



19 November 2010

The Director
Regional Projects
Department of Planning
GPO Box 39
SYDNEY NSW 2000

Dear Sir/Madam

Re: Reference Number 09_0028 - Environmental Assessment for a Proposed Cultural Events Site at Tweed Valley Way and Jones Road, Yelgun - Byron LGA

Thank you for the copy of the above application. Council staff prepared a draft submission to the Department of Planning, that was considered at Council's Ordinary Meeting of 11 November 2010. Pursuant to Council Resolution 10-914, the draft submission was amended and adopted as follows:

Resolution 10-914:

1. That the attached submission in regard to the Part 3A application for 'Proposed Cultural Events Site at Tweed valley Way and Jones Road, Yelgun – Byron LGA' be forwarded to the Department of Planning.
2. That Council recommend to Department of Planning a refusal for the application.
3. That the draft engineering report at Annexure 24(c) to be attached to the submission referred to in item 1 be amended to remove all recommendations and suggestions of a trial event in item 2 and that the amended document be circulated to Councillors prior to submission.

Please find attached the Byron Shire Council submission for your consideration.

Yours sincerely

A handwritten signature in black ink that reads 'R. E. Darney'.

Ray Darney
Executive Manager, Environment & Planning

Attached: Byron Shire Council Submission [12 pages] (#1027595)



Submission to the Proposed Cultural Events Site at Tweed Valley Way and Jones Road, Yelgun – Byron Shire LGA

Ref Number: 09_0028
Date: 19 November 2010

1. Introduction

This submission in regard to Part 3A application for Proposed Cultural Events Site at Tweed Valley Way and Jones Road advises of Byron Shire Council's view that the application should be refused and provides reasoning for this view.

The proposed development would be destructive of the existing local character, particularly that of the north-eastern part of the Shire. Also, the site is unsuitable for the development in regard to critical matters that include on-site sewage management, traffic, parking and noise.

2. Ecological, biodiversity and archaeological values of the proposed site

It is important to recognise that not only is the Marshalls Ridge wildlife corridor the most easterly corridor on the Australian mainland, but it is also listed on the Register of the National Estate as an Indicative Place for both its Natural and Cultural significance.

Over 50 threatened fauna species are recorded for the Billinudgel Nature Reserve with 26 of these Threatened fauna species recorded along the Marshalls Ridge wildlife corridor.

a) Council's mapping / wildlife corridor

All forest blocks within and adjacent to the event footprint are mapped as High Conservation Value vegetation under the Byron Shire Council Biodiversity Conservation Strategy, 2004. Byron Shire Council wildlife corridor mapping (BSC 2004) incorporates all forested areas of the site as well as intervening pasture areas. Byron Shire Council Threatened Fauna Habitat modelling (BSC 2004) covers almost all forest vegetation within the event footprint.

Similarly all forest types within and adjacent to the event footprint are mapped as Koala Habitat (BSC 2004) with the drier floodplain forest and Forest red gum dominated forests of the central and eastern portions of Property 2A mapped at the highest quality habitat for Koalas.

b) Commissions of inquiry

The area's ecological significance is recognised at a local, regional and state level. The NSW state government has long recognised the area's importance and has invested approx. \$15 million in its protection.

Following a Commission of Inquiry into the re-zoning of lands at North Ocean Shores by the Bond Corporation, Commissioner Simpson concluded that most of the land, if not all, should be protected (Simpson Inquiry, 1990). Again in 1997, the NSW Planning Minister called a Commission of Inquiry into the rezoning of the Jones Rd wildlife corridor. Commissioner Cleland clearly stated that the areas ecological significance is acknowledged by all parties present at the Inquiry and that this was not being disputed. Cleland recommended that the majority of the wildlife corridor be zoned for environmental protection with the remainder zoned for agricultural protection. This was generally supported by government departments and community groups. (Cleland Inquiry, 1997) Commissioner Cleland noted that *"... what is of fundamental importance is its value as part of an existing or potential wildlife corridor"*.

Approval of this DA, would be contrary to Council's own planning principles and the planning initiatives undertaken by numerous State Government agencies in resolving a long drawn out dispute between conflicting land uses.

The current Environmental Protection and Agricultural Protection Zonings for the Jones Road wildlife corridor were recommended by Commissioner Cleland following thorough assessment and signed off by the NSW Planning Minister.

"Of significant relevance in balancing wildlife corridor values and other land use considerations are the precautionary principle and the conservation of biological diversity. These principles reinforce the importance at this point in time of protecting the existing and potential wildlife corridor values in the Jones Road area. Action needs to be taken to protect the environment before there is conclusive scientific evidence that harm will occur from a new or continuing activity - the precautionary principle requires convincing argument that proposed activities will not cause serious or irreversible environmental impacts." (Cleland 1997).

The proponent has not provided convincing argument that the proposal will not cause serious or irreversible environmental impact.

c) Ridgeline of 'high archaeological sensitivity'

Records indicate that the Marshalls Ridge/Jones Road, was utilised for thousands of years by Aboriginal people as an important tracking route from the Mt. Warning caldera through to the coast. It provided a safe, floodfree access to their ceremonial grounds, important tool making sites and food gathering areas. This is evidenced by the high number of cultural sites recorded for the overall area.

There are 32 registered archaeological sites (NPWS) of regional and state significance scattered along Marshalls Ridge and throughout the Billinudgel Nature Reserve located at the eastern end of the ridgeline.

The 'cut & cover' tunnel will impact on the cultural values and the overall integrity of the area which has existed in its present form for thousands of years. Marshalls Ridge / Jones Road is identified as a ridge of 'High Archaeological Sensitivity' (Navin, '90, Canb.)

In the Archaeological Assessment undertaken by the proponent, Ms. Collins states that... *"the study area's sites, form part of a complex that is unique in the local and regional archaeological record"*... and *"are assessed to have a moderate to high level of scientific / archaeological significance."*

The Tweed/Byron Aboriginal Lands Council have outlined in correspondence (Oct. 2006) to Jackie Collins who undertook the archaeological assessment, that a major concern is the proposed road on the southern end of the survey behind the old service station as there are artefacts in this area.

d) Habitat clearing along ridgeline

NPWS states that... *"Inspection of satellite imagery of the NSW north coast between Murwillumbah and Ballina shows that the North Ocean Shores area connecting along Marshalls Ridges with the Burringbar and Koonyum Ranges to the west, provides the only substantial link of native vegetation between coastal remnants in the area and the hinterland."* (NPWS, 1995).

In order to carry out the excavation of Jones Road ridgeline, the proponent is proposing to remove important habitat and native vegetation, including an important hollow stag, which is critical habitat for a wide range of hollow dependent species. This proposal contradicts the comments and findings of Commissioner Cleland who stated... *"To ensure proper consideration is given to wildlife corridor values all existing vegetation should be*

retained. This is particularly evident for the western end of Jones Road..." (Cleland, 1997). The overall cumulative impact of the removal of native vegetation and habitat proposed for upgrading the western end of Jones Rd and for the 'cut and cover tunnel' also at the western end of the corridor will be significant. The wildlife corridor at this location is very narrow and simply cannot sustain further impact.

e) Environmental significance / Marshalls Ridge

It is important to acknowledge that one of the reasons the RTA moved the Pacific Highway Upgrade (Yelgun to Chinderah) further west in this locality, was because of the Billinudgel Nature Reserve and the sensitivity of the Jones Road Ridgeline.

Furthermore in 1997 the RTA acknowledged the findings of the Cleland Inquiry, in recognising the importance of the Marshall's Ridge wildlife corridor. Consequently it invested over \$6 million in fauna mitigation (underpasses / overpass) and 'compensatory habitat' in the Jones Rd area during the Upgrade.

'Marshall's Ridge was a major consideration during environmental planning for the Yelgun to Chinderah highway upgrade, which adjoins the study area on the western side. The NSW RTA has purchased compensatory habitat, incorporated fauna movement devices in the highway design (under and overpasses) and carried out extensive habitat rehabilitation in an effort to enhance the function of the wildlife corridor.' (Benwell 2002).

3. Council's approach to events in the Byron Shire

Council has taken a consistent approach in regard to music festivals, as demonstrated in its Events on Public and Private Land Policy and by the consents granted to prior development applications of the East Coast Blues and Roots Festival and for Splendour in the Grass.

This approach limits music festivals in regard to frequency, location and attendance. The reasons for these limits generally derive from regard to the maintenance of the character of the Shire, the amenity of Shire residents and the capacity of the subject site(s). The proposed development greatly exceeds these limits.

Council adopted an Events on Public and Private Land at its ordinary Meeting of 7/10/2010.

The Policy Objective states: The objective of this policy is to recognise the contribution that events make to the diverse character and culture of the Shire, and to encourage event organisers to promote events that recognise and contribute to the evolution of this character and culture, and to manage events so that they do not adversely impact on this existing character and culture.

Clause 2.7 of the Policy states: There be a restriction of no more than two major music events to be held within the Byron Shire in any calendar year. In this clause, major event means any outdoor music event of any duration that exceeds 6,000 patrons, participants and staff per day. A copy of this Policy is attached.

It is noted that clause 2.7 of the Policy was intended to enable the continuation of Byron Shire's long standing major music festivals, namely Splendour in the Grass and the East Coast Blues & Roots Festival.

Council granted development consent in 2009 for the East Coast Blues and Roots Festival at a new rural site for a five day period once a year for a trial three years. Numbers were limited to 17,500 total with a maximum 7,250 campers.

Following the initial event at the new location, Council has approved the modification of the consent to allow the annual event until 2021 with numbers increasing to 20,000.

Council granted development consent to a single, trial Splendour in the Grass three-day event at Yelgun in 2009 but this approval was invalidated by decision of the NSW Land and Environment Court. That consent, prior to its invalidation, limited attendance to 15,000 day patrons and a maximum 5,240 campers including 1,000 participant campers. Consent had been initially sought for a four day event with 15,000 day patrons and 7,500 camping patrons. Conditions included the monitoring of impacts.

Council resolved at its Ordinary Meeting of 21/10/2010 to proceed with an amendment to the Byron Local Environmental Plan 1988 to include a clause in regard to "Major Events". The proposed clause includes provisions that define a major event as an outdoor music event held over more than 2 days, with over 6,000 patrons/participants/staff per day and that limit the number of major events in the Shire to two per annum. A copy of Council's resolution 10-809 is as follows:

Resolved that Council proceed with the amendment to Byron LEP 1988 for inclusion of a clause on Major Events as shown at Annexure 4 (#977251) with the following amendments (to ensure consistency with the adopted Event Policy):

1. Clause 1 - delete "a place of assembly" and replace with the words "an outdoor music event".
2. Change the number 3,000 to 6,000.
3. Clause 5 - delete "(b)" and add "(f) the major event will have an adverse impact on biodiversity including native flora and fauna."
4. Clause 2 - insert "biodiversity".
5. Clause 6 - add "that no adverse impact on biodiversity including native flora and fauna".

(Cameron/Woods)

It is noted that clause 3.2 of Council's Events Policy provides that *A review of the performance of events and this policy is to be undertaken every two years*, and which provision allows for a mechanism that could encompass the incremental expansion of the incidence of larger festivals. Further, the report to Council in regard to the proposed LEP amendment referred to above states that a SEPP 1 Objection could be submitted at development application stage for a proposed non-compliance with the development standards in the proposed amendment.

The above decisions exemplify Council's approach to larger music festivals. This approach, incorporating the trialling of new locations and of control over patronage and frequency with mechanisms for future change subject to the assessment of demonstrated impacts constitutes a sound planning approach to these high impact developments.

The scale of the current proposal is well beyond anything previously mooted by the applicant, or any other applicant for a music festival in the Byron Shire and in no way respects the approach taken by Council.

4. Need for the development

The application states that: *The need for a purpose built cultural event site has been widely recognised in Byron Shire for the past decade.* [EA page 3].

Clause 2.4 of Council's Events Policy states: *Event organisers are encouraged to investigate the availability and suitability of the Byron Regional Sport and Cultural complex site for the proposed event.* [The Byron Regional Sport and Cultural Complex is under construction near Byron Bay.]

The EA states that: *One major event, Splendour in the Grass, is committed to utilising the venue once approval is granted* [EA page 25]. No mention is made of expressions of interest from other parties.

The East Coast Blues and Roots Festival has its own venue.

There is no demonstrated need for a venue of the scale proposed and the public interest would not be compromised by a refusal to the application as proposed.

5. Impacts on local amenity

The scale of impacts on local amenity and character caused by such elements as traffic, accommodation use, noise and general nuisance will generally depend on patronage numbers, events frequency and events management. It was understood when Council approved the earlier Splendour in the Grass application for a maximum of 20,240 participants that there would be local impacts but as this was a trial event these impacts could be monitored.

Detailed comment in regard to noise and traffic impacts is made below however it is evident that the arrival on tranquil rural land, close to quiet beachside residential areas of a large and ambitious complex offering a range of events with regular large spikes in numbers of up to 50,000 patrons will have a profound and permanent impact on the immediate locality and an adverse and significant impact in the general locality.

6. The scope of the application

The Environmental Assessment (EA) to the application development indicates that 3 stages are proposed and development consent is sought at this time for stages 1 and 2.

It is of concern that the timing of infrastructure provision is not tied to the holding of events.

Part 3.4 of the EA states in regard to Stage 1: *Within Stage 1, the Spine Road and underpass will be built. With respect to events, the intention is to only construct the required amount of infrastructure (such as event laneways) to cater for the few years of usage, with the remainder of the event laneways being built over time.* In regard to Stage 2 the EA states: *In Stage 2, it is intended to institute the on-site water supply and wastewater scheme proposals.* In regard to Stage 3, the EA states: *Stage 3 sees the finalisation of site infrastructure with the intended construction of the cultural centre and the conference facility.*

There is an evident lack of integration between the prospective events schedule and the components of Stages 1 and 2.

