Director
Metropolitan and Regional Projects North
Major Projects Assessment
Dept. of Planning & Infrastructure
GPO Box 39
SYDNEY NSW 2001

Dear Sir

Re: Application No: 08_0194 - Kings Forest: Stage I Subdivision and Bulk Earthworks

I write on behalf of the 360 members of Friends of the Koala, a volunteer advocacy and wildlife rehabilitation group licensed by the Office of the Environment and Heritage to rescue, rehabilitate and release koalas in the local government areas of Ballina, Byron, Kyogle, Lismore, Richmond Valley and Tweed.

Friends of the Koala is represented on the Tweed Coast Koala Advisory Group which is assisting Tweed Shire Council to prepare a comprehensive koala plan of management for the Tweed Coast. We therefore have had opportunity to contribute to the staff report on the above proposal which will be considered by the Tweed Shire Council at its Ordinary Meeting on 24 January 2012.

Friends of the Koala’s submission is total endorsement of the staff’s analysis and recommendations regarding the Review of Ecological Matters and Relevant Management Plans contained in the report to Council.

In particular we are endorsing the analysis and recommendations related to the specific detail on koala management made under the responses to DGRs 9.4, 9.5, 9.6, 9.7, 9.8, 9.9, (pp.102-118), Concept Plan Condition B4: East-West Wildlife Corridors (p132) and Concept Plan Condition C20: Development within Ecological and Agricultural Buffers (pp.133-138).

We also endorse the Additional Comments on the Revised KPOM (Appendix N) (pp.140-143).

The pages referred to above are attached and form part of our submission.

Yours faithfully

Lorraine Vass
President
19 January 2012

Attach.
Management Plans

DGR 9.4 Updates are to be provided, where relevant, for the various management plans for koalas, vegetation, threatened species, feral animals weeds, the buffers, and the golf course providing where relevant details on timelines for implementation of recommended works including maintenance periods, measurable performance and completion criteria. Each plan is to consider all other plans for the site to ensure that management strategies do not conflict and that each plan can be implemented without negatively impacting the objectives of another.

As per Concept Plan Condition C2 Management Plans

Koala Plan of Management (KPM; see Appendix N of EA)

Timing of the proposed recommendations (See Table 2, p33) is not explicit. This is particularly evident in relation to the stated long-term management objectives (as opposed to objectives relating to immediate habitat retention and the management of construction impacts) regarding to the maintenance of habitat connectivity (Objective 2, Table 2, p33), improvement of habitat (Objective 4, Table 2, p34), mitigation of ongoing development impacts (Objective 5, Table 2, p34) and the commitment to ensure there is no reduction in koala numbers from the development (Objective 6, Table 2, p35).

Although little information is included to determine when, how often and where specific long-term works should be undertaken, consideration does however appear to have been given to limiting the proponent's management burden. The commitment to planting of koala food trees and annual monitoring appears to be notionally limited to 5 years (see Objective 4 in Table 2 and Section 13.4). Necessary habitat restoration works are similarly notionally limited to a 5 year time frame within the related management plans. Commitments to other recommended actions appear to be confined to works completed during construction (e.g. induction of workers, educational signage, the provision of fauna infrastructure such as grids, fencing and underpasses). Despite the inclusion of a specific objective in the revised KPOM that commits to ensuring that operational phase activities do not significantly impact on the local koala population (see Section 11 of KPOM), no provision has been made for timing of associated long-term community education, awareness and involvement, management of koala habitat, maintenance of grids, underpasses and fences, policing of dog and cat bans, traffic control, feral animal control, weed invasion, or bushfire management to protect ecological assets. While it is not explicitly stated it appears that the proponent expects Council to meet the management burden of the KPOM after a period of 5 years (see response to DGR 2.5 for further comment on this issue).

Performance criteria for each of the tabulated recommended actions are presented in Section 9 (see Table 2, p33). This approach is supported however, they should include the following where relevant:

- Regular checking and prompt maintenance as required of any works (replanting, grids, fences, underpasses etc).
- Replanting to be from plants of local provenance.
- Koala food tree species to be consistent with the species listed in the Vegetation Management Plans (as revised in accordance with recommendation in response to DGR 9.6).
- Planting densities and species composition to be consistent with vegetation community to be rehabilitated.
- An average growth rate of plantings to be > 1 m by year 2 and > 3m by Year 5.
• Approval from relevant State agencies and Council of monitoring reports.
• Prompt notification to Council and relevant State of any breaches environmental mitigation measures (e.g. damage to fauna fences etc).

The revised KPOM relies on other management plans to implement some of the works necessary to meet the objectives of the KPOM. In particular actions in relation to vegetation management, feral animals, and bushfire management are all crucially important to support and recover the koala population. Reference is made in the KPOM to various management plans but specific actions are not reproduced or summarised in the KPOM, nor are they explicitly identified in the other management plans. This makes it very difficult for readers to consider the sum total of the commitments made to protect and recover koalas in the vicinity of the development.

Without a clear and explicit understanding of how the revised KPOM is to be implemented over both the short and long-term it is considered that the revised KPOM does not adequately address the requirements of DGR 9.4.

This issue is further highlighted by apparent conflicts between management plans. Some examples include the following:

• Overlapping proposals to revegetate the environmental buffers with both heathland and koala feed trees (compare for example Appendix MM Fig. 18B with Appendix N Fig 20). As heathland is not regarded as koala habitat (see Appendix II of Tweed Coast Koala Habitat Study 2011) this appears to represent an inconsistency in the revised KPOM and the Buffer Management Plans (Appendices MM and NN).

• The proposal to revegetate the environmental buffers surrounding Precinct 1 with koala feed trees when almost all of it is mapped as littoral Rainforest (compare for Fig. 17 with Fig 12 of Appendix MM). As Littoral Rainforest is not regarded as koala habitat (see Appendix II of Tweed Coast Koala Habitat Study 2011) this appears to represent an inconsistency in the revised KPOM and the Buffer Management Plans (Appendices MM and NN).

• Figure 20 of the revised KPOM proposes planting koala feed trees in scribbly gum vegetation community south of the proposed golf course. While scribbly gum (Eucalyptus racemosa) is known to be used by koalas on the Tweed Coast (see Figure 4.1, Tweed Coast koala Habitat Study 2011) it is also a locally rare community, the integrity of which should be maintained. Consequently, koala feed tree planting in this area should include scribbly gum with the judicious use of other koala feed trees. This issue has not been identified in either the revised KPOM (Appendix N) or the relevant Vegetation Management Plan (Appendix VV).

• Section 9.9.2 of KPOM that the revised KPOM includes measures to address koala incursions into built up areas during the operational phase of the development which are not reflected in the Site Management Plan which explicitly limits operational management measures to the proposed ongoing management of the proposed golf course (see p 229 of Appendix Z).

• Proposals to plant koala food trees in bushfire Asset Protection Zones and over fire trails (compare Plan 4 from Appendix X with Fig 17 from Appendix MM or Fig 20 from Appendix N).
RECOMMENDATION: That an implementation schedule should be included in a revised KPOM. This schedule should itemise all recommended actions required (including those detailed in other management plans) to ensure that the KPOM meets its aim. The schedule should show how each action meets the objectives of the KPOM, timing, frequency and responsibilities for action, resources required, costs, performance criteria, and outputs.

RECOMMENDATION: That further review of the management plans is conducted to ensure there are no inconsistencies in the implementation of the plans of management as required by DGR 9.4 and Concept Plan Condition C2.

Other Plans of Management

As many of the issues relating to the Vegetation (Appendices UU and VV), Threatened species (Appendices SS and TT), Feral animals (Appendix PP), Weeds (Appendices QQ and RR) and Buffers (Appendices MM, NN and OO) are similar they are dealt with collectively here. It is noted that the Golf Course Management Plan is not included in this Project Application.

Timelines for implementation of recommended works

As was the case for the Koala Plan of Management (see above), the timing for the implementation of actions within the other Management Plans is not explicit. Some evidence for this includes the following:

- The Buffer Management Plans generally link management actions to stages but provide no specific implementation schedule, making it difficult to determine what is to be done, by whom and when.

- The Vegetation and Weed Management Plans include works schedules with an appropriate level of detail on the works to be carried out but, except for a few instances (e.g. work zones 12 and 13 in Appendix RR), there is no indication of timing or frequency of works to be completed.

- The Feral Animal Management Plan includes an implementation schedule which is not considered sufficiently focussed to be effective (see response to DGR 9.11).

- The Threatened Species Management Plans outline certain management actions but timing is rarely detailed. In particular, monitoring for the presence of threatened fauna is included as a management action but the monitoring and reporting sections only provides for annual monitoring. Frequent and targeted surveillance is considered essential if inform the appropriate management response.

Given the number and complexity of issues to be managed it is considered essential that clear implementation schedules are provided. As recommended for the revised KPOM above, these schedules should itemise all recommended actions required (including those detailed in other management plans) to ensure that the relevant plan meets its aims. The schedule should show how each action meets the objectives of the plan, timing, frequency and responsibilities for action, resources required, costs, performance criteria, and outputs.
Maintenance periods

The various Management Plans appear to anticipate a 5 year maintenance period however this is not generally made explicit. For example, the Vegetation, and Threatened Species Management Plans appear to imply a 5 year duration through their respective proposed monitoring programs. The Buffer Management Plans do the same and in addition commit to 5 years of maintenance. The Weed Management Plans are the only Plans to explicitly mention a 5 year duration (which is appropriately subject to performance criteria). The Feral Animal Management Plan does appear to specify a time horizon.

There is a similar lack of clarity around the commencement of the Management Plans. With the exception of the Weed Management Plans which indicate that works will commence on approval of the Project Application, the Buffer and Vegetation Management Plans do not make commencement explicit but indicate that certain works should be implemented along with the "construction" or bulk earthworks. Similarly the Feral Animal Management Plan anticipates some actions taking place at "start-up". Commencement of the Threatened Species Management plans does not appear to be specified.

