Reply to Submissions and Preferred Project Report

09-0028 Parklands

A report with respect to submissions to the exhibition of the Environmental Assessment including a Preferred Project description and updates to the project Statement of Commitments.

Prepared for:
North Byron Parklands
Billinudgel Property Pty Ltd

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Ref: SJC1287-664
Date: February 2011

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Annexures

Section

1

Consideration of Submissions

The Parklands proposal was advertised for the period 7 October 2010 until 19 November 2010. The Department of Planning has provided to the applicant a copy of all submissions and also provided its observations.

Comments by the Department of Planning and submissions by Government authorities are set out in Section 2 – 10. Pubic submissions in relations to the project are discussed at Section 11. The final section to this report describes the preferred project and contains an updated table of the Statement of Commitments.

All up 4,821 submissions were received in support of the subject application and 715 against. Further, a petition with 4,161 signatories in support of the subject proposal was lodged with the Department of Planning. A petition containing 25 signatories against were also lodged. **Plan 1.1** shows the location of the owners in the immediate area who have written in support, lodged objections or for which no written submissions appears to have been made. During the exhibition period Tweed Shire Council received a presentation by the proponent. Tweed Shire Council is not an objector to the application.

This report provides a response with respect to all issues raised having regard to the provisions of Section 75H(6) of the Environmental Planning and Assessment Act.

As a consequence of examination of the issues raised certain changes have been proposed with respect to site planning and updates have been proposed in relation to the Statement of Commitments. Those updates are tabulated in point form below. The major alterations proposed are:

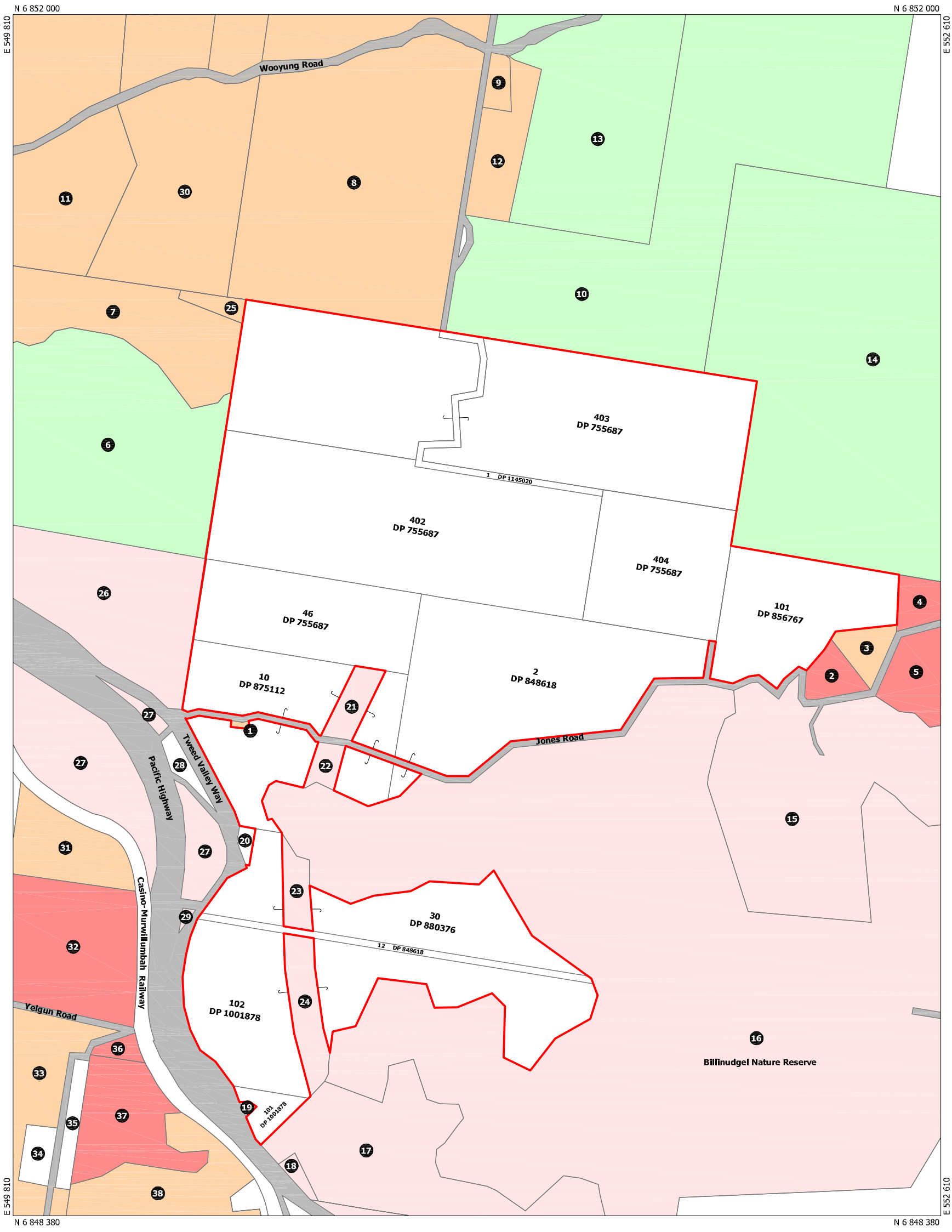
1.1 Site Planning Alterations

- Elevation of the Spine Road to flood proof the access to the 1% event.
- Additional dense vegetation is to be provided either side of Jones road and fauna friendly box culverts installed under the Spine Road.
- The institution of extensive (12.9 ha) habitat restoration in the area between the SEPP 14 boundary and the southern car park with the buffer to the SEPP 14 Wetlands planted out with native endemic wetland and riparian vegetation.

These measures are shown in updated event and land use structure plan and ecological structure plan (**Plan 1.2** and **1.3**) following.

1.2 Impact Management Alterations

- The downsizing of the scale and frequency events for the first 5 years.
- No more than 3 major events per annum.
- No more than a total of 10 event days per annum.
- Starting capacity of the 3 major events at 60% (30,000), 50% (25,000) and 40% (20,000).
- No more than 15% capacity increase per event annually subject to satisfying key performance indictors in the Management Manual.
- No minor, small or moderate events in the first 5 years.



Neighbouring Proprietors

1. Proprietors: Derek Spencer Klepp
   Alison Leigh Currey
   Title: Lot 1 in DP 584476
2. Proprietors: Stan Arthur Scanlon
   Valerie Ruth Scanlon
   Title: Lot 1 in DP 589613
3. Proprietor: Helen Patricia Artup
   Title: Lot 2 in DP 589613
4. Proprietors: Gary Bruce Opit
   Carmel Anne Daoud
   Title: Lot 1 in DP 394452
5. Proprietor: Gina Elise Delacretaz
   Title: Lot 1 in DP 394451
6. Proprietors: Robert John Cole
   Robyn Louise Cole
   Title: Lot 21 in DP 1034998
7. Proprietors: Neil Foster
   Raewyn Marion Foster
   Title: Lot 122 in DP 1003400
8. Proprietors: Gordon Trevor Foyster
   Sue Margaret Foyster
   Title: Lot 100 in DP 755721
9. Proprietors: Malcom Frank Beaumont
   Beverley Anne Beaumont
   Title: Lot 1 in DP 748228
10. Proprietor: FNC Properties Pty Ltd
    Title: Lot 163 in DP 755721
11. Proprietor: Anthony Glendon Brown
    Title: Lot 11 in DP 868148
12. Proprietors: Malcom Frank Beaumont
    Beverley Anne Beaumont
    Title: Lot 2 in DP 748228
13. Proprietor: FNC Properties Pty Ltd
    Title: Lot 4 in DP 821947
14. Proprietor: FNC Properties Pty Ltd
    Title: Lot 34 in DP 755721
15. Proprietor: The State of New South Wales
    Title: Lot 100 in DP 856767
16. Proprietor: Minister Administering the
    National Parks and Wildlife Act, 1974
    Title: Lot 14 in DP 848618
17. Proprietor: The State of New South Wales
    Title: Lot 2 in DP 1025104
18. Proprietor: Roads and Traffic Authority
    of New South Wales
    Title: Lot 11 in DP 1023281
19. Proprietor: Billinudgel Property Pty Ltd
    Title: Lot 107 in DP 1001878
20. Proprietor: Minister Administering the
    National Parks and Wildlife Act, 1974
    Title: Lot A in DP 378889
21. Proprietor: Minister Administering the
    National Parks and Wildlife Act, 1974
    Title: Lot 12 in DP 875112
22. Proprietor: Minister Administering the
    National Parks and Wildlife Act, 1974
    Title: Lot 13 in DP 875112
23. Proprietor: MInister Administering the
    National Parks and Wildlife Act, 1974
    Title: Lot 31 in DP 880376
24. Proprietor: Minister Administering the
    National Parks and Wildlife Act, 1974
    Title: Lot 14 in DP 875112
25. Proprietor: Earle Thomas Foyster
    Title: Lot 409 in DP 755687
26. Proprietor: Minister Administering the
    National Parks and Wildlife Act, 1974
    Title: Lot 106 in DP 1001878
27. Proprietor: Minister Administering the
    National Parks and Wildlife Act, 1974
    Title: Lot 103 in DP 1001878
28. Proprietor: Minister Administering the
    National Parks and Wildlife Act, 1974
    Title: Lot 105 in DP 1001878
29. Proprietor: Roads and Traffic Authority
    of New South Wales
    Title: Lot 108 in DP 1001878
30. Proprietor: Earle Thomas Foyster
    Title: Lot 1 in DP 359521
31. Proprietor: Sybil Sutherland Gallagher
    Title: Lot 1 in DP 610392
32. Proprietors: Patricia Gail Johnston
    Donna Michelle shipway
    Anthony William Johnston
    Title: Lot 2 in DP 856229
33. Proprietor: Allan William Baker
    Title: Lot 2 in DP 590451
34. Proprietor: The State of New South Wales
    Title: Lot 457 in DP 728169
35. Proprietor: The State of New South Wales
    Title: Lot 337 in DP 755687
36. Proprietor: Ian David Campbell
    Title: Lot 5 in DP 584168
37. Proprietor: Ian David Campbell
    Title: Lot 1 in DP 217025
38. Proprietors: Noel Bruce Baker
    Angelique Maree Baker
    Title: Lot 3 in DP 708466

Legend:

- Positive written submission
- Objection - written submission
- No written submission
- NSW Government owned lands

N
MGA

0 250m

Scale 1:12,500 (@ A3)

IMPORTANT NOTE |
Cadastral information is subject to survey.
MGA 56 coordinates are approximate only.

Source | Cadastre & Title Descriptions: DCDB and Land & Property Management Authority

Date	February 2011
Author	azaCAD.com.au
Reference	1287-P

Prepared by:
azaCAD

Plan | 1.1

Submissions in the Immediate Vicinity

North Byron Parklands | Tweed Valley Way & Jones Road

- Implementation of a Significant Rainfall Event Forecasting system and the revision of the flood and evacuation plan having regard to the elevation of the Spine Road to provide 1% flood proofing.
- Even though the RTA has approved a 35,000 patron initial event, to better test traffic modelling and to minimise the traffic footprint on local communities, the proponent proposes to limit the first initial event to a maximum of 30,000 patrons with primary use of the Yelgun interchange and other interchanges only used for contingency purposes.
- Planning for events will be carried out in accordance with the publication entitled "*Guide to Traffic Transport Management for Special Events*", by the RTA.
- Comprehensive data collection will be implemented in relation to the arrivals and departure rates; occupancy rates; model split and background traffic rates.
- The proponent commits to obtaining a "special event clearway authority" as required for the relevant sized event including the provision of illegally parked vehicles.
- Central forest blocks to be immediately fenced to exclude cattle and a camphor laurel removal program implemented.
- Confirmation of the commitment for additional paid ranger patrols as part of major event operations.
- The proponents will establish an annual performance Bond lodged with DECCW/PWG to address unforseen impacts upon the BNR from event operations.
- Appropriate signage to be provided in the southern car park concerning the reporting of incidents to festival management.
- The development of a Detailed Management Plan for solid waste including littering adjacent to or within the Billinudgel Nature Reserve.
- Prior to commissioning of the reticulated sewerage system a comprehensive operations maintenance plan is to be developed.
- 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.
- A Bonfire Management Plan is to be submitted to and approved by the Rural Fire Services before each major event.
- The implementation of a Mosquito Control Strategy limited to the use of personal insect deterrents rather than broad spectrum control.
- Ongoing monitoring, management and protection of specific Aboriginal cultural heritage items incorporating such actions into the Event Management Manual.
- Opportunities for Local Aboriginal communities to monitor any site disturbances is to be provided.
- In the event that new Aboriginal heritage items are discovered civil works will stop immediately and a qualified archaeologist engaged to consult and implement management strategies in accordance with the relevant Regulations.
- If human remains are located on site then NSW Police will be contacted immediately.
- All reasonable efforts are to be made to avoid impact on cultural heritage at all stages. If unavoidable impacts occur they are to be treated in accordance with the relevant DECCW protocols.
- An Aboriginal Cultural Education Program is to be developed for the induction of all personnel and contractors on the site.
- The Emergency Plan for bushfire is to be developed in conjunction with the Regulatory Working Group and endorsed by the Local Emergency Management Committee.
- Ensure soil structure is not degraded by monitoring bulk soil density via a Management Plan process.

The above and other administrative type measures are contained in an updated Statement of Commitments as set out at Section 12.

For Administrative ease, comments by the individual submitters are set out in black text. Comments in reply are denoted in blue text.

