasses. Pipes of such small diameter, particularly when their main purpose is drainage, cannot be expected to function as dedicated fauna underpasses and could not be expected to allow passage of "non-volant" Threatened species such as the Brush-tailed Phascogale *Phascogale tapoatafa*, Common Planigale *Planigale maculata* or Koala *Phascolarctos cinereus*, as well as a range of other terrestrial and scansorial vertebrate species.

5. No functional buffers are provided to the main area of the EEC and the numerous assertions throughout Annexure 1 Part 1 that perimeter roads will act as buffers demonstrates a poor understanding of the design principles for buffers required to protect significant vegetation communities and habitats. Such buffers should comprise wide, densely vegetated perimeters that constrain the entry of introduced plant and animal species and mitigate processes such as desiccation and wind-throw that would otherwise degrade the community.

6. SEPP No. 26 (*EPA Act 1979*), designed to protect littoral rainforests in NSW, requires a buffer of 100m to mapped littoral rainforest stands (apart from where residential zoning is already in place). Although the stand in question is not designated under SEPP No. 26 and is zoned for residential use, a substantial vegetated buffer is required to ensure its survival in the long-term. A vegetated

buffer to avoid impacts on biodiversity is also recommended in the submission on the development proposal by the Office of Environment and Heritage (OEH; as quoted in Annexure 1 Part 1, OEH letter dated 22 December 2014, Point 9), which recommends redesign of the layout to locate building envelopes at least 50m from retained vegetation (OEH letter, Point 7). It is considered that 50m should be the minimum width adopted for a vegetated buffer wherever the proposed development abuts the edge of the Littoral Rainforest EEC.

7. Confusingly, Annexure 1 Part 1 refers to "a proposed vegetated buffer" within the development site (comment under OEH letter dated 22 December 2014, Points 4 and 5) but the location of this is not provided and there is no reference to such a buffer in Annexure 1 Part 2.

8. The proposed location of roads and concrete barriers immediately adjacent to the main stand of the Littoral Rainforest EEC, contrary to the claims in Annexure 1 Part 1 that this provides a buffer, will exacerbate harm to the EEC. Desiccation, wind-throw, the invasion of introduced plants such as Asparagus Fern *Protasparagus aethiopicus* and *P. africanus*, Fishbone Fern *Nephrolepis cordifolia*, Lantana *Lantana camara*, Morning Glory *Ipomoea cairica* and Bitou Bush *Chrysanthemoides monilifera*; and predation by introduced animals such as the Cane Toad *Rhinella marina*, Black Rat *Rattus rattus*, Red Fox *Vulpes vulpes* and Feral Cat *Felis catus*, domestic animals including dogs and cats, the dumping of garden rubbish from adjoining lots and incursions by local residents are all likely to combine to result in the modification and eventual decline of the EEC in this area. None of these threats have been considered and assessed in any detail in Annexure 1 Part 1 (or Annexure 1 Part 2, s.6) and no specific measures to avoid or mitigate their impacts are proposed. The majority of threats, which are formally listed as Key Threatening Processes (KTPs) under the *TSC Act 1995*, are dismissed as "Not applicable" in the 7-part test for significance (Annexure 1 Part 2, s.6), apparently on the basis that the relevant threatening species were not recorded during the inadequate 2014 Planit survey. Even when a species responsible for a KTP (such as Lantana) is noted as present in the site or known from the locality, the threat is dismissed, without any explanation or supporting information, as unlikely to increase impacts (Annexure 1 Part 2, s.6). This is despite established evidence that shows that such impacts are exacerbated in proximity to residential development.

9. Contrary to the assertion in Annexure 1 Part 1 (comment under OEH letter dated 22 December 2014, Points 4 and 5), the proposed development will also fragment core habitat for Threatened fauna species by isolating the main stand of Littoral Rainforest EEC from the eucalypt (or moist open sclerophyll forest) communities to the west and north west and the open dry heath and wet heath communities to the north east. The eucalypt and heath communities will also be isolated from each other. Threatened fauna species that will be adversely affected by these impacts include the Brush-tailed Phascogale, Common Planigale and Koala.

Assessment of impacts on Threatened communities and species and operation of Key Threatening Processes - the 7-part test of significance

10. A number of likely impacts from the proposal on *TSC Act 1995* matters that were not assessed, or inadequately assessed in Annexure 1 Part 2, (e.g. Milledge 2014), continue to be ignored or are summarily dismissed in Annexure 1 Part 1. This has severely compromised the s.5A assessment (7-part test, *EPA Act 1979*) in determining whether a significant effect is likely on Threatened communities or species as a result of the development proposal and abrogated the requirement for a Species Impact Statement (SIS).