It is considered essential that these issues are clarified given the comments elsewhere regarding the long term implementation of the Management Plans (see response to DGR 2.5) and uncertainties regarding the timing and staging of the development. On the basis of the current commitments by the proponent, it is possible that the management obligations could be satisfied within 5 years of commencement of bulk earthworks without any subdivision or construction taking place. In fact, without additional appropriate conditions, the obligations to manage weeds on the site could be satisfied prior to any bulk earthworks.

It is considered that all Management Plans should commence on approval of the Project Application (see also response to Concept Plan Condition C2) and, as recommended under the response to DGR 2.5, continue to be implemented by the proponent for a period of 5 years or until 90% of lots are sold, or until completion criteria have been met, whichever is longer.

Measurable performance criteria

Performance criteria should correspond to the stated management strategies to ensure they are effective at achieving the Plan’s aims and objectives. Most of the Plans do not take this approach. For example, the Buffer Management Plans provide specific management actions for protective measures, weed control, heath regeneration and revegetation, koala habitat compensatory plantings, acid frog compensatory habitat, pest management and adaptive management (see Section 4 of Appendices MM and NN), but performance criteria are only included for general revegetation and weed control.

Performance criteria also need to be measurable, specific and relevant. Where the potential outcomes of a proposed management action may vary, it is essential that performance criteria are specific enough to meet the objective(s) of the works.
For tree planting and revegetation specific growth rates, projective foliage cover and species composition targets are essential to gauge performance of the plantings. The proportion of plants that survive is not sufficient on its own to measure the success of plantings. Even though 100% of plants may survive, those that are actively managed will perform much better than those that are neglected. It is noted that the Management Plans contain monitoring procedures which include the collation of data on parameters such as tree height, cover and species composition (e.g. see Section 6.2 of Appendices MM and NN and monitoring proforma appended to the Weed Management Plans, Appendices QQ and RR). It is not clear why this information has not informed the performance criteria.

Also some of the suggested performance criteria are not particularly relevant. For example performance criteria for weed control include the following (see Section 5.5 of Appendices QQ and RR):

- Establishment of a 70% native ground cover after 2-3 years
- Average percentage cover of 90% native ground cover at the 5th year.

Both of these criteria implicitly assume a benchmark native ground cover of 100% and neither are related to accepted benchmarks for specific vegetation communities (e.g. see http://www.environment.nsw.gov.au/projects/vegetationtypingandcondition.htm for details). Additionally, for many vegetation communities natural benchmark ground cover percentages rarely exceed 50%. It is therefore considered inappropriate to propose performance criteria that are not relevant to the specific vegetation community to be restored, or the management action proposed.

Where possible performance criteria should also reflect baseline conditions determined from initial assessment and/or ongoing monitoring. For example, if weeds in the ground stratum of a particular work unit were assessed at 40% prior to treatment, appropriate performance criteria may be to reduce coverage to <10% in the first year, <5% in the second year and <1% on maintenance. Given the amount of assessment work carried out to produce the existing Plans, it is regrettable that such work has not been used to derive achievable indicators of performance.

As almost all of the environmental mitigation for the site is embodied in the Management Plans and involve implementation over a number of years, it is in the interests of both the proponent and the consent authority to ensure that performance criteria are properly formulated.

Completion criteria

Most of the Management Plans acknowledge the possible need to delay completion until the relevant performance criteria have been achieved. This principle is supported and built in the recommendation below regarding the duration of Management Plans.

Integration with other Plans

A number of inconsistencies between the Koala Plan of Management and other Plans have been noted above. Further examples include:

- Figure 16B of the Buffer Management Plan for Precincts 1 and 5 (Appendix OO) shows considerable areas proposed for heathland revegetation within the APZ proposed in the Bushfire Risk Assessment (Plan 4, Appendix X). It is not clear how this is to occur given the planned fire trails and limitations on tree/shrub cover for APZs.
• Recommendations are made in the Threatened Species Management Plans (e.g. see p11 of Appendix SS) relating to bushfire management that are not reflected in the Bushfire Risk management Plan.

• A number of specific feral animal control actions are noted in relation to individual Threatened species covered in the Threatened Species Management Plans (e.g. see p15 and p32 of Appendix SS) that are not mentioned in the Feral Animal Management Plan (Appendix PP).

A recommendation to ensure that Management plans are consistent has been made above. The recommendation below to include a detailed implementation table which includes relevant actions from other Plans will also assist to improve integration.

**RECOMMENDATION:** That all Management Plans should be revised to include a detailed implementation schedule which should itemise all recommended actions required (including those detailed in other management plans) to ensure that the relevant Plan meets its aims. The schedule should show how each action meets the objectives of the Plan, timing, frequency and responsibilities for action, resources required, costs, performance criteria, and outputs.

**RECOMMENDATION:** Performance criteria for all environmental Management Plans are revised in consultation with Department of Planning, Office of Environment and Heritage, and Tweed Shire Council to ensure they are specific, measurable, achievable, relevant and timely.

**RECOMMENDATION:** That all Management Plans to explicitly indicate their commencement and duration. All Plans should commence on approval of the Project Application and continue to be implemented by the proponent for a period of 5 years or until 90% of lots are sold, or until completion criteria have been met, whichever is longer.

**Review of Koala Plan of Management and Offsets**

**DGR 9.5** Provide an update to the Koala Plan of Management (KPoM) for the site. The update should confirm that the measures identified and proposed in the KPoM to offset the impact of the development on existing and future Koala populations are adequate.

**Concept Plan Condition B1 Koala Plan of Management –Ongoing Review**

The Koala Plan of Management, and the measures contained therein to offset the impact of the development on existing and future koala populations, shall be updated at each stage of development so that these measures remain relevant and effective and based on contemporary scientific data throughout the development of the Project the subject of this concept plan. Each stage update shall be prepared in accordance with the requirements in C2 and subject to independent review by a suitably qualified person/s to the satisfaction of the Director-General.

The revised KPOM proposes a major change in koala management philosophy for the site. Instead of allowing koalas to roam across the urban landscape which would inevitably bring them into contact with dogs and cars, the revised plan seeks to maintain a complete separation of koalas and their habitat from these threats by the use of a series of underpasses, grids and fencing.
Council Meeting Date: Tuesday 24 January 2012

Council welcomes this change in approach however remains concerned that the proposed approach will result in residual and ongoing impacts that will adversely affect the koala population in the vicinity of the site. This is particularly important in light of the findings of the Tweed Coast Koala Habitat Study 2011 which found that over recent years the koala population declined rapidly to the point where aggressive measures are needed to prevent their local extinction. Of course, this finding reflects existing pressures on the population in the absence of further exacerbation of threats from large urban development such as Kings Forest.

DGR 9.5 seeks to ensure that any measures proposed in the revised KPM can adequately “offset” the impacts of the development on existing and future koala populations. This cannot be properly achieved without an analysis to determine the type, nature and importance of any potential impacts arising from the development in relation to proposed mitigation measures. The revised KPO lists some of the potential threats (Section 8, p19) and mitigation measures (Section 9, p22) but does not identify residual impacts that need to be “offset”. Instead, the revised KPO proposes certain works (e.g. tree planting etc) aimed at increasing the amount and condition of koala habitat (Section 10, p29) based on an implicit assumption that such works will “adequately” offset other impacts of the development that are either not acknowledged or unqualified.

While the commitment to such works is welcome and will make more habitat for koalas in the future, it does not necessarily “offset” likely increases in koala mortalities due to inadequacies in the proposed mitigation measures. For example, the proposed fencing (Figure 17) will not prevent koalas from coming into contact dogs, cars, and other threats by accessing Precinct 5 from the north. Similarly, the proposed grids are unlikely to prevent dogs from accessing core koala habitat areas to the south and east of Precinct 5. The point here is twofold (1) no amount of tree planting can offset the short term impacts of koalas coming into contact with dogs and cars and (2) offsets are a last resort and should not be used to account for inadequacies in primary mitigation. Suggestions to improve the proposed mitigation measures are presented elsewhere (see recommendations in response to DGR 5.5, 9.7 and 9.9).

Notwithstanding further room for improving the mitigation measures noted elsewhere, Council supports the measures proposed to improve and expand koala habitat in the area as an offset for residual issues that cannot be adequately avoided or mitigated given the approval of the Concept Plan (e.g. impeded connectivity across the site, accidental breaches of fencing and grids, increased arson risks etc) and overall increases in pressures to the Tweed Coast koala population from a substantial increase in the human population.

As noted elsewhere (see response to DGR 9.4 and 9.6), The Environmental Assessment proposes the restoration of heathland pursuant to Concept Plan Condition B3 over much the same lands proposed for koala tree planting offsets (compare for example Appendix MM Fig. 16B with Appendix N Fig 20). As discussed under the response to DGR 9.4 these overlapping uses are incompatible. If the heathland restoration (see also Concept Plan Condition B3) is to prevail this will significantly reduce the amount of land available for koala offsets.

Further aspects of the revised KPM relating to “offsets” concern: the future of the east-west corridor proposed within the approved Concept Plan discussed at pages 17 and 30. Further discussion and recommendations on this issue are presented under the “Concept Plan Condition B4 East-West Wildlife Corridors” below.

Given the issues raised in relation to koala management, Council supports the independent review of the revised KPM as foreshadowed in the Concept Approval condition B1 (see above).
RECOMMENDATION: That the KPOM be reviewed to ensure that offsets are not used to account for impacts that can be avoided or mitigated and that residual impacts are explicitly identified and used to inform the proposed offset strategy.

RECOMMENDATION: That a review of all offset and habitat compensation arrangements is undertaken prior to approval of the project application. This is ensure that all offsets are clearly documented, that there is no spatial duplication of offsets for ecologically unrelated impacts, and that management and contractual arrangements for any off-site compensation, should it be required, is in place.

RECOMMENDATION: That the consent authority seek an independent review of the revised KPOM in accordance Concept Approval condition B1.