Legend:

The Site | Extents of Application Area (Dashed) | Car Parking

Event Area | Conference Centre Uses | Cultural Centre/Administration Uses | Gatehouse

Spine Road (7m wide) | Event access lane (6m wide) | Main pedestrian route

North Byron Parklands

0 160m

1:8000 (@ A3)

Prepared by

design team ink

Date 14.12.10

Author SDR

Reference 09_120

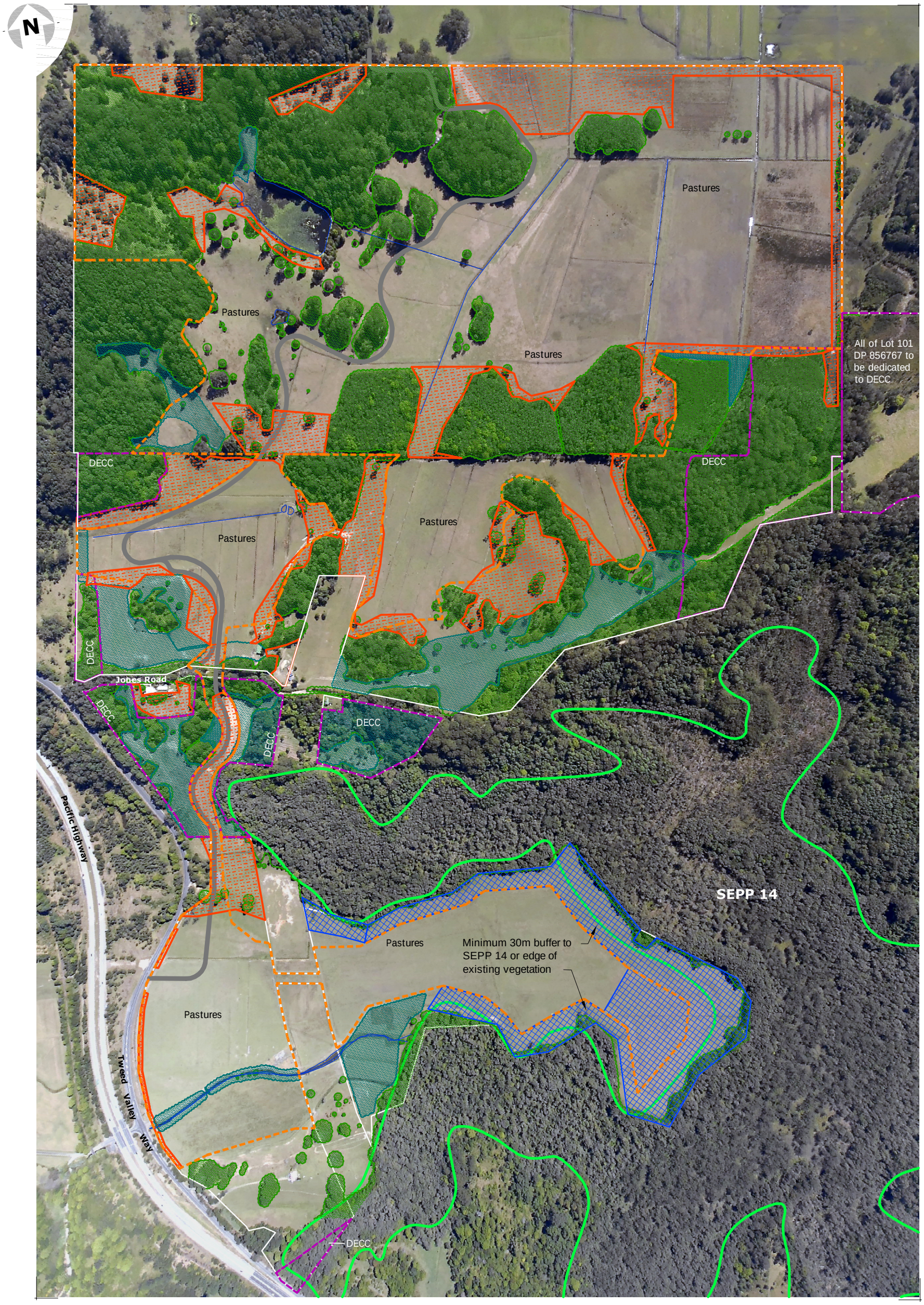
IMPORTANT NOTE |
Cadastral information is subject to survey. The alignment of the aerial photograph and vectorial overlays is approximate only. This plan is conceptual only and subject to detailed survey and design.

Sources | Aerial Photography: Bill Mills (2009) **| Cadastre:** Ardill Payne (2009) **|** Major contour = 5m **|** Minor contour = 1m

Plan **| 1.2**

Revised Event Area and Land Use Structure 4

North Byron Parklands | Tweed Valley Way & Jones Road



Legend:

The Site — Spine Road

Existing vegetation to be protected — Proposed new habitat area — Proposed new 'managed parklands' — Land proposed to be dedicated to DECC

New habitat with constructed wetlands

North Byron Parklands

0 160m

1:8000 (@ A3)

Date 14.12.10

Author SDR

Reference 09_120

IMPORTANT NOTE |
Cadastral information is subject to survey. The alignment of the aerial photograph and vectorial overlays is approximate only.

Sources | Aerial Photography: Bill Mills (2009) **| Cadastre:** Ardill Payne (2009) **| Ecological Values:** Mark Fitzgerald (2009)

Prepared by
design team ink

Plan | 1.3

Revised Ecological Structure Plan

5

North Byron Parklands | Tweed Valley Way & Jones Road

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Section

2

Department of Planning

Scale and Frequency of Events

The proposal seeks approval for two major events of 70% capacity within the first year of operation (35,000 patrons per event); three major events of up to 80% capacity in the second year of operation (40,000 patrons per event); and working upwards towards four major events of 100% capacity (50,000 patrons per event) on an annual basis. Council's recently adopted Events Policy outlines a restriction of no more than 2 major music festivals per year (major festivals being those in excess of 6000 patrons). Based on the information presented in the Environmental Assessment (EA), the Department considers the proposal of up to four major events with 50,000 patrons annually to be unsustainable for the proposed location, and has considerable concerns in regards to;

- ecological impacts;
- traffic impacts;
- integrated water cycle management;
- flooding and evacuation procedures;
- bushfire hazard; and,
- geotechnical impacts.

These issues have been discussed in further detail below. Consideration should be given to a reduction in both the size and frequency of events in order to reduce the likely impacts the proposal will have on those residents living in the north of Byron shire, the regions existing infrastructure, and the adjoining environment – including the Billinudgel Nature Reserve.

Comment 2.1

The EA, as lodged, proposed a maximum site capacity for initial major events of 70% (35,000 patrons) with no increase in event size allowable in subsequent years unless compliance was achieved with consent conditions and the Parklands Standards as detailed in the Management Manual.

The long term sustainability of the site as a cultural event facility was to be established by the precautionary approach of 'trial and monitoring' as detailed in the EA so as to assess actual events. The DECCW submission has also recommended this approach.

While the site capability and suitability analysis within the EA identified a physical maximum capacity of the site of 50,000 patrons, the EA examined the range of operational criteria that had to be achieved to progressively permit incremental increases in capacity that could be achieved beyond the 70% (35,000 patrons).

Having considered the Department of Planning's and other submissions, the proposal has been updated. The site usage in terms of size and frequency, subject to compliance with all relevant consent conditions and compliance with all key performance indicators set out in North Byron Parkland's Environmental, Health and Safety Management Manual, is now proposed as follows:

- Years 1 – 5 (commencing with the first event)
  - No more than a total of 10 event days per annum.
  - 3 major events per annum with maximum starting capacity of 60% (30,000), 50% (25,000) and 40% (20,000).
  - No more than 15% capacity increase per event annually subject to satisfying key performance indictors in the Management Manual.
  - No minor, small or moderate events.

- Years 6 onwards - maximum event usage as follows:
  - Major Events – no more than 12 event days per annum;
  - Moderate Events – no more than 4 event days per annum;
  - Small Events – no more than 4 event days per annum; and
  - Minor Events – no daily limits.

An increase in an event's size will only be possible if the event has complied with all relevant consent conditions and complied with and met all key performance indicators set out in North Byron Parkland's Environmental, Health and Safety Management Manual covering such aspects as safety, traffic management, environment, water and waste water management, fire, offsite management, noise, evacuation, first aid, camping, flooding and temporary structures.

An annual report of compliance with consent conditions and performance measured against the Management Manual standards will be lodged with the Department of Planning and displayed on the proponent's web site. The project must demonstrate that it has complied with or bettered these key performance indicators before a capacity increase can be considered and even when this is achieved, the maximum increase in event size shall be limited to no more than 15% increase per event annually.

The proposed approach of constant monitoring, review and adjustment allows for continual improvement of the site's operations and therefore the longer term sustainability of the site.

Ecological Impacts

a. The Department of Environment, Climate Change and Water has identified the need to conserve and improve the significant east-west wildlife corridor, particularly as habitat changes with climate change and the direct and proximity effects on the adjacent habitat of the intense use of the site during the frequent festivals. Consideration should be given to a revised site/event layout in order to maintain areas of existing vegetation and to reduce any further fragmentation of the east-west wildlife corridor. This may require a reduction in the total area of event and camping space, or a revised site layout.

Comment 2.1.1

The Parklands concept provides a significant one-off opportunity to preserve, increase and improve the function of the currently fragmented and degraded east-west wildlife corridor. Alternative land use options for this site are limited to continuance of agricultural activities with no obligation to increase and improve habitat and wildlife corridor functions. In the event that this application was refused it is likely to result in fragmented ownership of the amalgamated landholdings and subsequent loss of opportunity to provide coordinated and complementary ecological gains to the landscape of the locality at a regional level of achievement.

The Parklands proposal involves a substantial >50ha increase in the area of native vegetation across the Parklands site which will enlarge and strategically expand the 'wildlife corridor' and the ecological repair of the degraded riparian system in the south of the site. This environmental repair work will result in unprecedented connectivity improvements for local fauna. The revegetation process has already commenced by this proponent with the successful planting of over 7,400 endemic native trees, introduction of nest boxes and coordinated weed and fencing removal with the NPWS.

Approval of the subject application will result in significant environmental restoration programs that reinstate the landscape in a manner which is entirely consistent with the Byron Shire Council Biodiversity Conservation Strategy goals for this locality. Also, Section 4.3 of Technical Paper T assesses the consistency of the proposal with the Northern Rivers Catchment Action Plan and finds that the proposal will contribute to achieving nine key targets of the CAP across themes such as Community, Land use Planning, Biodiversity, Water and Soil/Land Management Themes.

The project substantially increases the amount of land allocated for habitat purposes by increasing native forest (and reducing fragmentation) and specifically focuses on providing much needed targeted connectivity to existing fauna overpasses and underpasses that allow migration east of the Pacific Highway and the Tweed Valley Way. Parklands proposes to restore >50ha of forest (the Billinudgel Nature Reserve is 713ha) within and beyond the existing recognised 'council corridor zones'. This will provide greatly improved connectivity and additional habitat opportunities for fauna. It is most likely that more fauna will find and use the crossings under and over the Pacific Highway and Tweed Valley Way.

The revised usage pattern of the site has significantly reduced both the scale and the frequency of events. By committing to only major events, in the first 5 years, actual event days will be capped at a maximum of 10 days per year. The "bump in" and "bump out" associated with these events is 66 days (for approximately 45 of these 66 days there will be less than 50 vehicle movements per day). Therefore, the total site usage will be 76 days per annum (10 event days + 66 bump in/out days) leaving 289 days with no event activity taking place across the entire site. This initial 5 year period will allow for targeted and comprehensive environmental monitoring confirming (or otherwise) the sites suitability for a full program of events. The monitoring program is proposed to be overviewed by the Regulatory Working Group as recommended by DECCW.

The revised usage pattern as described above, will significantly increase the 'rest time' between the maximum of three events annually within the first five years such that this large 258ha strategically located site, adjoining the Nature Reserve is able to act as an important ecosystem support function. With recognition that biodiversity cannot be sustained in Nature Reserves alone, the contribution of well managed habitats on private lands is widely recognised to be vital to conserve native ecosystem functions, especially ecological connectivity.

The overall proposal does not reduce vegetation cover and event activities can only take place within currently cleared pasture land. Appropriate fencing and buffer zones will be implemented to protect flora from both humans and cattle which shall result in an immediate improvement in understory structures within forest blocks which are currently heavily impacted.

Plan 1.3 illustrates provides a revised Ecological Structure Plan which has considerably increased the amount of proposed habitat along the east west wildlife corridor. This addition of new forest habitat results in a further 5.86 ha. of additional habitat provided.

b. An extensive area of *State Environmental Planning Policy No. 14 – Coastal Wetlands* (SEPP 14 – Coastal Wetlands) adjoins the south-eastern portion of the site. There are significant concerns for the continued functioning and health of the wetland. The effect of up to 50,000 people trampling on soils throughout the site will result in permanent breakdown of the soil structure and facilitate exporting of contaminated surface water during rainfall events into drainage lines which run into the adjoining SEPP 14 – Coastal Wetlands and the Billinudgel Nature Reserve. Further discussion of this issue should be provided.

Comment 2.2

The south east portion of the site is only to be used for 'day patron' car parking for major events. This usage will result in cars being parked in this area for no more than 10 days per annum for the first five years and no more than 12 days per year in the long term. Only day patrons arriving in cars, some 30% of patrons at a major event, would park their vehicles and leave them only to return at the end

of the event day. Accordingly 'trampling' is quite unlikely in this area. The main access routes will of course be hardened to maintain accessibility in wet weather and to prevent site degradation.

It is considered that the risk of soil structure decline from such usage would be minor. However, this will be monitored under the site's plan of management – see Commitment C21 .

NSW I & I (Fisheries) accept the proposed buffering to protect the wetlands as described within Section 10 of this report. NSW Office of Water in Section 6 of this report provide conditions relating to buffering of the wetland and use of Water Sensitive Urban Design (WSUD), with all runoff being appropriately treated prior to leaving 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.

DECCW, in Section 4 of this report, recommend that a permanent habitat restoration approach be outlined for the area between the car parking and the SEPP 14 boundary. The updated commitments have fully accepted these recommendations and the Preferred Project adds further land for buffering of the SEPP 14 wetlands (12.9 ha. in total) and that wetlands are to be constructed in the buffers.

Plan 1.3 Revised Ecological Structure Plan depicts the further increase of the width and size of the buffer to the adjoining wetlands.

c. It is noted that a 30m vegetated buffer is proposed between the southern car parking area and the adjoining SEPP 14 – Coastal Wetland to provide an interception area for run-off. Fencing of this area is also proposed to deter human movement into the wetland. The Ecological Assessment does not provide any information as to why the establishment of a 30m buffer is considered acceptable in order to prevent run-off from entering the wetland. It should be demonstrated, through a qualitative assessment for example, that the proposed 30m buffer will be adequate in capturing all pollutants draining from the southern car parking area. Should this not be achievable, consideration should be given to further mitigation measures, and/or an increased buffer zone between the wetland and the car parking area.

Comment 2.3

The south east portion of the site is only to be used for 'day patron' car parking for major events. This usage will result in cars being parked in this area for no more than 10 days per annum for the first five years and no more than 12 days per year in the long term.

NSW I & I (Fisheries) accept the width of proposed buffering to protect the wetlands as described within Section 10 of this report. **Plan 1.3** provides a Revised Ecological Structure Plan which has further increased the width and size of the buffer to the adjoining wetlands. The quantity of edge distance is significantly reduced by this further increase in buffering. The revised Statement of Commitments now proposes that constructed wetlands will be provided within this large buffer area. This buffer area provides a further 12.9 ha. of land dedicated to ecological functioning. Together with the WSUD implementation within the stormwater management plan, these increased buffers will prevent potentially contaminated surface water entering the wetlands.

The potential pollutants associated with a car parking area are:

- litter
- sediment
- hydrocarbons
- heavy metals

This list is consistent with the normal expected contaminants as outlined by expert guidelines such as Gold Coast City Council Land Development Guidelines[1]. A qualitative hazard and risk assessment is outlined in the following table. The assessment procedure is similar to that adopted for the assessment of land-use conflict in Northern NSW[2]. The assessment criteria are shown in **Annexure A** – Attachment 1.

Based on this assessment the resultant contaminant risk posed by the southern car park is acceptable. Mitigating factors such as the duration of use, grassed nature of the car park surface, low gradient of the car park surface and low contaminating nature of the vehicles associated with the proposed development minimise the risk.

The control measures outlined in the proposal's site based management plan ensure the protection of the SEPP14 wetland. These control measures are:
• Erosion and sediment controls - construction and operational phase[3]
• Effluent disposal management measures[4]

Additionally, the provision of the enhanced buffer (see Commitment B12) will add further protection to the SEPP14 wetland. The most significant hazard associated with the car park, that may impact on the SEPP14 wetland, is sediment. Some guidelines on appropriate riparian buffer width may be gained from agricultural best practice guidelines, in this case - *Guidelines for Riparian Filter Strips for Queensland Irrigators*[5]. These guidelines may be used given the proximity of the site to southeast Queensland and similar climate. Table 1 (page 20 shown in **Annexure A** – Attachment 2) from these guidelines presents indicative filter widths for varying geographical characteristics including region and annual rainfall, rainfall erosivity, soil erodibility, slope and land cover.

For the Parklands site in question, it is considered that the following parameters are appropriate:
• Region: South East (Annual rainfall = 800-2000mm/yr)
• Rainfall erosivity: High (R>4000)
• Soil erodibility: High (k=0.045)
• Slope: Low (<2%)
• Cover: Poor (assuming damage to vegetation from vehicular movements at time of use).

