



## Office of Environment & Heritage

Our Ref: DOC18/529521

Your Ref: SSD 8169

Department of Planning and Environment  
GPO Box 39  
Sydney NSW 2001

Attention: Ms Pamela Morales

Dear Ms Morales

**Re: Environmental Impact Statement – State Significant Development 8169 and Modification 3 of Major Project 09\_0028 (Concept Plan) for North Byron Parklands Cultural Events Site, Yelgun**

Thank you for your letter dated 27 July 2018 about the North Byron Parklands State Significant Development (SSD) 8169 and Modification 3 of Major Project 09\_0028 (Concept Plan) seeking comments from the Office of Environment and Heritage (OEH). I appreciate the opportunity to provide input.

The OEH provided a response to the proposed development and modification to the Department of Planning and Environment in a letter dated 5 March 2018 (Ref. No. DOC17/633491). The subsequent response to submissions prepared by the applicant has clarified and resolved many of the issues we raised. However, several of the issues raised by the OEH appear to remain unresolved by the applicant, including:

- inadequate consideration and management measures to address known and potential impacts on National Parks and Wildlife Service Estate;
- inconsistencies in the vegetation mapping used in the ecological assessments and Biodiversity Assessment Report;
- under-estimation of the extent of Endangered Ecological Communities on the development site;
- failure to include the minimum information requirements for a Biodiversity Assessment Report as specified in the Framework for Biodiversity Assessment; and
- inadequacies in the Koala Plan of Management.

In summary, the OEH recommends that prior to the development and modification being determined, the applicant should:

1. Prepare a detailed management strategy that addresses the impacts of the proposal on the Billinudgel Nature Reserve (BNR). The strategy should provide appropriate and feasible management, monitoring and contingency measures to address the range of known and potential impacts on National Parks and Wildlife Service (NPWS) Estate. The strategy should also include a regular reporting component to provide feedback to NPWS and drive an adaptive management process. The strategy should be a "stand-alone" document rather than part of the project Flora and Fauna Management Plan, and should be prepared in consultation with NPWS and conditioned with an appropriate timeframe by the determining authority.
2. Revise the Biodiversity Assessment Report to:
  - a) explain discrepancies in vegetation mapping of the development site, particularly the location and extent of the Plant Community Type dominated by forest red gum;
  - b) include a detailed explanation of the assessment of the extent of the subtropical coastal floodplain forest endangered ecological community on the development site, with reference to the floristic and edaphic characteristics of the community as specified in the NSW Scientific Committee final determination; and
  - c) include all minimum information requirements for a Biodiversity Assessment Report as specified in Appendix 7, Table 20 of the Framework for Biodiversity Assessment.
3. Revise the Koala Plan of Management to:
  - a) retain the status of the document as a draft version until consultation with applicable authorities, including the OEH, has been completed;
  - b) include maintaining "safe" use of the site by koalas in the aim and objectives;
  - c) include details of koala habitat usage in areas surrounding the development site;
  - d) amend errors in Appendix A regarding content requirements;
  - e) provide an explanation of the discrepancies in mapping of the Plant Community Type dominated by forest red gum on the development site;
  - f) to acknowledge the range of potential impacts known or likely to extend beyond the site (e.g. noise, light and human disturbance);
  - g) include a figure illustrating the full extent of proposed permanent and temporary security fencing. The figure should also differentiate between fencing designed to exclude humans and fencing designed to exclude/contain koalas;
  - h) include well-considered, detailed mitigation measures for effectively managing koalas displaced by event disturbances within the securely fenced precinct;
  - i) include detailed diagrams of the proposed permanent and temporary fence designs;
  - j) include a detailed monitoring methodology in Chapter 6 capable of identifying and responding to the proposed management triggers;
  - k) include in Chapter 6 use of a combination of standardised and repeatable sampling methods to monitor changes in koala activity; and



- l) remove use of vague terminology when describing proposed monitoring and management actions in Section 6.5, and ensure proposed actions are definitive and targets are quantifiable where possible.

If you have any further questions about the issues raised or recommendations provided, Mr Don Owner, Regional Operations Officer, Regional Operations, OEH, can be contacted on [REDACTED] or at [REDACTED].