Koala Plan of Management – Data, Monitoring, Koala habitat, Additional measures.

DGR 9.6 The KPOM update should take into account contemporary data/literature on koala management; the results of the monitoring of management measures operating as part any approved stage/s, in accordance with B2 of the concept plan approval; the role of additional koala habitat created in protecting koala numbers, and the provision of any additional koala management measures, specifically those relating to dogs.

As per Concept Plan Condition C2(1) Management Plans

Contemporary data and literature

At Section 3.4 (p 9-10) under the heading Koala Management within the Tweed Shire the revised KPOM outlines the objectives of the 1996 Tweed Coast Koala Habitat Atlas, mentions the Tweed Coast Koala Habitat Study (2011) in relation to the implementation of the 2011 Tree Preservation Order and states that Council plans to develop a Shire-wide, comprehensive Koala Plan of Management for the Tweed Coast.

It is considered that Section 3.4 does not adequately summarise the findings of the Tweed Coast Koala Habitat Study 2011, nor does it reflect Council planning and other initiatives to improve koala management on the Tweed Coast. For example, Section 3.4 omits to note: the existence of numerous site-specific KPOMs (Koala Beach and others); routine conditioning of koala recovery actions applied to development applications due to the listing of the koala as Vulnerable under the Threatened Species Conservation Act 1995; the existence of the Tweed Coast Koala Advisory Group; the imminent preparation of a comprehensive Koala Plan of Management for the Tweed Coast; Council and grant funded projects to rehabilitate and reconnect koala habitat; extensive community concern about koala conservation and; the important role of wildlife and koala welfare groups such as Tweed Valley Wildlife Carers and Friends of the Koala. Acknowledgement of these issues is crucial to ensure that the management of koalas at Kings Forest complements the management approach adopted for the broader koala population of the Tweed Coast.

Section 3.4 also erroneously states that because Council does not currently have a comprehensive Koala Plan of Management that local statutory planning does not specifically allow for koala management. This is incorrect; SEPP 44 still applies and so does the Threatened Species Conservation Act 1995.

Section 5.2.1 uses information from Faulks (1990) to list koala feed trees for the NSW north coast. A much more contemporary and comprehensive regional overview is presented in the NSW Koala Recovery Plan (DECC, 2008).
Despite the fact that the issue of bushfire was highlighted in the Tweed Coast Koala Habitat Study 2011 as one of, if not, the dominant factor responsible for recent declines in koala numbers on the Tweed Coast, this important finding is not mentioned in Section 8.3 where the issue of bushfire is raised. Failure to properly acknowledge this issue is further reflected in management response (Section 9.5) and the associated Bushfire Management Plan (EA Appendix X) which ignores the clear need to actively protect vulnerable ecological assets such as the koala population from bushfire.

RECOMMENDATION: That the KPOM is revised to accurately reflect contemporary literature on: (1) and koala management and planning practices in the Tweed Shire; (2) koala feed trees in northern NSW; and (3) threats to the local koala populations from bushfire.

Results of monitoring and management actions in accordance with Concept Plan Condition B2

Concept Plan Condition B2 (see Environmental Assessment Appendix B) requires synthesis and collation of all actions undertaken or proposed within the various management plans that form part of the Concept Plan approval within 12 months (or as otherwise determined by the Director General of Planning. The amended Concept Plan (Mod 1) was approved on 22 December 2010, which is more than 12 months ago.

The revised KPOM seeks to delay the preparation of both the baseline monitoring report and the outline of an Annual Koala Monitoring Report until the commencement of construction (see Section 13.3, p37). This is contrary to DGR 9.6 and Condition B2 which anticipate that the revised KPOM will be informed by this information.

In relation to the baseline monitoring report there does not appear to be any reason why koala monitoring from the time of the concept plan approval should not be included in the revised KPOM. Given the impacts of the wildfires in 2009 identified in the locality in the Tweed Coast Koala Habitat Study, the provision of such monitoring information is crucial to determining an appropriate management response. As noted elsewhere, the importance of bushfire management is not given sufficient emphasis in the revised KPOM.

The same applies to the required outline of the Annual Koala Monitoring Report the stated aim of which is to collate and synthesise all monitoring and reporting requirements associated with the development. In its current form the revised KPOM does not “collate” or “synthesise” any of the relevant management actions arising either from the KPOM itself or from related management plans. As noted previously, this makes it very difficult for interested parties to clearly understand the scope of the works required to meet its aim. Consequently, the revised KPOM is not implementable in its current form. (Of course the need for the KPOM to be implementable should arise from a clear implementation schedule and should not be reliant on the production of a draft monitoring program).

Although the revised KPOM seeks to delay the draft outline of the Annual Koala Monitoring Report it does highlight some of the likely content at Section 13.4. Comments on this section follow:

- The proponent seeks to consider terminating the need for further monitoring after 5 years. Monitoring is an integral part of any KPOM made under SEPP 44 and should continue while ever the plan is in force (see Section 3.2 p8).
A number of ecological parameters are proposed to be included in the monitoring report. While these are admirable, further thought is needed to detail how they will be measured, how often and by who, and the resources required to do so.

As mentioned previously the outline should also include a comprehensive summary of all actions required to implement the revised KPOM. For example, monitoring should evaluate the effectiveness of grids, underpasses, fencing, improvements in habitat quality, success of replanting efforts, community education, bushfire management, domestic dog control, feral dog control etc.

Most of the remaining content of this Section simply repeats the requirements of Concept Plan Condition B2.

RECOMMENDATION: That the KPOM be reviewed to include a baseline monitoring report prior to approval of the current project application in accordance with DGR 9.6 and Concept Plan Condition B2

RECOMMENDATION: That the KPOM be reviewed to include an outline of an Annual Koala Monitoring Report prior to approval of the current project application in accordance with DGR 9.6 and Concept Plan Condition B2. This outline should provide a comprehensive list of all ecological monitoring parameters and management actions (including those detailed in other management plans) necessary to meet the aim of the KPMO together with information on how they are to be measured, how often, by whom, measurable performance criteria, and resources (technical and financial) necessary to carry out the actions themselves and the associated monitoring and reporting.

Role of additional koala habitat in protecting koala numbers

This issue is covered in Section 10 of the revised KPMO within three sub-sections, planting of koala feed trees (Section 10.2), maintaining connectivity across the site (Section 10.3), and the management of koala habitat (Section 10.4).

As noted under DGR 9.5 Council supports the planting of koala feed trees to increase the potential carrying capacity of the area, however there appear to be a number of issues which suggest that the planting of koala feed trees may not be appropriate in a number of areas indicated in Figure 20. These are addressed below:

- Section 10.2 indicates that koala feed tree planting areas are to include areas within the ecological buffer zones. Figure 17 of the Buffer Management Plan (Appendix MM) indicates that these areas are generally contained within the proposed inner 30m vegetated buffer. However, the mapping of areas to be planted do not, appear to account for the location of the proposed koala fence which, at least in some places, is located well within the inner 30 m proposed vegetated buffer in order to accommodate a drainage swale (see Fig 13B Appendix MM). This suggests that the mapped areas shown in Figure 17 overstate the areas available for planting.

- As noted previously (see response to DGR 9.4), plans outlined in Section 10.2 and Figure 20 within the revised KPMO appear to conflict with overlapping plans pursuant to Concept Plan Condition B3 which proposes the restoration of heathland within much of the ecological buffer zones. As discussed under DGR 9.4 these overlapping uses are incompatible. If condition B3 is to prevail this will significantly reduce the amount of land available for the planting of koala feed trees.
There may also be an issue in relation to the proposed planting of koala feed trees in scribbly gum vegetation community south of the proposed golf course. While scribbly gum (*Eucalyptus racemosa*) is known to be used by koalas on the Tweed Coast (see Figure 4.1, Tweed Coast koala Habitat Study 2011) it is also a locally rare community, the integrity of which should be maintained. Consequently, koala feed tree planting in this area should include scribbly gum with the judicious use of other koala feed trees. Note, this issue has not been identified in the relevant Vegetation Management Plan (Appendix VV).

The revised KPOM acknowledges the importance of retaining and improving habitat linkages as a way of providing a better long-term future for koalas in the locality (Section 10.3). This of course needs to be considered against the impediments to movement arising from the development that will remain despite mitigation measures proposed in the revised KPOM (fencing, grids, speed restrictions and underpasses). As discussed elsewhere these residual impacts need to be offset to ensure the long-term viability of the koala population as proposed in the revised KPOM.

It is also noted that the proponent seeks to abandon the proposed east-west koala habitat corridor which is required as part of the approved Concept Plan and further dismisses the need for establishing an additional east-west corridor along the southern boundary of the site pursuant to Concept Plan Condition B4 (see revised KPOM p 17 and 30). Further discussion and recommendations on this issue are presented under the response to Concept Plan Condition B4 East-West Wildlife Corridors below.

The management of koala habitat is included in Section 10.4 of the revised KPOM by simply listing 6 other plans that may include measures of relevance to koala habitat management. This approach is considered inadequate as there has been no attempt to summarise the relevant actions from these plans. Apart from making it difficult for interested parties to understand the full scope of the revised KPOM, this approach does little to demonstrate that such measures are integral to the plan and are driven by imperatives of koala management.

It is also noted that of the 6 plans listed, none correctly reference the appropriate appendices to the Environmental Assessment, and the Threatened Species and Vegetation Management Plans for Precincts 12, 13 and 14 referred to appear to have been absorbed in the respective plans for Precincts 2-4, 6-14 (Appendices TT and VV respectively). Further Section 10.4 of the KPOM does not include reference to the Weed, Buffer or Feral Management Plans all of which contain management measures relevant to protecting koalas and koala habitat.