Based on these parameters, which are considered to be conservative, the resulting soil loss estimate is 25t/ha/y. This corresponds with a recommended filter width of 15m (and under perennial crops, as is the case with pasture, as small as 1.0t/ha/y with a buffer width of 5m). Given that the site is not under cultivation and maintained in a vegetated state, the proposed 30m buffer will provide sufficient protection to the SEPP14 wetland from pollutant loading during peak periods of use.[1] [4]

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[1] 1 Gold Coast City Council, 2005, *Land Development Guidelines*, Section 13, Water Sensitive Urban Design (WSUD) Guidelines, Table 13.1.D, page 36 (as amended June 07)
2 Tim Fitzroy & Associates 2008, Land Use Conflict Risk Assessment Workshop, Ocean Shores. The methods are consistent with: AS/NZS4360:2004 Risk Management, Sydney, Standards Australia and Standards New Zealand
3 Gilbert & Sutherland, 2010, *Water Management Plan, North Byron Parklands, Tweed Valley Road, Jones Road, Yelgun, New South Wales*, prepared for North Byron Parklands, report no. GJ0896-1_WMP_REH1F, 21/07/2010. Table 2.1 Construction phase sediment and erosion controls; Table 2.2 Construction phase surface water monitoring; Table 3.3 Operational phase sediment and erosion controls; Table 3.4 Operational phase maintenance of swales; Table 3.5 Operational phase maintenance of vegetative filters; Table 3.7 water quality of receiving waters.
4 Gilbert & Sutherland, 2010, *Water Management Plan, North Byron Parklands, Tweed Valley Road, Jones Road, Yelgun, New South Wales*, prepared for North Byron Parklands, report no. GJ0896-1_WMP_REH1F, 21/07/2010. Table 3.7 Water quality of receiving waters; Table 3.8 Groundwater quality; Table 3.9 Monitoring of effluent quality; Table 3.11 Land contamination.
5 Lovett, S. & Price, P. 2001, Managing Riparian Lands in the Sugar Industry: A guide to Principles and Prectices, Sugar Research & Development Corporation/Land & Water Australia, Brisbane. ISBN 0-9579313-0-1.
Karssies, L. & Prosser, I. 1999, *Guidelines for Riparian Buffer Strips for Queensland Irrigators*, CSIRO Land & Water Technical Report 32/99.

Table 2.1 Quantitive hazard identification and risk assessment for the probable contaminants associated with the southern car park adjacent to the SEPP 14 wetland.

Hazard	Mitigating factors	Control measures	Likelihood of contaminating SEPP14 wetland	Consequence of impact	Risk score and assessment
Litter	• Litter source (people) on site for short periods of time (1-3 days) during events. • Access to vehicles of short duration during events.	• Site has a waste management plan for operations that includes litter control strategies within the southern carpark. • Soil erosion and sediment control plan implemented during operations.	C - unlikely	3 - negligible	13 - acceptable
Sediment	• Entire site is vegetated/ grassed. • Vehicles will only occupy the area for short periods of time (1-3 days). • Events requiring southern carpark limited (as low as 2-3 times per year) • Low gradient (0.5%) across the site will limit runoff velocities to non erosive levels (<0.3m/s).	• Erosion and sediment controls to be implemented during operations. • 30m vegetated buffer zone, with water treatment ability, is set aside between the carpark and the SEPP14 wetland.	C - unlikely	2 - moderate	18 - acceptable
Hydrocarbons	• No hard stand on carpark with all surfaces grassed and pervious. • No storage of hydrocarbons in southern carpark area. • Contaminant source small and limited to intermittent and rare hydrocarbon (oil) release from parked vehicles.Hydrocarbon release absorbed and contained within carpark site. • Vehicles will only occupy the area for short periods of time (1-3 days). • Events requiring southern carpark limited (as low as 2-3 times per year) • Low gradient (0.5%) across the site will limit runoff velocities to non erosive levels (<0.3m/s).	• Entire carpark area is vegetated providing a treatment function. • Erosion and sediment control plan for site. • Vegetated buffer provides an additional treatment zone.	C - unlikely	2 - moderate	18 - acceptable
Heavy metals	• No hard stand on carpark with all surfaces grassed, pervious and low abrasive capacity. • Contaminant source small and limited to intermittent and rare hydrocarbon (oil) release from parked vehicles.	• Erosion and sediment controls to be implemented during operations. • 30m vegetated buffer zone, with water treatment ability, is set aside between the carpark and the SEPP14 wetland.	C - unlikely	2 - moderate	18 - acceptable

d. Whilst the provision of fencing within and surrounding certain parts of the site are proposed, the Department is concerned that this may be insufficient to ensure that disturbances and edge effects on sensitive habitats both within the site and along the site boundaries can be appropriately managed and/or mitigated. Further justification and/or discussion of alternative measures to protect sensitive habitats should be provided.

Comment 2.4

A range of design and management actions will be implemented to reduce disturbances and edge effects on sensitive habitats.

Disturbance and or edge effects associated with the proposal are essentially limited to event–related activities which are temporary and episodic. A less intensive diurnal disturbance regime is associated with the bump-in and bump-out periods for any event. For the majority of any year, and for months at a time, the Parklands site will not experience any event-related disturbance.

Existing fragmented forest habitats on the Parklands site are continuously and variably subjected to edge effects by nature of their small size, effects of high water tables and cattle grazing on groundlayer vegetation, and high edge-to-core ratio. These edge effects (penetration of light, wind, cattle and weeds) operate historically and separately from any event-related disturbance. However, the proposed exclusion of cattle, extensive planting regime, and rehabilitation proposed for the site will considerably reduce edge effects in these forest habitats, by allowing and facilitating the development of groundlayer and shrublayer vegetation, and by enlarging the area of forest present, improving the core-to-edge ratio, reducing penetration of light and wind, screening interior of forest visually and by removal of cattle and weeds.

Disturbance and edge effects from the proposal potentially arise in association with: the movements of vehicles and people, erection of infrastructure, including temporary fencing, presence of large numbers of people, noise and lighting from staging of events. These effects are likely to vary according to a number of factors, including: orientation, physiognomy of the forest edge, extent of fragmentation and forest block size.

Construction of the underpass at Jones Road will also create additional edge effects and fragmentation on a very small scale, which are likely to be offset by adjacent plantings. Further points of justification include:

- Existing forest blocks closest to event related activities are already substantially affected by edge effects and by cattle grazing and trampling. Terrestrial fauna and species are in low abundance within the central forest blocks because of their small size, fragmentation and degraded groundlayer habitats.
- Rehabilitation of central swamp sclerophyll forest blocks closest to event processes will include the long term establishment of groundlayer and shrublayer vegetation both on the perimeter, and in areas within these forest blocks, providing a visual and acoustic screen for fauna within, as well as habitat and shelter sites.
- Plantings proposed will increase the size of forest fragments, improve core-to-edge ratios and habitat connectivity, especially for terrestrial fauna.
- Increased patch size and connectivity will increase habitat values for fauna on the Parklands site and in its vicinity, and long 'quiet' periods between events will enable normal and better than present ecological processes to occur.
- Over time it is likely that some fauna will become habituated to and/or tolerate the serial disturbances associated with events.

- Monitoring is required to identify the actual rather than predicted nature of edge effects and disturbance on fauna.

- The Woodford (Queensland) example demonstrates that fauna are capable of adapting to the use of a site for events and festivals.

- While fencing will separate event patrons from forest, the underlying and ongoing issue for local biodiversity is reversal of existing degradation of habitats. Restoration of forest currently adversely affected by cattle, and by weeds and feral fauna will offset episodic disturbance from event processes.

- Impacts on sensitive habitats outside the Parklands property are likely to be limited to those occurring south of Jones Road where the Billinudgel Nature Reserve (BNR) adjoins/surrounds the proposed southern car parking area. Where BNR adjoins Jones Road, some impacts from noise may operate, which should diminish with distance southwards from Jones Road. Topography of the Jones Road ridge shelters this area of BNR from noise and visual effect from the Parklands site, while simultaneously exposing this area to traffic noise from the adjacent freeway.

- Buffering of BNR by a vegetated constructed wetland buffer within the southern portion of the Parklands site will provide visual and acoustic screening.

During events security personnel shall patrol and prevent patrons from entering any 'out of bounds' vegetated areas.

Lighting aspects will be managed as discussed in the recommendations of the ecological assessment report. While ensuring the safety of patrons and staff all lighting will:

- Ensure no material illumination of forest blocks or their edges, or trees;
- Fencing around forest blocks will be covered with hessian or similar covering to prevent light penetration;
- Be directed downwards and light sources that do not attract insects or bats will be used where possible;
- Be located in open areas away from forest or trees.
- Set control options to allow flexible and task settings for the lighting. This will minimise or avoid unnecessary lighting;
- Will be reduced or eliminated after performances to allow dark periods for fauna to use or traverse the site; and
- Overhead lighting will be shielded and directed downwards to minimise light spill.

Noise emissions will be similarly managed and shall use state of the art unidirectional speak arrays that direct and contain noise within predefined areas. Specific noise monitoring points within habitat areas as well as nearby residences will be monitored.

The design of the planting and treatment of the managed parklands areas between the central forest blocks will achieve objectives such as increased canopy connection and increased connectivity for the fauna using these forest blocks.

The monitoring program, as requested by DECCW in their 'trial and monitor' approach, will be overviewed by the Regulatory Working Group – see DECCW Condition 7. This monitoring will form the basis to consider alternative measures as required.

e. It is considered that the Ecological Assessment does not deal with all potential ecological implications of the project. Whilst the Ecological Assessment focuses on the direct effects of clearing and construction, it does not satisfactorily address the impacts of frequent influxes of very

large numbers of people which has the potential to impact upon existing ecosystems both within the site and on the surrounding environment. Cumulative impacts of the project on the surrounding environment, including the cumulative impacts on threatened fauna species (such as noise and lighting impacts, etc.) need to be further considered.

Comment 2.5

The revised scale and frequency of the proposal results in there not being 'impacts of frequent influxes of very large numbers of people' as the frequency of site usage in years 1 to 5 are limited to a maximum of 10 days event usage per year.

DECCW recommend a trial and monitor approach to site event usage. The Parklands proposal is consistent with this recommendation as an integral component of the application is the compliance with the 'Environmental, Health and Safety (EH&S) Management Manual' (Management Manual).

Operational performance of the site (and events held at the site) is administered and monitored by means of an Environmental Health and Safety Management System, compliant with the elements of AS/NZS ISO 14001 - Environmental Management Systems and AS 4804 - Occupational, Health and Safety Management Systems.

The Management Manual clearly sets out a range of environmental, health and safety objectives under its EH&S Policy which Parklands is committed to achieving as part of its delivery of a sustainable cultural arts and music events venue.

Specific and measurable targets and outcomes are documented in a suite of Parkland's Standards which have been developed for all identified significant EH&S aspects associated with the organisation's activities and services.

Importantly, the Management Manual provides a robust framework of monitoring, measurement, auditing and management review to accurately determine the effectiveness of the organisation's policies, procedures, work instructions, training, emergency response and non-conformance and corrective action processes. The Management Manual will be the primary vehicle for maintaining North Byron Parklands on a path of continuous improvement. Parklands will audit all aspects and lodge an annual performance report with the Department of Planning.

As recommended by DECCW, the nature and scope of an ecological monitoring program is be determined, approved and reviewed in conjunction with the proponent, by an ecological impact assessment committee as part of the proposed Regulatory Working Group. This monitoring program will assess the actual impacts of site usage and provide response mechanisms to ensure a satisfactory balance between the recognised cultural, local economic, employment and ecological gains to be delivered by the project and any social and ecological impacts.

The proposals in the EA for a precautionary approach involving "monitoring, review and adjustment" were not suggested to evade the question of subsequent cumulative impacts, but to attempt to ensure that actual site-specific information concerning impacts for particular fauna was relied on to identify and measure impacts and to develop mitigation actions, rather than speculation.

Prediction of impacts of the influx of large numbers of people at Parklands is not able to be precise because the disturbance regime is complex and time constrained. The effects of improved ecosystem function at Parklands arising from existing and ongoing rehabilitation are likely to counteract the disturbance effects associated with events, especially given the long periods of 'down time'.

In the first 5 years of operation at Parklands non event time or 'down time' will overwhelmingly predominate at the site (>80% of any year, including consideration of bump-in and bump-out periods). This should enable event areas to be re-occupied if shy fauna avoid them during periods of high human presence.

Reports of monitoring impacts from music festivals describe a range of responses, including unpredicted and unclear responses. For example, monitoring a music festival in Sydney, Epacris Consultants reported minor changes in emergence times for a maternity colony of White-striped mastiff bats (*Austronomus* (as *Tadarida*) *australis*), but noted that climate (temperature) appeared to have a greater effect on emergence times than disturbance from the music festival (Epacris 2006).

Hopkins and Phillips (2010) describe aversive behaviour in 4 of 6 koalas monitored at the Byron Bluesfest, but report that "*Radio-tracked koalas were quick to return to their areas of core activity upon cessation of the festival event, in most cases returning during the bump-out phase*" (after amplified music had finished). Observations of a koala within the Belongil Fields site during Splendour in the Grass on two consecutive years provide an alternative example of koala response.

Later than usual emergence of a colony of Daubenton's bats (*Myotis daubentonii*) was reported during a British music festival (Shirley *et al* 2001), but emergence times of microbats can vary according to species-specific behaviours, temperature and other, climatic conditions, reproductive state and other factors (Meyer *et al* 2004; pers. obs.).

While it is possible to speculate likely or potential averse responses of shyer species to the influx of large numbers of people (*e.g.* Fruit-doves *Ptilinopus spp.,* or Jacana *Iredipparra gallinacea* or the pale-vented bush-hen Amaurornis *moluccana*) the actual responses will depend upon the intensity and distribution of disturbance phenomena and on local conditions: *e.g.* whether resources and/or fauna are present at the time of disturbance; and upon climatic conditions.

It can be equally predicted that other species are likely to continue to forage or conduct normal behavioural routines at and around the site *e.g.* Little Bent-wing Bats *Miniopterus australis*, or to experience minor disruption and resume normal behaviour shortly after adverse stimuli cease (Grey-headed Flying-foxes *Pteropus poliocephalus*: Fitzgerald 2010).

Therefore, it is not possible to reliably predict all potential cumulative impacts for fauna species until observation data is available concerning their autecology at the site, and the nature of their responses to human presence. If aversive behaviour for a given taxon is limited to the most intense disturbance factors, then short term effects may be followed by re-occupation of the site, once the human presence is gone. If fauna do not re-occupy the site, this can only be determined by monitoring.

Predictions based on diverse observations outside the Parklands site and under a range of conditions do not have the significance or merit of actual observations of faunal responses proposed. In some cases cumulative impacts will produce habituation and/or tolerance: in other cases species may become more sensitive to human presence. How fauna species respond to the proposed alternative sequences of event periods and down time periods is in particular difficult to predict with any confidence. Hence, our planning approach of monitoring, review and adjustment.

Surveys of the smaller (~20ha) Belongil Fields site where Splendour in the Grass and other similar events have operated for many years, with high numbers of people present indicates that threatened fauna species continue to use the site (*e.g.* Koala, Little Bent-wing Bats, Eastern Long-eared Bats, Grey-headed Flying-fox), even during events (pers. comm. Mark Robinson, former Byron Shire Council ecologist) and that the overall vertebrate biodiversity of the site appears commensurate with its size and habitat conditions (Fitzgerald 2005).