Assessment of impacts on the Littoral Rainforest EEC

11. As described in s.2 above, the proposal is likely to result in a suite of detrimental impacts on the main stand of the Littoral Rainforest EEC in the site. In addition to these, the positioning of lot boundaries only a road's width from the EEC has the potential to subject areas of littoral rainforest (and other Threatened species' habitats) to clearing or under-scrubbing under the 10/50 Vegetation Clearing Scheme for bushfire protection. This threat does not appear to have been considered in either Annexure 1 Part 1 or Annexure 1 Part 2 and represents another omission in assessing the potential for a significant effect on this EEC under the 7-part test.

Selection of Threatened species for assessment under s.5A (*EPA Act 1979*), the 7-part test

12. The two criteria that were listed in Annexure 1 Part 2 (s.6) for the selection of Threatened species for assessment of a significant effect under the 7-part test were stated as species that were "recorded on the site" or species that were "considered potential occurrences within the area based upon available habitat components".

13. However, the latter criterion was not used in the selection process as only the one Threatened flora species (the mis-identified swamp orchid *Phaius* sp.) and the seven Threatened fauna species recorded during the flawed 2014 Planit survey (Annexure 1 Part 2) were examined under the 7-part test. Species that were not recorded were dismissed without explanation, which resulted in a failure to assess impacts from the proposal on key Threatened species such as the Common Planigale, Eastern Blossom-bat *Syconycteris australis* and Eastern Long-eared Bat *Nyctophilus bifax*. These are species that if they had been adequately targeted and assessed under the 7-part test are likely to have demonstrated the need for the preparation of a SIS to fully assess and mitigate potential impacts from the development on Threatened biodiversity.

Eastern Blossom-bat and Eastern Long-eared Bat

14. The reason offered to explain the failure to adequately survey for the Eastern Blossom-bat, Eastern Long-eared Bat and other Threatened microchiropteran bat species using mist-nets and harp traps - that these species may be at "risk of injury and death" (Annexure 1 Part 1, comment under David Millage (sic) Public

Submission Response - Dated 4/12/2014), is invalid. Such methods are standard techniques and are recommended in the Working Draft Guidelines for Threatened Biodiversity Survey and Assessment (DEC 2004). Mist netting is stated to be "the only suitable technique for the capture of the Common (Eastern) Blossom-bat" (s.5.3.4 vii, DEC 2004) and is listed as an additional appropriate survey method for this species in Table 5.9 (DEC 2004). Harp traps are indicated in the same table as the appropriate method for surveying the Northern (Eastern) Long-eared Bat.

Common Planigale

15. Although the Common Planigale is not specifically mentioned in the Working Draft Guidelines (DEC 2004), pit-fall trapping is listed as an appropriate survey method for small mammals and is frequently referred to in the published literature as the only effective survey method for the Common Planigale (e.g. Lewis 2005).

16. Despite information on the number of pit-fall traps employed being corrected (Annexure 1 Part 1, comment under David Millage (sic) Public Submission Response - Dated 4/12/2014) to accord with the number mapped (Annexure 1 Part 2, Attachment 3), no data have been provided on the dimensions or placement of traps and there is no indication whether drift fences were employed. Drift fences are considered to enhance capture rates of the Common Planigale (Lewis 2014) and the Working Draft Guidelines (DEC 2004) state that "Each pit must have at least 5m of drift fence either side (i.e. a 10m minimum per hole)".

17. However, irrespective of this information, the survey effort for the Common Planigale was insufficient to detect this relatively rare, sparsely distributed species. For example, Lewis (2005) in a survey in the Tweed LGA captured only three individuals in 600 trap nights. Survey effort by Planit (Annexure 1 Part 2, Table 4 corrected) amounted to only 25 trap nights and traps were not placed in two of the site's most important fauna habitats, the eucalypt forest and littoral rainforest, and only on the periphery of the development footprint (Annexure 1 Part 2, Attachment 3).