Yours sincerely

*Dimitri Young 24 August 2018*

**DIMITRI YOUNG**  
**Senior Team Leader Planning, North East Branch**  
**Conservation and Regional Delivery**

Contact officer: DON OWNER  
[REDACTED]

Enclosure: Attachment 1: Detailed OEH Comments – North Byron Parklands Cultural Events Site SSD 8169 and Modification 3 of Major Project 09\_0028 (Concept Plan)



## **Attachment 1: Detailed OEH Comments – North Byron Parklands Cultural Events Site SSD 8169 and Modification 3 of Major Project 09\_0028 (Concept Plan)**

### Impacts on National Parks and Wildlife Service (NPWS) Estate

A range of impacts on the Billinudgel Nature Reserve (BNR) have been observed during the larger events held at North Byron Parklands, including increased rates of human traffic, unauthorised camping, camp fires, littering, vegetation damage and inadequate human waste disposal. These impacts are likely to be exacerbated by proposed increases in the frequency, duration and size of events at North Byron Parklands unless adequately managed.

The proposal involves a substantial increase in the size of events from 35,000 patrons to 50,000 patrons (excluding staff), which is significantly greater than any of the events subject to monitoring to date. Therefore, uncertainty remains about the potential severity of impacts of large events from lighting, noise and human disturbance on hollow-dependent fauna, koala activity, wetland hydrology and water quality in the BNR.

#### *OEH Recommendation:*

1. The applicant should prepare a detailed management strategy that addresses the impacts of the proposal on the BNR. The strategy should provide appropriate and feasible management, monitoring and contingency measures to address the range of known and potential impacts on NPWS Estate. The strategy should also include a regular reporting component to provide feedback to NPWS and drive an adaptive management process. The strategy should be a “stand-alone” document rather than part of the project Flora and Fauna Management Plan, and should be prepared in consultation with NPWS and conditioned with an appropriate timeframe by the determining authority.

### Framework for Biodiversity Assessment (FBA)

There are several inconsistencies between the vegetation mapping in the Biodiversity Assessment Report (BAR) and detailed vegetation mapping of the development site prepared by Kooyman (2009). Particularly concerning is the discrepancy in the mapped location and extent of Plant Community Types (PCTs) dominated by forest red gum, which has implications for the accuracy of mapping for subtropical coastal floodplain forest of the NSW North Coast bioregion endangered ecological community (STCFF EEC) and Primary Koala Habitat.

#### *OEH Recommendation:*

2. Amend the BAR to explain discrepancies in vegetation mapping of the development site, particularly the location and extent of the PCTs dominated by forest red gum.

The applicant has not provided sufficient justification in Table 12 of the BAR for excluding large areas of PCT 837 (forest red gum) from the area calculation for STCFF EEC on the development site. Although areas containing PCT 837 may not be “located on” a coastal floodplain, all or some parts of the PCT is likely to be “associated with” a coastal floodplain if situated on alluvial soils or Pleistocene back-barrier flats.

#### *OEH Recommendation:*

3. Amend the BAR to include a detailed explanation of the assessment of the extent of the STCFF EEC extent on the development site, with reference to the floristic and edaphic characteristics of the EEC as specified in the NSW Scientific Committee final determination.

With respect to species credit species, the applicant has not prepared species polygons or identified species that cannot withstand further loss in accordance with Section 6.5 of the FBA. Furthermore, the applicant has not used an expert report to determine the location and area of species polygons for species credit species assumed to be present in accordance with Step 5 of Section 6.5 of the FBA.

*OEH Recommendation:*

4. Revise the BAR to include all minimum information requirements for a BAR as specified in Appendix 7, Table 20 of the FBA.

Koala Plan of Management

The applicant's response to submissions states that the Koala Plan of Management (KPoM) would be finalised in consultation with the applicable authorities and the Regulatory Working Group, including the OEH/NPWS. This statement indicates the current version of the KPoM is a draft document, yet the document tracking table in the KPoM identifies it as a final version.

*OEH Recommendation:*

5. The status of the KPoM should remain as a draft version until consultation with applicable authorities, including OEH, has been completed.

The stated aim of the KPoM is to provide habitat and allow koalas free use of the site when present. However, it is important that the proposal also ensures continued "safe" use of the development site by koalas.

*OEH Recommendation:*

6. Amend the KPoM aim and objectives to include maintaining "safe" use of the site by koalas.

Section 1.3 of the KPoM states that "*it includes details of koala habitat and site usage at the Parklands and in surrounding areas*". However, the KPoM does not appear to provide any information about koala habitat or usage in surrounding areas. Furthermore, the KPoM does not provide an estimate of population size or discuss the regional distribution of koalas as claimed in Appendix A.