The vertebrate fauna of Belongil Fields is comparable to any similar degraded remnant vegetation on the Byron floodplain (pers. obs: Fitzgerald multiple fauna surveys of the West Byron sewage treatment plant lands, and current Byron Shire sportsfields centre site), and no species or group of species is clearly absent despite the history of human numbers at the site. Some effects may be apparent: it is possible that high numbers of black rats *Rattus rattus* present in vegetated drains of the Belongil Fields site may be influenced by the availability of food scraps.

Observations of faunal responses to new sportsfield lighting at nearby New Brighton reveal alienation of the illuminated blossom resource for some flying-foxes, which ceased within minutes of lights being extinguished. Some individual flying-foxes were also observed to continue to forage on the darker side of illuminated tree canopies while the lights were in use (Fitzgerald 2010).

Observations over 5 years of fauna use of culverts, under bridges and over cut-and-cover tunnels of the Yelgun to Chinderah, and Brunswick to Yelgun freeways (Fitzgerald 2005; Fitzgerald 2009, Fitzgerald 2010b) reveal that the terrestrial vertebrate fauna of these regions use these crossings beneath the freeways despite cycles of high levels of noise, demonstrating some habituation and/or tolerance.

The cycle of disturbance from events at Parklands allows for months of respite from adverse stimuli, with improved environmental conditions and must be considered to provide conservative offsets to event-related disturbance. [2]

Should you wish to discuss in further detail the ecological impacts of the project, please contact Dr. Peter Nelson – Senior Environmental Advisor, Assessments Division. Ph: 02 9228 6480, or email: peter.nelson@planning.nsw.gov.au

Traffic Impacts

a. The Yelgun interchange to the south is a critical point in the road network for traffic access to and from the site. Should traffic be disrupted along Tweed Valley Way between the site entrance and the Yelgun interchange (through a vehicle break-down or accident for example), then significant impacts on the level of service along Tweed Valley Way and functioning of the interchange would likely be experienced. Contingency measures to deal with such a scenario should be outlined.

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[2] Epacris Environmental Consultants (2006) Monitoring of microchiropteran populations before, during and after a music festival. The Armoury-Sydney Olympic Park. Epacris Environmental Consultants P. O. Box 193, Katoomba NSW.
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Manci K. M., Gladwin D. N., Villetta R., and Cavendish M. G. (1988). Effects of aircraft noise and sonic booms on domestic animals and wildlife: a literature synthesis. U.S. Fish and Wildlife Service. National Ecology Research Center, Ft. Collins, CO. NERC-88/29. 88pp.
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Murcia C. (1995) Edge effects in fragmented forests: implications for conservation. TREE (Trends in Ecology and Evolution), Vol 10, No. 2, February 1995.
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J. Zool., Lond. (2001) 254, 367±373 #2001 The Zoological Society of London

Comment 2.6
For major events, Tweed Valley Way, from the Yelgun Interchange to the site entrances, will be managed under traffic control in accordance with an approved Traffic Management Plan (TMP). The TMP will include a Traffic Incident Management Plan which will detail a range of approved contingency measures capable of avoiding significant impacts on the level of service. The speed limit under traffic control will be a maximum of 40 kph thus reducing the potential for a traffic accident. Tow trucks will be stationed to immediately attend any vehicle breakdown. This section of road will also have a temporary third lane which allows a further option in the event of a temporary breakdown. This section of road will be highly monitored with an approved chain of command system to respond immediately to any circumstances which may impact on the level of service.

The traffic impact modelling has been undertaken with margins of safety for unexpected incidents included.

While the above contingencies address the Tweed Valley Way to the interchange, Section 4.4 of the Supplementary Traffic Impact Assessment within **Annexure B** provides a range of contingency measures for the operation of the interchange.

b. The Traffic Impact Assessment states that the Yelgun interchange would not have sufficient capacity to accommodate a 100% capacity event in 2015 (p.76). Please provide justification and/or traffic management measures to deal with predicted impacts on the interchange by 2015 and beyond.

Comment 2.7
A 100% capacity event is not proposed in 2015. The quoted reference relates to the modelling of the intersection performance to ascertain the capacity limits of the intersection. This background modelling formed the basis for proposing a rate of usage that was within the capacity limits of the intersection.

The Supplementary Traffic Impact Assessment in **Annexure B** contains further interchange operation details using a more conservative analysis for an opening event of 35,000 patrons. It should be noted that the Preferred Project seeks an opening event of 30,000 patrons. The more conservative analysis planned the opening event based on:

- the queue of vehicles waiting to turn onto Tweed Valley Way not extend beyond Link ; and
- the queue of vehicles on the Pacific Highway ramps not extend beyond 97 m on the southbound off-ramp and 247 m on the northbound off-ramp.

c. Transport initiatives to achieve a car occupancy rate of 3.2 people per car and a high public transport mode share (39%) are to be implemented for a 100% capacity event. It is crucial that the proposed occupancy rate and public transport mode share percentage figures are achieved if the traffic management measures as outlined in the Traffic Impact Assessment are to be accomplished. Please outline specific traffic and transport initiatives that are to be implemented to ensure the proposed occupancy rates can realistically be achieved, and that public transport options will be actively utilised by event patrons. Should the stated car occupancy rate and public transport mode share not be achieved, then potential impacts on the surrounding road network should be identified.

Comment 2.8
The stated transport initiatives quoted such as a car occupancy rate of 3.2 people per car would be progressively achieved over a number of years of event operation with trialling and monitoring various measures. Transport measures in **Annexure B** include the following:

- reduced price combination bus and event entry tickets
- selling timed entry passes for campers driving to the site
- pre-paid parking for all patrons driving to the site
- partial reimbursement voucher for day patron vehicles arriving before 12.00 pm
- partial reimbursement voucher for vehicles with three or more ticket holders

- restricted numbers of parking tickets available
- information for alternative park and ride arrangements for tickets sold without parking
- resolution bay for vehicles arriving without valid parking pass
- convenient and well-planned network of public transport services to the site
- well-publicised shuttle bus offering trips from site surrounding townships
- facilities provided on site to reduce the need to travel off-site
- separate gate entry for bus services.

The **Annexure B** information outlines the range of contingency traffic measures to be employed to retain the performance of the interchange as follows:

- Assumed day patron arrival rates 60% higher than observed arrival rates at Woodford, assumed camper arrival were around 85% higher than the arrival rates observed at Woodford.
- Advertising in local newspapers advising of traffic management measures and potential delays.
- Traffic management measures introduced if the queue of vehicles on the Pacific Highway Ramps extends beyond 97 m on the southbound off-ramp and 247 m on the northbound off-ramp. These values include a 100 m buffer to the stopping sight distance:
    - hold northbound movement on the Tweed Valley Way allowing uninterrupted discharge of Link Road queue
    - hold northbound off-ramp queue if arrival rate on southbound off-ramp continues to cause queuing issues
    - close northbound off-ramps if queuing extends beyond 97 m on the southbound off-ramp and 247 m on the northbound off-ramp.
- Additional 15% base traffic volumes to allow for a daily variation in traffic
- No queuing beyond the Link Road.

The RTA comment at page 98 is an example of the consequences of not achieving the estimated occupancy and / or public transport mode share.

d. There are concerns that should a large number of event patrons arrive and/or leave the site at the same time (ie: all arriving early in the morning), then unacceptable levels of service will be experienced along Tweed Valley Way and the surrounding road network – including the Yelgun interchange. Strategies to ensure event patrons do not all arrive and leave the site during the same time period should be provided.

Comment 2.9

The programming of each days events and the opening and closing times of gates are designed to spread the rate of patrons arriving and departing from a days attendance at an event. Camping a high proportion of patrons on the site also contributes to less traffic peaks. The modelling of arrival and departure periods is based on real event experience with safety margins built into the modelling. Safety margins are significant such eg 'Assumed day patron arrival rates 60% higher than observed arrival rates at Woodford, assumed camper arrival were around 85% higher than the arrival rates observed at Woodford'.

Integrated Water Cycle Management

a. The water treatment and wastewater treatment facilities are proposed as part of stage 2, and during the initial stages of the proposal water will be 'trucked in' and wastewater 'trucked out'. Please indicate whether wastewater is to be trucked out during the staging of an event, and if so, provide further information on how often transportation of wastewater will be required. Any potential conflicts this will have on traffic conditions or event patrons should be also be discussed.

   Also, please provide a specific timeframe as to when the proposed water treatment and wastewater treatment facilities are to be constructed.

Comment 2.10

Apart from the Woodford Folk Festival site in Queensland no other outdoor event facility has a permanent waste water treatment plant that can manage entire event sewerage loads. As all outdoor events transport part or all of their wastewater to sewerage treatment plants. This operation is a standard part of outdoor event management and has resulted in the provision of a range of sewerage transport operators across Australia licensed to undertake such activities.

Parklands will be responsible for transporting wastewater to an appropriate facility licensed to receive such waste. For an event involving 30,000 patrons approximately 50 wastewater truck movements will take place over a three to four day period across the event. As these trucks will be subject to traffic control until such time as they access the Pacific Highway (with a capacity of 22,000 vehicles per hour) there will be no discernible impact on traffic conditions.

It is proposed that the water treatment and wastewater treatment facilities are constructed once the site usage is to exceed seven days of major event usage per year. Based on the revised site usage pattern, this would result in these facilities being built after Year 5.

b. Wastewater is proposed to be exported to licensed wastewater treatment facilities prior to the construction of an on-site facility. Given the size of proposed events, investigation should be undertaken as to whether treatment facilities in the Byron Shire have capacity to deal with the amount of wastewater generated by 100% capacity events.

Comment 2.11

Suitable and adequate arrangements have been made with Allconnex Water to dispose of all event generated wastewater from each of the three proposed events. These facilities have the capability to receive wastewater generated by a 100% capacity event.

c. The proposed on-site wastewater treatment facility has a daily capacity limit of 700kL. Please demonstrate whether this is sufficient holding capacity, and if any wet weather storage is proposed as part of the wastewater treatment facility.

Comment 2.12

The stated 700kL is the design daily treatment capacity. The STP is designed to accommodate flows of up to 1ML per day, from a multi-day festival and this is achieved by storing wastewater flows which exceed the daily treatment capacity, in a 3ML balance tank / aeration chamber. The STP would continue to operate after a festival, until the balance tank is empty. This design has been proven, at the Woodford Folk Festival site in Woodford, Queensland.

The proposed design capacities are sufficient for the largest and longest events proposed for the site. In addition, to the up-front holding capacity of the treatment plant, redundancy is built into the STP, ensuring that if there is a break-down during operation, the plant can continue to operate at full capacity. Wet weather storage is also provided in the (approximately) 6.5ML effluent holding dams and wetlands. The MEDLI modelling undertaken to assess the capacity of the proposed effluent irrigation areas demonstrates that irrigation conducted on the basis of soil moisture deficit is sufficient to beneficially re-use all of the effluent generated from the proposed use of the site.

d. Please outline any mitigation measures to ensure adjoining environments are not adversely affected by run-off from effluent irrigation areas proposed both within the northern and southern areas of the site.

Comment 2.12.1

Appendix 9 of Technical Paper F1 provides the Water Management Plan for the Parklands site. Section 3.7 of this plan addresses the management and monitoring measures to be complied with regarding the quality of water discharged from the site.

The modelling undertaken to assess the impacts of the irrigation of effluent in irrigation areas demonstrates that the areas can sustainably assimilate the effluent loading based on irrigation according to soil moisture deficit. Additionally, the proposed management of the irrigation areas strictly prohibits the irrigation of these areas during or after rainfall. This means that there would be no run off of effluent from the irrigation areas, nor of rainfall contaminated with effluent.

In addition, the detailed design of the irrigation areas would incorporate standard mitigation measures such us clean water diversion mounds on the up-slope side of the irrigation area and retention mounds on the down-slope side.

Flooding and Evacuation

a. The proposed event and camping area is located within the Crabbes Creek floodplain and much of this area is inundated during a 5 year ARI flooding event. Justification is required for the positioning of up to 25,000 campers, movable dwellings such as camper vans, and event infrastructure (including portable toilet and shower facilities, food stalls, performance stages and speakers, electrical equipment, etc.) within an identified flood prone area. The Flooding Impact Assessment particularly focuses on the impacts on proposed physical features within the site – including the Spine Road, event laneways and buildings (cultural centre and conference centre); there is limited information on the impacts a flood event will have on those camping within flood prone areas.

Comment 2.13

A common misunderstanding by submitters relates to the carrying out of events during likely periods of flood. For abundant clarity, the proponent advises that there is no intention on the part of Parklands to carryout events when it is likely that the site will flood.

Part of the site is on flood liable land as described in detail in the EA. It is recognised within both the Flood Impact Assessment Report and the Evacuation Assessment Report that the use of the site is constrained by flooding, which will be mitigated by a variety of means including:

- Placement of buildings outside the 100 year ARI flood extent;
- Elevation of the Spine Road to above the 1% flood level;
- Implementing a Significant Rainfall Event Forecasting System (SREFS) based on the Australian Water Resources Council's "Floodplain Management in Australia" and Emergency Management Australia's "Flood Warning" and "Flood Response" Manuals which will allow for decisions to be made on whether to hold events or alter the form of events based on anticipated climatic conditions;
- Implementation of "flood smart" systems e.g. placement of key infrastructure such as strategic electricity boards at a level greater than 1% flood level; and
- Implementation of a flood evacuation plan covering various scenarios, updated to account for the Spine Road being flood proofed to above the 1% level.

In the extremely unlikely situation where an unpredicted significant rainfall event occurs during an event the following controls will ensure the timely evacuation of patrons, campers and staff to flood free areas of the site:

- Use of stage public address systems in addition to camp ground located public address systems to advise and direct patrons;
- Use of camping and event wardens to alert and direct patrons;
- Use of onsite security personnel to manage and direct patron movements;
- Use of pay per use NSW Police Officers and Rural Fire Service Personnel to manage and direct patron movements;
- Clearly signed and lit evacuation routes;
- Locating emergency provisions such as torches, tarpaulins, blankets, water, etc at each evacuation point; and
- Use of Event site crew to secure and or remove non flood compatible infrastructure to higher ground;

The Flood Impact Assessment Report within Technical Paper G provides the characteristics of a 5 year ARI event especially Figures 5.1 and 5.7.

b. A total of 4,746 car parks are proposed to be accommodated in the central and northern portions of the site during a 100% capacity event. Evacuation of the central and northern portions during a significant flood event will be via the Jones Road exit to Tweed Valley Way. Should an evacuation be required, it is unclear whether Jones Road (a single-lane unsealed rural road) has capacity to handle this number of vehicles (including camper vans and trucks) during a short period of time.

Comment 2.14
The western section of Jones Road, the only section to be used by the proposal, is to be upgraded to a two lane sealed road. In an evacuation event where Jones road was to be utilised, this sealed two lane section would be used by exiting vehicles under strict traffic management conditions coordinated by event traffic controllers and under the supervision of pay for use NSW Police.

For traffic emanating from the northern and central portions of the site the Spine Road would be converted into a one way two lane road allowing a quicker departure of patron vehicles from the site. As discussed above, there is no intention on the part of the proponent to carry out events when it is probable that the site will flood. In the unlikely scenario of flooding likely to occur during an event, the decision to evacuate would occur such that adequate time is available to evacuate vehicles.

c. Further to point 'b' listed above, the car parking area south of Jones Road is located within the Billinudgel and Yelgun Creek floodplain, and is also inundated during a 5 year ARI flooding event. The southern car parking area proposes capacity of up to 7,155 vehicles. Concern is raised regarding the ability to evacuate such a large number of vehicles from the site during a significant flood event, particularly given the limited egress opportunities to Tweed Valley Way, and potential inundation of the Spine Road. Vacating such a large number of vehicles from the site at short notice will also have serious implications on the functioning of Tweed Valley Way and surrounding roads. Please demonstrate how the southern car parking area can be safely and efficiently evacuated during times of significant flood events.