Koala

18. A 7-part test was undertaken for the Koala (Annexure 1 Part 2, s.6), which was recorded from the site on the basis of scratches observed on smooth-barked eucalypts in the eucalypt forest (Annexure 1 Part 2, Table 6). However, no significant effect was found for this species because it is claimed that "the proposal will remove approximately 2508m² of potential koala habitat which is considered unlikely to significantly impact the species considered (sic) the surrounding environment within the locality provides upwards of 20,000ha of similar habitat" (Annexure 1 Part 1, comment under David Millage (sic) Public Submission Response - Dated 4/12/2014). However, no assessment appears to have been undertaken of the occurrence, local habitat preferences, condition or conservation status of local Koala populations and the assumption that up to 20,000ha of suitable habitat is available is invalid as it is known that large areas of apparently suitable habitat in the locality are unoccupied (e.g. McLachlan 1995, McKinley *et al.* 2011, D. Milledge unpubl. data).

19. In addition, the Koala survey of the site was not comprehensive as apparently no scat (faecal pellet) searches using a technique such as the SAT method (Phillips and Callaghan 2011) were undertaken (Annexure 1 Part 1, comment under David Millage (sic) Public Submission Response - Dated 4/12/2014) particularly in the main littoral rainforest stand where numerous Koala scats were detected at the bases of Red Mahoganies *Eucalyptus resinifera* during a survey conducted in 1998 (Milledge 1998).

20. Although call playback and spotlighting are useful methods for detecting the Koala, scat searches are widely recognised as an effective survey tool for detecting the species (Phillips and Callaghan 2011). This is especially the case if individuals are temporarily absent from a survey site due to part of their home ranges falling outside the site, and it is preferable to employ all three methods when surveying for the species.

21. Because of the inadequacies in the assessment of the potential for a significant impact (7-part test) on the local Koala population, it cannot be accepted that a significant effect will not occur as a result of the development and such an effect remains a distinct possibility.

22. As for the claim that Koalas will be able to "continually utilise the Littoral Rainforest within the main development" (Annexure 1 Part 1, comment under David Millage (sic) Public Submission Response - Dated 4/12/2014), this is clearly erroneous as the area will be surrounded by a road bordered by a concrete barrier (s.2 above) and enclosed along 88% of its perimeter by residential development. It is also highly unlikely that Koalas will use the twin 300mm culverts that are claimed to "help ensure that connectivity is to remain between the central EEC and external habitats" (Annexure 1 Part 1, comment under David Millage (sic) Public Submission Response - Dated 4/12/2014).

Potential impacts from filling the site

23. No information is provided on the type or properties of fill proposed to be imported into the development site (Hyder Consulting 2015, s.3.1.1) and this has the potential to adversely affect the habitat of several Threatened fauna species known from the site including the Wallum Froglet *Crinia tinnula*, Common Planigale, Squirrel Glider *Petaurus norfolcensis*, Eastern Blossom-bat *Syconycteris australis* and Grey-headed Flying-fox *Pteropus poliocephalus*. Nutrient enrichment of the site's acidic waters will degrade breeding habitat for the Wallum Froglet and changes to vegetation will disadvantage the other species, particularly nectarivorous species such as the Eastern Blossom-bat.

24. The site's vegetation communities growing on low-nutrient sands, particularly the heath communities, are likely to be highly susceptible to nutrient enrichment resulting from leaching from imported fill. Without constraints on the type of fill to be imported, such as limiting this to the same type and nutrient status as soils supporting surrounding vegetation, the habitats of the Threatened fauna species listed above are likely to be substantially adversely modified over time.

Operation of Key Threatening Processes

25. As noted above (s.2), the majority of threats to biodiversity likely to result from the proposed development, many of which are formally listed as KTPs (*TSC Act 1995*), are dismissed as "Not applicable" with no consideration of whether they are likely to continue to operate or increase in impact (Annexure 1 Part 2, s.6). No attempt is made to redress this discrepancy in Annexure 1 Part 1, which represents a serious flaw in the assessment of the potential for a significant effect under the 7-part test.

Introduced plants

26. Despite the presence of Lantana, listed as a threat to the Littoral Rainforest EEC (OEH website, Littoral Rainforest in the South East Corner, Sydney Basin and NSW North Coast Bioregions, accessed February 2016) in the site and the high likelihood of colonisation by other listed weed species following the development of the proposal (s.2 above), the only mitigation measure proposed is that they be "removed in the work zone" (Annexure 1 Part 2, s.6). No additional consideration of impacts from weed species or proposals for mitigating measures are provided in Annexure 1 Part 1.

