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Dear Independent Planning Commission

Supplementary TSC Comments on Applicants Response to Submissions and revised Koala Plan of Management - Kings Forest Modification MP08/0194 MOD 4 (Council reference DA11/0565.03)

As a result of our meeting with the Independent Planning Commission on 12 March 2019, the Commissioners requested additional information on a number of matters:

1. Further comments on the proponent's response to 62 specific issues raised by Council in its submission to DP&E of October 2018 (see Table 1 below where only the contested matters are now discussed).
2. Electronic versions of handouts relating to proposed fauna exclusion fencing arrangements for the proposed golf course, specifically:
 - a. Figures 28 and 40B of the draft revised KPoM of October 2018 showing fauna exclusion fencing between the golf course and the adjacent environmental area
 - b. Figure 9 of the draft revised KPoM of October 2018 showing Concept Plan incorporating the Ecological Buffers within the proposed golf course
 - c. Major Projects SEPP (Part 6 – Kings Forest) which sets out the requirements for Ecological Buffers on the Kings Forest site (see attached)
 - d. Excerpts from the draft KPoM of June 2011 that accompanied Concept Plan Mod 2 showing koala tree planting (Fig 20) in the proposed golf course and discussion of the need for future fauna exclusion fencing between the golf course (Precinct 14) and the adjacent urban areas Precincts 12 and 13 (p24).
3. Details of Koala Connection work/success levels in Cudgen Nature Reserve (see attached report)

Additionally, during discussion Council officers noted:

4. an omission in its recommended amendments to proposed Condition 45A(4)(a)ii. See the recommended revised Condition 45A(4)(a)ii below.

This information is provided below and in the associated attachments.

Table 1 Further comments on the proponent’s response to 62 specific issues raised by Council in its submission to DP&E of October 2018.

Dot point	Disputed Council Comment of November 2018	Proponent response of February 2019	Further Council comments March 2019
11	P40, second para – delete – 190ha of 255ha (71% of 358ha, Table 5) of available koala habitat at Kings Forest is not insignificant as implied by the sentence.	DP11: The comment was meant to state that the amount of primary Koala habitat on the Kings Forest site is only 20 hectares. No implication as to the significance, or not, of this 20 hectares is offered in the paragraph.	The 360ha quoted is the cell size for the Bogangar – Kings Forest – Forest Hill area (see p29 of Phillips et al 2011). The Kings Forest site itself contains 255 ha of “preferred koala habitat” as defined by the NSW Scientific Committee in their Final Determination for the Tweed Coast Endangered Koala Population. The previous paragraph refers to preferred koala habitat elsewhere on the Tweed Coast. In this context the comparison to the Kings Forest site should be in the same terms – i.e. 255ha of 360ha (71%). If the proponent wishes to make comparisons of the “Primary koala habitat” component of “preferred koala habitat” they should also say how much primary koala habitat is associated with other cells on the Tweed Coast. If this analysis was done they would find that 20 ha of primary koala habitat is very significant especially in the context of its proximity to a greenfield site expected to house approximately 10000 new residents. It is considered that this statement should either be deleted or revised to accurately reflect the context of the site in relation to Tweed Coast more generally.
12	P40, third par – delete – not relevant, koalas are a landscape species and there is a comprehensive management plan (TCCKPoM) involving all stakeholders in place.	DP12: It would seem obvious that a KPoM dealing with a property development in a landscape containing an endangered Koala population would highlight the entities who control/manage	The fact that Council and OEH are major stakeholders in the management of koalas is not disputed, however as emphasised (in some detail) in Chapter 4 of Council’s Tweed Coast Comprehensive Koala Plan of Management 2015, “the responsibilities for the management of koalas and their habitat are widely distributed across the community” and that koala recovery on the Tweed Coast “will require active

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		<p>the most significant Koala habitats containing this endangered population. The entities are NSW government agencies i.e. NSW OEH and Tweed Shire Council.</p>	<p>cooperation of all stakeholders including landholders, property developers, community interests and government agencies.” It is Council’s view that the responsibility for koala management is not just restricted to mainly government landholders. Again if the proponent wishes to address such issues they need to specifically address their own role as a large landholder and property developer seeking to develop land within an area of significant koala activity.</p>
15	<p>P42, section 6.4.1 - delete paras 3, 5 and 6. They don’t add much to the issue of koala activity and the last para (6) regarding the proposed mitigation at Kings Forest is not in the right place and if it was, would need to be balanced against a large body of existing koala mitigation works already carried out elsewhere on the Tweed coast.</p>	<p>DP15: A discussion on Koala Activity Levels and Occupancy Rates on the Tweed Coast must include a discussion on the current (2011 to 2015) data analysis. The dire situation being described for this population is relevant to the significant positive response elicited from Project 28. The planting of over 60000 Koala food trees for the loss of only 1.59 ha of primary habitat and only 6.82 ha of secondary habitat is a disproportional (positive) response to the current poor situation facing the Tweed Coast Koalas.</p>	<p>Dot point 14 which has been agreed and replaces paragraph 3 addresses the koala activity level surveys from 2011, 2015 and 2018. Paragraph 5 which attempts to interpret differences between 2011 and 2015 surveys is confusing and it is not clear which 21 sites it refers to. In any case the point about the precarious nature of the population is acknowledged in the previous paragraphs.</p> <p>As suggested previously this section of the KPoM is concerned with the contemporary status of koalas. At this point there has been no analysis of the impacts of the development and it is therefore not appropriate to consider how impacts of the development should be mitigated. Proposed mitigation measures should be covered under Chapter 10 which is explicitly dedicated to this purpose. While it is not at all disputed that the offsetting program will adequately compensate for losses of koala habitat onsite, insisting on including this sort of information at this point detracts from the objectivity of the KPoM and does not acknowledge the suite of other important measures that is collectively expected to make a significant contribution to koala recovery on the Tweed Coast.</p>