Any development consent would need to specify the scale and frequency of events in regard to each stage and the required infrastructure appropriate to same. It would not be appropriate to endorse the submitted Environmental Assessment in the context of a development consent given its broad and non-specific commitment to various features of the development. An Occupation Certificate, required prior to the operation of the venue, should reflect that the infrastructure appropriate to an event of the specified size has been installed. It would not be appropriate, for example, for Stage 1 to allow for the full range of events with it open to the operators to construct the on-site sewage management system or complete the car parking area at some indeterminate time, or never.

Conservation of North Ocean Shores Inc v Byron Shire Council & Ors [2009] NSWLEC 69 (6 May 2009)

This judgement invalidated Council's approval to the trial Splendour in the Grass event at the Yelgun site.

It is recognised the current application is a separate application, however given that the elements of the proposal that were central to the Court's decision are present in the current application, the reasoning in the judgement cannot reasonably be ignored.

Only a reading of the judgement can give a comprehensive view as to the reasoning in the judgement, however a summary can be attempted.

The Court took the view that the access road through land in the Zone 7(k) – now called the Spine Road - was a fundamental element of the application for a place of assembly, and that as a place of

assembly was prohibited in the Zone, so too was the road. The Court further found that Council's view that the proposed development complied with the Zone 7(k) Objectives was contrary to the information before Council and on which it based its conclusion.

The Court stated:

71. *If a development application were to be made in the future to carry out development for the purpose of roads or agriculture or other purpose permissible with consent on the land in the 7(k) Habitat Zone, the Council will need to consider whether, having regard to all of the facts disclosed in the development application then made and applying proper principles for the characterisation of the purpose of development, the proposed development can be characterised as being for the purpose of roads, agriculture or any other permissible purpose and not subordinated to the purpose of place of assembly. Such characterisation would be a jurisdictional fact able to be reviewed by the Court, but that is a matter for the future. The current development consent is a determination of the current development application. Neither dealt with development for the purpose of roads or agriculture or any purpose permissible in the 7(k) Habitat Zone.*

The EA to the current application states inter alia:

For most of the time the property will operate as a farm [EA p. i)...

In a technical sense various parts of the site are sought to be used for different Land uses. The Spine Road connecting the two existing farm properties and providing access from Jones road is sought to be used for purposes of a 'road'. [EA page 1 footnote.]

The Spine Road is for private 'road purposes relevant to the continuing use of the land for agriculture, the efficient operation of the two existing farms; and for connection to Tweed Valley Way, Jones Road and Wooyung Roads... In addition to providing for agricultural use interconnection, the Spine Road acts as a corridor for accessing event laneways which provide event connection to performance areas, patron camping, parking, a resource centre, a bus terminal and related event users. [EA page 53]

While the primary event laneways are to be constructed, the car parking camping and other areas used during events would remain as pasture and, as the site operates as part of a working farm for the vast majority of the year. [EA page 53]

These remarks can be regarded as addressing the Court's reasoning in regard to the permissibility, or otherwise, of the proposed road.

The validity of the applicant's position as to the separate status of the road cannot be assumed and the prospect of further legal challenge in the event of an approval to the application should be considered.

It would be, on the face of it, open to argue that the events use of the site is in a practical sense generally incompatible with farming use, given the year round calendar proposed in the application and the events use of all non forested areas of the site, and the application fails to demonstrate otherwise.

It can also be argued that the proposed Spine Road and the widening of Jones Road would not serve to protect the existing vegetation in the Zone and is not compatible with the Zone 7(k) objectives. It can also be argued that the proposed Spine Road and widening of Jones Road are unnecessary for any farming use of the site given that good access connectivity already exists between the southern and northern parts of the site via Tweed Valley Way and Jones Road. That is, the vegetation and landform of land in the Zone 7(k) can be protected without compromising the farming use of the site – as was evidently found by the prior ownership.

In these circumstances, the consent authority should not proceed without commissioning competent, independent legal advice.

7. Wastewater Management

The EA states:

In the initial establishment phase, wastewater will be “trucked out”. As Parklands matures as a venue, the intention is that a full on-site wastewater treatment and management system will be installed’ (EA page ii)

It is discussed above in comments in regard to the scope of the development that the application does not relate the construction of infrastructure, including on-site wastewater management, to the holding of events and that this would need to be undertaken in the event of an approval to the application.

Clause 45 of the Byron Local Environmental Plan requires that: *The Council shall not consent to the carrying out of development on any land to which this plan applies unless it is satisfied that prior adequate arrangements have been made for the provision of sewerage, drainage and water services to the land.* That is, the proposed on-site sewage management scheme must be demonstrated to be adequate prior to the issue of a development consent.

The proposed scheme is depicted in Technical Paper F1 titled ‘Integrated Water Cycle Assessment and Management’ by Gilbert and Sutherland dated July 2010 and a *permanent wastewater management infrastructure* is recommended in the Gilbert and Sutherland report. The scheme proposed is flawed:

- (a) The Gilbert and Sutherland report states that the wastewater load would be 26.5 L/person/day (from Table 7.2.1.1). This volume is grossly inadequate. The load per person could well be more than two or three times this figure and any on-site management must allow for substantively greater load than that presumed in the report.
- (b) The report cites an effluent flow of 1ML per day for an event at 100% capacity. Given the above, this figure is likely to be grossly underestimated - and is more like several ML/day.
- (c) The size of a sewage system, in terms of its ‘holding capacity’ and effluent irrigation area is largely determined by the maximum daily volumes to be treated. As such, the size of the effluent irrigation area proposed is also likely to be grossly underestimated.
- (d) The Environmental Assessment by SJ Connelly (Sept 2010) shows a proposed effluent irrigation area located about 750 m to the south of Jones Road. Plans 3.16 to 3.20 show this area will also be used as a car park. This comprises a conflict and cannot be supported. It is essential that vehicles, livestock, etc be excluded from effluent irrigation areas in order to protect the irrigation infrastructure and soils.
- (e) The proposed location for this effluent irrigation system is within a designated 1 in 100 year flood area and within a 40m river buffer zone. Given the proximity to waterways, topography and local vegetation, the groundwater table is also likely to be relatively high (page 5-1 states 0.35-0.9 m below ground level). Monitoring results provided indicate the groundwater is ‘*already impacted*’ (see page 5-2). These site constraints make this area largely unsuitable for effluent irrigation area.

The proposed scheme does not satisfy clause 45 of the Byron LEP and given the large volumes of effluent and the many constraints on this site, it is highly unlikely that the proposed system could effectively treat and dispose of effluent and protect public health and prevent environmental harm.

The adequacy of any proposed wastewater management system must be fully demonstrated prior to the issue of a development consent

Council officers would not recommend that an approval be given to the proposed system under s68 of the Local Government Act 1993.

The application states proposes that the venue commence operation and that at some indeterminate time on the future – Stage 2 – the on-site sewage management system be installed. No reason is put forward for this separation of activities.

If a single event only was to be proposed at the site, or, say, one per annum, then the export of wastewater from the site would be reasonable. In this event, the applicant would need to identify the final point of reception of waste and that a suitable arrangement has been made.

As a permanent events site is proposed with activities spread throughout the year, there must be some clearly defined point at which the on-site system is required to be utilised and such a system must have been demonstrated to be adequate.

8. Potable water supply

The Environmental Assessment by SJ Connelly CPP Pty Ltd dated September 2010 states that *'in the initial stages the water supply will be "trucked in". As the facility matures it is proposed that a full on-site water harvesting, filtration and reticulation system be installed'* (see p ii of Exec Summary).

The water demand is calculated as 26.5 L/person/day (see Table 6.3.1.1). Given that this water will be used for not only drinking and food preparation, but also for showering and general cleaning, this is likely to be an underestimation.

9. Noise

The proximity of the property to urban residential areas of North Ocean Shores (about 2.5km to the south-east), as well as dwellings on Jones Road, Wooyung Road (about 2km NW) and Tweed Valley Way means that these proposed events have the potential to significantly impact on the amenity of these residents.

Technical Paper D1 consists of a report by Benbow Environmental dated August 2010. This report includes noise monitoring, noise predictions for a range of scenarios (eg events, meteorological conditions, etc), impact assessment, identification of sensitive receptors (ie residents) and strategies to protect amenity. It also presents a case for varying the noise criteria from those in the NSW Industrial Noise Policy.

The Benbow report states that *music with live bands (main music source) would operate between 11am and midnight with quieter music (secondary music sources) operating at other times'* (p 2) but Tables 2-1 to 2-7 state hours of 'noon to 11pm' and '11pm to 3am';

The Benbow report further states that *'the music levels will alter the lifestyle of the nearest affected residents in Jones Road and the conflict with their lifestyle is unable to be completely restored'* [page iii].

The report proposes mitigation measures include orientation of stages and speakers, generation of 'white noise' at night time, acoustic insulation of affected residents and flexible noise barriers. A monitoring program is also recommended (no details given).

The recommended noise limits/criteria are greater than those in the NSW Industrial Noise Policy. They are based on overseas standards, the entertainment industry and other standards. The recommended criteria for sleep noise disturbance in this report for 'minor' and 'small' events are 15 dB(A) over the background noise levels. (Note that an increase of 6db(A) is a doubling of sound pressure and is noticeable to the human ear; and an increase of 8-10 dB(A) is significant).

The noise limits proposed (Table 4-2) are not reasonable and do not give consideration of the amenity of residents when the number of event days is taken into consideration.

10. Waste disposal

The issue of waste management – bulk storage bins, odours, vermin, all weather access, daily removal – does not appear to have been addressed

11. Traffic/Car Parking/Access

There are substantive doubts as to the capacity of the public road network to adequately service the proposed development and of the adequacy of the proposed parking provision. Following is a list of issues to be considered.

11.1 General

- (b) It is noted that the former consent (10.2007.462.1) approved 20,240 patrons per day. This was made up of a maximum of 15,000 day patrons and 5,240 campers. The number of day patrons limit was set at a maximum of 15,000 because, in part, the RTA traffic modelling and RTA support for the proposal was based on a maximum of 15,000 day patrons.
- (c) It is noted that in relation to the former consent (10.2007.462.1), the RTA indicated that the proposed patron numbers travelling to the site by car could potentially disrupt vehicle movements within the Yelgun Interchange, and even the Pacific Motorway. As the proposal/consent was for a trial, it would enable the RTA to assess those traffic issues and the suitability of the site in terms of traffic and access.

11.2 Traffic

- (a) In respect to the access Gate B for Buses off Tweed Valley Way, concerns regarding adequate safe intersection sight distances. This relates to buses stopped in the sheltered right turn lane and the available sight distance to the north of vehicles travelling south through the compound curve. Sight distance appears limited. This could be mitigated with Traffic Controllers, reduced speed zone, (currently 80km/hr). Would it be a safer outcome and possible to move this intersection/access Gate B further to the south where the sight distances would be improved.
- (b) In respect to former application Consent 10.2007.462.1), the applicant's traffic impact study adopted rates of bus patronage at 40% and car occupancy rates of 2.5/car. These rates are consistent with historical data from previous festivals. However, it is noted in the Traffic Impact Assessment for this festival site, bus patronage rates of 23% to 39% and car occupancy rates of 2.5, 2.9, & 3.2 per car are mooted. There appears to be inconsistencies and varying philosophies on the patronage and occupancy rates being hypothesised. Such rates all have bearings and impacts on traffic modelling, traffic flows/queuing, and car parking requirements. The further collection and analysis of more accurate traffic data, based on actual events pertinent to this location; could be used by the RTA, Council and the applicant in the modelling, assessment and determination of any such events.
- (c) The traffic report indicates some measures, such as implementing transport initiatives, which could ameliorate traffic impacts and queuing through the Yelgun Interchange and on the Pacific Motorway, and also to address the on site car parking shortfalls. Such a measure is to increase the car occupancy rate to 2.9 for the 70% major event and to 3.2 for the 100% major event. There is no assurance of ensuring that this can be achieved, but there needs to be a 100% assurance that such could be achieved and that there is no impact on the Pacific Motorway and associated interchanges, as is also the requirement of the RTA. The collection and analysis of more accurate traffic data, based on actual events pertinent to this location; could be used by the RTA, Council and the applicant in the modelling, assessment and determination of such events.
- (d) Concern regarding the practicalities of some proposed measures in the transport planning strategies, to address the abovementioned point. Some such measures proposed are: "restrict parking on site", "restrict parking in the venue to patrons who are prepared to pay a premium for the privilege", "restrict the supply of parking for day patrons to encourage the use of event bus services".