The revised KPOM anticipates commencing revegetation and rehabilitation works within 6 months (180 days) of the commencement of works (see KPOM Section10.4, p31). Given the long lead time for trees to grow and be useful to koalas, coupled with the fact that potential disruption to the koala population will occur on commencement of works, it is considered that this timeframe should be amended to ensure that revegetation and rehabilitation works will commence on approval of Stage 1.
RECOMMENDATION: That the KPOM is reviewed to ensure that: (1) sufficient areas can be located for koala food tree planting without compromising other management objectives in the Ecological Buffers or the integrity of existing vegetation communities (2) the list of potential koala feed trees is expanded to include scribbly gum (Eucalyptus racemosa) which should be used only in vegetation communities containing this species; (3) the KPOM acknowledges and provides sufficient habitat compensation for residual impacts arising from impediments to movement of koalas throughout the site; (4) it includes a comprehensive summary of all management actions including those detailed in other Plans, necessary meet the objectives of the KPOM; and (5) revegetation and rehabilitation works will commence on approval of Stage 1.

Additional koala management measures specifically dogs

The revised KPOM does not specifically identify any "additional" koala management measures; rather it makes reference to the entire suite of measures contained within Section 9 (see Appendix 1 of revised KPOM). Considering the major change in approach taken by the revised KPOM this response is considered adequate.

Specific measures proposed in relation to dogs are addressed in the Revised KPOM at Section 9.8 and discussed more generally at Section 8.6. Further comment and discussion on the adequacy of the proposed dog control measures are contained under the response to DGR 9.7 below.

Koala Plan of Management – Dogs.

DGR 9.7 The KPOM update should include, but not be limited to: the identification of dog breeds known to present a significant threat to koalas and measures to effectively mitigate the threat posed to koalas by dogs. Such measures may include prohibitions/restrictions on particular breeds; limitations on the number of dogs per property; and specifications on the way dogs are to be housed from dusk to dawn.

As per Concept Plan Condition C2(2) Management Plans

The revised KPOM seeks to remove controls on domestic dogs (other than those that apply generally across the Shire and State under the Companion Animals Act) on the basis that dogs and koalas can be effectively prevented from coming into contact with each other by the implementation of fencing and grids.

This approach is considered inadequate to effectively mitigate the threat posed to koalas by dogs (as required by DGR 9.7) for the following reasons:

- The proposed fencing, while commendable is only likely to be semi-permeable to dogs. At only 1200mm high, the fencing is well within the capabilities of larger dogs to jump or scale.
- Experience with similar fauna fencing indicates that these structures require considerable maintenance and are frequently damaged (machinery, vandalism, fire, deterioration etc.) allowing opportunities for dogs to enter areas frequented by koalas (and vice versa).
- The proposed fencing plan (Figure 17 of KPOM) does not "seal off" Precinct 5 potentially allowing dogs access to koalas in areas to the north of the estate and vice versa. Note koalas are common visitors to areas of habitat north of Depot Rd.
The proposed grids are likely to prevent koalas from accessing the developed area but are unlikely to do much to deter dogs from crossing them and gaining access into environmentally sensitive areas where koalas may be present.

- The KPOM makes no comment on or recommendations in relation to the need to control of feral dogs

- The measures proposed for the control of wild dogs in the Feral Animal Management Plan are not considered sufficient (see response to DGR 7.11 below).

- Evidence from the Tweed Coast Koala Habitat Study 2011 (p63) indicates that even in large healthy koala population a mortality rate of 2-3% is sufficient to precipitate population decline. In a population already under extreme stress any incidental increase in mortality, such as from dog attack (or any other source), will only hasten the trajectory to local extinction.

It is also important to note that under the approved concept plan a partial ban of dogs regulated by covenant on title was proposed (based on breed, size and competency of the owners), however this was criticised by Council as small dogs are known to attack and chase koalas and because it was not considered practical to police. In the context of the findings of the Tweed Coast Koala Habitat Study 2011 which have only come to light since the approval of the Concept Plan, the opposition to a partial ban on dogs needs to be reinforced. The detailed reasoning behind this approach is worth repeating here:

- Covenants of this sort are very difficult if not impossible to enforce. The regulating authority (Tweed Shire Council) will be forced to make judgements about the likely weight and breed of a dog (not all dogs are established breeds), and whether or not it is kept inside, the nature of dog enclosures, the length of dog tethers (what if they are on a wire run), whether or not the owner or supervisor of the dog is a competent person and defences such as a high (koala proof) fence or the age and health of the dog (or owner). Owners and tenants who may not be fully aware of their responsibilities or the likely interpretation by Council will experience similar uncertainties. Experience from Koala Beach where all dogs are banned suggest that such a partial ban will be unworkable.

- It is the experience of wildlife carers that even small dogs can easily inflict wounds that prove fatal to koalas. Although small dogs may not be able to kill a healthy koala outright they are nonetheless capable of inflicting small puncture wounds, which according to wildlife carers almost always get infected and result in death. Terriers for example have been traditionally bred to hunt and are particularly aggressive towards wildlife. Many small breeds are also particularly territorial and regularly attack even large targets such as people.

- The proposed measures do nothing to prevent visitors (including workers and tradesmen) from bringing dogs (large or small) onto the estate. Again at Koala Beach this issue has been particularly difficult to police despite the fact that there is a blanket ban in place and additional resources allocated to policing the ban. Is it reasonable to allow tradesmen to bring dogs into the estate that the residents cannot?

**RECOMMENDATION:** That the KPOM is reviewed to ensure: (1) implementation of a complete ban on dogs within the site; and (2) provision is made to enable additional patrols and compliance by Council Rangers to police the ban.
A possible alternative to the banning of dogs would be to:

(1) Increase the height or design of the koala proof fence to effectively prevent dogs from scaling it; and

(2) Ensure that the roads traversing the environmental lands were fenced on both sides with fauna underpasses at regular intervals.

This would also mean that the grids could be dispensed with, and road speed would cease to be an issue (see response to DGR 5.5 above). Further specialist investigation is required to determine the number of underpasses that may be required at each crossing and an acceptable fencing design that will prevent both dogs and koalas from breaching it. Of course, elevated roads set on piers though the environmental areas would provide the safest and best connectivity for wildlife including koalas. Apart from the aesthetic issue it is not clear what measures could be implemented to prevent dogs from accessing koala habitat at the Kings Forest Parkway (Depot Rd) - Secret Lane intersection in the north of the site.

RECOMMENDATION: That should the recommendation to ban dogs from the site (see above) be considered unacceptable, the Project Application (including the KPOH) is reviewed to ensure that any roads though the environmental areas of the site include: (1) fencing on both sides of a design that will prevent the crossing by dogs and koalas; and (2) fauna underpasses are installed at intervals sufficient to allow unimpeded movement by wildlife including koalas across the roads.

Koala Plan of Management – Revegetation, Tree removal, Dogs, Road design.

DGR 9.8 The KPOH update must provide stage specific detail on the following: Revegetation and rehabilitation measures; measures to ensure that no identified koala food trees are removed within adjacent Ecological Buffers or identified core koala habitat within adjacent Environmental Protection zoned land; all obligations regarding the keeping of dogs, including regulatory and enforcement measures; specific road design, lighting and signage requirements aimed at protecting koalas and maintaining their safe passage between habitat areas. These requirements shall include fencing to road verges, fauna underpasses and like measures.

As per Concept Plan Condition C2(3) Management Plans

Revegetation and rehabilitation measures.

See the response to DGR 9.6 above, specifically the sub-section dealing with the role of additional koala habitat in protecting koala numbers.

Notwithstanding the comments made in relation to DGR 9.6 above, the proponent has provided stage-specific detail on revegetation and rehabilitation measures.

In relation to the current project application the allocation of work zones within the Weed (Appendices QQ, RR1, RR2) and Vegetation Management Plans (Appendices UU, VV1, VV2) are considered appropriate.
Similarly, the commitment to commence works on approval (p12 in Weed Appendices QQ, RR1, RR2; implied at p12 in Vegetation Appendices UU, VV1, VV2 ) is considered appropriate, however it is not clear how this relates to the notional 5 year time horizon for these plans considering that some precincts may not be completely developed for many years. To avoid this problem it was recommended previously (see response to DGR 2.5) that conditions be imposed to ensure the proponent assumes responsibility for the implementation of the environmental management plans for a period of 5 years, or until 90% of lots are sold, or until completion criteria have been met, whichever is longer.

No removal of koala food trees

The list of identified koala food trees for the site is discussed at Section 5.2 of the KPOM and Sections 4.4.4.3 and 4.4.5.2 of the Vegetation Management Plans. The list includes the following species Tallowwood Eucalyptus microcorys, Blackbutt E. pilularis, Red mahogany E. resinifera, Swamp mahogany E. robusta, Forest red gum E. tereticornis, Brushbox Lophostemon confertus, Swamp box L. suaveolens, Broad-leaved paperbark Melaleuca quinquenervia. As noted elsewhere (see response to DGR 9.4 and additional matters with KPOM below), Scribbly gum E. racemosa should also be added to this list.

Consistent with DGR 9.8, the revised KPOM states at p23 that no core koala habitat will be removed (see also p29) and that no koala food trees are to be removed from adjacent Ecological Buffers, or identified core Koala habitat within adjacent Environmental Protection-zoned land.

In relation to the removal of koala food trees within core koala habitat, it noted that the roadway from Precinct 5 to the southern precincts traverses areas mapped as core koala habitat (see Figure 15 of KPOM). However, the alignment appears to be within an area which was previously part of an exotic pine plantation that has now been cleared.

While it appears that there will be no clearing and therefore, no removal of koala food trees in Environmental Protection zones, the same cannot be said for the Ecological Buffers. The Buffer Management Plan for Precincts 1 and 5 indicate that approximately 1300 sqm of paperbark and scribbly gum forest both of which are dominated by identified koala food trees, will be lost (see Tables 1 and 2; Appendix MM) from the ecological buffer. Similarly, the Buffer Management Plan for the remaining precincts (see Table 1, Appendix NN) shows that a further 31,400 sqm of vegetation dominated by identified koala food trees will be lost. In terms of individual trees this could conservatively amount to over 3600 koala food trees (3.27 ha at 3m spacings). These observations suggest an inconsistency with DGR 9.8.