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22	P54 section 8.9 – rename to “Climate Change” and acknowledge that probably the greatest threat to koalas from climate change on the Tweed Coast is sea level induced changes to water tables and salinity intrusion affecting existing koala habitat.	DP22: There is no literature specific to this matter available.	Section 8.9 devotes almost a page to how climate changed induced drought and extreme weather may affect koalas, but fails to consider how even modest projected sea level rise may affect their habitat in the form of swamp sclerophyll coastal vegetation whose distribution is intimately tied to water tables and salinity. A simple internet search will reveal that there is plenty of information on the impacts of rising sea levels on coastal vegetation. For completeness, this issue should be raised. Indeed, it could be hypothesised (within the mitigation chapter) offset plantings on higher ground plantings focussing on forest red gum may be less vulnerable than to sea level.
29	P60, section 9.3.3 – This section should focus on road strike impacts arising from the development. At present there is no mention of traffic generated within the development or on the local road network as a result of the additional population which the development will accommodate. This needs to be acknowledged with references to later sections of the KPoM which describe the measures taken to mitigate these impacts. It is appropriate to mention the existing road kill hotspots but the level of detail is not required –	DP29: The Department of Environment Species Profile and Threats Database (SPRAT Profile) (2014) lists Increased risk of vehicle strike after development as a threat to Koalas. The Kings Forest Koalas are part of the Endangered Tweed Coast Koala population. A discussion of traffic impacts on Koalas in the locality of Kings Forest is pivotal to a proper understanding of impacts which may occur to Kings Forest Koalas. The current Kings Forest sub population cannot be viewed	The need to address road strike in the locality is not disputed. In relation to Clothiers Ck. Road – which is some kilometres from Kings Forest – the 3 rd paragraph adequately describes the issue. The following paragraph (para 4) does not accurately reflect contemporary data or mitigation responses carried out by Council under the Tweed Coast Comprehensive Koala Plan of Management. For example, in addition to fixed signage, Council have installed pavement treatments and regularly uses variable message signage in key locations to lower speeds supported by targeted education campaigns to better inform road users of the risks to koala at this location. Monitoring has also confirmed that the combination of treatments have been effective in reducing vehicle speeds but other options continue to be explored, including speed cameras, fencing and under- or overpasses. In these circumstances the proponent should properly acknowledge what is being done to alleviate the risk to koalas at this location or remain silent on the issue (which is only peripherally related to their development) and delete the

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	<p>especially in the absence of discussion of the potential impact of the development itself. It is suggested that paragraphs 4, 6 and 7 are deleted.</p>	<p>in isolation. Paragraphs 4, 6 and 7 should remain.</p>	<p>paragraph (para 4). Similarly, paragraph 5 adequately describes the hazards at Tweed Coast Road which has also been recognised as a management priority in the Tweed Coast Comprehensive Koala Plan of Management and works are underway to improve the situation here. Paragraphs 6 and 7 add little to this and the proponent's theories about why there may be a cluster of road strike records for are not relevant to the present KPoM.</p> <p>More importantly, the proponent has not responded to Council's request to address the potential traffic impacts on koalas generated within the development and on the local road network as a result of the additional population which the development will accommodate. This needs to be acknowledged as it forms the basis of mitigation measures proposed later in the document (fencing, underpasses etc.).</p>
37	<p>P69 last sentence of second last para - delete. As noted elsewhere, forest red gum is found extensively on sand substrates on the Tweed Coast and the groundwater modelling does not suggest that forest red gum is an unsuitable species for the site.</p>	<p>DP 37: Forest red gum is found on sand substrates along the NSW coast but not at Kings Forest.</p>	<p>The sentence in question – “Sandy soils generally do not support Forest red gum and groundwater modelling also suggests the area may not be suitable for this species” – is considered to be factually incorrect. Mapping for the Tweed Vegetation Management Plan shows there are more than 50ha of vegetation communities <u>dominated</u> by forest red gum on both alluvial and sand substrates of the Tweed Coast (304 – Coastal Forest Red Gum). Significant examples occur at west Tweed, South Tweed, Chinderah and Pottsville. In relation to the groundwater modelling, Council is not aware of any analysis that links changes in groundwater conditions as a result of the development to the occurrence of specific species or vegetation communities. Rather there is a qualitative presumption (which we agree with; see section 10.12, p85 of the draft revised KPoM of October 2018) that</p>