- (e) Concerns regarding the close location/proximity of the “vehicle processing area” to Tweed Valley Way. Delays in processing times could result in the car exiting rate to be slower than the car arrival rate, which could easily and quickly impact on the traffic flows/management/queuing on Tweed Valley Way, and potentially the Interchange/Motorway. (Similar such scenarios were evident at the recent Blues Festival trial event. The RTA directed quite emphatically, that there is to be NO impact onto the Motorway at all.) The collection and analysis of more accurate traffic data, based on actual events pertinent to this location; could be used by the RTA, Council and the applicant in the modelling, assessment and determination of such events.
- (f) Concerns regarding the reduction in the Level Of Service (LOS) of Tweed Valley Way as a result of the event proceedings. The current LOS is at “C”. A proposed Moderate Event would reduce this to a LOS of “D” by 2030. A 70% Major Event would reduce this to a LOS of “D” by 2015 and to “E” by 2030. A 100% Major Event would result the LOS of Tweed Valley Way to be exceeded completely. The report indicates that the LOS could be reduced to “D”, again, if the car occupancy rate could be increased somehow to 3.2. The above could potentially occur for up to 16 event days per year. Concerns are raised in respect to whether this scenario is in the public interest and whether it results in a good, safe, practical outcome.
- (g) The traffic report indicates that the Yelgun Interchange would operate, at the 100% Major Event, in 2015 at a LOS of “B”, apart from the southbound on-ramp merge which would operate at a LOS of “C”. In 2030 all merge areas would operate at a LOS of “C”. There is no indication of the current LOS of the Yelgun Interchange nor existing/future LOS for the Brunswick Interchange and Brunswick Valley Way between this the Brunswick and Yelgun Interchanges. The report also indicates that in some cases, traffic is expected to bank back through the Yelgun Interchange. This is considered unacceptable, and based on similar such scenarios and advice from the RTA relating to the Blues Festival at Tyagarah, it is highly likely that the RTA would also find this scenario to be unacceptable. The collection and analysis of more accurate traffic data, based on actual events pertinent to this location; could be used by the RTA, Council and the applicant in the modelling, assessment and determination of such events.
- (h) In respect to the former consent (10.2007.462.1), the Regional Traffic Committee supported the proposed one off event subject to a number of conditions, which in part, some are as follows and are considered to be applicable and pertinent to this application:

(NOTE: Based on RTA modelling, the RTA support for this former proposal was based on a maximum of 15,000 day patrons only).

The main issue of concern is regarding the adoption of Option 2 of the traffic report dated 15 January 2008, which states:

Option 2: To close the northbound highway off-ramp at the Yelgun Interchange for a short period. Northbound traffic would be redirected to the off-ramp at the Brunswick River, and follow Brunswick Valley Way (the old Pacific Highway) past Ocean Shores to the site.

This will require the closure of the Yelgun Interchange’s northbound off-ramp for the peak period. Traffic will be redirected via the off-ramp at Brunswick River and the Brunswick Valley Way through Ocean Shores to the site.

Given that if the event is a trial event, this impact can be monitored and used in decision making for future events/permanent approvals. From such data, an amended Traffic Control Plan could be formulated when such matters are finalised with the RTA...

- I. There would be no objection to the proposed trial if Option 2 in the report dated 15 January 2008 is implemented for managing traffic entering the site. This will require the closure of the Yelgun Interchange’s northbound off-ramp for the peak period. Traffic is to be

redirected via the off-ramp at Brunswick River and the Brunswick Valley Way through Ocean Shores to the site.

- II. A strategy is to be developed to collect the necessary traffic data that can be used to assess any future application for events at the site.
 - III. Any new access to the Tweed Valley Way will require approval by Council with the RTA's concurrence in accordance with Section 138 of the Roads Act 1993.
 - IV. All access driveways to a public road need to be constructed to either RTA or AUSTROADs Rural Access standards.
 - V. ... Data will need to be collected at all access points so they can be used for any further improvements for future events.
 - VI. Traffic entering the sites should be able to travel a reasonable distance before reaching a decision point so they do not queue onto a public road.
- (i) It is also recommended that the events be restricted to a maximum of 15,000 day patrons, and an overall total of patrons/campers be at 20,000. The RTA to date have only done traffic modelling, with respect to the impacts on the Pacific Motorway and Yelgun Interchange for 15,000 day patrons.

11.3 Car Parking & Access

- (a) Bus access off Tweed Valley Way at Gate B, refer to comments under "Traffic" above.
- (b) Consistent with occupancy and transport mode rates with other event modelling and the former consent for this event, a 100% capacity event of 25,000 day patrons and 25,000 campers, would require 14,500 car spaces. By extrapolation, a 70% event would require 10,150 car spaces. The 70% event in this case is catered for by the proposed 11,901 car spaces (or, 12,628 with overflow car parking). This is satisfactory for the 70% capacity major event, but it brings the site to capacity in respect to car parking. Thus there is insufficient on site car parking for the 100% major event.

11.4 Flooding & Evacuation

Concerns are raised in respect to whether a development of this size within a flood plain is in the public interest, including serious issues relating to evacuation. The flooding impacts over the site may restrict or prevent the permanent use of the property as a festival/camping site.

The flood/evacuation report appears to omit addressing some critical flooding issues as follows:

- (a) The site is flood liable and affected by two flood plains separated by Jones Road.
- (b) The southern car park site is located within the Yelgun and Billinudgel Creek catchments, which is within the Yelgun-Wooyung Rural Plan Area of the Marshall's Creek Floodplain Management Plan (adopted by Council Nov 1997).
- (c) The estimated 1% AEP flood levels in the Marshall's Creek Floodplain Management Plan Report indicates flood levels in the order of 3.7m AHD in the vicinity of the subject site south of Jones Road. The estimated flood levels of the submitted flood assessment report for the former DA, estimated 1% AEP flood levels of 3.8m AHD to 4.1m AHD south of Jones Road. The flood report estimates a short warning time of less than 1 hour for this catchment.
- (d) The event site, camping area and camping carparking is located north of Jones Road in the Mooball Creek catchment. This larger catchment has longer warning times. An RTA flood study identifies a 1 in 100 year storm event level of 4.55 within this locality.
- (e) The Marshall's Creek Floodplain Management Plan classifies the Yelgun/Wooyung area as "High Hazard – Flood Storage".

- (f) The estimated depths of flood water during a 1 in 100 year storm event for the site are up to 2.5m. Some estimated depths of flood waters during a 1 in 100 year storm event throughout the site are as follows:

Day carpark0 – 1.8m
Surplus carpark.....0.4m – 1.1m
General camping area.....2.5m
Event areas.....2.0m

- (g) Depths in excess of 0.7m for low velocity flood waters (< 0.5m/s) would be classified as “High Hazard” and depths exceeding 0.4m will create vehicle instability.
- (h) Exclusive of any proposed buildings, the “High Hazard” classification could be mitigated by a satisfactory evacuation plan.
- (i) Evacuation times for various sections of the site range from 0.5 to 8 hours
- (j) The evacuation plan must clearly indicate evacuation routes and levels of flooding on those evacuation routes. The flood study estimated a short warning time (less than 1 hour) for the car park area south of Jones Road and therefore evacuation for an estimated 7,800 vehicles for the 70% major event (ie. estimated 11,100 for 100% major event), is not considered possible. This matter would have to be considered further with any long term use of the site.
- (k) The report also recommends that the northern car park areas be evacuated via Jones Road and north along Tweed Valley Way, and then onto the Pacific Motorway via Cudgera Creek Road/Interchange. The regional/local road network between the event site and the Cudgera Creek Road Interchange are also flood liable. The northern car park area proposes to hold 4,746 cars/buses in the 70% major event. (ie. 6,780 for the 100% major event).

Concerns are raised in respect to whether a development of this size within a flood plain is in the public interest and whether it results in a good, safe, and practical outcome.

The flooding impacts over the site may restrict or prevent the permanent use of the property as a festival/camping site.

12. Ecological Impacts

The ecological impacts of episodic events are difficult to predict. This is because of the intermittent nature of site utilisation and the unpredictable nature of fauna responses to such disturbance. Fauna utilisation of the site will vary according to resource availability so the potential impacts are likely to differ depending on the timing and frequency of events. Furthermore the long-term, cumulative impacts of regular events are even more difficult to predict.

In the absence of information that confirms otherwise, it is anticipated that the significant disturbance created by regular music festivals is likely to impact on both resident fauna, fauna that utilise the site on a seasonal basis and fauna that rely on the habitat for safe movement between the coast and hinterland. The scale and frequency of disturbance may result in permanent changes to fauna assemblage and use of the site. Research and comprehensive monitoring is required over a long period of time in order to answer these questions and prevent irreversible impacts on fauna populations that utilise the site.

13. Conclusion

The development application does not have the merits to warrant the granting of development consent. It proposes too large and too frequent a range of activities. The likelihood of significant adverse impacts is evident and the application and the application should be refused.

All communications to be addressed to:

Headquarters
NSW Rural Fire Service
Locked Mail Bag 17
GRANVILLE NSW 2142

Headquarters
NSW Rural Fire Service
15 Carter Street
LIDCOMBE NSW 2127

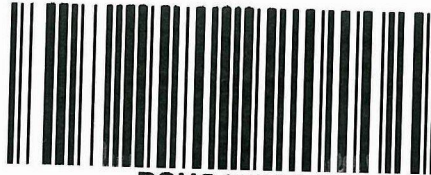
Telephone: (02) 8741 5555

Facsimile: (02) 8741 5550

e-mail: development.assessment@rfs.nsw.gov.au



Director General
Dept. of Planning
Regional Projects
GPO Box 39
SYDNEY NSW 2001



PCU017022

Attention: Brent Devine

our Ref: MP 09_0028

our Ref: S09/0027
DA09072961845
ID:61845/67450/5



8 November 2010

Dear Mr Devine

**Environment Assessment Exhibition: MP 09_0028
Proposed Cultural Events Site at Tweed Valley Way, Yelgun**

I refer to your letter dated 30 September 2010 inviting comments from the NSW Rural Fire Service (RFS) regarding bush fire protection for the above proposal.

The RFS has considered the application and has the following concerns and comments on the use of the site for larger of such events:

1. The potential large number of people occupying the site which is itself and surrounded by bush fire prone land.
2. The ability to evacuate such a large number of persons in times of emergency.
3. The width of the proposed emergency exit to the north is inadequate and is through cane fields which can be a bush fire hazard depending on the height of the crop.
4. The emergency assembly areas are on the interface with bush fire prone land and are unsuitable for a bush fire event.
5. The use of the previous bush fire safety authority issued by the RFS dated 5 October 2007 for a one off event is inadequate and should not be used as a template for this proposal.
6. The bush fire assessment report does not consider construction requirements for the permanent structures.

7. The conference centre and the accompanying accommodation rooms and cabins should be assessed as special fire protection purposed developments as defined by 'Planning for Bush Fire Protection 2006'.
8. It would be recommended that large events not be held during the local bush fire season.

For any enquiries regarding this correspondence please contact Garth Bladwell.

Yours faithfully,



Corey Shackleton
A/Team Leader, Development Assessment & Planning

For information on *Planning for Bush Fire Protection 2006* visit the RFS web page www.rfs.nsw.gov.au



Mr Alan Bright
A/ Director
Regional Projects
Planning NSW
GPO Box 39
SYDNEY NSW 2001

Far North Coast
Level 1, 76 Victoria Street
PO Box 272
GRAFTON 2460
T (02) 6640 3400
F (02) 6642 5375
www.lpma.nsw.gov.au

Our reference: 10/09944
Your reference: 09_0028

17 November 2010

Attention: Mr Brent Devine

Dear Mr Devine,

Re: Exhibition of Environmental Assessment for a Proposed Cultural Events Site at Tweed Valley Way and Jones Road, Yelgun – Byron LGA

I refer to your letter dated 30 September 2010 inviting comments from the Land and Property Management Authority (LPMA) in relation to the abovementioned major project application and accompanying environmental assessment (EA), as lodged by Billinudgel Property Pty Ltd (the Proponent). Thank you for the opportunity to provide comments.

Adjacent Crown Lands

- LPMA confirms the former Crown public road once situated within and south of Lot 403 DP755687 has been closed and purchased by the Proponent, pursuant to the provisions of the *Roads Act 1993*. The road is now identified as Lot 1 DP1145020.
- However, a Crown public road still adjoins the northern boundary of Lot 403, as depicted in Figure 1, which is identified in the EA as providing emergency vehicle access from Wooyung Road to the proposed development site.
- A section of this Crown public road is held under an Enclosure Permit (under Section 61 of the *Crown Lands Act 1989*), as depicted in Figure 1.
- According to the EA "A road reserve with a farm access road of approximately 850 metres in length connects the northern property boundary with Wooyung Road" and "The proposal does not involve use of this access connection, other than for emergency vehicle use" (Page 126).
- Permanent, albeit periodic, reliance on the Crown public road for access by emergency vehicles is an element of the proposed development.
- As LPMA is not a road construction authority and does not receive funding for road construction and maintenance, it cannot support permanent reliance on the Crown public road for access by emergency vehicles, unless Tweed Shire Council is prepared to accept transfer of the road to its complete control under Section 151 of the *Roads Act 1993*. If Council is unwilling to accept such a transfer, LPMA may look at closing the road and offering it for sale to the Proponent, noting such a sale will be conditional on the provision of easements for access to other land, where required.
- Consequently, please ensure the Proponent does not undertake any activity on, or use the Crown public road for, any purpose associated with the proposed development.
- Specifically, the Proponent may not:
 - encroach upon the road;

- remove any vegetation from the road;
- stockpile any materials or store any equipment, plant or machinery on the road;
- use the road for access;
- discharge stormwater onto the road; or
- use the road as an asset protection zone (APZ).