Further comments and recommendations in relation to the management of Ecological Buffers are the response to Concept Plan Condition C20 Development within Ecological and Agricultural buffers below.

Obligations regarding dogs

As noted previously (see response to DGR 9.7 above), the revised KPOM seeks to remove controls on domestic dogs other than those that apply generally across the Shire and State under the Companion Animals Act (see Section 9.8 of KPOM). The proponent does not suggest any additional regulatory or compliance measures.

Specific road design, lighting and signage

See response to DGR 5.5 and related recommendations.
Koala Plan of Management – Sightings, Dog exclusion, Education, Koala injury

DGR 9.9 The KPoM update must detail: Procedures to be adopted in the event that koalas are sighted within construction zones or the urban areas; specifications for any off-leash dog exercise areas to ensure appropriate separation from koala habitat; the detail of the location and construction specification of dog exclusion fencing to any adjacent Environmental Protection zoned land and the timing of its completion; the detail, content and distribution of koala education and awareness measures aimed in particular at contractors and staff engaged in construction and at future residents; and a protocol for the reporting of any deaths or injuries to any koala within Kings Forest including collection and recording procedures and where necessary post-mortem procedures or laboratory tests to identify the cause of death to any koala.

As per Concept Plan Condition C2(3) Management Plans

Procedures for koalas sighted in construction or urban areas

Procedures proposed for managing any koalas that venture into the construction zone or urban areas are addressed in Sections 9.2 and 9.9 of the revised KPoM with further detail provided in the Site Management Plan (Appendix Z) in relation to bulk earthworks (p30), land stabilisation (p99), civil construction (p122) and maintenance phases (p199).

It is noted however, that the revised KPoM includes measures to address koala incursions into built up areas during the operational phase of the development (Section 9.9.2 of KPoM) which are not reflected in the Site Management Plan which explicitly limits operational management measures to the proposed ongoing management of the proposed golf course (see p 229 of Appendix Z). This inconsistency reflects concerns expressed previously (see responses to DGR 2.5 and 9.4) about the responsibility for ongoing management necessary to meet the stated aim and objectives of the KPoM.

Notwithstanding the more general issue of koala management during the operational phase of the development, the measures are supported and considered adequate subject to the following:

- Revisions to ensure a 40kph speed limit where roads traverse the Environmental Protection (and associated Ecological Buffers) areas during the construction phases. (Note, speed limits during operational phase in these areas previously addressed under response to DGR 9.8.)

- Active supervision and monitoring of vehicle speeds during construction.

Specification for any off-leash dog exercise areas

The intention not to provide any off-lease areas within the development (Section 9.8 of KPoM) is noted, however as discussed previously the presence of dogs on the site is not supported (see response to DGR 9.7 above).

Location, construction and timing of dog exclusion fencing

Comments on the proposed fencing are provided under the response to DGR 9.8 above. It is also reiterated (as noted under the response to DGR 9.7) that although the fencing may prevent koalas from moving into urban areas, the design is such that it is unlikely to provide an adequate barrier to prevent incursions by dogs into koala habitat. From this perspective the fencing should be considered as koala exclusion fencing rather than dog exclusion fencing.
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As noted under the response to DGR 9.8, all fencing should be completed as soon as possible after approval not prior to occupation of buildings as proposed in Section 9.6 of the revised KROM.

Koala awareness and education measures

Awareness and education measures proposed in the revised KROM include induction of site workers (Section 9.2 of KROM) and an information package for new residents, educational signage and the establishment of a residents association (Section 9.11 of KROM). These measures are supported and considered adequate subject to the following:

- Further detail on the proposed educational signage.
- Liaison and further detail on the scope, membership (should include Friends of Koala, Tweed Shire Council, EPA/NPWS) and resourcing of the proposed residents association.

Reporting of koala deaths and injuries

Procedures proposed for managing koala injuries and deaths are addressed in Sections 9.2 and 9.9. These are considered adequate subject to the following:

- Friends of Koala should be the immediate contact point regarding advice on the management of any injured or dead animals found on or near the site.
- Tweed Shire Council, Friends of Koala and EPA (previously DECCW; North East Branch) should be forwarded any observation/incident reports together with information of actions taken and any immediate outcomes as soon as practical after the observation/incident.

RECOMMENDATION: That the revised KROM and where relevant the Site Management Plan be reviewed consistent with DGR 9.9 to: (1) make Friends of Koala the immediate contact point regarding advice on the management of any injured or dead animals found on or near the site; (2) ensure that Tweed Shire Council, Friends of Koala and EPA (previously DECCW; North East Branch) are forwarded any observation/incident reports together with information of actions taken and any immediate outcomes as soon as practical after the observation/incident; (3) ensure a 40kph speed limit where roads traverse the environmental protection areas during construction phases; (4) provide further detail on proposed educational signage and; (5) provide further detail and liaison on the scope, membership and resourcing of the proposed residents association.
RECOMMENDATION: The Environmental Assessment and related Management Plans should be revised to include: (1) a long-term protection mechanism such as Environmental Protection zoning for all heathland to be restored and; (2) specific provisions to manage weeds (and other issues) in areas denoted as “Heath to be Naturally Regenerated”.

East-West Wildlife Corridors

Concept Plan Condition B4

As identified in Koala Plan of Management, an east west wildlife corridor of up to 100 metres wide (with a minimum of 50 metres at any one point) must be established. The corridor should be established to provide for habitat and the movement of threatened native fauna that inhabit the site. Prior to the determination of Stage 1, the Proponent shall also demonstrate the practicality or need for establishing a further east west 50 metre wide corridor along the southern boundary of the site. The details of this modification, including regeneration/revegetation of the corridor, the preferred long term protection mechanism, and the practicality of a new southern east west corridor are to be submitted to the satisfaction of the Director-General prior to determination of Stage 1.

The proponent rejects the need for both east-west corridors referred to in Concept Plan Condition B4 (see p17 of Appendix N) and seeks to delay the resolution of this issue at p98 of the EA: The proponent will review and provide expert advice on the need for an east-west wildlife corridor in the north-west of the site at the time of any future application(s) for development over those areas of the site. This is contrary to the requirement to address this issue prior to the determination of Stage 1.

There are a number of outcomes of the Project Application and new information which suggest that further consideration of issues surrounding this condition should not be delayed as suggested by the proponent. These include:

- The practical considerations arising from the revised KPOM which seeks to exclude koalas from the urban environment
- Lack of clarity regarding offsets (see response to DGR 9.5) including the possibility that considerable potential habitat for koalas and other species will be “lost” if the proposed east-west corridor is dispensed with.
- The likely need for additional areas for plant koala food trees due to overlapping and incompatible plans to plant koala food trees in APZs or areas to be regenerated as heathland (see response to DGR 9.4).
- Opportunities to augment koala movement to the south west (new southern corridor referred to in Condition B4) through the rural matrix of Duranbah to connect the small outlier population identified in the Tweed Coast Koala Habitat Study 2011 and facilitate movement across the Pacific Hwy underpass in the vicinity of Eviron Road. This would complement existing measures under Council’s Koala Connection Project to re-establish koala habitat from the west of Cudgen Nature Reserve to the same Pacific Hwy underpass near Eviron Road.

RECOMMENDATION: That further options are explored with DoP, OEH, Tweed Shire Council, appropriate experts and the proponent to implement one or more east-west wildlife corridors generally in accordance with Concept Plan Condition B4 prior to the determination of Stage 1.
Development within Ecological and Agricultural buffers

Concept Plan Condition C20

All future development applications proposing development within either the ecological or the agricultural buffer must demonstrate that, as relevant, clauses 7 or 8 of Schedule 3 of the State Environmental Planning Policy (Major Development) 2005 have been adequately addressed.

Ecological buffers

As noted in the Environmental Assessment (p41), the proposals advanced by the proponent in the Concept Plan foreshadowed the use of the outer 20m of the 50m Ecological Buffers for purposes such as roads, footpaths, cycleways, bushfire Asset Protection Zones, stormwater management, passive recreation and similar "compatible" purposes. However, support for this was heavily qualified by the Department of Planning who imposed condition C20 above and commented in the Director General’s Report on the proposed Concept Plan (at p60):

The Department supports, on planning grounds, the alignment for the future four lane entry road becoming the buffer within the Depot Road precinct. However, for other parts of the site, including the golf course, while the Department supports in principle the proposed buffer design and that in certain instances, some roads and outer asset protection zones may be acceptable within the ecological buffer, further assessment of ecological constraints within and adjacent to the buffers will need to inform any proposed development within these areas. Similarly with any proposed development within the agricultural buffer a assessment of the adjacent agricultural land use and its potential impact on any proposed development will be required.

In its previous submissions to the Concept Plan, Council also expressed concern regarding the widespread use of the outer 20m of the ecological buffer for uses (noted above) which were not considered to satisfy the intent of Clause 7 of Part 6 of Schedule 3 of the State Environmental Planning Policy (Major Development) 2005 which is reproduced below:

7 Ecological buffers

(1) Consent must not be granted to development on land within an ecological buffer unless the consent authority is satisfied, after considering a detailed environmental assessment, that:

(a) the development complies with the objectives for Ecological Buffers and other provisions of this clause, and

(b) there is no practicable alternative to siting the development within the buffer.

(2) The objectives for Ecological Buffers are:

(a) to protect wetlands or areas of particular habitat significance, and

(b) to restrict development so that, as far as practicable, it does not occur within Ecological Buffers, and

(c) to help ensure that development is designed, sited and managed so as to minimise its impact on the ecological and hydrological functions of Ecological Buffers, and
(d) to encourage the restoration and maintenance of native vegetation and the ecological processes of land within and adjacent to wetlands or areas of particular habitat significance.