27. It is likely that the KTPs "Invasion and establishment of exotic vines and scramblers", "Invasion of native plant communities by Bitou Bush and Boneseed" and "Invasion, establishment and spread of *Lantana camara*", will continue to operate and increase in impact, or begin to operate if the development proposal proceeds in its present form. This is likely to lead to serious degradation and decline in the Littoral Rainforest EEC such that the local population will become substantially adversely modified and is likely to be placed at risk of extinction.

Introduced predatory animals

28. The assessment of threats to the site's biodiversity from introduced predatory animals and the design of mitigation measures is essentially limited to domestic animals and specifically dogs and cats, that are proposed to be controlled by a "dog and cat restriction" covenant (Annexure 1 Part 2). Such covenants are unlikely to be effective in mitigating impacts on native animals from domestic dogs and cats and a total ban on these animals should be applied throughout the development.

29. No further consideration of the threats posed by predatory species such as the Cane Toad, Red Fox and Feral Cat is provided in Annexure 1 Part 1.

Cane Toad

30. Although the Cane Toad was recorded during site surveys (Annexure 1 Part 2, s.4.5.4, s.6) and optimal habitat for this species comprises the mown lawns with artificial lighting that are associated with residential areas close to bushland (Seabrook 1991), Annexure 1 Part 2 (s.6) claims that the proposal is unlikely to increase the impact of the KTP "Invasion and establishment of the Cane Toad". As well as Cane Toads being favoured by the proposed residential development of the

site, the provision of bioretention basins with submerged areas adjacent to the Littoral Rainforest EEC (Hyder Consulting 2015, s.7.2.1, Sediment and Erosion Control Plan Sheet 2 of 5) will provide ideal breeding habitat for this pest species that is likely to exponentially increase its population in the site, with consequent highly detrimental effects on biodiversity. Threatened species known from or likely to occur in the site that could be adversely affected by an increase in Cane Toad population include the Wallum Froglet, Wallum Sedge Frog *Litoria olongburensis* and Common Planigale.

Red Fox

31. The Red Fox is noted as known from the locality of the site (Annexure 1 Part 2, s.6) and can be expected considered to occur in the site. The development proposal is likely to result in an increase in Fox predation pressure on a range of small and medium-sized terrestrial and scansorial vertebrate species as Foxes are attracted to residential areas in bushland settings by the provision of pet food left in allotment yards and by other readily available food sources. Threatened species known from or likely to occur in the site that could be preyed upon by Foxes include the Bush Thick-knee *Burhinus grallarius*, Brush-tailed Phascogale, Common Planigale, Koala and Squirrel Glider. As a result of an increase in Red Fox predation pressure, the development proposal is in conflict with the objectives of the Red Fox Threat Abatement Plan (*TSC Act 1995*) and this likelihood should have been properly assessed under Part (f) of the 7-part test.

Feral Cat

32. Cats were recorded during site surveys although these were not determined as feral (Annexure 1 Part 2, s.4.5.2, s.6). However, Feral Cats are highly likely to use the site due to its proximity to human settlement and may increase in number with establishment of the proposed development as the result of fragmentation, disturbance and increased edge effects. The dog and cat restrictive covenant will provide no protection from predation by the Feral Cat which, as with the Red Fox, is likely to impact populations of a range of small and medium-sized terrestrial and scansorial vertebrate species in the site including the Threatened Brush-tailed Phascogale, Common Planigale and Squirrel Glider, and also small, slow-flying megachiropteran and microchiropteran bat species including the Threatened Eastern Blossom-bat and Eastern Long-eared Bat.

33. From an examination of the above information, it is considered that the operation and increase in impacts of the KTPs "Invasion and establishment of the Cane Toad", "Predation by Feral Cats" and "Predation by the European Red Fox" are likely to have detrimental effects on the life cycles of a number of Threatened fauna species. In combination with other impacts these threats are likely to result in a significant adverse effect on at least one and possibly three other species under s.5A of the *EPA Act 1979*.

Potential for a Significant Effect on a Threatened Ecological Community and Threatened Species under s.5A of the *EPA Act 1979*.

34. As a result of the cumulative impacts from the activities and threats associated with the Iron Gates Residential Release development proposal, as detailed above, it is considered likely that there will be a significant adverse effect on the main stand of the Littoral Rainforest EEC in the site so that its floristic composition will be substantially adversely modified and the local occurrence placed at risk of extinction.

35. There is also likely to be a significant adverse effect (under s.5A, *EPA Act 1979*) on the life cycle of the Eastern Blossom-bat and probably on the life cycles of the Common Planigale, Koala and Eastern Long-eared Bat due to these cumulative impacts. As a consequence, it is considered that a Species Impact Statement, as required under s.5A of the *EPA Act 1979* should have been prepared for the proposal.