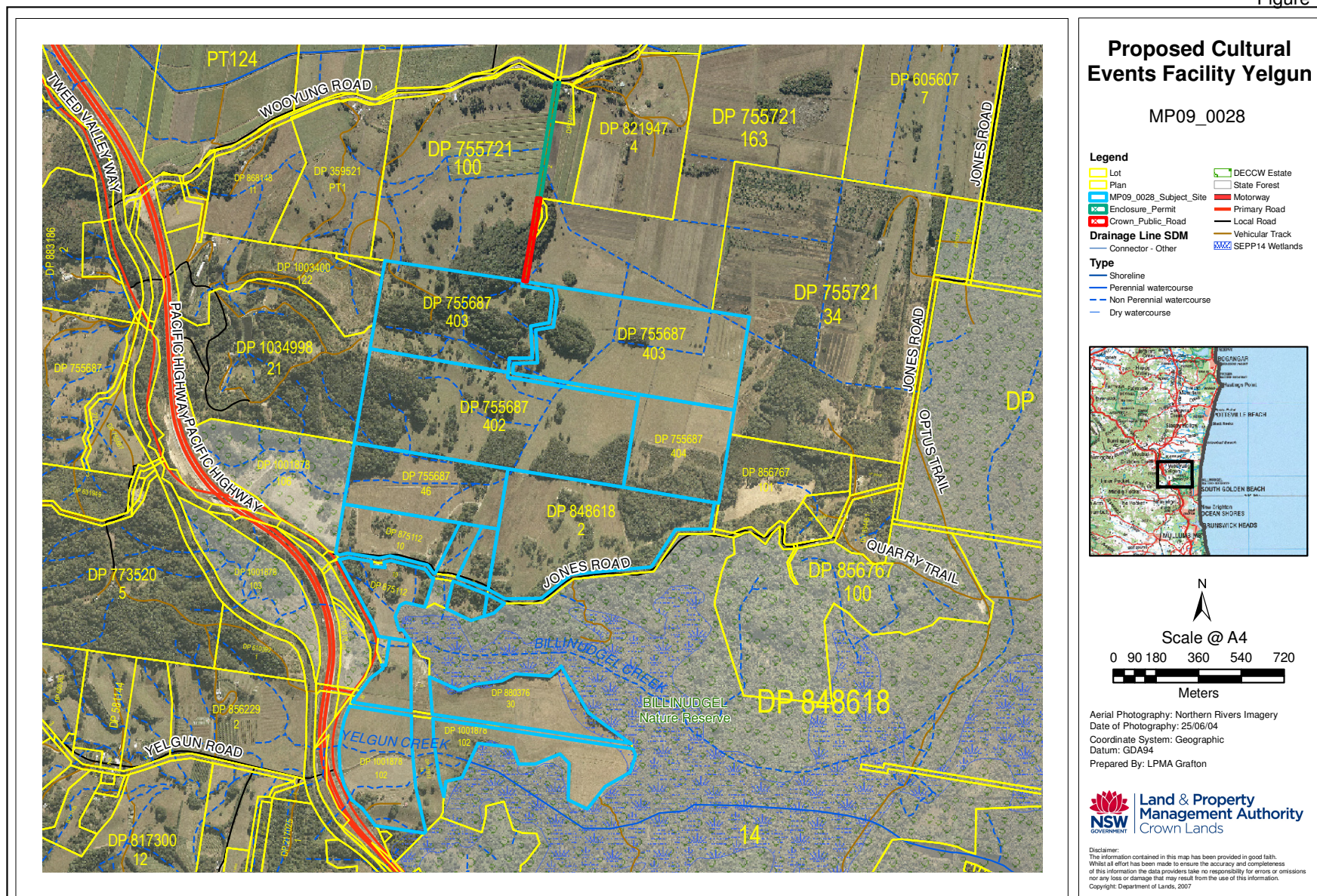
Please feel free to contact me on (02) 6640 3436 or ian.hanson@lpma.nsw.gov.au if you have any questions or concerns in relation to these comments.

Yours sincerely,

A handwritten signature in black ink, reading "Ian Hanson.", is displayed on a light gray rectangular background.

Ian Hanson
Senior Environmental Officer
Crown Lands Division

Figure 1





Environment, Climate Change & Water

Your Reference:
Our reference:
Contact:

09_0028
FIL07/17896-03 DOC10/45263
Biodiversity: Adrian Deville, 6640 2511
Aboriginal Cultural Heritage: Nick Pulver, 6659 8272
Floodplain: Toong Chin, 6627 0233

Mr Alan Bright
A/Director, Coastal Assessments
NSW Department of Planning
GPO Box 39
SYDNEY NSW 2001

Dear Mr Bright

RE: Proposed Cultural Events Site at Yelgun, Byron LGA (09_0028)

I refer to your letter of 30 September 2010, relating to the above project proposal in Yelgun. I apologise for the delay in responding.

The Department of Environment, Climate Change and Water (DECCW) has reviewed the information provided in relation to biodiversity conservation, Aboriginal cultural heritage, flooding, climate change and other environmental management issues. The Department provides the following comments.

DECCW has summarized the key issues regarding the proposal below, while Attachment 1 provides details of additional recommended Statements of Commitments and conditions of approval, should the proposal be approved. Attachment 2 contains further detail on DECCW's assessment of the proposal, including justification for the amendments proposed.

The key issues identified through DECCW's review of the proposal include:

1. The importance of conserving a regionally significant habitat corridor linking the coast to the ranges.
2. Affording an appropriate level of protection to a range of threatened flora, fauna and endangered ecological communities, which occur on the site.
3. Protecting the significant biodiversity and cultural values of Billinudgel Nature Reserve.
4. Ensuring that the site's Aboriginal cultural heritage values are appropriately protected and managed in consultation with the local Aboriginal community.
5. Onsite disposal of effluent and potential impacts to water quality.

DECCW notes that the scale and nature of the current proposal has increased significantly from the previous proposal, but is not well defined. This, in turn, impairs the Department's ability to clearly determine the extent of likely impacts associated with the proposal, particularly in relation to ecological impacts associated with the event and ecological impacts in relation to human disturbance.

The Department of Environment and Climate Change is now known as the Department of Environment, Climate Change and Water

DECCW is aware of community concerns regarding flooding and fire threats at the site, impacts to the adjoining nature reserve and effluent management onsite. The community has called for an alternative site to be used for the festival.

If the Department of Planning concludes that there is merit in progressing the proposal, DECCW strongly recommends the adoption of a 'trial and monitor' approach where impacts from events are assessed and then future use of the site tailored to reflect the outcomes of these trials. It is suggested that the conditions detailed in Attachment 1, in particular the changes recommended in relation to the layout and ecological monitoring and reporting framework, are adopted.

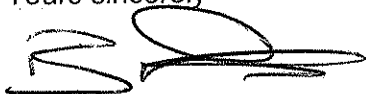
The trial and monitoring principle is recommended as an appropriate response to the lack of clarity surrounding the scale and nature of the current proposal and the uncertainties associated with the ecological impacts. The principle would be to approve a trial event at the site and link this with a scientifically robust and transparent monitoring program which would inform any future decisions regarding the acceptability of any intensification in the use of the site.

It should be noted also that the findings of previous court decisions relating to this site, in particular the permissibility of landuses under the 7(k) zoning, has been highlighted to DECCW in various representations from community groups. DECCW notes this issue for DoP's consideration in determining the proposal.

If you have any inquiries or wish to discuss this matter please contact the following:

- Adrian Deville (66402514) in relation to biodiversity conservation and general environmental issues;
- Nick Pulver (6659 8272) in relation to Aboriginal cultural heritage; or
- Toong Chin (6627 0233) in relation to flooding impact assessment.

Yours sincerely



BRETT NUDD
Manager North Coast Region
Environment Protection and Regulation Group

19-11-10

ATTACHMENT 1: RECOMMENDED ADDITIONAL STATEMENTS OF COMMITMENT / CONDITIONS OF APPROVAL

1. A greater proportion of the site is to be established as permanent habitat with greater connected ground cover and canopy than that proposed. Particular reference is made to those areas between the central low lying swamp (EEC) forest blocks (east-west), and between these and elevated and partially vegetated slopes to the south (north-south to Jones Road and east of the proposed spine road). [A detailed updated event layout and ecological structure/restoration plan should be provided to DoP for consideration prior to approval of this proposal that demonstrates commitment to increased connectivity upon the site].
2. Only the northern portion of the site should be used for amplified noise generation. A suitable minimum buffering distance (for example 75m) from central forest blocks and any other large forested areas should be established, with speaker systems directed away from these areas. [A detailed updated event layout incorporating these concerns, also including details of best practice sound mitigation measures, should be provided to DoP for consideration prior to approval].
3. Visual screens should be provided at key line of site locations between performance event areas and any forested habitat, to reinforce buffers and reduce potentially negative visual impacts upon sensitive forest species from large scale human movement.
4. All central swamp forest blocks are to be protected from further degradation by cattle.
5. If the cut and cover tunnel option is used to traverse Jones Road, the following conditions should apply to address fauna barrier effects during events:
 - a. an appropriately selected and densely vegetated canopy, shrub and groundcover be established immediately within a connective width (north-south) of 15m upon either side of Jones road, including fauna exclusion fencing for the edges of the cover section.
 - b. at least two fauna friendly (1m x 1.5m) box culverts are installed under the spine road both north and south of Jones road to enhance safe fauna passage during event times or other uses of the road. The inverts of these culverts must be well above groundwater level.
 - c. any human exclusion fencing in this vicinity must also include fauna friendly design (250 mm square gaps at 10m intervals), allowing for fauna movement along the base of the fence.
6. Any approval of a cultural events site in this location should be based on a trial¹ and monitor principle, with any intensification in the use of the site contingent on ecological monitoring data that confirms that there are no significant impacts on the functioning of the habitat corridor, threatened species or endangered ecological communities.
7. The nature and scope of an ecological monitoring program should be determined, approved and reviewed in conjunction with the proponent, by an ecological impact assessment committee (as part of the proposed Regulatory Working Group), consisting of an independent ecologist approved by DECCW, Byron Shire Council ecologist(s) and National Parks and Wildlife officers managing Billinudgel Nature Reserve.

¹ While the scale of any trial will need to be determined with reference to social, economic and environmental considerations by DoP, DECCW suggests that approval only should be given for one major event on the subject site per year (with a maximum of four event days), for a period of three years, which is linked to a prescribed review process.

8. Ecological monitoring should also encompass the collection of data for evaluating impacts to fauna within Billinudgel Nature Reserve (BNR) (to be addressed in accordance with above recommendation regarding ecological monitoring).
9. Any commitments for additional ranger patrols from Parks and Wildlife Group of DECCW should be funded as part of the event operations [While noting that this intention has been confirmed in writing by the proponents, this requirement should be identified in any conditional approval for the subject lands].
10. An annual conditional performance 'bond' should be lodged by the proponents with DECCW/PWG of \$25,000 in order to address unforeseen or otherwise unaddressed impacts upon the BNR from event operations. Unused portions of the bond could be carried over and held in respect of the following year, or refunded annually as appropriate, following approval by the proposed Regulatory Working Group. The bond should be reviewed annually.
11. A habitat restoration program for the area between the SEPP 14 boundary and the BNR in the southern car park, should be developed in consultation with the ecological impact assessment committee and implemented.
12. Appropriate signage is to be provided throughout the proposed southern car park area that encourages reporting of any oil spills or leakages to festival management.
13. Any approval issued should be conditional on the development of a detailed management plan for solid waste to the satisfaction of Byron Shire Council and the Department of Planning, including littering adjacent to and within the Billinudgel Nature Reserve and other DECCW land parcels.
14. Prior to commissioning of the reticulated sewerage system on the site, a comprehensive operations, monitoring and maintenance plan is to be developed for the system and submitted to the Department of Planning for approval.
15. The reticulated sewerage system must be managed to ensure that no overflow occurs from the effluent holding dam or wetlands and no surface runoff occurs from the irrigation area.
16. Any proposed bonfires on the property:
 - a. should be the subject of an approved bonfire management plan to be received and reviewed by the Rural Fire Service at least 3 months before any event.
 - b. are to be prohibited during local fire restriction periods to minimise bushfire risk and associated imposts on rural fire brigades, and
 - c. are to be located at a minimum of 100 m from any of the mapped forest blocks and other forest vegetation upon the site to minimise bushfire risk and to avoid adverse effects from bonfire smoke and heat upon sensitive fauna species (particularly bats) that might disrupt normal behavioural activities.
17. Further information confirming the proposed mosquito control strategies should be requested. Any mosquito control should be limited to the use of personal insect deterrents rather than broad spectrum chemical control or barrier programs, to prevent potential adverse ecological impacts upon fauna inhabiting or utilising the site and Billinudgel Nature Reserve, as well as aquatic fauna on and downstream from the site.
18. A well formulated and documented evacuation plan should be required in the event of flooding occurring upon the site.
19. The proponent must provide additional details regarding the specific Aboriginal cultural heritage management measures proposed for each known Aboriginal site, to ensure they will be not impacted as a result of any development/construction/event activities. These measures should include, but not be limited to:
 - a. a program of ongoing monitoring by the local Aboriginal community, assessment criteria for any previously unidentified Aboriginal cultural heritage values;

- b. management during maintenance activities (e.g. weed spraying, pest control, etc), as a component of any Aboriginal cultural heritage induction program; and,
 - c. the specifics of any protection works (e.g. fencing, signage, located on maps, etc).
20. Any management measures are to be developed in consultation with the registered local Aboriginal stakeholders and specific management during any proposed events should be incorporated in the proposed 'Event Management Manual'.
21. In relation to the Aboriginal cultural heritage sites previously investigated and salvaged on the site the proponent must :
- a. accurately complete a DECCW Aboriginal Site Recording Form²) or an Aboriginal Site Impact Recording Form³ and submit the appropriate form to DECCW's Aboriginal Heritage Information Management System (AHIMS) Registrar promptly. Details of any proposed management strategies should also be provided in detail on either form.
 - b. complete an application for a Care Agreement regarding custody of the 24 salvaged objects with the registered Aboriginal stakeholders and submit it to DECCW to formalise this process.
 - c. Ensure the long term management strategy for the salvaged Aboriginal objects is to be finalised promptly in discussions with the registered Aboriginal stakeholders. Details of this strategy should be incorporated in the submission of the site recording form.
22. The applicant shall provide fair and reasonable opportunities for the registered local Aboriginal community to monitor any soil disturbance/earth moving activities associated with the approved project area.
23. In the event that surface disturbance identifies a new Aboriginal site, all works must stop in the immediate area to prevent any further impacts to the object(s). A suitably qualified archaeologist and representatives of the local Aboriginal community must be contacted to determine the significance (cultural and scientific) of the object(s). The site is to be registered in the AHIMS (managed by DECCW) and the management outcome for the site included in the information provided to the AHIMS. The proponent will consult with the Aboriginal community representatives the archaeologist, the Director General and DECCW to develop and implement management strategies for all objects/sites.
24. If human remains are located, all works must halt in the immediate area to prevent any further impacts to the remains. The NSW Police are contacted immediately. No action is to be undertaken until police provide written notification to the proponent. If the skeletal remains are identified as Aboriginal, the proponent must contact DECCW's Enviroline on 131555 and representatives of the local Aboriginal community. No works are to continue until DECCW provide written notification to the proponent.
25. All reasonable efforts must be made to avoid impacts to Aboriginal cultural heritage at all stages of the development works. If impacts are unavoidable, mitigation measures are to be negotiated with the local Aboriginal community and DECCW. All sites impacted must have a DECCW Aboriginal Site Impact Recording (ASIR) form completed and submitted to DECCW AHIMS unit within 3 months of completion of the cultural heritage works.
26. An Aboriginal Cultural Education Program must be developed for the induction of all personnel and contractors involved in the construction activities on site.