Comment 2.15
Not all of the southern car park is flood prone. The spine road is committed to be flood free as required by DECCW – see updated Commitment B2.

The proposal provides for three egress points along Tweed Valley Way as follows:

- *Gate A* – off Tweed Valley Way, approximately 700m south of Jones Road;
- *Gate B* – off Tweed Valley Way opposite Yelgun Road, approximately 300m south of Gate A; and
- *Gate C* – off Tweed Valley Way, approximately 200m north of Gate A.

In the case of evacuation each of these gates would be utilised to move vehicles off site. Dedicated traffic control staff in conjunction with pay for use NSW Police would liaise with traffic controllers both located at Jones Road to the North and the Yelgun Interchange and Pacific Highway entrance to the south of the site.

Priority would be given to moving vehicles in a southerly direction via both gates A and B which Gate C would be used to direct a smaller number of vehicles in a Northerly direction along the Tweed Valley Way.

During the first 5 years of operation the maximum number of vehicles parked in the southern car park would not exceed 3850. During this time traffic management data would be collected and used to refine evacuation procedures for larger numbers of cars in the rare instance that a localised significant rainfall event occurs during an event day.

Revised Commitment C18 requires the proponent to use that part of the car park not effected by a 5 year ARI flood first to minimise cars parked within the flood affected area.

d. The Flood Evacuation Assessment states that after receiving a flood warning, there will be a period of time taken to acknowledge the warning, decide on the evacuation response and then implement the evacuation procedure. There are concerns that should a response to evacuate be too slow, the evacuation of patrons will be disorderly and potentially dangerous. Demonstrate how evacuation procedures are to be successfully undertaken.

Comment 2.16

Evacuation Management Plans document a clearly defined hierarchy of agencies and experienced event staff to manage flood and other evacuation procedures. The following personnel will be onsite during an event and will be immediately mobilised in the case of flood evacuation:

- pay for use NSW Police Officers;
- Rural Fire Service Officers;
- Event security staff;
- Fire/Flood wardens;
- Car Park wardens;
- Trained and accredited traffic control staff;
- Site crew staff; and
- Onsite medical staff.

Public address systems from stages and also located across the site will immediately alert patrons and staff in the event of an emergency. Upon information relating to the threat (in this case a flood) is available at the site's control centre a decision as to which plan is required to be implemented, can be made within 15 minutes.

Details of flood management and monitoring and emergency evacuation are covered in the Parkland's Environmental Health & Safety Management Manual.

e. It is acknowledged in the Flood Evacuation Assessment that flash floods have a fast onset with no opportunities for flood warnings to be issued, and that during these events it will not be possible to evacuate patrons from the site. In this scenario, the Flood Evacuation Assessment recommends staff advise patrons where to shelter. Please advise where on the site patrons will be provided areas of shelter during a flash flood event.

   It is also recommended that emergency equipment (torches, radios, etc.) be located at the proposed conference centre as it is located on higher ground. The conference centre is proposed as part of the Concept Plan and will not be constructed until implementation of Stage 3 (subject to a separate development application). Please advise of an alternative location(s) for the storage of emergency equipment.

Comment 2.17

As addressed above, there is no intention on the part of the proponent to carryout events when it is likely that the site will flood.

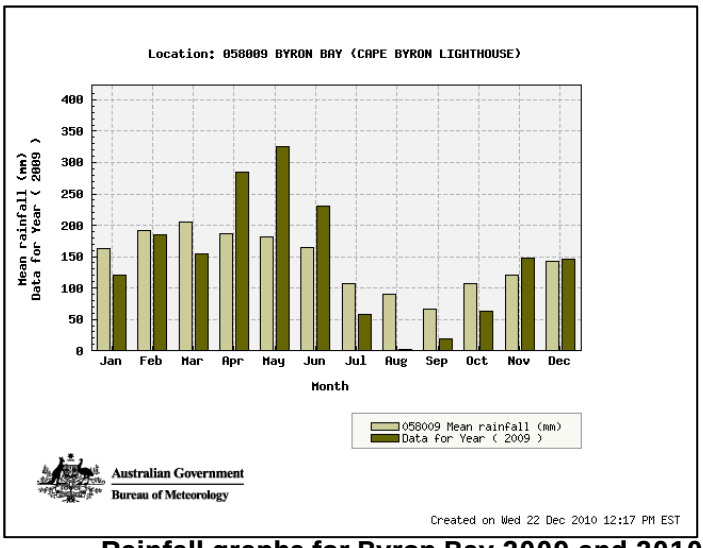
In the very unlikely event of a flash flood with no opportunity to evacuate, the site has more than adequate flood free land to accommodate patrons and staff. In the event area, adequate flood free land is available to the south and west of the event area. As previously documented there shall be adequate staff and agencies available to coordinate a rapid response to such an event. The provision and storage of emergency equipment is now listed within the updated Statement of Commitments. Such equipment will be stored in secure weather proof containers on flood free land adjacent to the spine road in the vicinity of the conference centre.

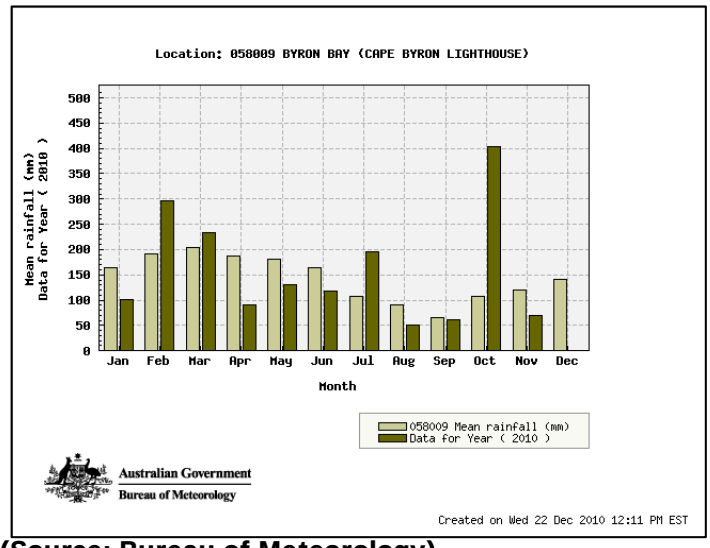
f. Should evacuation routes become inundated, the Flood Evacuation Assessment recommends patrons cease driving and be directed on foot to areas of higher ground. Please provide details on those areas of the site which are of higher ground and are suitable for the assembly of patrons during flood events.

Comment 2.18

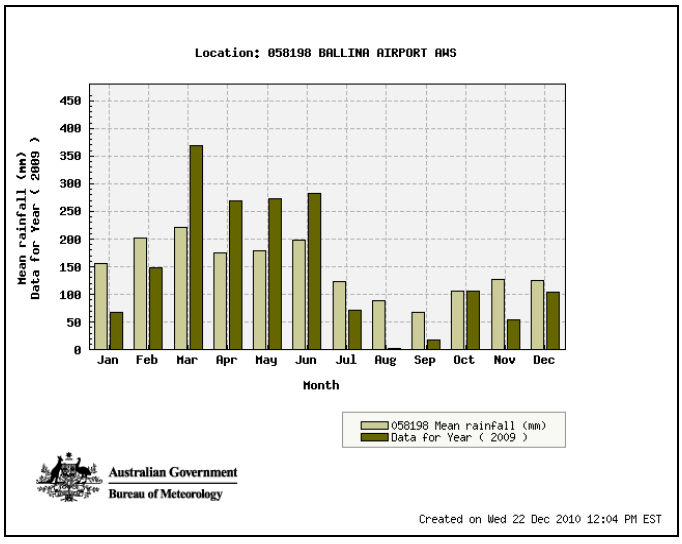
The spine road, the primary evacuation route on the site is to be made flood free up to the 1% event as requested by DECCW. Therefore, patrons in cars will be able to evacuate the site. In any case, the site has adequate flood free land available to the south and west of the event area to cater for the assembly of patrons as evidenced by Plan 2.10 in the EA.

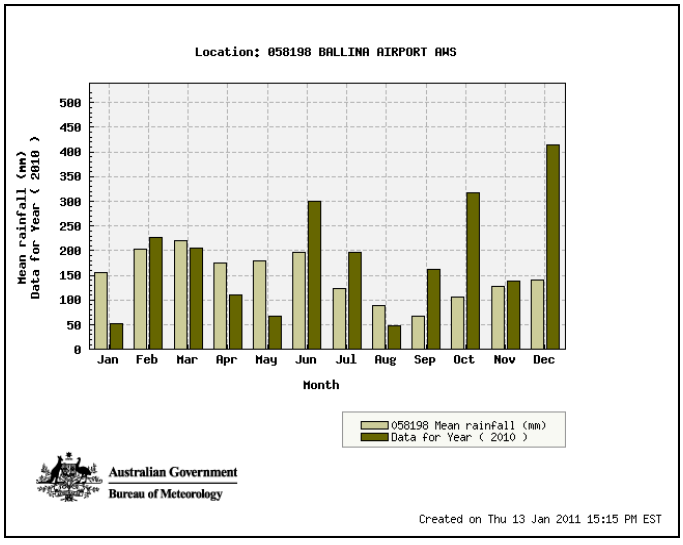
g. As illustrated in the rainfall graphs below for both Byron Bay and Ballina, the actual monthly rainfall totals in this region regularly exceed the mean average monthly rainfall (including by as much as 400% as is the case for Byron Bay's October 2010 rainfall total). Given the issues raised above in regards to flooding and evacuation of the site, it should be demonstrated whether the project is in fact feasible on a site that is located in a subtropical coastal area known for its highly variable and unpredictable rainfall patterns and is prone to flash flooding.





Rainfall graphs for Byron Bay 2009 and 2010 (Source: Bureau of Meteorology)





Rainfall graphs for Ballina Airport 2009 and 2010 (Source: Bureau of Meteorology)

Comment 2.19

Many sites used for cultural activities in Northern NSW are located on "a subtropical coastal area known for its highly variable and unpredictable rainfall patterns…" Cultural event spaces including Mullumbimby Showground; the new Byron Shire Council sporting facility in Ewingsdale Road; all of the general sporting fields in Byron Bay; the Ballina Race Course; Kingsford Smith Park, Ballina (where Bob Dylan last played in Northern NSW) and the BluesFest site are all "cultural event spaces located in a subtropical coastal area known for highly variable and unpredictable rainfall patterns". It is true that from time to time events are cancelled at these facilities because of heavy rainfall or the likelihood of heavy rainfall on the day. Simply because a site is located in the coastal locality or an area prone to flooding does not dismiss its capacity as an important cultural event site.

In any particular location actual monthly rainfall totals need to regularly exceed the mean average monthly rainfall so as to create the average rainfall. Exceeding the mean average monthly rainfall does not necessarily result in flooding.

In the circumstances of the Parklands site which has been owned by the proponents for the past four years, regular occurrences of high rainfall has occurred with little impact or flooding on the site. Intensive site usage is only to be for a maximum of 12 days per year. The chance of significant rainfall and likelihood of flooding is remote in the context of the proposed site usage. The principal event, Splendour in the Grass occurs in a traditionally drier period of the year with less likelihood of flooding as acknowledged by Byron Shire Council.

The flooding image relied upon by some objectors is an image of the June 2005 event which was variously described as a 1 in 100, 1 in 200 or 1 in 300 year event. For this 2005 event, images of flooded Byron Shire business districts and flooded residential areas are readily available.

The rainfall pattern of the region is impacted by a variety of influences, apart from longer term impacts including:

- One of the strongest La Niña events on record which continues to influence the climate of the Pacific Basin. Climate indicators of ENSO, including tropical cloud amount, the Southern Oscillation Index (SOI), trade winds and Pacific sea surface and sub-surface temperatures, all remain well in excess of La Niña thresholds. Most have exceeded these thresholds since the middle of 2010.(BOM Jan 2011)

- The Pacific Decadel Oscillation which has two phases each of about 24 to 30 years. The last warm phase, characterised by droughts, started around 1975 to 1977 and seemed to have finished sometime between 2001 and 2007. The current cool phase has resulted in periods of higher rainfall events.

The NSW State Government in their regional business plan and Byron Shire Council policies encourage events and festivals within this subtropical coastal area. Council has recently approved an event facility on a flood prone site and is also seeking to create its own event site. The BluesFest is an iconic event which has occurred within this subtropical coastal area for the past two decades.

The feasibility of the Parklands project is achieved by the limited but multiple events occurring at the site over each calendar year. In contrast to operating a site with only one large event at a wetter time of the year, this project has multiple events spread through the year. If an event needs to be cancelled because of heavy rainfall, other events in the year allow the site to be viable. The feasibility of the project is further enhanced by the fact that the largest annual event occurs at a time of the year with less probability of significant rainfall.

Bushfire Hazard Assessment

a. The site is known to contain areas of peat soils, which are compacted, decomposing organic matter which when dry are susceptible to fires which burn down into the layers and are very difficult to extinguish. The proposal to locate bonfires and the likelihood of campers setting up camp and cooking fires on this soil presents a significant bushfire risk. The issue of potential peat fires at the site should be addressed.

Comment 2.20

The revised Statement of Commitments – refer Commitment C20 – contains the preparation of a Bushfire Management Plan which will also includes the prevention, mitigation and management of the potential for peat fires.

The application does not propose or allow for the use of camping or cooking fires within the event area or camping areas. Fire wardens present in the camping area provide continuous surveillance to enforce the no fire policy.

Limited bonfires managed by the event proponents are to be used in controlled circumstances in liaison with the RFS. Such bonfires are located on fire retardant bases, are fenced and manned by fire wardens at all times. Bonfires would not occur in times of high bushfire potential.

The Bushfire Management Plan will address the containment and extinguishment measures for peat fires. The Regulatory Working Group (RWG), the joint committee, will consider the preparation of the Bushfire Management Plan with RFS as a member of the RWG.

Geotechnical Assessment

a. The Geotechnical Report has concentrated on the impact of road and building construction, and no substantive consideration of the capacity of the soils to sustain the impact of the large crowds has been considered. More testing of the soils present at the site needs to be carried out, and an analysis of the magnitude and frequency of large crowds of people and equipment need to be considered.

Comment 2.21

The Geotechnical report within Technical Paper U1 is specific to the buildings proposed. A comprehensive array of testing of soils across the site has been undertaken and reported in various reports including Technical Paper F1 (refer to Appendix 12) and also Technical Paper M1.

With each of the site's soils, the potential impacts of large crowds can be mitigated through appropriate soil management measures. Monitoring of bulk density of soils will be addressed within a management plan set up to measure and monitor the level of compaction to ensure the soil structure is not degraded and soil compaction is minimised.

The potential impacts of equipment and vehicles are to be be minimised through careful management of access, particularly during wet weather. Vehicle movements are to be reduced to the minimum necessary and vehicles would be required to keep to hardened &/or sealed roads wherever possible.

Permanent paths are to be constructed in areas of regular high pedestrian traffic to ensure that the site remains accessible and safe and this will minimise uncontrolled impacts to the soil structure.

With soil structure monitored under the site's plan of management, appropriate mitigative works would be undertaken if soil structure declines and additional management measures implemented to prevent an ongoing problem. The manifold possible site configurations are able be used to advantage if soil degradation occurs, whereby stage locations can be alternated to enable soils to recover between events or if mitigative works are required.