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			species such a swamp mahogany which is often found in dune swales and directly adjacent to wetlands would do better lower lying areas than more elevated areas where scribbly gum was more common. Similar qualitative observations across the broader Tweed Coast area, also suggest the forest red gum will tolerate drier areas and provide significantly better outcomes for koalas. Indeed, in the proponent's own consultant, Terrestria, agrees with this conclusion (see p 8 of Appendix 1 of the proponent's February 2019 response to the proposed Mod).
38	P72, section 10.5.4 last sentence – delete. The offset ratio expressed via the number of trees is a bit misleading as the offset was calculated on the basis of area of habitat.	DP38: The ratios noted in Section 10.5.4 of the KPoM are a very accurate indicator of the level of tree offset being provided.	Council does not agree with this statement. For the sake of consistency the offset requirement should be framed in terms of area, rather than trees as this was the basis for the offset calculation. The purpose of the KPoM is to support the project approval.
39	P73 – see previous comments on the “Establishment and maintenance periods” and “Environmental management bond”	DP39: Discussed in Section 2.10.2 “8. Contingency and Offset Strategy” of this report above.	The text on p73 regarding compliance around created habitat could be interpreted to mean that the proponent may choose to forfeit the environmental bond (Project Condition 50) rather than continuing to meet the establishment or maintenance requirements thus allowing them to proceed to the next stage of the development. Irrespective of the bond requirements (under Project Condition 50), Concept Plan Condition B7 and A13 both require the proponent to continue to implement all environmental management plans from the commencement of the project. DP&E agree with this view and have proposed Condition 45A(9)(b) to address it. If retained it is likely that the text will conflict with Condition 50 and should therefore be removed.

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41	P75 third sentence – delete – SOS not relevant to this KPoM	DP41: Saving our Species (SOS) is our state-wide (NSW OEH) program that aims to secure threatened plants and animals in the wild in NSW. It is obviously relevant to Koala conservation matters.	Bushfire management actions on the Tweed Coast will be coordinated under the Tweed Coast Comprehensive Plan of Management guided by the Tweed Coast Koala Fire Management Plan potentially with funding under the SOS program. Please revise to reflect this information.
42	P75 forth para, last sentence - Inconsistent. Golf course fencing plan (see fig 40b) prevents koalas from accessing the golf course as originally intended.	DP42: Section 10.9.3 and TABLES 12 and 13 of the KPoM state that wildlife (including Koalas) will be able to access the golf course area in case of wildfire affecting the Environmental protection zones. All gates will be opened and/or fencing panels lifted.	See Council's previous comments in its submission on this issue. Council maintains this is inconsistent with the ecological buffer requirements of the Kings Forest Major Projects SEPP and the Concept Plan which contemplated koalas using the proposed golf course which would act as a buffer. It is recommended that the fauna exclusion fencing should encompass the golf course itself.
46	Fig 28 – location permanent fauna exclusion fencing on the inside of the ecological buffer is not supported (see separate comments above under "Fencing and underpasses" subheading).	DP46: Project Approval MP08_0194 (as modified) shows that the golf course includes the entirety of the 50 metre buffer zone. Although the proposed golf course layout does not occur in the entire 50 buffer zone it is unrealistic for the fencing to follow the exact line of the golf course boundaries. Far better from a management point of view for the fence to be	See Council's previous comments in its submission on this issue. Council maintains this is inconsistent with the ecological buffer requirements of the Kings Forest Major Projects SEPP and the Concept Plan which contemplated koalas using the proposed golf course which would act as a buffer. It is recommended that the fauna exclusion fencing should be constructed between the golf course and the adjacent urban areas.

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		located at the buffer zone/EPZ interface.	
48	P84 - forth para – see comments under “Off-leash dog areas” subheading.	<p>DP48: Condition C2 (3) (f) states “For each stage of development an update to the KPoM shall be provided to the satisfaction of the Secretary..... (3) the update must provide stage specific detail on the following:.....(f) specifications for any offleash dog exercise areas to ensure appropriate separation from Koala habitat;” The condition does not mandate the provision of such detail with the approved KPoM other than for the approved KPoM to state that the offleash area will not be provided in Stage 1 of the development. Obviously, it is likely that the detail will be provided in the updated KPoM for Stage 2 or 3.</p>	<p>It is not considered acceptable to put this issue off to later stages of the development. The KPoM for Stage 1 has never been approved and therefore remains subject to Concept Plan Condition C2(3)(f) which requires details of an appropriate off-leash dog exercise to be provided in the KPoM.</p> <p>More pragmatically, Council’s draft Open Space Strategy recommends negotiation with developers for an off leash area in Kings Forest, to be included as part of casual open space. The draft Guideline for dog areas in public open space recommended the following provision standards for off leash areas requires one off leash area in each precinct with a population of greater than 3000 people. Kings Forest is part of a broader Mid Coast – Casuarina open space precinct and there is currently no off leash area in this broader precinct.</p> <p>Considering the size of the expected population, an off leash area is recommended in accordance with the criteria within the draft guidelines, which states that an off leash is not to be located within an area identified as ‘high risk’ for Tweed Coast koalas or within a Koala Activity Precinct of the Tweed Coast Comprehensive Koala Plan of Management.</p> <p>Given the development will be enclaved it will not be identified as ‘high risk’ for koalas and therefore off leash area is allowable and required. It was recommended that the draft revised KPOM identify the best location for off leash areas.</p>