² available at:

<http://www.environment.nsw.gov.au/licences/DECCAHiMSSiteRecordingForm.htm>

³ available at:

<http://www.environment.nsw.gov.au/resources/cultureheritage/10318asirf.pdf>

Records are to be kept of which staff/contractors were inducted and when for the duration of the project. The program should be developed and implemented in collaboration with the Aboriginal community.

ATTACHMENT 2: ASSESSMENT OF THE PROPOSAL

1. BIODIVERSITY ISSUES

Introduction

DECCW has reviewed the proposal to establish a permanent cultural events site on the subject land and its potential biodiversity impacts. The review has encompassed the stated objectives, proposed event footprint, proposed ecological structure and current zonings, event scheduling and scale, suggested broad event layout options, construction activities, the broad management framework and the ecological and environmental management monitoring and reporting program.

DECCW has undertaken its review of the uses of this site in the context of the broader landscape and policy and planning framework for the site. A number of key investigations and documents have clearly identified the wildlife corridor value of the subject site, including (but not limited to):

- *Cleland Commission of Inquiry into Rezoning of Lands at North Ocean Shores* (NSW Department of Planning, 1997)
- *Draft Far North Coast Regional Conservation Plan* (DECCW 2009)
- *Northern Rivers Regional Biodiversity Management Strategy* (DECCW 2010)
- *Byron Biodiversity Conservation Strategy* (Byron Shire Council, 2004).

Notably, the *Draft Far North Coast Regional Conservation Plan (DFNCRCP 2009)* describes the coastal range between Mount Jerusalem in the west to Billinudgel Nature Reserve in the east as:

"... one of the few remaining coast to ranges habitat corridors in the Far North Coast Region and is home to a number of threatened species, EECs and large areas of old-growth forest, which is a relatively rare occurrence in the Far North Coast Region. The corridor will be critical in terms of adaptation to climate change and linkages with the Great Eastern Ranges corridor (DECC 2007)" p36.

DECCW's response to the project proposal has therefore focused on the current and the *potential* ecological values of the subject site, with a particular regard to the extent to which the proposal offers opportunity to maintain *and enhance* these values both on and off the subject site, in the above mentioned broader conservation context.

In doing so, DECCW has also reviewed the work of Benwell and Scotts (2010) which provides a contextualising discussion of the subject land and proposal in relation to the findings of contemporary research into landscape scale conservation planning. Significantly, they highlight the importance at the landscape scale, of planning decisions that are cognizant of both formal 'core' biological reserves and 'matrix' areas that surround and can connect such core areas. They draw attention to the inter-dependence and mutual effect of core and matrix areas upon each other, as a key part of the health of an *integrated* conservation network. In the context of various forms of development, including human disturbance from events such as those proposed, there is need to recognize that core conservation reserves themselves "are sensitive to changes in land-use in the surrounding matrix" (p37) such as those on the proposed event site.

DECCW agrees that "the long term welfare of biodiversity requires the maintenance of landscapes composed of core areas, buffers and inter-connecting links" which provide the "essential elements in an integrated approach to conservation planning" p36. Furthermore, DECCW agrees that all such elements, albeit in some degraded condition, are in place on and surrounding the subject site, and that, as suggested above, the "landscape connectivity values of matrix and corridor areas" have been formally recognized. As such, DECCW (2010) has identified this locale as a regional priority landscape and has approached this project proposal with these broader landscape elements, their ecological values and their maintenance and enhancement in mind.

The discussion below therefore focuses on the extent to which the current proposal is likely to be able deliver important landscape scale conservation outcomes outlined by DECCW and others, including its impacts on the Billinudgel Nature Reserve (BNR) and their management. The balance of 'on-site' gains and impacts are also discussed as well as how the current proposal addresses the many uncertainties it imposes for biodiversity and its long term conservation.

Landscape Connectivity

In addition to retaining all native vegetation on site, this proposal provides a degree of improved landscape connectivity, as follows:

1. a range of strategic on-site habitat restoration programs;
2. conservation of several strategic areas of the site in perpetuity; and,
3. a series of areas of so-called "managed parklands" which will also potentially offer some improved future canopy/stepping-stone connectivity, forage and habitat value, in the medium to long term.

Any such potential connectivity gains must be considered in the context of the proposed site use and in terms of establishment time scales involved. Thus, despite their proposed use in assisting to in-fill the Byron Shire Council ecological corridor mapping for this site, DECCW regards 'managed parklands' as offering little additional value to the overall connectivity of this noted corridor in the short term. Contributions to the east-west corridor in particular will take perhaps a decade to become functional and will offer only minor value in the context of events in any case, particularly given that numerous moderate to large scale events are proposed *before and during* vegetation establishment, and are proposed to some extent to occur *within* the existing fragmented corridor.

DECCW agrees with Benwell and Scotts (2010) in arguing that noise will act as an edge effect in its own right for a range of fauna groups, even if the details and scale of such impacts are difficult to establish in advance of their occurrence. In the context of known likely impacts of the proposal (particularly with regard to noise and lighting), DECCW considers that much of the above general connectivity gains are largely indeterminate. Perhaps more significantly, the proposed layout and scale of events would reduce any gained connectivity value perhaps at the time that it is most needed, in the case of fauna seeking refuge from human disturbance being introduced across this theoretical corridor and yet to be improved (partially) vegetated corridor.

Ecological Impacts of Human Disturbance

Benwell and Scotts (2010) have provided a detailed review of available research relating to human disturbance of native fauna. They discuss possible impacts of different fauna groups, with particular attention to noise, lighting and movement, all of which will be key aspects of the proposal, over significant portions of the year. It is not possible to definitively state what impacts the proposal will cause and the degree

to which these can be managed, given the complexity of ecological relationships and the significant lack of knowledge about the relevant interconnections between different fauna groups and their habitat and life cycle requirements.

It is proposed that these impacts will be mitigated or offset by "maximising down time between events". No clear timetable of events is provided, but assuming four 3-day major events per year (10,000 – 50,000 people) and one 4-day moderate event (3,000-10,000 people), in addition to bump out and bump in times for each event, this represents high levels disturbance upon the site for approximately 30% of the calendar year, in addition to any other (unlimited) levels of disturbance from smaller events involving over 300 people at any time of the year. DECCW's view is that the degree to which impacts from these events will be mitigated or offset during periods of non-use cannot be known in advance of approval.

Site Layout

In response to the issues noted immediately above and taking the proposed scale and frequency of events into account DECCW recommends that a greater proportion of the site be established as permanent habitat with greater connected ground cover and canopy than that proposed. Particular reference is made to those areas between the central low lying swamp (EEC) forest blocks (east-west), and between these areas and elevated and partially vegetated slopes to the south (north-south to Jones Road and east of the proposed spine road). As such, essential minor service roads and pedestrian traffic might still be provided across these recommended additional corridor areas, along with fauna-friendly fencing, educative signage regarding environmental values of such corridors, reduced traffic speeds and minimum and suitably directed lighting. A detailed updated event layout and ecological structure/restoration plan should be provided to DoP, Byron Shire Council and DECCW, prior to approval of this proposal, that demonstrates commitment to increased connectivity within the site.

While there is little directly relevant research, DECCW notes that noise from music festival events is likely to affect the central forest block corridor as habitat and as a forage and movement corridor for a number of species. Noise will impact upon a range of audibly communicative species on the site, and affect an indeterminate amount of the edge of the Billinudgel Nature Reserve in terms of the same values. Noise and night lighting have the scope to generally impact negatively upon fauna from causing minor stress and other physiological impacts, through to habitat abandonment and possibly reduced longer term population viability (c.f. Radle 2007 in Benwell & Scotts 2010, p22). It is clear that any noise and light generation near to the main east-west corridor, Billinudgel Nature Research, or other significant forested parts of the site, should be minimised through alterations to the proposed event site layout.

Therefore, should approval be granted for this proposal, DECCW recommends that only the northern portion of the site is to be approved for use for amplified noise generation. A suitable minimum buffering distance (for example 75m) from central forest blocks and any other large forested areas should be established, with speaker systems directed away from these areas. A detailed updated event layout incorporating these concerns, also including details of best practice sound mitigation measures, should be provided prior to approval.

These recommendations would provide for greater consistency with Byron Shire Council's LEP which provides for primitive camping and minor roads within the southern side of the central swamp forest blocks which are zoned as 7(KCH) Habitat.

Noting the important impacts of people presence in the context of wildlife generally, and specifically the notion that humans can act as 'predation-free predators' for many fauna groups (Benwell & Scotts 2010, citing Frid & Dill 2002 and Beale & Monaghan 2004, p14), DECCW also recommends that fencing in these areas is designed to also provide visual screening (potentially hession) at key line of site locations between the performance event areas and any forested habitat, to reduce potentially negative visual impacts upon sensitive forest species from large scale human movement. Additionally, DECCW recommends that all central swamp forest blocks be protected from further degradation by cattle.

In terms of the proposed spine road to connect south and north of the site, DECCW is concerned that the fauna barrier effects of this road be adequately addressed both north and south of Jones Road. DECCW recommends use of the cut and cover tunnel option resulting in less vegetation loss and further recommends that:

- an appropriately selected and densely vegetated canopy, shrub and groundcover be established immediately within a connective width (north-south) of 15m upon either side of Jones road, including fauna exclusion fencing for the edges of the cover section, to allow east-west fauna corridor function along Jones Road ridge during event periods, including fauna exclusion fencing for the edges of the cover section.
- at least two fauna friendly (1m x 1.5m) box culverts are installed under the spine road both north and south of Jones road to enhance safe fauna passage during event times or other uses of the road.
- any human exclusion fencing in this vicinity must also include fauna friendly design (250 mm square gaps at 10m intervals), allowing for fauna movement along the base of the fence.

Effects of Frequency and Scale of Events

This proposal hinges upon a number of key assumptions:

- That general connectivity can and will be increased by the conservation and revegetation measures provided.
- That the Billinudgel Nature Reserve and other surrounding environments can and will absorb or otherwise provide for any displaced fauna during events.
- That between events use of the site will be 'maximised', allowing for recovery and return to 'normal' use by relevant fauna groups.
- That fauna survey work has accurately captured the range of threatened species and ecological communities that would be affected by the proposal, and that monitoring of key fauna groups in particular locations throughout the year will capture relevant indicators to make accurate assessments of the impacts of the proposed use of the site.
- That these impacts can and will be used to adjust the operational and management aspects of the site as needed.

DECCW has noted there are many complexities and unknowns which undermine these assumptions and assertions, and there are therefore inherent difficulties in making an accurate impact assessment of the current proposal. The matrix of relevant interconnected variables involved includes timing, location, mitigation measures, known and undetected species utilising the site and their particular habitat and other resource requirements and a series of other unknowns or unknowable factors such as crowd behaviour and weather events.

Notwithstanding the implementation of other recommendations, all uncertainties highlighted in this submission and any negative impacts they might contribute to in terms of ecological values and functioning of the site and surrounding habitat areas,

will all be effectively *multiplied* by the scale and frequency and possibly timing of events. Indeed, as noted by Benwell and Scotts (2010), there is possibility that some impacts will increase exponentially with scale.

As outlined, DECCW notes that much of the detail of impact assessment is also effectively deferred by virtue of the proposal to monitor ecological impacts as part of an approval, which means that the degree to which monitoring data should and will ultimately effect meaningful change in a timely manner, is unclear.

Given these circumstances, DECCW recommends that any approval of a cultural events site in this location should be based on a trial and monitor principle, with any intensification of the use of the site contingent on the results of ecological monitoring data that unambiguously indicates that no significant impacts upon the functioning of the fauna corridor, threatened species or endangered ecological communities known from the site have been caused by events and their management.

In this context DECCW notes that Byron Shire Council's recently adopted Events Policy (which includes a restriction of no more than two major (over 6000 patrons and staff) music events per calendar year).

DECCW recommends that the nature and scope of an ecological monitoring program should be determined, approved and reviewed in conjunction with the proponent, by an ecological impact assessment committee (as part of the the proposed Regulatory Working Group), consisting of an independent ecologist approved by DECCW, Byron Shire Council ecologist(s) and National Parks and Wildlife officers managing Billinudgel Nature Reserve.