(3) Development on land within an ecological buffer is to:

(a) incorporate effective measures to manage wetlands or areas of particular habitat significance, and

(b) be designed and sited to maintain connectivity of vegetation and minimise vegetation clearing, soil disturbance and alterations to the rate, volume or quality of surface and ground-water flows, and

(c) retain and maintain all existing native vegetation outside the area immediately required for the development, and

(d) incorporate measures to regenerate native vegetation for all disturbed areas within the buffer, and

(e) incorporate appropriate stormwater and erosion control measures to protect the buffer from surface water run-off or other disturbance.

(4) When considering whether or not there is a practicable alternative to siting development inside an ecological buffer, the consent authority must consider:

(a) the design, type and site cover of the proposed development, and

(b) the physical characteristics of the land on which the development is proposed to be carried out, and

(c) the suitability of the land for the proposed development.

(5) Before deciding whether or not to grant consent to development on land within an ecological buffer, the consent authority must consult the Department.

Despite Council's concerns and the clear intent of the Department of Planning to consider development within the Ecological Buffers in "certain instances", it is apparent from the Environmental Assessment that such development is proposed as the rule rather than the exception. For example, earthworks are proposed in almost all areas covered by the outer 20m of the 50m ecological buffer (see Fig 5 of Appendix MM and Fig. 3 of Appendix NN). Also, earthworks and permanent stormwater treatment swales extend well into the inner 30m of the 50m ecological buffer in many areas (see for example longitudinal sections on Fig 5 of Appendix MM; Fig. 3 of Appendix NN and Appendix C of Appendix D).

The proposal also includes the loss of some 30 ha of existing native vegetation within the Ecological Buffers (mostly heathland; see Table 1 and 2 of Appendix MM, Table 1 of Appendix NN) followed by revegetation (mostly heathland) after earthworks involving both cut and fill of up to 2m (see Appendix D). Although it is proposed to reuse topsoil for revegetation of heathland, little information is provided to ensure that such revegetation can be successfully accomplished especially given the top-seil management cautions outlined by the proponent (e.g. see p19 of Appendix NN), and changes in elevation, drainage and groundwater relations that will arise from the bulk earthworks.
Further comments on specific precincts follow:

Precinct 1

- Despite the claim at p42 of the Environmental Assessment that: There are no wetlands or areas of particular ecological significance within the outer 20 metres of the buffer, with most of the 20 metre outer buffer highly modified and cleared of native vegetation, the use of the outer 20m of the ecological buffer as a bushfire Asset Protection Zone in Precinct 1 involves the clearing of two Endangered Ecological Communities (EECs), Paperbark Forest and Littoral Rainforest (see Fig. 12 and Table 1 of Appendix MM; Note, Littoral Rainforest is also listed Critically Endangered Federally). This is clearly contrary to Clause 7 (2) and (3)a-d.

- The impacts and legislative implications of proposed clearing of this vegetation are not considered in Environmental Assessment nor are any offsets proposed for the loss of this important vegetation. It is also noted that the proponent claims that no EECs are located within the Ecological Buffers (see p21 of Appendix MM).

- The proposed design of the Asset Protection Zone in Precinct 1 appears to consist of a “delivery vehicle unloading and manoeuvring area” (see Appendix X, p10). Although the Bushfire Risk Assessment (Appendix X) confirms that this will meet the requirements for an APZ, it does not further consider the provisions of Clause 7 above which would suggest the need to consider a more ecologically sympathetic design (RFS guidelines for the design of APZs do not prevent the presence of trees and other vegetation).

- The Bushfire Risk Assessment (p10 of Appendix X) recommends that an APZ consisting of a 10m Inner Protection Area and a 10m Outer Protection Area. It is noted from the comments made by the Department of Planning in the Director General’s Report on the proposed Concept Plan (at p60; see above) that consideration may be given to locating “outer asset protection zones” within the ecological buffer, however the proponent seeks to locate all of the APZ in the ecological buffer.

- In relation to Clause 7(4) the proponent infers that the proposed use of the ecological buffer for uses directly related to the development (for loading, parking etc.) is essential to secure the economic viability of the proposed development in that location (see Environmental Assessment p42) but no evidence is provided of a “practical alternative”, for example to demonstrate the feasibility of slightly smaller scale development or alternative allowable uses for the site.

- Additional arguments in support of the proposed APZ in the outer 20m of the ecological buffer (p42 of EA) focus on the benefits of retaining of the inner 30m rather that justifying the proposed loss of the outer 20m in relation to the provisions of Clause 7(3). For example, the proponent claims at p42 of the Environmental Assessment that: The APZ has been designed and sited to maintain connectivity of vegetation (see above dedication) and minimise vegetation clearing, soil disturbance and alterations to ground-water flows. In relation to the outer 20m of the ecological buffer this is incorrect; all land will be cleared, connectivity will be reduced, soil will be disturbed and ground-water flows altered by impervious road surfaces. Such arguments are not consistent with the provisions of Clause 7.
As noted previously (see response to DGR 9.4), the Buffer Management Plan for Precinct 1 proposes revegetation with koala food trees within the ecological buffer when almost all of it is mapped as Littoral Rainforest (compare Fig. 12 and Fig 17 of Appendix MM). As Littoral Rainforest is not regarded as koala habitat (see Appendix II of Tweed Coast Koala Habitat Study 2011) and is an Endangered Ecological Community whose integrity should be preserved, this proposal is considered unacceptable except perhaps at the margins.

**Precinct 5**

- Proposed use of the ecological buffer for development in this precinct will result in the loss of 1.27ha of native vegetation (See Table 2 of Appendix MM) involving vegetation communities that are Endangered (Swamp Sclerophyll Floodplain Forest and Freshwater Wetlands) or locally rare (Scribbly gum, Heathland). This appears contrary to Clause 7 (2) and (3)a-d and the proposed loss of such areas have not been explicitly justified.

- The proponent seeks to justify habitat loss within the ecological buffer by arguing that other parts of the buffer are to be retained. As noted previously such arguments are not consistent with the provisions of Clause 7.

- The argument at p43 of the Environmental Assessment that: Restricting development to the 20 metre buffer is not practicable as it would compromise the development potential of Precinct 5 site and thus economic use of land zoned for urban purposes should not be accepted, as the scope of the proposed use of ecological buffer extends well beyond the intent of Clause 7. It is also noted that Clause 2 of Part 6 of Schedule 3 of the State Environmental Planning Policy (Major Development) 2005 makes it clear that other provisions of that Part, such as Clause 7, prevail over permissible uses or other provisions arising from the zoning of the land.

- It is considered that small-scale incursions into the outer 20m of ecological buffer from roads and cycle ways in the south east area of Precinct 5 (see Fig 4, Appendix MM) may be acceptable as these incursions represent practical "give-and-take" design considerations that may otherwise prevent efficient use of developable land outside of the Ecological Buffers consistent with Clause 7. The approximately 700m of road proposed within the ecological buffer along the eastern boundary of the precinct (see Fig 4, Appendix MM), however, does not represent such an approach and the proponent offers no reasonable justification why such infrastructure cannot be located outside of the ecological buffer in accordance with Clause 7.

- The Bushfire Risk Assessment (p20, Appendix X) recommends that an APZ consisting of a 10-15m Inner Protection Area and a 0-5 m Outer Protection Area. It is noted from the comments made by the Department of Planning in the Director General's Report on the proposed Concept Plan (at p60; see above) that consideration may be given to locating "outer asset protection zones" within the ecological buffer, however, the proponent seeks to locate all of the APZ, including the Inner Protection Area in the ecological buffer.
The swale section plans (Figs. 14 14A, 14B, Appendix MM) and indicative buffer layouts shown in Figure 13B of Appendix MM indicate that many of the stormwater management areas are proposed within the ecological buffer. While these structures may be acceptable in the outer 20m to encourage hydrological recharge etc., they should not be allowed in the inner 30m. These structures need to be accessible for maintenance and such work should not compromise the ecological integrity of rehabilitation and revegetation efforts proposed in the inner buffer areas.

Similarly, the koala fencing should be contained within the outer 20m of the ecological buffer. As noted under the response to DGR 9.6 the extent of available areas for koala food tree revegetation is likely to be significantly overstated suggesting that as much of the ecological buffer as possible is used to for this purpose.

As noted previously (see response to DGR 9.4), the Buffer Management Plan for Precinct 5 proposes revegetation of the Ecological Buffers with both heathland and koala feed trees (compare Appendix MM Figs. 16B and Fig 17). As heathland is not regarded as koala habitat (see Appendix II of Tweed Coast Koala Habitat Study 2011) this is not considered acceptable.

Figure 16B (Appendix MM) shows considerable areas proposed for heathland revegetation within the APZ proposed in the Bushfire Risk Assessment (Plan 4, Appendix X). It is not clear how this is to occur given the planned fire trails and limitations on tree/shrub cover for APZs.

A similar situation arises with the areas proposed for the planting of koala food trees (compare Plan 4 from Appendix X with Fig 17 from Appendix MM) in APZs.

**Kings Forest Parkway**
- No comment – could not locate plan.

**Roads to Southern Precincts**
- Noted

**Other Precincts**
- Proposed use of the ecological buffer for development in the other precincts will result in the loss of 28.59ha of native vegetation (See Table 1 of Appendix NN) involving vegetation communities that are Endangered (Swamp Sclerophyll Floodplain Forest and Freshwater Wetlands) or locally rare (Heathland, 25.68ha). This appears contrary to Clause 7 (2) and (3)a-d and the proposed loss of such areas has not been explicitly justified.

The following argument is made at p44 of the Environmental Assessment in support of locating development within the ecological buffer: Preventing any development within the outer 20 metre buffer is not practicable as the bulk earthworks are required to provide flood immunity for the site. Not proceeding would compromise the future development of the site and thus economic use of land zoned for urban purposes. It is noted from this statement that the winning of fill appears to be a major motivation for the proposed earthworks in the Ecological Buffers within these precincts. As noted in relation to Precinct 5, the scope of the proposed use of the ecological buffer extends well beyond the intent of Clause 7 which prevails under the SEPP despite any development aspirations arising from the zoning of the land.
Species selection and relative abundances should generally be consistent with the vegetation community to be restored (see also response to DGR 9.6).