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			<p>Such an area should be located well away from any koala habitat and not in any ecological buffer.</p> <p>Under Concept Plan condition C2(3)(f) the issue will need to be reconsidered at each future stage and Council will provide further input at this stage.</p>
52	P86 section 10.14, second sentence – delete.	DP52: The Tweed Coast Koala Habitat Study (Phillips 2011) was funded by Tweed Shire Council in order to provide a solid data driven background for the Tweed Coast Comprehensive Koala Plan of Management. This sentence should remain.	<p>According to its title, this section should focus on what the <u>proponent</u> is doing to engage with the community. The section needs to be rewritten to provide this focus.</p> <p>The background science (Phillips 2011) used to inform the Tweed Coast Comprehensive Plan of Management is not relevant here. Similarly the makeup of the Tweed Coast Koala Advisory Group that was formed only to assist the preparation of Tweed Coast Comprehensive Plan of Management which was adopted in 2015 is not relevant. Further “Koala Connections” was a project not a “group”.</p>
53	P86 section 10.14, second para – move to Section 10.11	DP53: The statement on Friends of the Koala belongs in both sections i.e. 10.11 and 10.14. The sentence should remain where it is currently located.	Again, this section should focus on what the <u>proponent</u> is doing to mitigate impacts via engagement with the community. It is not sufficient to simply name some community groups without going on to say <u>how</u> the <u>proponent</u> will support the important work they do.
55	P86 last para – delete. Not necessary.	DP55: The last paragraph on page 86 states “The provisions contained in the TCCKPoM are: (i) Council shall establish a KMC to advise and assist Council with implementation and review of the Plan, including	The level of detail here distracts from the point of this section. All that is needed to establish ongoing liaison with Tweed Shire Council is to state that: (1) there is a thing called the Tweed Coast Comprehensive Plan of Management and (2) that Council encourages property developers to liaise on issues of mutual concern regarding the management and recovery of koalas. Whether this involves the Koala Management Committee will depend on the issue.

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		any contiguous IKPoM's." It should be recognised that the Kings Forest KPoM will be a "contiguous IKPoM." It is appropriate to leave this paragraph in the KPoM.	
57	P90 Section 10.16.3 - See comments above under "See comments above under "Timing and sequencing of koala habitat offsets" subheading.	DP57: It appears that there has been a mistake in the allocation of comments between DP57 and DP58. We have assumed that the comment under DP58 should be under DP57. There is no objection if the request is to note FOK being the group to provide services relating to injured Koalas.	Mistake noted – this was meant to relate to the "Protocols for injured koalas" subheading. This section needs to involve Friends of the Koala (FOK) who are the only licenced care group in the region. Injured koalas should be immediately reported to FOK (via their 24hr hotline 0266221233) and their advice followed regarding treatment options. FOK should also be notified of any dead koalas, with a post mortem examination to be undertaken by an appropriately qualified person at the expense of the proponent.
58	P91 section 11.2 - See comments above under "See comments above under "Protocols for injured koalas" subheading.	DP58: We have assumed that the comment under this dot point is actually the comment under DP57. If this is the case, then Project 28 are clear in their preference for the inclusion of the EPBC Act definition of "commencement".	Council maintains that on ground works should not commence until all relevant environmental management plans have been revised and updated in accordance with the conditions of consent. (Note, no objection is raised to investigatory and monitoring works under Project Condition A18.) The draft revised KPoM (October 2018) proposes using the following definition of 'commencement' which is derived from the EPBC approval and reproduced in the draft revised KPoM (see p65) as: <i>Commencement of construction means any preparatory works, excluding preliminary works, required to be undertaken including clearing vegetation, the erection of any</i>

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			<p><i>onsite temporary structures and the use of heavy duty equipment for the purpose of breaking the ground for bulk earthworks, buildings or infrastructure for the proposed action. Preliminary Works include:</i></p> <ul style="list-style-type: none"> <i>a) Minor physical disturbance necessary to undertake pre-clearance surveys, to establish monitoring programs, for geotechnical investigations or associated with mobilisation of plant, equipment, materials, machinery or personnel;</i> <i>b) Surveying or the construction of boreholes;</i> <i>c) Works associated with maintenance of the subject site including chopper rolling and weed management;</i> <i>d) Works necessary for rehabilitation including construction of frog ponds, installation of monitoring devices and necessary access tracks; and</i> <i>e) Other activities that are necessary for commencement that are associated with mobilisation of plant and equipment materials machinery and personnel prior to start of development only if such activities will have no adverse impact on Matters of National Environmental Significance only if the proponent has notified the Department in writing before an activity is undertaken.</i> <p>However, State Concept Plan Condition B7 and Project Condition A13 define “commencement” as:</p> <p>A13. The proponent is responsible for the management of all Potential Council Land and Future OEH Land for conservation purposes and the implementation of all establishment period and maintenance period works specified in all Environmental Management Plans from the date of the commencement of the project, or at another time directed by</p>

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			<p>the Secretary, until such time that an agreement is reached with OEH and /or Tweed Shire Council regarding the dedication of that land.</p> <p>Note: For the purpose of this condition, commencement is taken to mean any physical works including clearing vegetation, the use of heavy duty equipment for the purpose of breaking ground for bulk earthworks, or infrastructure for the proposed project.</p> <p>The concern here is that if the EPBC definition of “commencement” prevails this may allow rehabilitation works without triggering the revision, approval, issue of a construction certificate and implementation of the relevant environmental management plans as required by CP Conditions B7 Project Approval Conditions A13, 39-48.</p> <p>On the other hand, the following statement on p67 of the draft revised KPoM (October 2018) suggests that the proponent is expecting to complete the related management plans prior to commencing on ground works:</p> <p><i>All management plans relevant to the creation of the compensatory habitat will need to be amended and approved prior to any “preliminary” management actions occurring on the site i.e. habitat creation, offset areas, monitoring programs, surveys, etc.</i></p> <p>To avoid potential conflict with the conditions of approval it is recommended that references to “commencement” derived</p>