Impacts Upon Threatened Fauna

Technical Paper E contains assessment of likely impacts on relevant threatened fauna, noting that:

"Threatened fauna species present on the site during events will vary seasonally and according to the presence of key food resources" P116.

However the EA does not appear to address the question of seasonality and usage by threatened species as such, but rather aims to mitigate impacts on the basis of having "limited activity" on the site, increasing, buffering and protection of habitat, as well as various management related mitigation measures.

The timing of major events is likely to be crucial in terms of the life cycles of particular species, for example, Koala, which are known from the site and are particularly active between September to March. During some of this time, Koalas vocalise in connection with seeking mates and defending territories, while young are also dispersing and seeking new territories or home ranges and breeding groups. At least one major event is proposed to occur during January, while the proposal to allow up to 12 major event days per year would be certain to impact in some measure on these and a range of threatened species at some significant life cycle stage. DECCW notes that Koalas are reported to be in decline in general in this region and their habitat may be retracting towards Billinudgel Nature Reserve (Phillips, reported in the EA), reinforcing the importance of delivering a high level of protection for this species. .

DECCW is concerned about the effects of high level diurnal and nocturnal sounds on various calls of amphibians and birds in particular, and some mammals, including Koala, where there is an intent to "avoid any activities near core Koala Habitat if this is present in the application area" p118, as well as other management options.

However, it is not clear what is meant by “any” activities, how “near” to this habitat will be considered relevant. DECCW notes that the proposal effectively defers an accurate assessment of the impacts of this proposal until future Koala assessments are made, but the extent to which these assessments will alter the nature or scale of the proposal or any relevant mitigating measures offered, remains unclear until that time. In DECCW’s view, the proposed further assessment work needs to be taken into account (in the context of the precautionary principle) as a core part of, rather than separately to, the current proposal, which cannot not otherwise be adequately assessed. This is also reason to recommend (below) that the frequency, scale of the proposed usage of the site, should it be approved, be revised to be implemented significantly more gradually than that proposed and be closely reviewed in respect of its potential and monitored impacts on any threatened fauna.

In the case of lighting, while acknowledging the intent to minimise and direct lighting in a sensitive manner, DECCW notes the importance of the ‘vacuum effect’ in respect of light sensitive insects that will effectively be drawn towards festival activities, and away from areas within the range of their dependent predators, particularly threatened forest micro-bats, the local food web and posing long-term food resource effects upon a range of species inhabiting the Billinudgel Nature Reserve. Lighting is also likely to add to the general edge effect upon usual habitat and forage areas for any sensitive fauna (such as bats and other mammals, birds) and create habitat avoidance regimes. The visual impact of large numbers of mobile humans and vehicles on a periodic basis within eyesight of a range of fauna is also bound to cause disturbance to normal behaviour of some species in this location and lead to some degree of habitat abandonment, while slashing in preparation for events during March to June will be a potential concern in relation to the use of the site by nesting Grass Owls, which have been recorded on the event use site.

As stated, along with the revegetation strategies, maximising downtime between events is offered as a key mitigation measure, but it is difficult assess the degree to which this is meaningful. The extent to which use of habitats and resources will be resumed between events and/or any reversible tolerance of, or ‘habituation’ to events will occur in the long term, is an unknown which is largely left in this proposal to ecological monitoring and the promise of adaptive management. Monitoring will be crucial “to identify levels of fauna presence, alterations in abundance during events, and to develop adaptive strategies to minimise impacts” p116. The degree of uncertainty underpinning this proposal and the concomitant need for sound and appropriate ecological monitoring is noted in the ecological reports provided in the following terms (emphasis added):

“The operation of North Byron Parklands as a cultural events site introduces unprecedented activities and a novel episodic disturbance regime to a pastoral and forested landscape adjoining Billinudgel Nature Reserve. Predictions of the ecological impacts of these activities are unavoidably speculative, and require testing, confirmation, modification or repudiation. Evidence from monitoring is considered essential to produce appropriate management of ecological impacts.”

Given the nature of the proposal, the need for flexibility is understood, however, as discussed further below, it is difficult to provide an accurate assessment of impacts in this circumstance, and to assess the degree to which any future measures would achieve any goals connected with mitigation of significant impacts. Again, the extent to which any resident or transient fauna within the corridor (or elsewhere) might habituate to the proposed (flexible) calendar of events with an unspecified layout is difficult to accurately assess, and there is no proposal to study habituation in any

case. If long term biodiversity values are to be maintained and enhanced, in addition to proposed targeted fauna population monitoring, DECCW suggests that ongoing, species specific, longitudinal ethological studies would be required to understand actual impacts of year round large and small scale events on the site upon fauna utilising or residing within any corridors upon this site.

Though the proponent seeks to undertake a program of monitoring to produce and Ecological Impact Reviews and "implement any reasonable recommendations arising from that review into the EH&S manual" (Statement of Commitment A11), DECCW is concerned that it is difficult to assess the term "reasonable" in this context and whether or exactly how it would be translated into *appropriate* changes to the use of the site, should it be required, particularly once approval is granted and significant economic investments have been made.

Further, the intent of the precautionary principle is that measures are in place *before* irreversible damage is caused, which in DECCW's view, can be at least partly achieved through changes to the proposed site layout and partly by addressing the question of frequency and scale of events. The proposed 'trial and monitor principle' is again considered to be an appropriate response to many of these issues.

Impacts upon Billinudgel Nature Reserve

As noted, this proposal does provide for rehabilitation of important remnant vegetation and improved connectivity by large scale planting. Conservation of strategic areas within the site will also improve connectivity between disjunct areas of Billinudgel Nature Reserve and also consolidate wildlife corridor values north and south of the Marshalls Ridges. Proposed plantings in these and other parts of the site could and should be defined to maximise habitat values and wildlife corridor potential throughout the subject lands.

Nevertheless, event noise has the potential to adversely impact on foraging, roosting and breeding behaviour for a range of fauna species within the BNR. Though there is some mitigation of noise to core habitats of Billinudgel Nature Reserve provided by the Marshalls Ridges, as stated, the impact of event noise on the nature reserve would best be addressed by design and layout of amplified stages and confining these to the northern allotments.

Proposed monitoring programs are designed to assess disturbance regimes and fauna impacts to some degree, and to adaptively modify event design and locations as required. However, DECCW recommends that the proposed monitoring should also encompass the collection of data for evaluating impacts to fauna within Billinudgel Nature Reserve (which would be addressed in accordance with above recommendation regarding ecological monitoring).

The potential for the proposed events to lead to additional camping, campfires, arson, littering or other impacts in Billinudgel Nature Reserve is difficult to assess, however the proposed Regulatory Working Group is considered likely to be an effective mechanism for working through these issues. Additional patrols of Billinudgel Nature Reserve will be required during major events to monitor any associated use or incidents. DECCW recommends that any commitments for additional ranger patrol from Parks and Wildlife Group should be funded as part of the event operations, consistent with the user-pays system for police at these events. While noting that this intention has been confirmed in writing by the proponents, this requirement should be identified in any conditional approval for the subject lands.

DECCW recommends the lodgement of an annual conditional performance 'bond' with DECCW of \$25,000 by the proponents in respect of impacts upon the Billinudgel Nature Reserve. This aims to help ensure a high level of environmental management performance and could be used to manage or address any unforeseen damage or otherwise unaddressed impacts upon Billinudgel Nature Reserve from event operations, for example, the cleanup of incidental damage by unauthorised access, arson, litter, pollution or other impacts associated with event operations. Unused portions of the bond could be carried over and held in respect of the following year, or refunded annually as appropriate, following approval by the proposed Regulatory Working Group. The bond should be reviewed annually.

In response to DGR 9.2, the proponent claims that SEPP 14 wetland No 57 is "entirely enclosed within Billinudgel Nature Reserve (BNR), and adjoins the southern portion of the Parklands property". According to DECCW however, the SEPP 14 boundary is partially within the North Byron Parklands property and the current proposal is to provide a 'managed parklands' treatment of this privately owned SEPP 14 wetland area.

In response to DGR 9.8 concerning measures to prevent weed invasion and runoff into the BNR, the EA states that a 30 metre grassed *Setaria* buffer currently kept down by cattle will increase pasture grasses generally. The implications of this in terms of this DGR appear not to be addressed.

In terms of assisting in the prevention of further weed invasion at this interface to the BNR, and considering the issue of SEPP 14 on the subject site, rather than tall *Setaria* grassland as currently proposed, DECCW recommends that a permanent habitat restoration approach be outlined for this area between the SEPP 14 boundary and the BNR, with appropriate native vegetation being established through assisted regeneration, possibly in conjunction with DECCW's weed removal and regeneration program along this boundary.

OTHER ENVIRONMENTAL MANAGEMENT ISSUES

General

DECCW understands that an overarching Environmental Health and Safety Management Manual, modelled upon an Environmental Management System (EMS) under the ISO 14000 series, is to be adopted. While annual compliance reporting and this continuous improvement approach is generally commended, it is not clear that consequences of any failures to comply are built into this proposal, particularly where the proponents deem corrective adaptive management actions to be unreasonable. In connection with impacts on Billinudgel Nature Reserve however, DECCW recommends the use of an environmental management/compliance bond to address this concern.

Management of Solid Waste/Littering

DECCW notes that the EMS proposed and other internal policy documents (provided by Rob Doolan separately to DECCW) in relation to previous Splendour in the Grass festivals would provide a typical framework and principles for addressing the management of solid waste and littering on and off site. DECCW has not reviewed these additional documents in detail, but recommends that any approval issued should be conditional on the development of a detailed management plan for this issue, including littering adjacent to and within the Billinudgel Nature Reserve and other DECCW land parcels.

In the above context, DECCW notes that DGR 4.1 regarding infrastructure provision capacity for waste disposal has apparently not been addressed as required. DECCW recommends that this issue be resolved to the satisfaction of Byron Shire Council and the Department of Planning, before any approval is issued.

On-site Wastewater Management

It is noted that wastewater management infrastructure would not be implemented immediately, with preliminary events to be serviced with temporary facilities. The report prepared by consultants Gilbert and Sutherland indicates that during "stage 1" (the duration of which does not appear to be defined) all wastewater would be exported from the site by licensed operators for treatment and disposal. DECCW has no objections to this proposal, provided that the commercial or municipal sewage treatment plant to receive the wastewater has the capacity to manage the additional load in an environmentally appropriate manner.

The Gilbert and Sutherland report indicates that a reticulated sewerage system is proposed for "stage 2", consisting of a centralised sewage treatment plant (STP), effluent holding dams, effluent polishing ponds and dedicated effluent irrigation areas. It is noted that the proposed STP would be designed to treat high peak loads, which would be experienced during large events, and also cater for smaller, more continuous loadings from other events and on-site activities.

The proposed arrangements for the reticulated sewerage system appear adequate. The report acknowledges, however, that there would need to be a reasonable rest time between large events, to ensure no risk of an overflow from the effluent holding dam or wetlands. It is recommended that this matter be formalised in any approval issued, based on a specified minimum rest period and/or that sufficient capacity is available in the holding dam and wetlands to accept the total flow from a large event.

DECCW supports a proposed monitoring and maintenance program for the STP and irrigation area. Appropriate arrangements should also be incorporated to ensure that no surface runoff occurs from the irrigation area. This could be achieved by the use of soil moisture sensors and/or a regular inspection program.

In addition to existing statements of commitment (C11), DECCW recommends:

- Prior to the commissioning of the reticulated sewerage system on the site a comprehensive operations, monitoring and maintenance plan will be developed for the system and submitted to the Department of Planning for approval.
- The reticulated sewerage system will be managed to ensure that no overflow occurs from the effluent holding dam or wetlands and no surface runoff occurs from the irrigation area.

Chemical Waste from Vehicles

DECCW notes and supports the intention to provide suitable oil spill kits and response in the event of being alerted of any major oil leakages from cars parked in the proposed southern car park, adjoining Billinudgel Nature Reserve. While the proposed 30m grassed buffer would be likely to provide a general uptake of most liquid materials that could migrate towards BNR over time or in flood events, there is need to expect that small leaks will go undetected and that not all leaks will be recognised or reported, adding the potential for a cumulative effect that would become more significant in flood events.

To further design for and to encourage responsible environmental management, DECCW suggests that less of the eastern portion of this proposed car park be used

for this purpose. In connection with this, in the interest of increasing wildlife connectivity generally to offset the known and unknown impacts posed by this proposal and to achieve a reduction of fragmentation and edge effects to/of the Billinudgel Nature Reserve, DECCW suggests that such reduction could be achieved by layout redesign that restores native vegetation in perpetuity at the eastern most portion of the car park (between the two closest vegetated points of the BNR, near to the area marked in maps for 100% Capacity events as 'overflow parking').

DECCW also recommends that appropriate signage be provided throughout this car park area that encourages reporting of any oil spills or leakages to festival management.

Fires / Bonfires

The documentation provided appears to address bushfire management in relation to asset protection planning and layout, and there is a specific prohibition of fireworks during events. A camping management regime involving camping wardens also provides some measure of protection against wildfire escaping from camping grounds (see discussion in relation to Billinudgel Nature Reserve). However, DECCW was unable to determine the detail of the location of any proposed managed bonfires within the event footprint and was therefore unable to determine the degree to which they might impact upon biodiversity. DECCW therefore recommends:

1. that any proposed bonfires be the subject of an approved bonfire management plan to be received and reviewed by the Rural Fire Service at least 3 months before any event;
2. the prohibition of bonfires during local fire restriction periods to minimise bushfire risk and associated imposts on rural fire brigades; and,
3. that all bonfires be located at a minimum of 100 m from any of the mapped forest blocks and other forest vegetation upon the site to minimise bushfire risk and to avoid adverse effects from bonfire smoke and heat upon sensitive fauna species (particularly bats) that might disrupt normal behavioural activities.