- Section 6.3 p16 – dismisses the need to provide "...alternative habitat to compensate for the loss core koala habitat elsewhere". This statement appears to misinterpret the original Matters for Consideration for the KPOM approved under the Concept Plan (see Table 1 of Carrick KPOM, Aug 2009) which required: An assessment of the regional distribution of koalas and the extent of alternative habitat available to compensate for that affected by the actions. This requirement does not confine itself to the "...loss of koala habitat elsewhere"; rather it requires an assessment of measures to necessary compensate for all actions arising from the development. This should include impeded connectivity across the site, accidental breaches of fencing and grids by dogs and koalas, increased arson risks, and overall increases in pressures to the regional koala population from a substantial increase in the human population. As noted under the response to DGR 9.5 further work is required to acknowledge these residual impacts and document the approach used to ensure that compensation arrangements are adequate.

- Section 7 p 17 – The title of this section appears to misinterpret the wording of the original Matters for Consideration for the KPOM approved under the Concept Plan (see Table 1 of Carrick KPOM, Aug 2009) which required: Identification of linkages of "core koala habitat" to other areas of habitat and movement of koalas between areas of habitat. Provision of strategies to enhance and manage the "corridors". The title implies that linkages relate only to "core" koala habitat. See also last sentence of Para 2. It would be better to omit the word "Core" or replace it with "Notional". Further comments in respect of habitat connectivity are made in response to Concept Plan Condition B4 East-West Wildlife Corridors elsewhere.

- Section 7.3 p 18 last Para – This implies that threats need to be managed both in core koala habitat, within potential koala habitat, and anywhere else koalas can venture.

- Section 8 p19 – The content of this section is very general and would benefit from the documentation of the impacts and management conclusions for each factor. This would then reinforce the rationale at Section 2.

- Section 8.2 p19 Para 3 should acknowledge the findings of the Tweed Coast Koala Habitat Study 2011 in relation to preferred food trees and soil landscapes.

- Section 8.3 p19 should refer to findings of Tweed Coast Koala Habitat Study 2011 and its conclusions in relation to bushfire as these have major implications for koala management on and adjacent to the site.

- Section 8.5 p20, last sentence – not strictly correct. Probably better to say that up to one third of koala deaths may be due to road strike.

- Section 8.6 p20 - Rationale for list of dogs not clear. Appears to reflect breeds "restricted" in NSW rather than those that pose the greatest risk to koalas. Fails to acknowledge the experience of licensed wildlife care organisations such as Friend of the Koala and Tweed Valley Wildlife Carers, that even small dogs can inflict fatal wounds on koalas and that some small dogs (such as terriers) are bred to hunt and will chase wildlife at every opportunity. This section should also mention the wild dogs and their control.

- Section 9 p22 – Chapter title – Should not imply that mitigation of impacts only relates to "core koala habitat".
• Section 9.3 p23 - Retention of habitat is not an amelioration measure in itself. Amelioration of impacts involves measures such as fencing and dog control and habitat management to mitigate the direct and indirect impacts of the development. Retention of habitat could not be considered as amelioration unless there was a prior approval to remove the same vegetation.

• Section 9.4 p23 – Similarly, transfer to public ownership is not an amelioration measure. Indeed, unless the development meets the costs of managing any land transferred to public ownership it represents a cost burden on the wider community.

• Section 9.5 p23 – This section acknowledges the need to actively manage bushfire to protect koalas from this threat; however it provides no guidance, leaving it to the Bushfire Management Plan (Appendix X) which in turn does not address the issue. This is particularly concerning given the finding of the Tweed Coast Koala Habitat Study 2011 which suggests that uncontrolled wildfire is largely responsible for declines in the koala population over the last decade and is consequently one of the biggest issues for koala management. This section also highlights the beneficial potential of roads traversing environmental areas (and the proposed golf course) to act as fire breaks but does not acknowledge the likely increase in fire ignition risk that will accompany such a large increase in human population.

• Section 9.6 p24 – This section should indicate what the purpose of the grids is. In particular it should comment on the ability of these structures to prevent koalas and dogs from crossing them.

• Section 10.2 p29 – estimates of the increase in carrying capacity do not appear to be correct. The Tweed Coast Koala Habitat Study 2011 estimates 0.14 (+/- 0.12) koalas/ha while previous estimates for Kinga Forest were reported as 0.18 (+/- 0.04) koalas/ha. These estimates are nowhere near the upper range of 2 quoted in the revised KPOM.

• The aim and objectives stated in Section 11 (p32) should be presented up-front.

• The objectives should reflect the aim and focus on ensuring a viable free-living koala population, consistent with SEPP 44 rather than simply minimizing impacts. Given the precarious state of the Tweed Coast koala population identified in the Tweed Coast Koala Habitat Study (2011), and to be consistent with SEPP 44 the proposed KPOM should explicitly commit to increasing the koala population rather than simply avoiding “significant impacts”.

• The proposed objectives are inconsistent as there are seven objectives stated in Section 11 and but only six listed in Table 2. Further, the wording used in Section 11 is different from that proposed in Table 2 and in some cases implying differing management responses. For example, last objective in Section 11 focuses on monitoring while the last objective in Table 2 seeks to ensure that there is no reduction in koala numbers resulting from the proposed development yet the recommendations associated with this broad objective in Table 2 (p35) relate only to monitoring. Recommended actions arising from such an objective would need to much broader than monitoring to meet such an objective.

• Table 2 should appear after Section 13 as it includes actions therein.

• Table 2 should include all recommendations and proposed actions (including those contained within other management plans) with cross references, timings, responsibilities, resources requirements, costs, performance criteria and outputs.
The recommended dimensions of the underpasses in Table 2 (1.2m2) should be amended to reflect the dimensions shown in Figure 19 (i.e. 1.8m X 2.4m).

OPTIONS:

1. Endorse the contents of this report to form the response to the NSW Department of Planning and Infrastructure on the Stage 1 Project Application and second Concept Plan Amendment.

2. Modify the contents of this report to form the response the NSW Department of Planning and Infrastructure on the Stage 1 Project Application and second Concept Plan Amendment.

LEGAL/RESOURCE/FINANCIAL IMPLICATIONS:
Nil.

POLICY IMPLICATIONS:
Nil.

CONCLUSION:

Tweed Shire Council is reliant on Kings Forest to ensure future population growth is catered for. Furthermore, Tweed Shire Council has relied upon developer contributions (from urban land release areas such as Kings Forest) to ensure that future infrastructure needs are met. It is therefore crucial that planning for Kings Forest be done effectively.

The current Stage 1 Application sets up many of the design principles and maintenance regimes that will be relied upon for the remainder of the entire release area. The issues raised in this report need to be discussed with the applicant, the NSW Department of Planning and Infrastructure and other relevant state government agencies to ensure all parties can move forward cooperatively.

UNDER SEPARATE COVER/FURTHER INFORMATION:

To view any “non confidential” attachments listed below, access the meetings link on Council’s website www.tweed.nsw.gov.au or visit Council’s offices at Tweed Heads or Murwillumbah (from Friday the week before the meeting) or Council's libraries (from Monday the week of the meeting).

Nil.
Director
Metropolitan and Regional Projects North
Major Projects Assessment
Dept. of Planning & Infrastructure
GPO Box 39
SYDNEY NSW 2001

Dear Sir,

Re: Application No: 08_0194 - Kings Forest: Stage I Subdivision and Bulk Earthworks

Addendum to Friends of the Koala’s Submission 19 January 2012

Since forwarding our submission I realise I omitted the most important element of Friends of the Koala’s position on the Kings Forest Stage I and that is deferral of further consideration of matters related to koala management until the Comprehensive Koala Plan of Management for the Tweed Coast (CKPOM), I referred to is in place.

While Friends of the Koala endorses the report addressing koala management issues prepared by Tweed Shire Council staff in response to the Director General’s Requirements and Concept Plan Conditions, we also need to point out that since approval of the Concept Plan on 19 August 2010 there has been new information published regarding the dire predicament of Tweed’s coastal koalas, contained in Biolink’s Tweed Coast Koala Habitat Study – Report to Tweed Shire Council January 2011.

During 2011 Tweed Shire Council hosted several workshops involving Council staff, the Tweed Coast Koala Advisory Group (Advisory Group), and other stakeholders to consider and come up with options to address the recovery of the koala populations. An outline of the suggested working provisions of the draft CKOPM and the Endangered Population nomination are to be presented to the next meeting of the Advisory Group on 14 February 2012.

Friends of the Koala consistently opposed the Kings Forest Residential Community Concept Plan, asserting that negative impacts would see the Kings Forest and surrounds koala meta-population cell decline to extinction within a relatively short time.

The current Biolink study includes Kings Forest in the Bogangar - Kings Forest - Forest Hill (Central Koala Management Area), defining it as north of Cudgen Lake, extending from the Depot Road area of Kings Forest to Forest Hill in the south, encompassing lands adjacent to Tweed Coast Road and covering a portion of Cudgen Nature Reserve and the southern portion of Kings Forest. The study estimates 36 koalas occupying this area of approximately 360 ha.

In 2004 Biolink estimated the koala population in Kings Forest and immediately adjacent land (to the west of the Cudgen Paddock and in Cudgen Nature Reserve to the immediate east) as approximately 76 koalas.

Volunteers working for koala conservation on the Northern Rivers.
Friends of the Koala services the local government areas of Ballina, Byron, Kyogle, Lismore, Richmond Valley and Tweed.
It is a member of the New South Wales Wildlife Council, Inc.
In just over one koala generation, the population has plummeted dramatically.