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			from the EPBC approval are removed from the draft revised KPoM.
61	P110 Section 12.6 dot point 2 – what is the “benchmark” – 50% occupancy? Please clarify.	DP61 – “Benchmark” means the estimate of habitat occupancy rate established by baseline monitoring.	Noted – please ignore
62	P124, third last dot point – replace with the following: <i>Whether or not the observed decline is due to development impacts or part of a more general trend affecting the Tweed Coast koala population as described by Phillips et al. (2011) and the NSW Scientific Committee (2016). It is considered that if the proponent remains compliant with the conditions of approval and approved management strategies relevant to koalas (i.e. this KPoM and related environmental management plans) they should not be held responsible for any local declines in the koala population.</i>	DP62 – No objection.	As noted in our comments on the proposed Mod 4, Council is not convinced that proposed Conditions 45A(8)(a) iii to v are workable due to the fact that it will not be possible to attribute a decline in koala numbers to the development. If the proposed conditions 45A(8)(a) iii to v are to be retained, the third last dot point on page 124 of the draft revised KPoM (or Council’s suggested rewording) should be removed to avoid conflicts with these conditions of approval.

4 Revised Recommended Condition 45A(4)(a)ii – highlighted in yellow

1. 45A(4) Vegetation Management

- a) update Appendix 6 of the Koala Plan of Management dated 4 October 2018, to specify:
 - i. the performance indicators, performance criteria and corrective actions only apply to the compensatory koala habitat (i.e. the koala offset plantings)
 - ii. the establishment and maintenance period performance criteria for the following indicators: seedling survival, native canopy cover, weed presence shrub and ground cover recruitment, and infrastructure (e.g. associated fencing and signage); the following Biodiversity Assessment Method (BAM) vegetation integrity scores for each vegetation zone must be achieved for the relevant plant community types: composition 100, structure 50, and function 25; the following Biodiversity Assessment Method (BAM) vegetation integrity scores for each vegetation zone must be achieved for the relevant plant community types: composition 100, structure 50, and function 25;
 - iii. where natural regeneration of native shrub and groundcover species has not occurred within the first 7-3 years of management, planting of suitable native shrub and groundcovers will be undertaken to achieve compliance with the shrub and ground cover performance criteria required under sub-clause 45A(4)(a)ii above; vegetation integrity scores for each plant community type (PCT);
 - iv. the management measures required to ensure the removal of slash pine will not result in the clearing of retained koala habitat;
 - v. the tree species selection and planting densities for all planting proposed within the off-site offset area; and
 - vi. the details of any on-going monitoring and management measures, and the standards for achievement for all off-site koala food tree planting.



Author

The proposed condition is not workable this is because: 1) the plantings are primarily for koalas and are not designed to replicate a particular Plant Community Type (PCT); 2) under the approval all performance criteria need to be framed in terms of the in terms of the “establishment period” and “maintenance period”; 3) the proposed performance criteria do not address the critical early phases (establishment period) of the plantings; and 4) PCTs for the far north coast are not finalized. What is needed here are measurable indicators that define progress on establishing the plantings.



Author

This is not considered workable 1) the plantings are primarily for koalas not designed to replicate a particular PCT; 2) the critical trigger is meeting the establishment period criteria which may not contain all species for a particular not a theoretical endpoint which is not time bound; 3) PCTs for the far north coast are not finalized; and; 4) under the approval all performance criteria need to be framed in terms of the Establishment and Maintenance periods.



Author

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Author

Suggest 3 years is plenty of time to decide if enhancement planting is required. Based on past natural regeneration on the site it is considered more likely that in some cases natural regeneration may need to be temporarily suppressed to ensure that offset plantings survive



Author

Replace performance criteria linked to PCTs with those previously defined for the shrub and ground cover components of the vegetation