An additional commitment – Commitment C22 – has been added to the Operation Phase Commitments The commitment is to prepare and implement a management plan to monitor bulk soil density to ensure the soil structure is not degraded and soil compaction is minimised.

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Section 3

Byron Shire Council

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.

Comment 3.1

The submission report to the Byron Shire Council meeting of the 11th November 2010 did not adequately describe the proposal to an extent that allowed the elected Council could make a reasonably informed decision on the application.

For example, the proposed management of the site and activities was not described and the views of the registered indigenous stakeholders, as recorded in the application, were not described. Council's previous resolutions regarding the proposed cultural event usage on the site was not described. A site inspection was not recommended by the staff to the Councillors.

The report did not advise that the application is to limit the usage of the site, for major events, to 70% capacity and not increase capacity unless monitoring of the operation performance demonstrated compliance with the Parklands Environmental Health and Safety Standards.

The report did not address the consistency of the proposal with relevant Council policies such as the Byron Shire Cultural Plan 2008-2013, Community Economic Development Policy or relevant State government strategies and policies. No observations or comments were provided in the report from sections of Council tasked with economic, tourism or cultural responsibilities.

The report did not acknowledge the significant local employment creation inherent in the proposal or the local economic development for local cultural tourism and creative industries.

The report did not provide an accurate reflection of Council's recently adopted Events Strategy.

The reporting on noise was confused and did not reference current Industry Best Practice Guidelines like the recently released a noise guideline for Local Government that recommends a similar suite of noise levels recommended in the EA.

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.

Comment 3.2
A detailed response is provided below to the engineering report.

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.

Comment 3.3
No analysis or justification is provided to justify the claim that '*the proposed development would be destructive of the existing local character, particularly that of the north-eastern part of the Shire*.' The EA and the accompanying specialist Technical Papers describe the existing values of the site and locality and identify and assess the potential impacts. Avoidance or mitigatory measures are identified and the overall impact is examined in detail in the EA.

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.

Comment 3.4
This comment seems to misunderstand the application. All forest blocks referred to are to be conserved, with intervening areas planted with native local species. Forest blocks will be fenced to exclude cattle and weed removal will take place. While high quality koala habitat is present, surveys

in 2007 & 2008 indicate that this habitat is not used by koalas, with the local koala population evidently in decline.

Approval of the subject application will see positive environmental intervention fully consistent with the Byron Shire Council Biodiversity Conservation Strategy.

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".*

Comment 3.5

The Parklands proposal is consistent with the Cleland inquiry conclusions. The Parklands site contains much more land than the parts of the site which were subject to the remarks quoted above. The proposed event usage in the part of the site, which was subject to the Cleland inquiry, is within a zone, recommended by the Cleland inquiry. Event uses are a permissible use within that zone. Other parts of the Parkland site, which were subject to the Cleland inquiry, are proposed in the Parklands proposal to be reserved for habitat purposes.

Wildlife corridor function depends upon the quality of habitats in the locality. A ~50ha increase in the area of native vegetation on the Parklands site (already commenced with 7400 native trees planted) will enlarge the 'wildlife corridor' and improve connectivity for local fauna.

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.

Comment 3.6

Regrettably the Councillors were misinformed by the above reporting. The consistency of the proposal with Council's planning principles is detailed in Technical Paper T – Statutory Assessment. In particular, the proposal achieves the Council initiatives in relation to establishment of a much wider and comprehensive wildlife corridor as depicted within Plan 2.8 – Ecological Values of the EA. The proposal is consistent with a wide range of Council planning principles as expressed within various strategies such as the Council's Byron Cultural Plan and the Community Economic Development Policy.

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.

Comment 3.7

Refer to Technical Paper E for identification of ecological impacts and mitigation measures. The precautionary principle essentially requires that if there are threats of serious or irreversible damage, lack of full scientific certainly should not be used as a reason for postponing measures to prevent environmental degradation. In practice, the precautionary principle means avoiding serious or irreversible environmental damage by properly assessing potential impacts and taking the necessary mitigation measures. The proposed development is consistent with this principle in that the assessments that have been conducted are based, in essence, on a worst case scenario. Where a potential threat to the environment has been identified, appropriate mitigation and management measures have been developed in response.

In regard to 'conservation of biodiversity', the project significantly increases the amount of land allocated for habitat purposes thus increasing native forest (and reducing fragmentation) so as to contribute to connectivity east of the freeway. Parklands proposes to restore 50 ha of forest (BNR = 713ha) in the existing recognised 'council corridor zones'. This will provide real connectivity and also bolster the carrying capacity for fauna. Thus, more fauna will find and use the crossings under the freeway and Tweed Valley Way.

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.)

Comment 3.8

The status of the area and the views of the registered indigenous stakeholders on the proposal are contained within Technical Paper H of the EA. Section 4.8 of the EA addresses DGR 8.1 and states as follows:

The Aboriginal stakeholders hold Marshalls Ridge to represent a traditional pathway used to access ceremonial sites on the coastal plain at Wooyung. Due to their perceived connection with this traditional transit, artefact occurrences recorded on Marshalls Ridge, its fringing spurs, and elsewhere within the study locality, are assessed to be of high social/cultural significance. However, the stakeholders advised that, to their knowledge, the proposal would not affect any unmodified sites or places of ceremonial, mythological or otherwise sacred/spiritual significance, attachment or concern, and that (owing to its high level of disturbance and apparent absence of cultural materials). It is important to note that the Aboriginal stakeholders hold the opinion that the proposed spine road cut

and overfill tunnel across Marshalls Ridge would not compromise the values attributed to the wider ridgeline.

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.

Comment 3.9

The status of the area and the views of the known indigenous stakeholders on the proposal are contained within Technical Paper H of the EA. This nominated area was specifically investigated as reported within Section 7 of Technical Paper H. Section 4.8 of the EA addresses DGR 8.1 and states as follows:

The Land Use Structure Plan avoids all registered Aboriginal site locations. The archaeological test excavations revealed a disturbed low-density occurrence of artefacts within the proposed spine road corridor inland of, and associated with, the registered Yelgun flat 1 campsite/artefact scatter. Considering the high level of existing disturbance, low artefact density, and the low (if any) additional impacts likely to be sustained as a result of the spine road construction (to be established on over-ground fill), the Aboriginal stakeholders advised that they have no cultural heritage objections to development of the cultural events venue providing the recommendations are implemented.

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.

Comment 3.10

Approval of this application will see the narrow and fragmented 'wildlife corridor' in this location being enlarged by plantings on the Parklands site. Native vegetation will be expanded by plantings; weed removal will improve habitat quality, and overall connectivity in this location will be improved by the net increase of ~50ha in native forest present.

The stag referred to is located on the edge of Jones Rd., is < 1.5m high and its removal will be compensated for by the installation, monitoring and maintenance of nest boxes.

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).

Comment 3.11

Native vegetation in the locality is fragmented and variably affected by weeds. Existing and future plantings on the Parklands property will increase the area of native forest by ~50ha, and enhance connectivity for fauna in the area. Ongoing removal of weeds will improve ecosystem processes.

A major ecological principle being enacted with the proposal is to increase native forest (and reduce fragmentation) so as to contribute to wildlife corridor connectivity east of the freeway. Parklands will successfully restore ~50 ha of forest (in the context of the existing area of Billinudgel Nature Reserve having an area of 713ha). Thus, the existing recognised 'council corridor zones' then not only connectivity but also the carrying capacity for fauna will increase, and more fauna will find and use the crossings under the freeway and Tweed Valley Way; serving the purpose of the corridor.

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.

Comment 3.12

There is no history of consistent application as the policy was only adopted on 7/10/2010. No new events have even been considered under this policy. The policy was some 35 days old at the time of Council considering the submission report on the 11th November 2010.

With regard to Council's consistency with trial events, it has:

- Approved a trial event for Splendour in the Grass on the Parklands site in 2008 but resolved for this submission to 'remove all recommendations and suggestions of a trial event'
- Approved a 3 year trial for the BluesFest but after one year, resolved to approve the festival for a total of 11 years.

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.

Comment 3.13

There is no reference in the Events Policy to limiting the location of events within the shire. The only reference to a location is in Section 2.4 of the Policy where the 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.' This complex is not yet fully constructed and no approvals are in place for the complex to be used for events other than for sporting purposes. The sites suitability for even the smallest scale of events is quite low.

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

Comment 3.14
The Parklands project was declared a Major Project on 23 July 2009, some 14 months before the Council policy was adopted.

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.

Comment 3.15
The Parklands proposal provides a purpose built regional cultural events venue which will foster the further contribution of the creative industries to the character and culture of the shire and region. The proposal also provides that events can only occur on the Parklands site if the venue operator adheres to the Parklands Standards, an environmental management regime consistent with international environmental management standards.

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.

Comment 3.16
The aspect of Council's policy which has restriction on a number of major music events held in any calendar year was adopted by Council after it disregarded the weight of submissions against such limitation. Of the 2162 submissions received, (108 individual submissions and 2054 petition) only 46 supported prescriptive measures. Council also dismissed the recommendation of its professional officers who were against such a restriction.

The Parklands project was declared a Major Project on 23 July 2009, some 14 months before the Council policy was adopted. Given that Council has not chosen to formulate this policy as a Development Control Plan (within the meaning of the Environmental Planning and Assessment Act) and given its disregard for the quantum of event support in public submissions to the draft policy, we respectfully submit that the policy should be given no weight in the assessment of the subject project.

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.

Comment 3.17
Council's trial period of three years for the nominated festival and its approval for an overall 11 years following only one a year trial is noted.

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.

Comment 3.18

The status of the 'Major Event" LEP amendment is unknown. At the date of drafting this report as the Gateway website has no listing for this LEP. The proposed LEP is clearly not "imminent and certain". Accordingly, it must be given no weight in the evaluation of the subject proposal.

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.

Comment 3.19

The proposed use of SEPP 1 is the manner suggested is not consistent with good town planning practice. Council's implementation of trialling is noted in the case of the BluesFest site which adopted a three year trial but accepted a further nine years usage after a trial of one event. The Council's resolution to remove any reference to trials (Resolution 10-914 – Part 3) in this submission is noted.

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.

Comment 3.20
The scale of the proposal in terms of frequency of site usage was proposed in 2006 to be a maximum of 20 days per year of major event usage. This frequency was reduced, in the EA, for major events to a maximum of 12 days per year with an overall total of a maximum of 20 days event usage, for events over 300 patrons. The comprehensive site capability and suitability investigations in the EA identify the physical capability of the site to be 50,000 patrons. The immediate operation capacity now sought for the site is identified at 30,000 patrons (60% capacity) for the largest of the 3 initial annual events.

The application restricted site usage to 70% capacity. The updated reduces it further to only 60% and less. Capacity increases will only be sought based on an assessment of the operational performance of the development against a series of Parklands Environmental Health and Safety Standards (defined in the Management Manual). The development must demonstrate that it has complied with or bettered these standards before a capacity increase can be considered.

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.

Comment 3.21
The Council recognised the need for a purpose built cultural event facility as evidenced by its employment of an economic development officer, tasked in part, to ' *undertake feasibility analysis to identify preferred Byron Shire Events & Festivals site to cater for large scale events'* (council agenda 20/12/2005, Page 36). The Council submission is referring to the Byron Regional Sport and Cultural complex which while also not built yet, has no approvals for event use. The Byron Regional Sport and Cultural complex is quite unsuitable for large scale events.

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.

Comment 3.22
Responses to traffic and noise impacts are detailed further below. The reference to 'tranquil rural land' shows the report authors unfamiliarity with the site. The site is largely degraded agricultural land impacted by highway traffic noise and aircraft training noise. The reference to 'close to quiet beachside residential areas' is also difficult to understand. The nearest residential areas some 2.4 and greater kms from the proposed event usage area of the site, separated by the Marshall ridge system. The EA and Technical Paper I – Social Impact Assessment – describe the various components of the community and examines the different likely impacts on these different community sectors. The Council submission report does not acknowledge this detailed assessment, examine its contents or challenge its findings.

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.

Comment 3.23
The Parklands proposal clearly articulates the proposed site usage and the proposed provision of necessary infrastructure. The proponents would have no interest or benefit in allowing an event to take place without the necessary infrastructure in place.

The proposal seeks to incrementally stage the implementation of the infrastructure while also staging the event usage of the site as evidenced by the indicative events calendar provided in the EA. This approach is logical and is consistent with good business and town planning practice. Early site usage will be monitored to finetune the further provision of infrastructure. Council has recognised this principle in its approvals with, for example, the BluesFest, event site, where it has allowed the provision of infrastructure to be staged over time.

It is standard Council practice to issue approval for event usage with 'trucking out of wastewater' as evidenced by Council's recent approval at various event sites. For decades events have been undertaken in Byron Shire with no on-site sewer management system in place.

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.

Comment 3.24

'Roads' are a permissible "purpose" within the 7(K) Habitat zone. If the purpose of the proposed development is 'road' (as distinct from solely for a "place of assembly"), then construction of the Spine Road will be permissible on the land zoned 7(K).

There is a long line of authority, commencing with *Argyropoulos v Canterbury Municipal Council* (1988) 66 LGRA 202), which deals with development that can be broken up into component parts rather than being characterised as a single use. In *Argyropoulos* there was a battleaxe block. The 'axe-handle' was zoned residential, while the 'axe-head' was zoned light industrial. Mr Argyropoulos applied to use the axe-head for a light industrial purpose and the axe-handle as a road. The light industrial use was prohibited in the residential zone. The question was whether the access (deemed to be a road) was prohibited or permissible. The Court found that it was permissible as a 'road' and merely because it gave access to a light industrial site did not mean that the purpose of the use was prohibited. Justice Cripps said:

> "In my opinion a 'road' use is contemplated by the scheme as a separate use. The function of a road is to permit the passing and re-passing of vehicles. The use of the handle for a 'road' which is an innominate, permissive use under the relevant residential zone does not become an innominate prohibited use because the start and / or destination of vehicles passing over the road is light industrial land."

His Honour made particular reference to the distinction between a 'purpose', which is what is permissible under the LEP, and a 'use' which is not the character that determines permissibility.

Argyropoulos is similar to the present circumstances and has been applied in a number of other cases most recently in *Goldberg v Waverley Council* (2008) NSWLEC 49. In the present situation, the proposed road is for more uses than merely as a place of assembly. It is a matter for the Department of Planning to determine the characterisation of the Spine Road but, on the evidence in the Environmental Assessment, it falls within the *Argyropoulos* principle and is properly characterised as a 'road'.

There is still of course a requirement for an opinion to be formed about whether the proposed road is consistent with the objectives of the 7(K) Habitat zone (see cl.9(3) of the Byron LEP). The EA has demonstrated that the proposed spine road is consistent with these zone objectives. On that basis the proposed road within the 7(K) Habitat zone is a permissible purpose of development capable of being lawfully approved.

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

7. Wastewater Management

The EA states:

> I*n 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.

Comment 3.25

Council has approved the use of another event site for some 11 years utilising the 'trucking out' of wastewater. In the Parklands proposal, 'trucking out' of wastewater is proposed in the initial years prior to the establishment of the on-site wastewater system.

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.

Comment 3.26

Council has approved the use of another event site for some 11 years utilising the 'trucking out' of wastewater. The Parklands proposal satisfies Clause 45 of the Byron LEP as prior adequate arrangements have been made for wastewater services for both the initial years of 'trucking out' wastewater to a municipal facility and the longer term proposal to manage wastewater on the site.

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.