Although the points we raised in our earlier submissions have been consistently ignored, now that there is scientific information supporting the real possibility of localised extinction of koalas south of the Tweed River within the next 2-3 decades or sooner if fire and the present unsustainable levels of incidental mortality are not addressed, we believe deferral is paramount.

Recovery of the Tweed Coast’s koalas is going to depend on the successful implementation of assertive and perhaps trail-blazing micro-management. Such an approved CKPOM would also provide a legal basis for the complete ban on dogs within Kings Forest advocated by the staff report and entirely supported by Friends of the Koala. More optimistically it may even prompt some reconsideration of the environmental sustainability of the Concept Plan which has been approved.

The objective of State Environmental Planning Policy 44 – Koala Habitat Protection is to encourage the proper conservation and management of areas of natural vegetation that provide habitat for koalas to ensure a permanent free-living population over their present range and reverse the current trend of Koala population declines.

Friends of the Koala holds that the Kings Forest development is an opportunity for this government which has promised better protection for the state’s koalas to demonstrate its commitment to that election promise as well as acting decisively for the long-term viability of the Tweed Coast koala population.

This explanatory addendum is part of our submission.

Yours faithfully

Lorraine Vass
President
23 January 2012
The Director Metropolitan and Regional Projects North  
Major Projects Assessment  
Dept of Planning  
GPO Box 39  
Sydney NSW 2001  
Email: plan_comment@planning.nsw.gov.au

SUBMISSION  
Re: 08_0194 Stage 1 Project Application - Kings Forest, Kingscliff  

Dear Sir/Madam  

I object to the Kings Forest development on the following grounds and seek an extension until end of February and improved community consultation.  
I would like to make the following comments regarding 5 key issues of the Kings Forest Stage 1 Plan.  

1. The current Koala Plan Of Management fails in its aim of protecting koalas  

- **Fencing:** fences have gaps for vehicle access, where cattle grids are positioned to prevent koalas leaving their protected zones. But these grids have not been tested or proven to prevent access by dogs into koala protection zones. Furthermore, fencing breaks down over time and this development offers no maintenance provisions.  
- **Dogs:** All dogs must be banned no matter what size, age or breed - there is no such thing as a 'koala-friendly dog'  
- **This approach has been applied successfully at Koala Beach Estate – Pottsville.**  
- It was equally close to sensitive koala habitat and applied such a ban from the outset which is the only way such a measure can be reinforced.  

_The Friends of the Koala Inc. state that “- Scientific evidence shows that any dog bite can kill koalas as dog saliva has been proven to be a deadly toxin to koalas.”_  

2. Retaining and enhancing core koala habitat must be an immediate priority  

- **No koala feed trees to be felled, no matter where they are.**  
- **Owing to the critical time left for the remaining 144 Tweed Coast koalas the planned feed tree planting needs to proceed immediately for it to be effective.**  
- **These protected corridor zones MUST be suitably fenced to separate koalas and other wildlife from human activities.**
3. Roads as currently planned present a high risk to wildlife including koalas and other threatened and endangered species

- There is a need for overpasses for wildlife on roads, not just underpasses, including exclusion fencing.
- Road signage is needed to advise motorists to slow down for wildlife.
- No higher than 40 kph speed limits
- Speed humps need to be placed at least every hundred metres
- Speed cameras are needed to enforce prescribed speed limits
- Electronic traffic speed recorder is needed

4. The current plans for the golf course present a threat to threatened and endangered species

- Currently the plan has the koala migration path crossing the golf course centre
- Koalas and other wildlife that cross golf courses will be under threat from attack by feral animals, unrestricted human sport activity and toxic pesticides which are often commonly used
- The golf course should not use toxic organophosphate pesticides – instead use only organic non-toxic pesticides.

5. Water-saving initiatives need to be in place i.e.-

- 20,000L water tanks,
- stormwater harvesting,
- dual water reticulation
- water recycling

I believe that this development will have a negative impact on the World Heritage values of the Caldera's coastal lowlands and I request a full inquiry into this development as well as referral to UNESCO.

Yours sincerely,

Signature: [Signature]
Printed Name: CAROLYN R LATHAM
Address: 70 BOX 1130, KINGSCLIFF 2487
(1/36 Sutherland St, Kingscliff)
Date: 23/1/2012
Attention:
The Director Metropolitan and Regional Projects North
Major Projects Assessment
Dept of Planning
GPO Box 39
Sydney, NSW 2001
Email: plan_comment@planning.nsw.gov.au

Re: KINGS FOREST Stage 1 Subdivision and Bulk Earthworks - Application No. 08_0194

Dear Sir/Madam

I hereby wish to object to this Stage 1 application for the following reasons:-

1. The Director General requires that information in the Environmental Assessment Report (EAR) not be misleading. However, there are too many inconsistencies, inadequate explanations and variances with the EAR 2011. There must either be a new EAR or an amended application.

2. Cudgen Lake (a State Significant Coastal Lake), Cudgen Nature Reserve, Cudgen Creek system (nominated marine protected areas) and Blacks Creek need an Ecological Health Study (EHS) urgently before any earthworks drainage enters the Cudgen Marine System. There needs to be a Sustainability Assessment and Management Strategy prepared. There needs to be a referral to UNESCO for the impacts of this development on World Heritage values of the Caldera's coastal lowlands which are integral food sources in winter. Cudgen waterways provide significant feeding and breeding habitat for many water bird species including threatened species. Tweed already has the highest concentration of threatened species in Australia which is why resumption of Kings Forest should be seriously considered.

3. The development footprint of this project is too large considering the high level of biodiversity, threatened species and endangered ecological communities at risk. The community needs till at least end of February to understand the issues and there needs to be public consultation by both the developer and state planning.

4. The Cudgen Paddock and eastern side were assessed by NSW Dept Environment officers in the 2005 zoning, council staff and councillors for the Concept Plan 2009 and other ecologists who all agreed this was the minimum area needed to maintain biodiversity. A golf course encourages feral species, further threatening native species in Cudgen Nature Reserve. No development is the best plan.

5. The Koala Plan of Management (KPM) fails to protect the remaining 144 coastal koalas, already on the brink of extinction (Koala Habitat Study 2011). It does not ensure adequate connectivity and safe passage of koalas, proving that the land should never have been rezoned. There needs to be a full enquiry into the failure to back zone recommended by the Woodward Investigation of 2005.

Locking koalas out is a barrier to their movement on the site, contrary to the Concept KPOM. There is no proof that cattle grids deter dogs. Who will bear the expense of fence maintenance? There is no such thing as a koala-friendly dog and one bite will kill a koala. The scent of a dog disturbs native species. The current KPOM does not prohibit dog breeds, numbers or require dusk-to-dawn housing. It relies on the residents to enforce the KPOM when there should be an on-site environmental compliance officer from DEH or council.

If this development was Koala Beach style (no dogs, no visitor dogs, speed bumps every 100m, 40km speed limit) with speed cameras, electronic speed recorders, underpasses/overpasses and exclusion fencing near roads. No koala trees felled, new koala tree plantings beginning immediately, no roads intersecting koala corridors or environmental protection zones and the golf course used no neurotoxic,
carcinogenic organophosphates, it would be better. Unless all dogs are banned from the site and the roads are koala-friendly, there is no point planting koala trees throughout, only to entice them to their deaths. Developer needs to set aside funds to establish a Management Committee to ensure koala protection and a rate levy to maintain it. Because this application is impacting matters of National Environmental Significance (NES), the EAR needs to be revised.

6. This application should be deferred until the government rules on the developer’s recent unauthorized recent clearing and draining of parts of Cudgen Nature Reserve adjacent to Kings Forest.

7. There are inadequate details in the Drainage Plan of Management for Precinct 5 in the event of heavy stormwater events. There needs to be a main drainage system for bulk earthworks immediately constructed. Blacks Creek needs a marine study of the ecosystem and water quality. A new Drainage POM is needed in order to improve the water quality of Blacks Creek now that the main use has changed from agriculture to residential development.

8. Kings Forest cattle dip site (containing unsafe levels of asbestos/arsenic) must be remediated before bulk earthworks begin at Precinct 11. Contaminated material must be removed from Kings Forest site.

9. Existing agricultural land use rights should no longer apply once earthwork activity begins for residential/commercial use.

10. Treatment of acid sulphate soils and stormwater drainage water quality needs to be monitored 6-monthly, particularly in the receiving waters of Black’s Creek. The results should be publically available.

11. The Water Sensitive Cities project (WSC) embraces stormwater harvesting, flood management, recycling and reuse programs, rainwater harvesting and water use efficiency programs. If Kings Forest adopted the National Water Initiative’s WSC strategies it would save Tweed Shire from having to build a dam at Byrill Creek, impacting the 45 threatened species of fauna there.

12. Environmental Management Plans are lacking description of species proposed for regeneration and revegetation. Will there be independent monitoring? What quantity, type, location, timing and quality of compensatory plantings will be done and by whom. Re-establishing native vegetation in areas of cut could make the soil hostile to plant growth and hydrology. There needs to be funding into perpetuity by the developer for ecological maintenance with a bond placed. There are no new details in the Weed Management Plan. There needs to be a survey of weed cover undertaken now and results published for public view prior to approval.

13. Regarding dedication of land to NPWS, who supervises and pays for rehabilitation works? Regarding dedication of land for Environmental Protection areas to council, will this take place prior to construction or prior to the end of construction?

14. Ecological buffer zones need to be more than 50m and should not serve human use as well (bike/walking trails etc). There needs to be an analysis of impacts in buffer zones due to land changes.

Signature ____________________________
Printed Name PAOLA POSSENTI
Address Kyogle road 1454 - 2686 - Uki - N.S.W.
Date 14 January 2012
Attention:
The Director Metropolitan and Regional Projects North
Major Projects Assessment
Dept of Planning
GPO Box 39
Sydney, NSW 2001
Email: plan_comment@planning.nsw.gov.au

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Signature

Printed Name

Address

Date 12-6-2012