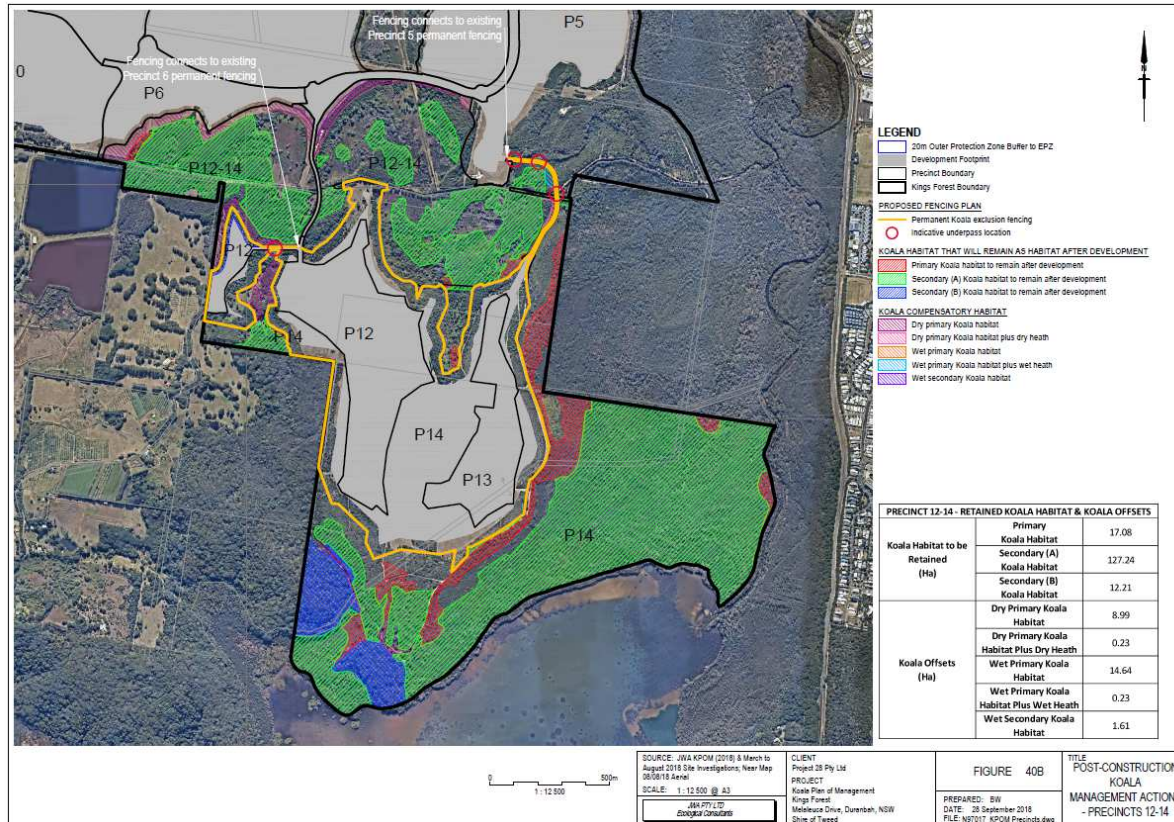


Figure 40B of the draft revised KPOM of October 2018 showing fauna exclusion fencing between the golf course and the adjacent environmental area. Council maintains that if the golf course is to function as an ecological buffer (consistent with the Kings Forest Major projects SEPP) the fencing should separate the golf course (Precinct 14) from the adjacent urban areas (Precincts 12 and 13).

Figure 28 of the draft revised KPoM of October 2018 showing fauna exclusion fencing between the golf course and the adjacent environmental area. Council maintains that if the golf course is to function as an ecological buffer (consistent with the Kings Forest Major projects SEPP) the fencing should separate the golf course (Precinct 14) from the adjacent urban areas (Precincts 12 and 13).