Noise Amenity Impact Assessment

The noise impact assessment (NIA) report undertaken by Benbow Environmental includes a review of relevant policies, codes of practice and noise controls for outdoor concerts. The review also makes reference to the NSW Industrial Noise Policy and several notices issued by DECCW under the Protection of the Environment Operations Act (POEO) for significant outdoor events in NSW.

The NIA indicates that the proposed noise limits for "major" events take into account the above sources of information. It should be noted, however, that the notices issued by DECCW under the POEO Act related to specific venues and did not permit noisy activities after 11.00 pm. The NIA proposes different (and lower) noise limits for activities after 11.00 pm, but there does not appear to be any indication as to proposed finishing times.

The proposed cultural events site at Yelgun will not be scheduled under the POEO Act and therefore Byron Shire Council will be the "appropriate regulatory authority" for noise from the premises. In view of this, DECCW would encourage the Department of Planning to liaise closely with Council in relation to its assessment of noise from the development and setting appropriate maximum noise levels.

DECCW does not have specific policy guidance for outdoor concert events. However, DECCW has previously produced a *Noise Guide for Local Government* (NGLG). The NGLG acknowledges that councils "developing a guideline or policy to

manage a specific noisy activity can help provide certainty for people engaging in a noisy activity and for the local community. It can establish realistic and reasonable expectations for noise levels and how the activity should be carried out. When developing a significant guideline or policy for a specific activity, councils should consult the local community and any relevant industry associations".

Lighting

DECCW notes the commitment (SoC C9 (6) to (9) regarding provision of "suitable buffer between edge of forest blocks and any event lighting", minimising impacts from direction and type of lighting and locating artificial lighting away from vegetated areas "where possible" are important principles, but cannot be assessed in any detail or 'enforced' due to general vagueness. DECCW has made specific recommendations regarding layout above that would strengthen the intent of these SoCs in respect of lighting.

Mosquito Control

The subject lands have high potential for significant mosquito populations and associated arthropod-borne viruses (arboviruses) including Ross River and Barmah Forest, however, DECCW has been unable to find specific proposals in relation to this issue. DECCW envisages that the control of mosquitoes will become an issue for management of this site. DECCW recommends that prior to any approval for this proposal, DoP should seek further information in regard to the management of this issue. However, DECCW recommends that mosquito control be limited to the use of personal insect deterrents rather than broad spectrum chemical control or barrier programs to prevent potential adverse ecological impacts upon fauna inhabiting or utilising the site and Billinudgel Nature Reserve, as well as aquatic fauna on and downstream from the site.

COASTAL FLOODPLAIN ASSESSMENT

The flood impact assessment by BMT-WBM is detailed in Appendix G of the EA. It is noted that BMT-WBM completed the Tweed-Byron Coastal Creeks Flood Study in March 2010 which included the proposed site. The two major forms of development are buildings such as the conference and resource centres and roads such as access laneways and the Spine Road.

This assessment has taken into consideration the impact of flooding on the proposed development, the impact of the proposed development on flooding and climate change impacts, with the following findings:

- The conference and resource centres, located on the northern part of the site, are not flood affected by the 1 in 100 year Average Recurrence Interval (ARI) flood. The Spine Road and the majority of laneways, however, are.
- The car park, located on the southern part of the site, is prone to flooding in the 1 in 5 year ARI flood. In bigger floods, high flood velocities are expected in the parking area immediately downstream of the culvert labelled 'D' and a breakout over Spine Road some 350m north of culvert D.
- The proposed development would result in no measurable flood impact offsite and some localised impacts onsite, largely due to the proposed Spine Road. This road is the main access road and evacuation route in times of flood and would be constructed generally 250mm and 300mm above the existing ground level. These localised impacts could be overcome by the installation of appropriately sized culverts under the spine road, designed at a later date, and the road should remain flood free up to the 1 in 100 year ARI flood event.

- In a 1 in 100 year ARI flood the event area would generally be flooded by an additional 1.6m and 0.2m at the resource centre due to climate change by 2100.

The climate change assessment implies that the site would be flooded more frequently and severely in future and this needs to be carefully considered by the proponent in terms of the viability of the proposal. Consideration should also be given to the spine road and the culverts crossing underneath, that the road remains flood free in the 1 in 100 year ARI flood under climate change condition as it is the only evacuation route.

It would be reasonable to expect a significant number of people camping north of the site and a significant number of vehicles parked south of the site during a cultural event. The distance between them is at least one kilometre. It would also be reasonable to expect a flash flooding scenario at night where some patrons see an immediate need to leave. For this reason DECCW recommends that a well formulated and documented evacuation plan be required in the event of this occurring.

ABORIGINAL AND CULTURAL HERITAGE ASSESSMENT

Introduction

DECCW has reviewed the documentation provided, including Section 4.8 of the EA and Appendix H Cultural Heritage Assessment (September 2010) to assess the potential impacts of the project on Aboriginal cultural heritage. It is strongly recommended that the issues below are addressed prior to the determination of consent.

Aboriginal sites to be protected

DECCW acknowledges that the proponent proposes to protect all the Aboriginal cultural heritage values identified within the project area. Aboriginal sites are located in areas proposed as 'Managed Parklands', in existing vegetation areas to be protected, in lands proposed to be dedicated to DECCW and outside of these lands, in the Land Use Structure Plan prepared by the proponent. DECCW supports the long term protection of these areas, however, it is noted that the proponent has only provided limited Aboriginal cultural heritage management strategies (e.g. portable human exclusion fencing) to ensure that Aboriginal cultural heritage is protected or conserved in perpetuity.

DECCW therefore recommends that the proponent provide additional details regarding the specific Aboriginal cultural heritage management measures proposed for each known Aboriginal sites, to ensure they will be not impacted as a result of any development/construction/event activities. These measures should include, but not be limited to:

- a program of ongoing monitoring by the local Aboriginal community, assessment criteria for any previously unidentified Aboriginal cultural heritage values;
- management during maintenance activities (e.g. weed spraying, pest control, etc), as a component of any Aboriginal cultural heritage induction program; and,
- the specifics of any protection works (e.g. fencing, signage, located on maps, etc).

DECCW also recommends that any management measures are developed in consultation with the registered local Aboriginal stakeholders and specific management during any proposed events should be incorporated in the proposed 'Event Management Manual'.

Registrations of Aboriginal sites

DECCW acknowledges there was a subsurface investigation program undertaken by the proponent of an area likely to contain ACH values in the proposed Spine Road project area. The area investigated was located close to or adjacent to Aboriginal site 'Yelgan Flat 1', registered as site # 4-2-0114 (and site #4-2-0115) in DECCW's AHIMS system. It is noted that a total of 24 objects were recovered from the 12 test pits. However, it is unclear if the proponent has recorded the sub-surface investigation area as a new site or as an extent of 'Yelgun Flat 1'. DECCW reminds the applicant that under Section 89A of the *National Parks and Wildlife Act 1974* (as amended) (NPW Act), there is an obligation to formally notify the Department regarding the discovery of any new, previously unrecorded or updated site(s) information.

It is therefore recommended that the proponent accurately complete a DECCW Aboriginal Site Recording Form⁴ or an Aboriginal Site Impact Recording Form⁵ and submit the appropriate form to DECCW's Aboriginal Heritage Information Management System (AHIMS) Registrar promptly. Details of any proposed management strategies should also be provided in detail on either form.

AHIMS contact details: Phone: (02) 9585 6470, address: Level 6, 43 Bridge Street, Hurstville, NSW, 2220, e-mail: ahims@environment.nsw.gov.au.

Care Agreement provisions

DECCW notes that the registered Aboriginal stakeholders have agreed to the Tweed Byron Local Aboriginal Land Council having temporary custody of the 24 salvaged objects. In accordance with the requirements of Section 85A of the NPW Act, the applicant is advised to promptly complete an application for a Care Agreement with the Aboriginal stakeholders and submit it to DECCW to formalise this process. The agreement sets out the obligations of DECCW and the Aboriginal organisation for the short or long-term safekeeping of the transferred Aboriginal objects. The proponents are reminded that failure to enter into this agreement would evoke a penalty in accordance with the provisions of the NPW Act. Please refer to the DECCW web-site for further information and the application form⁶.

Long-term Keeping Place

DECCW recommends that the long term management strategy of the salvaged Aboriginal objects is finalised promptly in discussions with the registered Aboriginal stakeholders. Details of this strategy should be incorporated in the submission of the site recording form.

Recommended Conditions of Approval for Aboriginal Cultural Heritage

DECCW has no additional concerns with the Aboriginal cultural heritage values assessment for the project application. However, when the above issues have been resolved, DECCW recommends that the following conditions are sought by the Department of Planning as additional statements of commitment, or applied as conditions of approval, as appropriate.

1. The applicant will consult with the Aboriginal stakeholders to complete a Care Agreement in accordance with the NPW Act, and submit a completed Care

⁴ available at:

<http://www.environment.nsw.gov.au/licences/DECCAHISSiteRecordingForm.htm>

⁵ available at:

<http://www.environment.nsw.gov.au/resources/cultureheritage/10318asirf.pdf>

⁶ <http://www.environment.nsw.gov.au/licences/CareAgreements.htm>

Agreement Application to DECCW for the management of all salvaged from each site associated with this project. This must occur within 3 months of approval being granted for this project, or written evidence must be provided to the consent authority and DECCW to demonstrate reasonable efforts have been made by the applicant to engage the Aboriginal stakeholders if this deadline is not met.

2. The applicant must continue to consult with and involve all the registered local Aboriginal representatives for the project for the duration of the project, in relation to the ongoing management of the Aboriginal Cultural Heritage values. Evidence of this consultation must be collated and provided to the consent authority and DECCW on request.
3. The applicant shall provide fair and reasonable opportunities for the registered local Aboriginal community to monitor any soil disturbance/earth moving activities associated with the approved project area.
4. In the event that surface disturbance identifies a new Aboriginal site, all works must stop in the immediate area to prevent any further impacts to the object(s). A suitably qualified archaeologist and representatives of the local Aboriginal community must be contacted to determine the significance (cultural and scientific) of the object(s). The site is to be registered in the AHIMS (managed by DECCW) and the management outcome for the site included in the information provided to the AHIMS. The proponent will consult with the Aboriginal community representatives the archaeologist, the Director General and DECCW to develop and implement management strategies for all objects/sites.
5. If human remains are located, all works must halt in the immediate area to prevent any further impacts to the remains. The NSW Police are contacted immediately. No action is to be undertaken until police provide written notification to the proponent. If the skeletal remains are identified as Aboriginal, the proponent must contact DECCW's Enviroline on 131555 and representatives of the local Aboriginal community. No works are to continue until DECCW provide written notification to the proponent.
6. All reasonable efforts must be made to avoid impacts to Aboriginal cultural heritage at all stages of the development works. If impacts are unavoidable, mitigation measures are to be negotiated with the local Aboriginal community and DECCW. All sites impacted must have a DECCW Aboriginal Site Impact Recording (ASIR) form completed and submitted to DECCW AHIMS unit within 3 months of completion of the cultural heritage works.
7. An Aboriginal Cultural Education Program must be developed for the induction of all personnel and contractors involved in the construction activities on site. Records are to be kept of which staff/contractors were inducted and when for the duration of the project. The program should be developed and implemented in collaboration with the Aboriginal community.

References

Benwell, A and Scotts, D. 2010, *Review of the Effects of Human Intrusion and Disturbance on Wildlife: Reference to a proposed permanent cultural events site at Yelgun, New South Wales*, report prepared for CONOS, April 2010.

Byron Shire Council, 2004, *Byron Biodiversity Conservation Strategy*.

DECC 2009, *Draft Far North Coast Regional Conservation Plan*, Department of Environment and Climate Change, NSW.

DECCW 2010, *Northern Rivers Regional Biodiversity Management Strategy*, Department of Environment, Climate Change and Water, NSW.



The Acting Director Regional Projects
Planning NSW
GPO Box 39
Sydney 2001.

Attention Mr Brent Devine.

Exhibition of Environmental Assessment for a Proposed Cultural Events Site at Tweed Valley Way and Jones Road Yelgun Byron LGA.

Dear Sir

I refer to your letter dated 30 September 2010, your reference 09_0028. The Roads and Traffic Authority (RTA) objects to the scale of events proposed at North Byron Parklands.

The Pacific Highway is a road of national Importance, carrying an average of 25,000 vehicles per day in the vicinity of the proposed event. It is the primary freight corridor between Sydney and Brisbane. As such, there has been considerable public expenditure committed to improving the Highway over recent years. These improvements have been made to meet the social, economic and operational needs of the people of New South Wales and the Far North Coast now and into the future. Considerable resources and planning have gone into the construction of the Brunswick Bypass section of the Pacific Highway upgrade.

The Yelgun Interchange component of the Brunswick Bypass was designed to provide a connection to Brunswick Heads and Ocean Shores to the south, and Murwillumbah to the north. The design included spare operational capacity to accommodate growth into the future. At development stage it was never envisaged that the interchange would be required to accommodate the traffic generated by events of 35,000 or even 50,000 people in the immediate vicinity. The interchange as designed and constructed cannot accommodate the potential scale of traffic volumes likely for the size of events proposed at Yelgun. An event of this size would have severe implications to the safe and efficient operation of the Pacific Highway.

The traffic report supporting the proposal relies on optimum values for demand management to justify this large scale event. The demand management strategies are not described to any detail in the traffic report. There is little surety that these undescribed "measures" will be achieved, or how they will be implemented in a real event situation. Values for peak hour volumes, car occupancy, and mode share are generally based on assumption. Respondent opinion surveys have been used to justify targets. These types of survey are generally inaccurate for determining mode choice with any degree of certainty. Recognised procedures such as calibrated discrete choice models would offer a higher degree of certainty for predicting market shares for mode choice from survey data.