Comment 3.27

Council does not provide an indication of what it considers to be adequate, so that the basis of its contention can be evaluated. In the absence of this information it can only be assumed that Council is comparing the estimated loadings to loadings recommended by traditional resources such as the Australian Water Services Association's Sewage Code of Australia, AS/NZS1547:2000. These traditional means of estimating wastewater flows are overly conservative and are based on the use of standard fixtures and the typical water consumption practices of the general population. These

loadings are clearly not applicable to the proposed cultural events site where there will be the ability to strictly control the fixtures used throughout the events site and associated camping facilities. The proposed minimum water saving measures are described in Section 7.2.1 of the Integrated Water Cycle Assessment and Management report. These measures would apply equally to early events, serviced by temporary wastewater management facilities and to later events serviced by permanent infrastructure, where non-standard, highly water efficient fixtures would be utilised.

The estimates of water demand and wastewater loading are based on data collected from previous festival events which has been conservatively adjusted to take into account the proposed water saving measures. Council should take comfort from the fact that the STP will be subject to an application for a S.68 Certificate, which will provide Council with further opportunity to scrutinise the loading data. Data will be collected from the events serviced by temporary infrastructure and used to ensure that the detailed design of the STP is sufficient to accommodate the loadings from the largest proposed events.

(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.

Comment 3.28

d)

The temporary use of the southern paddock for car parking for large events and for cattle grazing would not conflict with the irrigation of effluent, providing a reasonable temporal separation of irrigation events and use of the area is adopted. Irrigation of effluent would not occur during or immediately prior to the use of the area for car parking. As this area would only be used for parking during large festivals it would be available for irrigation for much of the year, without risk of conflict.

e)

While the area lies within a 1 in 100 year flood area, the proposed management of the irrigation areas would strictly prohibit the irrigation of this area during flooding, or indeed during or after rainfall. The modelling undertaken to assess the impacts of the irrigation of effluent in these areas shows that the areas can sustainably assimilate the effluent loading based on irrigation according to soil moisture deficit.

A 100m buffer will be provided between the irrigation area and Yelgun Creek as illustrated in Drawing No. GJ0926.1.4 in the Integrated Water Cycle Assessment and Management Report.

The identified depths to groundwater are greatest in the western portion of the paddock, where the irrigation area is proposed. Suitable separation between irrigation and groundwater is available, given that the quality of deep drainage has been demonstrated by the modelling to be significantly better than the existing groundwater quality in this 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.

Comment 3.29
Adequate arrangements for the provision of sewerage, drainage and water services can be provided using either temporary facilities or permanent facilities. Council's observations about Clause 45 seem to be speculative rather than based on published or referenced material.

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

Comment 3.30
We submit that the proposed wastewater management system has been comprehensively demonstrated to be satisfactory for the subject purpose. It should be noted that the STP will be subject to detailed design and an application for a S.68 Certificate, which will provide Council with further opportunity to scrutinise the loading data. Data will be collected from the events serviced by temporary infrastructure and used to ensure that the detailed design of the STP is sufficient to accommodate the loadings from the largest proposed events.

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

Comment 3.31
This quite objectionable remark is reminiscent of Council's approach in relation to a supermarket development in Mullumbimby. In that circumstance, Council refused a S.68 application for on-site effluent disposal and its decision was overturned on Appeal at very considerable public expense.

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.

Comment 3.32
Good business planning is the primary reason for commencing operations using temporary facilities. The capital expenditure required to establish facilities capable of servicing a number of large events each year is not justified in the early stage of the site's operation. A critical mass will be reached when a number of events of a sufficient size are using the site, at which time it will become economically feasible to implement the permanent infrastructure. Cost benefit analyses have been undertaken to determine the level of site usage that would justify the implementation of the infrastructure. Whilst the number of events/number of patrons per year can be used to determine this threshold level, the timing for achieving these numbers will depend on external factors which cannot be predicted at this time.

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.

Comment 3.33
Council's assessment of water loading is based on traditional "residential" standards and policies which are conservative. The data used to estimate water demand is based on previous festival events, with conservative adjustments to allow for the water saving measures proposed.

The events in the first stage of the site's operation, where water is trucked in will be used to refine the estimates of water usage, so that a robust understanding of the volume of water required is obtained prior to the detailed design and implementation of the potable water treatment plant.

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.

Comment 3.34
The noise criteria set out in the EA is consistent with Industry Best Practice. Benbow Environmental are renowned experts in the field of noise management relating to music events. They manage the acoustic aspects of such events within quite dense urban populations (e.g. New Years Eve on Bondi Beach). Accordingly, the have brought to the EA process a depth of experience appropriate in the subject circumstances.

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.

Comment 3.35
The issue of waste management was not a DGR requirement. We note that DECCW 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. The Statement of Commitments has been updated to reflect this undertaking (refer to Commitment C20).

A dedicated resource centre will be implemented at the site and will be based on the waste management hierarchy of avoid, reduce, reuse and recycle. The Resource Centre is located adjacent to the Spine Road will provide all weather access for heavy vehicles such as recycling and garbage trucks, putrescible and recyclate compactors and forklifts.

The Resource centre will have a series of clearly marked bays for storage of specific material streams including reusable items, general waste, cardboard, commingled containers and organics.

Dedicated areas for the storage of reusable materials such as fencing scrim and other event building material will be located at the resource centre for reuse purposes.

All material streams generated front and back of house will be source separated at the point of generation either through a container deposit levy system or through traditional public place general waste and recycling bin systems. Waste and recycling will be modelled on the NSW EPA's Waste Wise Event guidelines.

All bins utilised for putrescible waste will be sealed in such a manner to contain any residual liquid in the bin and to exclude vermin. Such waste will be collected and removed from site to a suitably licensed landfill on a daily basis during event days. Bin volumes, locations and number of bins will be dependent on the service provider engaged by the event. Detailed information covering bin types, locations, vehicle access, truck movements and environmental harm minimisation will be provided in a waste management strategy developed by the event promoter prior to the staging of the event.

All waste and recycling infrastructure will be positioned to avoid material entering drains and waterways and an appropriately stocked spill kit will be stored at the resource centre.

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.

Comment 3.36
Further discussions occurred about the RTA's concerns regarding the capacity of the road network, in particular the Yelgun Interchange. The EA proposed an opening event of 35,000 patrons, including 17,500 day patrons and 17,500 campers, an increase of only 2,500 day patrons from the previous approval. The preferred project application is now for only 30,000 patrons at the initial event.

Based on a revised set of more conservative assumptions and information from an event of similar size held in Woodford QLD, the interchange can accommodate the traffic generated by 17,500 day patrons with some change in behaviour from travel demand management.

(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.

Comment 3.37
The more conservative analysis, referred to above, was undertaken to given more confidence for an opening event to be held. This opening event would enable real event travel data for the site to be gathered and traffic management and travel demand management procedures to be tested. This would then inform future event planning.

The traffic generated by the opening event was based on modelling of a 35,000 patron event. At this size the RTA and expert consultants took the view that the traffic could be accommodated within the road network with margins of safety for unexpected incidents included. The proponent has now reduced the initial event to a maximum of 30,000 patrons thereby further increasing the factor of safety.

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 though 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.

Comment 3.38
Safe intersection sight distances were assessed when proposing all of the site entrances. Gate B would only be used in conjunction with a special temporary speed limit of 40km/h. The sight distance at Gate B was assessed in Section 6.4.2 of the Traffic Impact Assessment. The required safe intersection sight distance for this speed is 73m according to Austroads 2008, *Guide to Road Design Part 4A: Unsignalised and Signalised Intersections*. The gate is on the outside of a bend giving 180m of sight distance to the north and 220m of sight distance to the south. This amount of sight distance is enough for the usual speed limit of 80km/h let alone the reduced temporary speed limit of 40km/h.

(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.

Comment 3.39
There are no inconsistencies. The Traffic Impact assessment assessed a range of input assumptions to test the sensitivity on the traffic impact on the network. The previously assessed scenario was included. Travel demand management is proposed to reduce the traffic impact and produce a more sustainable event. The higher car occupancies were tested to assesses the level of travel demand management required to achieve an acceptable level of traffic impact. Similarly, two mode share scenarios were tested to assess the impact of higher use of buses.

(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 assurity of ensuring that this can be achieved, but there needs to be a 100% assurity 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.

Comment 3.40

The data gathered from the initial event usage would be used to establish if the transport initiatives can have the traffic reduction benefits required to enable the 100% major event to proceed after "proving up" with phased incremental increases. The outcome of the opening event would be reviewed in a debrief with the relevant authorities, and would feed back into the event planning for the future events. Patron numbers above the opening event would only be increased when it has been established that the travel demand measures can produce the results required and the road network can accommodate the traffic generated by the event.

(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".

Comment 3.41

Tickets would be sold with parking restrictions included. Patrons would know from the time of purchase whether a parking pass is included or not, and would be advised of public travel options.

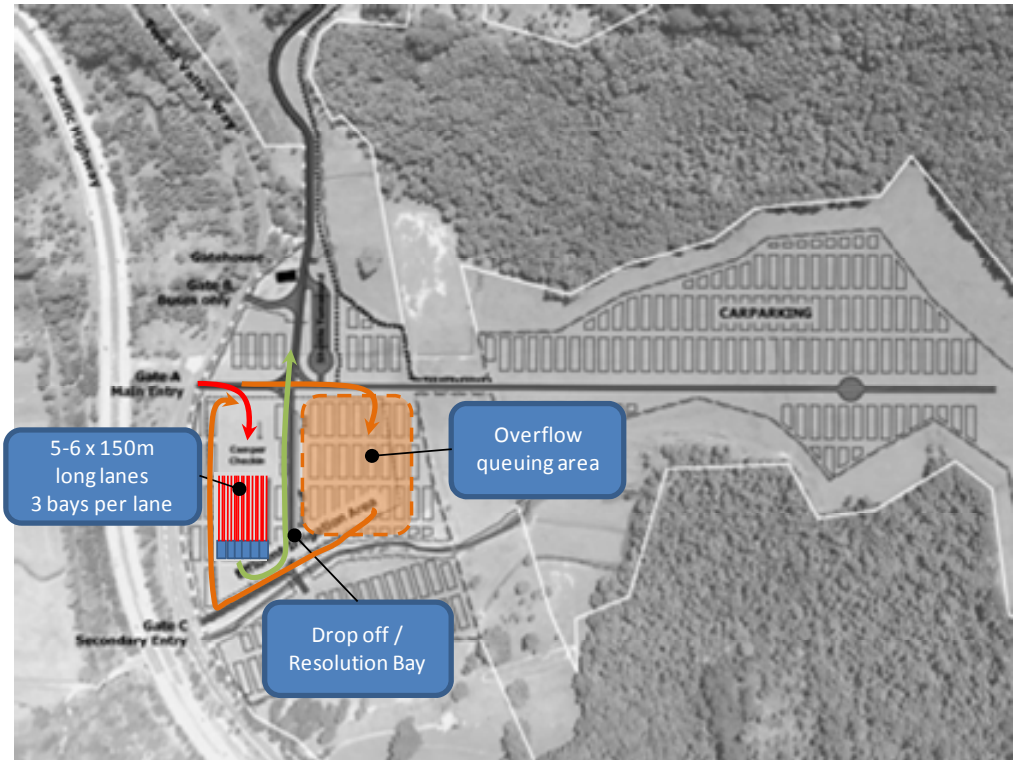
Information from the event organisers is that the tickets can sell out within minutes of being released. The demand for tickets is such that patrons are willing to accept the conditions of the ticket in order to get to see the event. The type of patrons attracted by Splendour in the Grass are of a demographic able to make use of public transport and carpooling.

Public transport services would link accommodation locations to the site, providing suitable alternatives. User-pays Police would be used to reinforce parking restrictions.

(e) Concerns regarding the close location/proximity of the "vehicle processing area" to Tweed Valley Way. Delays in processing times could results 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.

Comment 3.42

The vehicle processing area for campers has been designed with sufficient inspection bays and queuing space to accommodate the required throughput. If camper arrival is larger than anticipated, additional space can be made available on site to get vehicle queues off Tweed Valley Way, as shown in the figure below.



(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.

Comment 3.43

The Major sized events would only be held a few times per year, and traffic would only be high for a few hours per day. It is accepted that lower Levels of Service may be experienced for special events because their impact is not constant. The Event promoters would need to be able to progressively demonstrate the achievement of travel demand management in order to hold a 100% Major event.

(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.

Comment 3.44

The existing performance of the Yelgun Interchange was reported in the Traffic Impact Assessment – Technical Paper C1 report in Table 2.7. It was reported to be operating at a LoS A for the three time periods assessed. Brunswick Interchange was not assessed as it was not planned to be used for event access.

The report assessed that traffic could queue from Tweed Coast Road through the roundabout in the interchange, but would still leave enough safe stopping distance for vehicles exiting the Pacific Highway with room for a buffer in case of unforced incidents. The BluesFest site is located close to the Gulgan Road Interchange and therefore queuing from the site will quickly affect the operation of the interchange. The NBP site is located 1.3km away from the Yelgun Interchange and has on-site queuing space. It is not anticipated that there would be any queuing from the site back to the Yelgun Interchange, and if there was, there would be a much greater time in which to react.

A more conservative analysis has been undertaken for the purposes of establishing the size of the initial events . Travel information would be gathered from the initial event to get real information on the operation of the Yelgun Interchange. This would allow for variation of key assumptions before any incremental increase in the event size.

(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.

Comment 3.45
I – Traffic modelling has indicated that the Yelgun Interchange can operate satisfactorily without closing the northbound off-ramp. Closing this ramp would affect a larger number of persons in the local community.
II – A traffic data collection strategy is fundamental to the planning of the opening event, for both the event organisers and road authorities' purposes.
III – Details of the three access points to Tweed Valley Way have been provided.
IV – Details of the three access points to Tweed Valley Way have been provided.
V – Agreed – this would be included in the traffic data collection strategy.
VI – The figure provided above shows that there is sufficient space on site for vehicle queuing. For the day patron arrival, parking pass stickers would be placed on the windscreen

(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.

Comment 3.46
Traffic analysis for the Traffic Impact Assessment – Technical Paper C1 indicates that Yelgun Interchange can accommodate higher traffic volumes with appropriate travel demand management measures. An opening event is now proposed for 30,000 patrons to gather data and prove the effectiveness of the measures proposed. The arrival of campers is more spread out and creates less impact on the road network. There is no reason why the number of campers cannot match or exceed the number of day patrons.

11.3 Car Parking & Access

(a) Bus access off Tweed Valley Way at Gate B, refer to comments under "Traffic" above.

Comment 3.47
Safe intersection sight distances were assessed when proposing all of the site entrances. Gate B would only be used in conjunction with a special temporary speed limit of 40km/h. The sight distance at Gate B was assessed in Section 6.4.2 of the Traffic Impact Assessment. The required safe intersection sight distance for this speed is 73m according to Austroads 2008, *Guide to Road Design Part 4A: Unsignalised and Signalised Intersections*. The gate is on the outside of a bend giving 180m of sight distance to the north and 220m of sight distance to the south. This amount of sight distance is enough for the usual speed limit of 80km/h let alone the reduced temporary speed limit of 40km/h.

(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.

Comment 3.48
The 100% capacity event would require travel demand measures to reduce traffic levels to stay within the capacity of the Yelgun Interchange. This means fewer cars to park on site. Providing more parking would reduce incentives to use public transport or car share.

The Traffic Impact Assessment – Technical Paper C1 concluded that an average car occupancy of 3.2 and a high public transport mode share would be required for a 50,000 event. This size event, with these travel statistics would require between 9,000 and 11,000 parking spaces (within the parking capacity of the site).