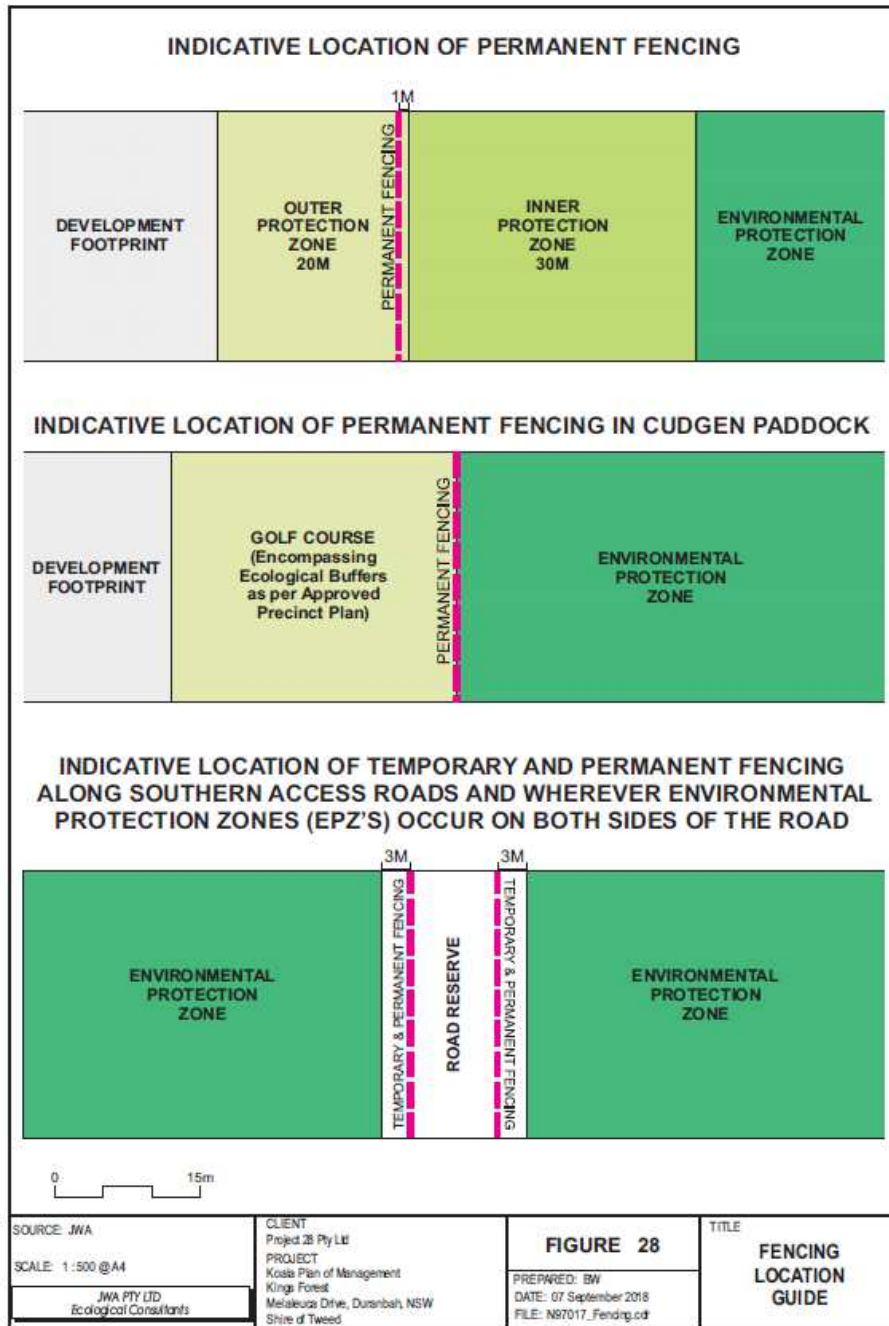
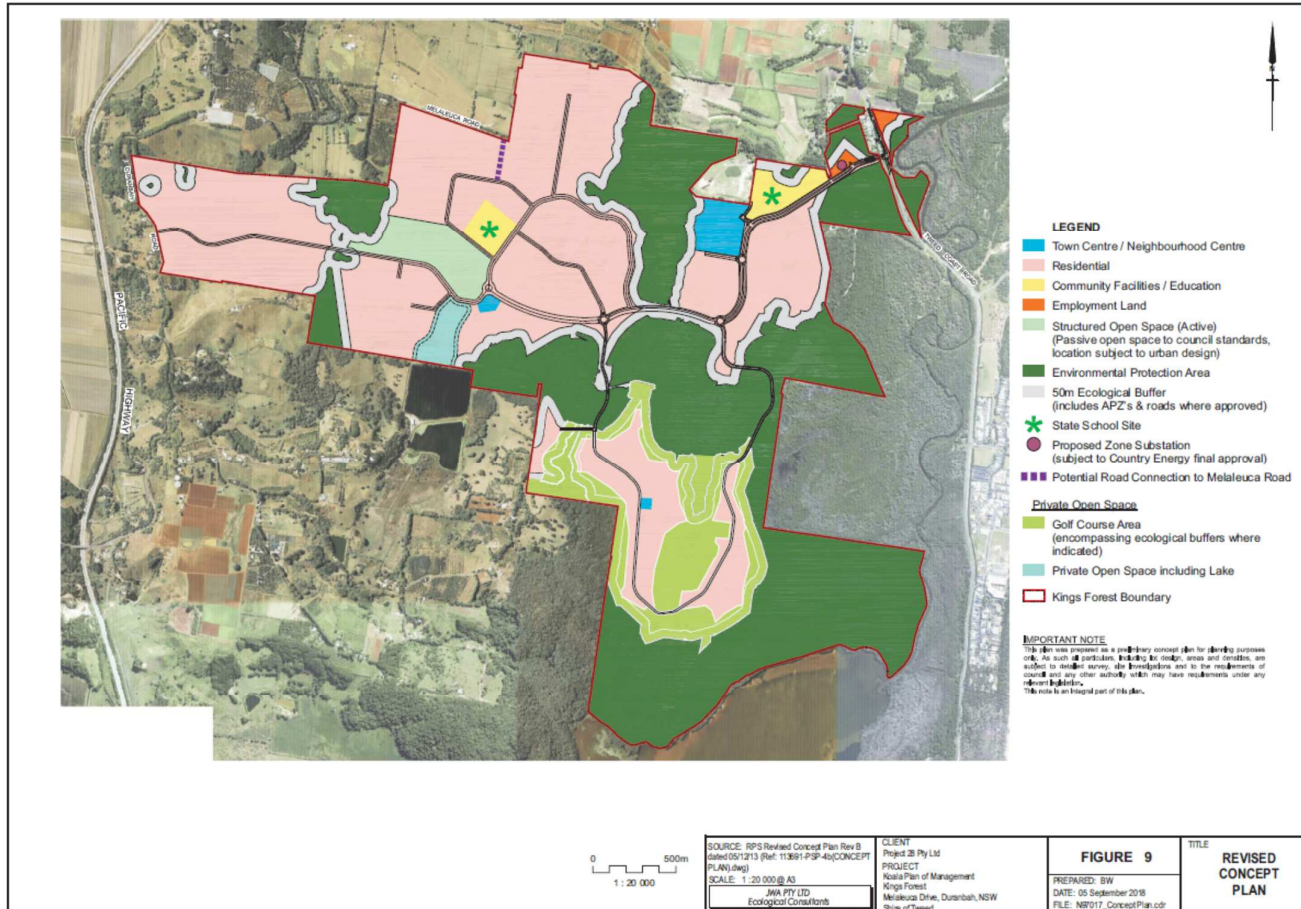


Figure 9 of the draft revised KPoM of October 2018 showing Concept Plan incorporating the ecological buffers within the proposed golf course. This arrangement was approved on the basis that the design golf course met the ecological buffers requirements if the Kings Forest Major Projects SEPP.



Excerpt the draft KPoM (of June 2011) that accompanied Concept Plan Mod 2 discussing the need for future fauna exclusion fencing between the golf course (Precinct 14) and the adjacent urban areas Precincts 12 and 13 (p24 – see yellow highlight).



Kings Forest (Stage 1) - Koala Plan of Management

burns as well as any wildfires in these areas, and vegetation adjacent to these roads should be managed with this in mind.

Also within Kings Forest the bushfire risk to vegetation within the golf course area will be substantially addressed by the proposed distributor road through these precincts, but otherwise vegetation should be managed and other measures taken, where appropriate, to meet this risk in relation to Koala habitat values.

Adjacent to Kings Forest the particular area of concern in terms of bushfire threat is the Cudgen Nature Reserve, including the lands currently forming a part of Kings Forest to be added to it. The Cudgen Nature Reserve Fire Management Plan should be amended to include these additional areas. Furthermore, Koalas and Koala habitat should be particularly considered in a review of the Fire Management Plan in light of information provided by Phillips (2011) regarding fire and Koalas within the Tweed Coast strip.