Summary and Conclusions

36. Contrary to the claim on the Department of Planning and Environment's website (Draft Plans and Policies, On Exhibition) that the Draft Master Plan for the Iron Gates Residential Release "sets out to deliver a new housing opportunity in a way that is mindful of the important environmental value of the area", in my opinion the proposal sets out to fail to protect and sustain the important environmental value of the area as it is likely to have a significant adverse impact on the site's Threatened ecological community and species values and on its biodiversity values generally.

37. As a result of the failure to undertake additional field surveys and assessments, together with failing to satisfactorily redress the omissions, misconceptions and errors contained in Annexure 1 Part 2 (Original Flora and Fauna Assessment), the ecological assessment presented in the Draft Master Plan remains substantially flawed and does not adequately consider and redress the likely impacts on the Littoral Rainforest EEC and key Threatened fauna species known from or likely to occur in the site's habitats.

38. The design of the site layout isolates the main stand of the Littoral Rainforest EEC, and KTPs likely to continue to operate and increase as a result will severely modify its floristic composition and eventually lead to its demise.

39. Isolation and fragmentation of habitats will also adversely affect a number of Threatened fauna species supported by the site's habitats and together with the probable continued operation and increase of KTPs, will most likely cause the extinction of local populations of at least one and possibly three of these species.

40. A SIS should be prepared to fully assess and mitigate the likely adverse impacts on Threatened biodiversity from the proposal, which requires major modification to reduce impacts to a level where they will not have a significant adverse effect on the site's Threatened ecological community and Threatened species attributes.

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Appendix 1

Review of the Flora and Fauna Assessment for the proposed Iron Gates Residential Development, Evans River, Northern NSW, with particular regard to Threatened Species and Communities and potential impacts on these values

David Milledge

4 December 2014

1. Introduction

In November 2014 Landmark Ecological Services was requested by EDO NSW to undertake an independent expert review of the Statement of Environmental Effects (SEE, Planit 2014a) for the Iron Gates Residential Development with respect to the Terrestrial Flora and Fauna Assessment prepared by Planit Consulting (Planit 2014b).

In particular, EDO NSW requested information on:

- i) the presence of Threatened species (as listed on the schedules of the NSW *Threatened Species Conservation (TSC) Act 1995*) and their habitats in the Iron Gates site (Lots 277, 276 and 163, Parish of Riley; Planit 2014);
- ii) the likely impacts from the proposed development on these Threatened species and their habitats; and
- iii) the likelihood of any harm having occurred to the Threatened species, communities and their habitats resulting from the lack of remediation of the site as ordered by the NSW Land and Environment (L&E) Court in 1997.

I have had previous field experience in the site, having undertaken investigations there on 19 and 20 September 1996 (Milledge 1996), 27 March 1997 (Milledge 1997) and 19 March 12

1998 (Milledge 1998) in conjunction with a number of cases before the L&E Court at that time.

Following the recent request from EDO NSW, I viewed the site again on 28 November 2014 from its eastern boundary along the drain that I observed there in September 1996 and subsequently in 1997 and 1998 (Milledge 1996, 1997, 1998).

I have been provided with a copy of Division 2 of Part 31 of the *Uniform Civil Procedure Rules 2005* and the *Expert Witness Code of Conduct* in Schedule 7 of the *Uniform Civil Procedure Rules 2005*. I have read the *Expert Witness Code of Conduct* under the *Uniform Civil Procedure Rules 2005* and agree to be bound by it. I believe that my report complies with the code.

2. Threatened Species and Communities Known or Likely to Occur in the Site

During my investigations in the site on 19 and 20 September 1996 (as part of L&E Court proceedings at that time), I recorded two Threatened microchiropteran bat species (*TSC Act 1995*), comprising the Hoary Wattled Bat *Chalinolobus nigrogriseus* and the Greater Broad-nosed Bat *Scoteanax rueppellii* (Milledge 1996). I also found evidence of Koala *Phascolarctos cinereus* use of the site in the form of numerous scats at the bases of Red Mahogany *Eucalyptus resinifera* emergents in the Littoral Rainforest during investigations on 19 March 1998 (Milledge 1998).