*OEH Recommendations:*

7. Amend the KPoM to include details of koala habitat usage in areas surrounding the development site.
8. Revise Appendix A of the KPoM to amend errors regarding content requirements.

As mentioned previously, vegetation mapping prepared for the BAR appears inconsistent with detailed vegetation mapping prepared by Kooyman (2009), which identified a greater extent of vegetation dominated by forest red gum on the development site. Given that the KPoM mapping of Primary Koala Habitat appears to be driven primarily by the occurrence of PCT 837(forest red gum), it is important that the vegetation mapping is accurate.

*OEH Recommendation:*

9. Provide an explanation of the discrepancies in vegetation mapping of forest red gum dominated PCTs on the development site.



Chapter 4 of the KPoM states that noise, lighting and human disturbance impacts will be contained within the event areas of the Parklands site. Firstly, noise and lighting impacts can extend many tens to hundreds of metres into adjoining areas. Secondly, the proposed extent of security fencing illustrated in Figure 6 of the BAR clearly shows areas of Primary and Secondary Koala Habitat remaining directly accessible to human disturbance.

*OEH Recommendations:*

10. Amend the KPoM to acknowledge the range of potential impacts known or likely to extend beyond the North Byron Parklands site (e.g. noise, light and human disturbance).
11. Amend the KPoM to include a figure illustrating the full extent of proposed permanent and temporary security fencing. The figure should also differentiate between fencing designed to exclude humans and fencing designed to exclude/contain koalas.

Chapter 4 also states that *"koalas are likely to move away from disturbance during events and good connectivity is available adjacent to areas of disturbance"*. Firstly, the KPoM does not discuss any outcomes from the ongoing ecological monitoring program supporting the premise koalas move away from disturbance. Secondly, given that remnants of koala habitat are scattered amongst the various event areas within the securely fenced precinct, it is unclear how displaced koalas could safely evacuate disturbed areas. It appears any koala attempting to flee from disturbance would have to traverse parkland and/or cleared areas swarming with patrons before attempting to climb over the security fencing. Furthermore, it is unclear if the design of the proposed security fencing will allow safe and easy traversing by koalas.

The proposed measures specified in Section 5.1 of the KPoM to avoid and minimise impacts appear to be too vague, rudimentary and reactive to be effectively implemented.

*OEH Recommendations:*

12. Revise the KPoM to include well-considered, detailed mitigation measures for effectively managing koalas within the securely fenced precinct displaced by event disturbances. The focus of mitigation should be on pro-active measures rather than reactive responses (e.g. conduct pre-event searches in koala habitat remnants within the securely fenced precinct to identify and monitor resident koalas likely to be affected by event disturbances).
13. Revise the KPoM to include detailed illustrations of the proposed permanent and temporary fence designs.

Proposed koala monitoring to assess impacts is based on ad-hoc and incidental sampling methods, which will be incapable of identifying or responding to the proposed response triggers specified in Tables 3 and 4 of the KPoM.

*OEH Recommendation:*

14. Revise Chapter 6 of the KPoM to include a detailed monitoring methodology capable of identifying and responding to the proposed management triggers.

The proposed management triggers for responding to changes in koala usage on the development site seem too simplistic. For example, a simple measure of koala presence/absence (based on incidental sightings) appears to be the primary method proposed for monitoring ongoing koala habitat suitability. A more appropriate measure would be to actively monitor relative changes in koala activity levels using a combination of standardised, repeatable measures (e.g. scat searches, transect-based timed diurnal and nocturnal searches). Also, the condition (i.e. health) of individual animals should be recorded as a measure of ongoing habitat suitability.

15. Revise Chapter 6 of the KPoM to include use of a combination of standardised, repeatable sampling methods to monitor changes in koala activity.

Some of the terminology used for describing proposed monitoring methods and triggers in Section 6.5 of the KPoM are too vague for meaningful use in a monitoring program. For example, one of the proposed exceedance triggers is "*an increase of diseased animals*". However, it is unclear if baseline monitoring data exists to enable detection of changes in disease levels. Also, proposed incidental observations by (possibly) untrained observers are unlikely to provide the reliable and repeatable measure of disease rates necessary to trigger an exceedance.

16. Remove use of vague terminology when describing proposed monitoring and management actions in Section 6.5, and ensure proposed actions are definitive and targets are quantifiable where possible.