Roads and Traffic Authority

In the report, traffic volumes have been adjusted for seasonal variation, however, the relevance of basing this adjustment on traffic flows in Minjungbal Drive, Tweed Heads is unclear. The report relies in part on 2004 traffic volume data published by the RTA. Traffic growth in this area is not always linear, and can often be subject to rapid increases. Although the average daily volume for the highway in this area is around 25,000 vehicle, actual numbers may vary by as much as 10 to 15,000 vehicles per day and far more robust data needs to be obtained for the predictive model. The traffic modelling should be adjusted to include this more recent and more robust data.

The Roads and Traffic Authority (RTA) has the position that any event that is carried out at Yelgun should not significantly impact on the safety or performance of the Pacific Highway or surrounding road network. Any assessment should consider the risk associated with the likelihood of incidents occurring that will affect the Pacific Highway and surrounding network, as well as vulnerable road users such as pedestrians and cyclists. Unfortunately there is insufficient detail in the traffic assessment relating to the mitigation of potential impacts.

Highway traffic volumes and traffic behaviour in regional areas can be variable in nature, and result in unpredicted outcomes. By way of example, the peak hour arrival rate for the Bluesfest in 2010 was predicted to be twenty five percent of the total patronage. The actual figure was closer to thirty one percent. The degree of saturation of the Highway overbridge at the Gulgan Road interchange at Tyagarah was predicted to be a maximum of 0.49. At peak flows, the overbridge traffic exceeded capacity and traffic queues formed. Fortunately, some contingency was included in the original traffic management plan and queuing was contained within available storage space before it affected the Highway. This example highlights the limitations of simulation in predicting outcomes. There needs to be a reasonable buffer or contingency in any traffic management system to accommodate unforeseen changes. Simply relying on manual traffic control or demand management is not sufficient to ensure that safe traffic flows will be achieved.

The current proposal also relies on assumed variables in the traffic assessment. Theoretical optimum values for demand management are used to justify site patronage levels of 35,000 to 50,000. This is not sufficient for the RTA to be satisfied there will not be a significant safety risk to the Pacific Highway if this proposal were to proceed.

The RTA recognises the potential benefits of events such as this to Regional NSW and look forward to working with event organisers to develop a planned approach for the successful operation of this event. Initially, the size of the proposed event and the lack of qualitative data or a rigorous risk management plan would have severe implications for the Pacific Highway. The RTA is happy to open dialogue with the proponents with a view to determining what current level of festival patronage could initially be achieved at the Yelgun site, and what measures are reasonable to retain the safe and efficient operation of the highway into the future.

If you have any further inquiries regarding this matter please contact Mr Michael Baldwin on 6686 1832, or email land_use_northern@rta.nsw.gov.au.

Yours faithfully


 David Bell

21 NOV 2010

Regional Manager, Northern Region



Ref: OUT10/18125

A/Director Regional Projects
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Attention: Mr Brett Devine

Dear Mr Devine

Re: MP09_0028 Proposed cultural events site at Tweed Valley Way and Jones Road, Yelgun, BYRON LGA

Thank you for your letter of 25 October 2010 seeking comment from Industry & Investment NSW (I&I NSW) on the Environmental Assessment (EA) for the above mentioned major project. The Department apologises for the delay in meeting your deadline of 8 November 2010 for comment.

I&I NSW has reviewed the EA and the following comments are provided to assist in your consideration of the proposal.

Fisheries issues

I&I NSW is responsible for ensuring that fish stocks are conserved and that there is "no net loss" of key fish habitats upon which they depend. The proposed development generally avoids direct impacts on key fish habitats. The proposed dedication of wetland areas to the Billinudgel Nature Reserve as an off-set is noted.

Cognisant of the dedication of these lands, provision of a 30 metre buffer provided to SEPP 14 Wetland areas, is accepted. I&I NSW policy typically requires a minimum 50 metre buffer to sensitive aquatic habitats. However, it is noted that the buffer width varies and is much greater than 30 metres to the SEPP 14 Wetlands in the majority of cases. The Department recommends that the 30 metre buffer be planted out with native endemic wetland and riparian vegetation and actively managed to suppress weed growth in order to minimise impacts of the proposed development on the SEPP 14 Wetland which is considered a key fish habitat.

Finally, I&I NSW require completion of the *Rehabilitation Plan* (Appendix J within Technical Paper E) as the plan outlines the minimal remediation work necessary to satisfy a previous court order issued under s.203 of the *Fisheries Management Act 1994* for the rehabilitation of Yelgun Creek. Once this work has been undertaken, the proponent should arrange with Fisheries Conservation Manager, Patrick Dwyer on (02) 6626 1397 for a site inspection to ensure compliance with the remediation order.

Agricultural issues

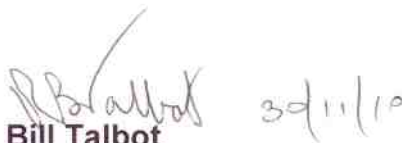
The proposal to continue using the land for agriculture between events is supported. Management will need to consider compaction of soils and the development should have a rehabilitation plan to return the site for continued agricultural uses if events at the site cease.

Future development of the site should remain with an agricultural focus as the surrounding area has predominately agricultural land uses. Man proof fencing may be required for boundaries that adjoin farms.

Effluent irrigation areas may need water / nutrient monitoring particularly when large events are held during wet weather in which case effluent may need to be taken off-site.

For further information on agricultural issues please contact Mr Andrew Docking, Resource Management Officer, on 4588 2128.

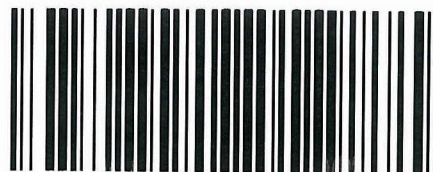
Yours sincerely



Bill Talbot
Director, Fisheries Conservation & Aquaculture



Office of Water



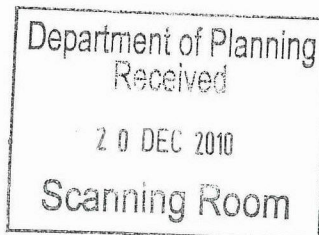
PCU017978

30 November 2010

Major Development Assessments
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Attention: Alan Bright

Dear Mr Bright,



c: Christie Jackson
t: 02 6701 9652
f: 02 6701 9682
e: christie.jackson@water.nsw.gov.au

Our ref : ER20716
Your ref: MP09_0028

**Subject: Response to Exhibition of Environmental Assessment for North Byron
Parklands, Tweed Valley Way and Jones Road, Yelgun – Byron LGA**

I refer to your correspondence dated the 30 September 2010 seeking the NSW Office of Water's (NOW) advice and recommended conditions on the Environmental Assessment for a proposed cultural events site at Tweed Valley Way and Jones Road, Yelgun in the Byron Local Government Area.

The EA seeks approval for Stage 1 and 2 project applications which includes:

- Construction of a spine road;
- Upgrade to Jones Road;
- An event usage area;
- Southern Carparking Area;
- Administration building;
- Gatehouse building;
- Camping facilities;
- Water supply system;
- Wastewater treatment system; and
- The ability to conduct various sized events.

The EA seeks approval for the Concept Plan approval for Stage 3 which will set the basis for a future project application for a cultural centre and conference facility.

NOW has reviewed the Environmental Assessment and identified a number of environmental matters that require consideration by the Department of Planning in its assessment of the project application. These issues are outlined in Attachment A.

NOW has also provided for consideration recommended conditions of approval in Attachment B, should the Minister for Planning determine the application by granting project approval.

If you require further information please contact Christie Jackson on 02 6701 9652.

Yours sincerely

Mark Mignanelli
Manager Major Projects and Assessment

MP09 0028 – NORTH BYRON PARKLANDS
NSW OFFICE OF WATER COMMENTS ON ENVIRONMENTAL ASSESSMENT

Groundwater

The project site is located within the Coastal Sand Bed Groundwater System, with groundwater identified within 1 metre below the natural land surface. NOW has reviewed the information provided and recommend the ponds associated with the wastewater collection and management system are located above the watertable or lined with an impermeable material to prevent potential groundwater contamination.

If any dewatering is required as part of the construction of ponds, roadworks, service trenches, open drains and diversion drains then a licence under Part 5 of the *Water Act 1912* is required, accompanied by a groundwater monitoring plan.

All monitoring bores associated with the project must be licenced under Part 5 of the *Water Act 1912* with all Form A's submitted to NOW for our records.

Acid Sulfate Soils

The EA outlines potential (PASS) and actual acid sulfate soils (ASS) within the development site. The PASS investigation indicated high levels below RL3.0m and the report recommended the preparation of an Acid Sulfate Soil Management Plan (ASSMP) for works below RL3.0m. It is expected that PASS would be disturbed as a result of excavation works for roadworks, service trenches, open drains, diversion drains and during regular drain maintenance. It is likely groundwater will be encountered and at risk of contamination from ASS. The ASSMP outlines a number of management and mitigation techniques to treat soil and water on the site. NOW has concerns with the potential contamination of groundwater by ASS and must stress the importance of undertaking the management and mitigation measures in accordance with the ASSMP.

Water Licensing

The EA outlines the development would require 22.33 ML of water on an annual basis to service the site. NOW records show there is currently an existing bore on the site for domestic purposes only, which cannot be utilised for a commercial development.

The proponent has undertaken the harvestable right calculation for the site under the Farm Dams Policy and has calculated their maximum harvestable right as 42.2 ML. There is 15.9 ML storage on the site and the Applicant intends to construct a second storage on site to utilise the remaining 26.3 ML of their maximum harvestable right for the site. The proponent plans to service the development using their harvestable right and considers this amount adequate in meeting predicted water demands with a reliability of 85%.

Any current or additional dams, storages, detention basins constructed as part of the development will need to be in accordance with the HR policy. Any take of water in exceeding the MHRDC for the site may need to be licensed.

The site is located within the area currently administered under the *Water Act 1912*, therefore licensing requirements will be governed under that Act, until a Water Sharing Plan under the *Water Management Act 2000* is gazetted for the area.

Stormwater Management

The EA outlines a number of stormwater measures to be utilised for the development site including diversion drains, rainwater tanks, grassed swales, litter screens and gross pollutants traps. The EA states that no on-site detention is required. Any stormwater management on the site must be in accordance with Water Sensitive Urban Design (WSUD), with all runoff being appropriately treated prior to leaving the site. It is particularly important to manage stormwater appropriately on this site in accordance with the Stormwater Management Plan (SWMP) developed for the site, to ensure protection of surface water resources adjacent to the site, including Yelgun Creek and the SEPP 14 wetlands and shallow groundwater resources in the area.

Riparian Issues:

The EA outlines that a restoration order has been issued by Industry and Investment NSW (Fisheries) for illegal works undertaken on Yelgun Creek by the previous landholder. It is understood that the current owners will be undertaking the works required by Industry and Investment NSW as part of the restoration order, since purchasing the land.

Whilst approvals under Part 3A of the *Environmental Planning and Assessment Act 1979* do not require a separate Controlled Activity Approval under the *Water Management Act 2000*, any works within 40 metres of a watercourse should be consistent with State Policy and Guidelines. The NOW 'Guidelines for Controlled Activity Approvals (2008)' outline the management requirements for works within 40 metres of a watercourse.

The EA includes a creek rehabilitation plan, however, it is unclear if a core riparian zone (CRZ) and a vegetated buffer (VB) is included in the creek rehabilitation plan. NOW recommends a core riparian zone and vegetated buffer is incorporated into the plan, with any asset protection zones located outside of the CRZ and VB, to protect Yelgun Creek. An appropriate buffer should also be implemented between the development site and the SEPP 14 wetlands located adjacent to the site.

It is expected all works within the riparian areas are undertaken with minimal disturbance, erosion and sediment control measures, provide adequate drainage, maintain as far as practical any natural hydrological flow regimes and all disturbed areas are revegetated and rehabilitated appropriately.

**End Attachment A
30 November 2010**

MP09 0028 NORTH BYRON PARKLANDS

NSW OFFICE OF WATER RECOMMENDED CONDITIONS OF APPROVAL

1. In regard to taking or interfering with groundwater, a number of conditions apply:
 - a. All groundwater licences for monitoring bores must be obtained and associated works appropriately authorised prior to works commencing. All Form A's associated with the construction of bores must be submitted to NOW at the time drilling is undertaken.
 - b. For all areas on the site that require dewatering, a water licence under Part 5 of the *Water Act 1912* should be obtained prior to commencement of work. This water licence application must be accompanied by a groundwater and excavation monitoring program and acid sulphate soils contingency plan, developed to the satisfaction of NOW.
2. In regard to taking surface water, all works need to be appropriately licensed. If and where the storage capacity of the constructed dams exceeds the maximum harvestable right for the property or such works are proposed to be constructed on a river, as defined under the *Water Management Act 2000*, then a water volume reflecting the water taken from the relevant water source will also be required to be licensed.
3. To aid in the protection of receiving water source quality, all stormwater runoff must be adequately treated at its source and/ or diverted through the stormwater treatment process designed for the site, prior to the stormwater being discharged to surface water and groundwater sources.
4. All wastewater treatment ponds (effluent holding ponds, effluent polishing wetlands) must be constructed above the water table or must be appropriately lined with an impermeable liner to prevent groundwater contamination.
5. Appropriate buffers must be implemented on site between the development and all watercourses on and adjacent to the site, including the adjacent SEPP 14 wetland.

End Attachment B
30 November 2010