The recent fauna surveys conducted by Planit resulted in two of these Vulnerable species (*TSC Act 1995*), the Koala and Hoary Wattled Bat being detected, as well as five additional Threatened fauna species (Table 1). The latter consist of the Vulnerable Wallum Froglet *Crinia tinnula*, Squirrel Glider *Petaurus norfolcensis*, Grey-headed Flying-fox *Pteropus poliocephalus*, Little Bent-winged Bat *Miniopterus australis* and Large-footed Myotis *Myotis macropus* (Planit 2014b). In addition to their *TSC Act* listing, both the Koala and Grey-headed Flying-fox are listed as Vulnerable under the Commonwealth's *Environment Protection and Biodiversity Conservation (EPBC) Act 1999*.

However, the Planit assessment makes no reference to any of the fauna investigations conducted in the site prior to and in relation to the L&E Court cases between 1996 and 1998 (Phillips 1991, 1998, Leggett 1992, Lim 1993, Milledge 1996, 1997, 1998). Consequently they have overlooked the occurrence of the Greater Broad-nosed Bat plus records of the Threatened Black-necked Stork *Ephippiorhynchus asiaticus*, Square-tailed Kite *Lophoictinia isura*, Bush Stone-curlew *Burhinus grallarius*, White-eared Monarch *Carterornis leucotis*, Brush-tailed Phascogale *Phascogale tapoatafa* and Eastern Blossom-bat *Syconycteris australis* from the site (Table 1).

Records of several of these species are also contained in the Atlas of NSW Wildlife (Milledge 1996, Atlas of NSW Wildlife search November 2014; Table 1) and had Planit conducted an adequate literature and Atlas search these records would have been obvious. This should have resulted in Planit listing these species as recorded from the site rather than as only of "possible" occurrence. 13

Further, due to the presence of core habitat in the site and records within 5km of the site in similar habitats, Planit should have considered a number of additional Threatened (*TSC Act 1995*) species as likely or highly likely to occur. These include the Wallum Sedge Frog *Litoria olongburensis*, Little Lorikeet *Glossopsitta pusilla*, Masked Owl *Tyto novaehollandiae*, Common Planigale *Planigale maculata* and Eastern Long-eared Bat *Nyctophilus bifax*. The Wallum Sedge Frog is also listed as Vulnerable under the *EPBC Act 1999*.

The categorisation by Planit of Threatened fauna species known from or likely/highly likely to occur in the site as of only "possible" occurrence, particularly species such as the Common Planigale, Eastern Blossom Bat and Eastern Long-eared Bat, also indicates a poor knowledge of the local habitat and ecological requirements of these species.

The swamp sclerophyll forest, shrubland and wet and dry heathland vegetation communities on coastal floodplain in the site (Milledge 1996, Planit 2014b) represent core habitat for the Common Planigale. Similarly the littoral rainforest in the site (Milledge 1996, Planit 2014b) provides core roosting habitat for both the Eastern Blossom Bat and Eastern Long-eared Bat; and the adjacent swamp sclerophyll forest, shrubland and wet and dry heathland vegetation communities supply core foraging habitat. The high values of these habitats to all three species in the site were clearly identified in previous reports (Milledge 1996, 1997, 1998, Phillips 1998) and should have been taken into consideration in the Planit assessment.

Table 1 Threatened Fauna Species Recorded in the Iron Gates Site **Reference**

Threatened species	Phillips 1991, 1998	Leggett 1992	Lim 1993	Milledge 1996, 1997, 1998	Planit 2014b	Atlas of NSW Wildlife
Wallum Froglet <i>Crinia tinnula</i> *	+		+		+	
Black-necked Stork <i>Ephippiorhynchus asiaticus</i> **			+			
Square-tailed Kite <i>Lophoictinia isura</i> *			+			
Bush Thick-knee <i>Burhinus grallarius</i> **			+			
White-eared Monarch <i>Carterornis leucotis</i> *			+			
Brush-tailed Phascogale <i>Phascogale tapoatafa</i> *	+		+		+	
Koala <i>Phascolarctos cinereus</i> **	+		+	+	+	
Squirrel Glider <i>Petaurus norfolcensis</i> *			+			
Grey-headed Flying-fox <i>Pteropus poliocephalus</i> **			+			
Eastern Blossom-bat <i>Syconycteris australis</i> *		+		+		
Little Bent-winged Bat <i>Miniopterus australis</i> *			+			
Hoary Wattled Bat <i>Chalinolobus nigrogriseus</i> *	+		+		+	
Large-footed Myotis <i>Myotis macropus</i> *			+			
Greater Broad-nosed Bat <i>Scoteanax rueppellii</i> *		+		+		