9.6 Fencing

Koalas will be excluded from the development areas in Precincts 1 and 5 (the subject of the present Project Application) by appropriate fencing in conjunction with the required road underpasses/bridging and grids, in accordance with the findings of Biolink Ecological Consultants in its report on the Skyline Road Upgrade for Lismore City Council (Hopkins & Phillips 2009). Fencing to the northern boundary of Precinct 2 shall also be provided. Such fencing must be completed prior to the occupation of any buildings constructed within these precincts.

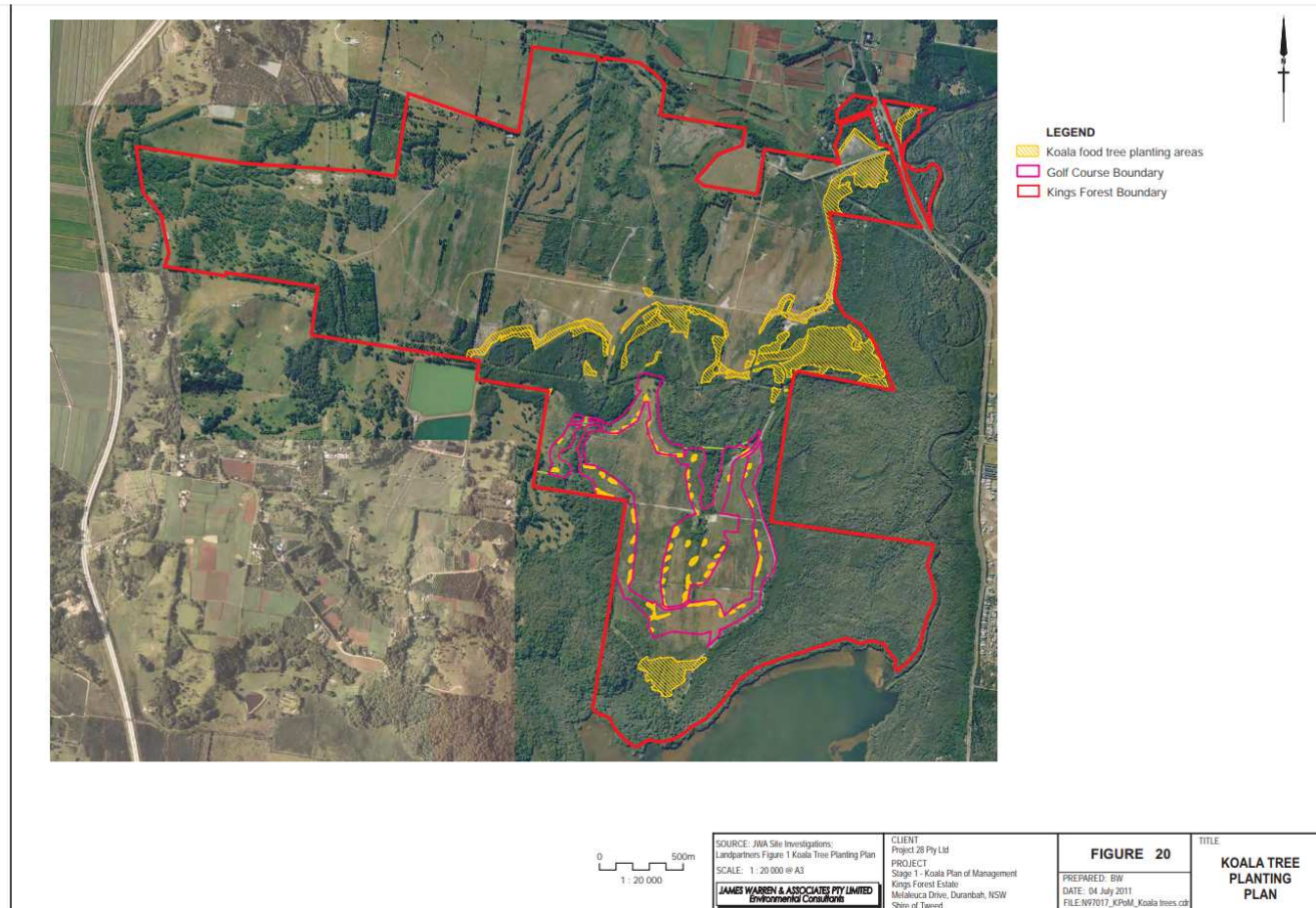
The specification of such fencing and its extent relevant to Precincts 1, 2 and 5 shall be in accordance with FIGURES 17 & 18.

A form of fencing that, whilst discouraging koalas from traversing it, enables them to do so in order to escape from bushfire, as suggested by Carrick (2009), is not considered to offer that advantage in reality. Koalas do not typically react to bushfire by attempting to flee, but tend to seek refuge from bushfires high in the canopy. However, the location and design of Koala fencing combined with the use of grids and traffic calming devices through the central Environmental Protection Zones (i.e. SEPP 14 wetlands), rather than constructing fences on both sides of the roadways, will allow for unimpeded Koala movements into other Environmental Protection zones, the golf course area and adjacent vegetated properties.

Fencing to exclude Koalas from the residential areas of Precincts 12 and 13 (that is, containing the golf course area, being Precinct 14), and additional required underpasses and/or grids, shall be the subject of a future Project Application or Development Application.

Residents should be made aware of the purpose of the exclusion fencing and grids, by (as a minimum) the fixing of relevant signage to such fencing at intervals of no more than 100m.

Excerpts from the draft KPoM (of June 2011) that accompanied Concept Plan Mod 2 showing koala tree planting in the proposed golf course (Fig 20).



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Yours faithfully

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