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.

Comment 3.49
A common misunderstanding by submitters relates to the carrying out of events during likely periods of flood. There is no intention on the part of the proponent to carryout events when it is likely that the site will flood. Flood planning discussed in the various reports is examined in the EA in the very unlikely event that a flood occurs on the site which has not been predicted many days in advance.

Part of the site is on flood liable land as described in detail in the EA . It is recognised within both the Flood Impact Assessment Report and the Evacuation Assessment Report that the use of the site is constrained by flooding, which will be mitigated by a variety of means including:

- Placement of robust buildings outside the 100 year ARI flood extent;
- Elevation of the Spine Road to above the 1% flood level;
- Implementing a Significant Rainfall Event Forecasting System (SREFS) based on the Australian Water Resources Council's "Floodplain Management in Australia" and Emergency Management Australia's "Flood Warning" and "Flood Response" Manuals which will allow for decisions to be made on whether to hold events or alter the form of events based on anticipated climatic conditions
- Implementation of a flood evacuation plan covering various scenarios, update to account for the Spine Road being flood proofed to above the 1% level.

Regarding the suggested omission of critical flood issues, please note that these statements are in error and refer to *Section 1.3* of the Flood Impact Assessment report which notes the hydrologic behaviour of the site is separated by Jones Road and that these two areas are within different catchments.

(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).

Comment 3.50
Section 1.3 of the Flood Impact Assessment Report observes that that the southern part of the site is located within the Yelgun and Billinudgel Creek floodplain.

(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.

Comment 3.51
Figure 3-1 of the Flood Impact Assessment report indicates that the 100 year ARI modelled flood levels are between RL 3.50 and RL 4.75m AHD for the undeveloped site, south of Jones Road. The majority of this southern area has an estimated flood level of RL 3.50 to RL 3.75m AHD. These levels are consistent with both the Marshall's Creek Floodplain Management Plan Report and the flood assessment report submitted for the former DA.

It should be noted that the flood model used for the current Flood Impact Assessment Report uses a more contemporary modelling approach (2D depth averaged finite difference model, using TUFLOW) and contains more information in regards to some structures in the floodplain. It is therefore considered that the results obtained in the current assessment will be more accurate due to the improved modelling methodology that has been employed. The hydrologic report submitted by H. Fiander (2007) as part of an earlier DA did not include flow through culverts or highway crossings. In addition, the Fiander report acknowledges that more accurate results would have been generated using the TUFLOW flood modelling software, which has been the approach in the current assessment.

As addressed within Section 3.4 of Technical Paper W, the BoM provides warning of flooding 12 to 24 hours in advance of a significant rainfall event. The reference in the earlier report quoted related to the time period once a significant rainfall event commenced within the 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.

Comment 3.52
It is noted that a TUFLOW model was developed for the RTA as part of the Pacific Highway upgrade between Brunswick and Yelgun. The flood model used in the current Flood Impact Assessment was developed from the Tweed-Byron Coastal Creeks Flood Study (BMT WBM 2010). This was a major flood study including a large data collection phase, development of a whole-of-catchment flood model and extensive model calibration. As such, the model used in the current assessment is considered appropriate for investigating flood behaviour on the site.

Figure 3-1 of the Flood Impact Assessment report indicates that the 100 year ARI modelled flood levels are between 3.50 and 4.75m AHD for the undeveloped site, north of Jones Road. The majority of this northern area has an estimated flood level of 3.50 to 3.75m AHD.

(e) The Marshall's Creek Floodplain Management Plan classifies the Yelgun/Wooyung area as "High Hazard – Flood Storage".

Comment 3.53
Flood hazard has been assessed in part in the current assessment using the depth velocity product. AR&R defines a depth velocity product of greater than 0.4m²/s as being unsafe for pedestrian movement.

An unsteady state 1D flood model using MIKE-11 was developed for the Marshall's Creek Floodplain Management Plan. A 1D model has limited capability in terms of being able to determine velocities across the floodplain. The current flood assessment uses a 2D TUFLOW model, which has the advantage of being able to compute (and keep track of the maximum) depth velocity product for each timestep for each computation cell in the floodplain.

Figure 5-11 of the Flood Impact Assessment report indicates the flood hazard for the 100 year ARI event in terms of flood flow, with a more conservative 0.3m³/s being used to define the boundary between low and high flood flow. The results show that the site has predominantly low hazard in terms of flood flow (i.e. ignoring consideration of flood hazard posed by deep slow moving water) according to the prescribed definition.

However, it is recognised that deep slow moving water still presents a significant hazard. The NSW Floodplain Development Manual defines a flood depth of greater than 0.7m being high hazard and unsafe for wading. Figure 5-10 in the Flood Impact Assessment report illustrates the flood depth across the site.

What is important to note here is that it is not intended to undertake an event at the site during a flood event. Through the use of stream monitoring and related techniques a rainfall event forecasting and flood management system will be in place that will ensure that events are not carried out when a flood is likely.

(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 carpark .....0 – 1.8m
Surplus carpark.....0.4m – 1.1m
General camping area.....2.5m
Event areas.....2.0m

Comment 3.54
The Flood Impact Assessment report provides the following estimated flood depths for the developed site during a 100 year ARI event:

Day car park	0 - 1.8m
Surplus car park	0.25 - 0.7m
General camping area	0 - 1.9m
Event areas	0 - 1.5m

It is not intended to undertake an event at the site during a flood event.

(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.

Comment 3.55
The hazard maps provided in the Flood Impact Assessment report map the velocity-depth product hazard (often referred to as the Australian Flood Hazard Value). These results have been contoured at 0.3m2/s to indicate areas of low and high hazard.

In response to the values provided in the comment:

- Figure L-2 in the New South Wales Floodplain Development Manual (2005) defines depths in excess of 0.7m for low velocity flood waters (< 0.5m/s) as *low to high hazard.*
- Table 7.03.1 of the Queensland Urban Drainage Manual (2007) notes that the velocity-depth product must be less than 0.4m2/s for pedestrian safety and less than 0.6m2/s for vehicular stability.

I reiterate that it is not intended to undertake an event at the site during a flood event.

(h) Exclusive of any proposed buildings, the "High Hazard" classification could be mitigated by a satisfactory evacuation plan.

Comment 3.56
As the proposed buildings are all located out of the 100 year ARI flood extent, these do not impact on hydraulic hazard classification or evacuation capacity.

It is agreed that a satisfactory evacuation plan will mitigate the flood risk to people using the site. Flood evacuation has been discussed in the Evacuation Assessment report. The site development plans submitted with the EA have been updated to have regard to the 1% flood proofing of the Spine Road.

(i) Evacuation times for various sections of the site range from 0.5 to 8 hours

Comment 3.57
Agreed. The evacuation of vehicles (not including the implementation of evacuation instructions etc) is estimated to take 0.5 hours during a minor event and 8.5 hours when the site is being used at 100% capacity, as indicated in Table 3-2 of the Evacuation Assessment report. However, a Significant Rainfall Event Forecasting System (SREFS) as well as associated evacuation plans are to be prepared prior to use of the site.

(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.

Comment 3.58
The Significant Rainfall Event Forecasting System (SREFS) evaluates the potential for any flooding risk and allows for events to be cancelled or modified prior to the event occurring i.e. the Weather Forecasting Protocol is able to predict the variety of different rain events which may cause flooding at the site. This system of risk management results in little likelihood of a flood actually occurring on the site during an event and the need arising for evacuation of the site.

Only in this most unlikely circumstance, the evacuation contingency plans would be implemented.

It is agreed that evacuation routes should be clearly marked on maps (together with the low points that flood and require monitoring) in the evacuation plan.

(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).

Comment 3.59
It is recognised that the local road network between the event site and the Cudgera Creek Road Interchange is flood liable – low points in the road are highlighted in Figure 3-2 of the Evacuation Assessment report.

When selecting the evacuation routes, there was some consideration of evacuation via Wooyung Road to Tweed Coast Road. This option was found to be unworkable due to the high likelihood that Wooyung Road would close to traffic very early in a flood 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.

Comment 3.60
There is no proposal to hold events at the site during a flood! Such an action would of course not be in the public interest.

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

Comment 3.61
It is not proposed to camp at the site when there is a risk of site flooding during the course of the event (including event bump in and bump out times).

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.

Comment 3.62
The unpredictability of disturbance phenomena is explicitly recognised and discussed in the EA (Technical paper E). Monitoring of events and of fauna between events will contribute to an understanding of faunal responses and feed information into the EHMS system to subsequently modify activities which are found to cause adverse effects. Ecological processes will operate outside event times in an environment with an increased area of native forest, reduced weed levels, and improved connectivity.

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.

Comment 3.63
Given that the report to Council did not canvas:

- a proper description of the proposal;
- a description of the proposed management of the site and activities;
- information in relation to the advice of indigenous stakeholders;
- Council's previous resolutions regarding the proposed site as a place for cultural events;
- no site inspection was carried out by Council staff or Councillors;
- the incremental approach was proposed in relation to capacity development;
- that advice was not included from the sections of Council tasked with economic, tourism or cultural responsibilities;
- the significance of local employment;
- contemporary research and business development analysis in relation to employment associated with the creative communities;
- an accurate description of Council's adopted Events Policy; and
- the report did not refer to Industry Best Practice Guidelines in situations such as noise, flooding or event management,

it is not unexpected that Council would adopt a jaundice view in relation to the subject project.

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Section

4

DECCW

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 DECCWs review of the proposal include:

1 The importance of conserving a regionally significant habitat corridor linking the Coast to the ranges.

Comment 4.1
The Parklands proposal provides a one off opportunity to properly enshrine the habitat corridor referred to by DECCW. A major ecological principle within the proposal is to increase native forest (and reduce fragmentation) so as to contribute to connectivity east of the freeway. Parklands will restore 50 ha of forest in the existing recognised 'council corridor zones'. This work will not only improve connectivity but also the carrying capacity for fauna will increase, and more fauna will find and use the crossings under the freeway and Tweed Valley Way.

2 Affording an appropriate level of protection to a range of threatened flora, fauna and endangered ecological communities, which occur on the site.

Comment 4.2
Other than for some very minor tree removal associated with the proposed Spine Road underpass, no threatened flora is to be disturbed on site. All the endangered ecological communities are to be protected and environmentally enhanced. See Technical Paper E for discussion of a range of mitigation measures proposed for the Parklands site.

3 Protecting the Significant biodiversity and cultural values of Biliinudgel Nature Reserve.

Comment 4.3
The Parklands project has as one of its fundamental tenants the protection of the biodiversity and cultural values of the locality including the Billinudgel Nature Reserve. The subject application provides probably a "once only" opportunity to integrate land uses immediately adjoining the Billinudgel Nature Reserve in a way that compliments and expands upon the ecosystem services capacity of the Reserve.

4 Ensuring that the site's Aboriginal cultural heritage values are appropriately protected and managed in consultation with. the local Aboriginal community.

Comment 4.4
The Aboriginal cultural heritage values and the views of the registered indigenous stakeholders on the proposal are contained within Technical Paper H of the EA. Section 4.8 of the EA addresses DGR 8.1 and states as follows:

The Aboriginal stakeholders hold Marshalls Ridge to represent a traditional pathway used to access ceremonial sites on the coastal plain at Wooyung. Due to their perceived connection with this traditional transit, artefact occurrences recorded on Marshalls Ridge, its fringing spurs, and elsewhere within the study locality, are assessed to be of high social/cultural significance. However, the stakeholders advised that, to their knowledge, the proposal would not affect any unmodified sites or places of ceremonial, mythological or otherwise sacred/spiritual significance, attachment or concern, and that (owing to its high level of disturbance and apparent absence of cultural materials) the proposed spine road cut and overfill tunnel across Marshalls Ridge would not compromise the values attributed to the wider ridgeline.

5 Onsite disposal of effluent and potential impacts to water quality.

Comment 4.5
The protection of local water quality is of paramount importance to the proponent. It is for this reason that a comprehensive longer term proposal in relation to sustainable on-site effluent disposal has been prepared. Examination of that proposal as described in Technical Paper F1 will illustrate the robustness of the scheme proposed.

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 tum, impairs the Department's ability to clearly determine the extent of likely impacts associated with the proposal. particularity in relation to ecological impacts associated with the event and ecological impacts in relation to human disturbance.

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.

Comment 4.6
The EA and the accompanying Technical Papers clearly define the proposal. The ecological impacts of the limited site usage in relation to human disturbance are addressed in detail in the EA and particularly in Technical Paper E – Ecological Assessment. The reference to 'the community' may be more accurately described as 'some members of the community'. Concerns regarding various potential impacts are addressed in detail in the EA and this report. Again, the statement 'The community has called for an alternative site to be used for the festival' refers to only a very small group in the community. While some members of the community have called for an alternative site, analysis of submissions received, indicate that a large number of community members support the Parklands site as a suitable regional cultural events site.

Prior to purchase of the Parklands site, the proponents consulted Byron Shire Council and various government agencies including DECCW. The result of this consultation was that the agencies and Byron Shire Council recognised the conceptual merit of the proposal in seeking to establish a cultural facility of regional significance, whilst simultaneously achieving significant environmental outcomes.

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.

Comment 4.7
An integral component of the application is the Parklands Environmental Health and Safety Management Manual submitted with and forming part of this application. The management manual is based on international best practice and implements appropriate management strategies. The Management Manual provides for the comprehensive management of all environmental impacts. The system will ensure events are monitored, mitigated and managed in an effective manner. It also provides a transparent audit system.

The Management Manual provides the appropriate mechanism for the 'trial and monitor' approach suggested by DECCW where impacts from events are assessed and then future use of the site is tailored to reflect the outcomes.

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.

Comment 4.8
The proponent is surprised by the observations of DECCW in relation to its suggestion of a "lack of clarity surrounding the scale and nature of the current proposal…". The physical scale of the development is precisely defined in the EA. Further, the EA (and updated Statement of Commitments) provide absolute precision in terms of the ecological enhancements proposed. The ecological enhancements will have a significant positive impact in terms of, not just corridor ecosystem services but also by virtue of the size of the environmental repair proposed add to ecological resource services associated with the Billinudgel Nature Reserve generally. The application includes a Management System which is scientifically robust and includes a transparent monitoring program for regulating the usage of the site. The application provides clarity regarding description of the scale and nature of the site usage.

The application limited site usage to a maximum of 70% capacity until operational performance of the site meets or exceeds the specified Management Standards within the Management Manual. This amount has been further lowered to only 60% maximum capacity in the updated Statement of Commitments.

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.

Comment 4.9
The subject proposal has been framed having full regard to previous Land & Environment Court decisions. As set out in Technical Paper T, the proposed land uses are permissible with consent.

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 (66270233) in relation to flooding impact assessment.

Yours sincerely

BRETT NUDD
Manager North Coast Region Environment Protection and Regulation Group

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 to be provided to DoP for consideration prior to approval of this proposal that demonstrates commitment to increased connectivity upon the site].

Comment 4.10
The proponent appreciates the acknowledgement by DECCW that the greater proportion of the site is to be established as a permanent habitat with improved connection and ground and canopy covers.

Plan 1.3 – Revised Ecological Structure Plan, depicts the proponent's response to the DECCW recommendation and accepts that a greater proportion of the site could be established as permanent habitat with even greater connected ground cover and canopy. The two further areas proposed for permanent habitat are:

- 5.9 ha of additional permanent habitat is provided connecting between forest blocks on the north of Jones Road, thus further protecting and widening the Marshalls Ridge wildlife corridor
- 12.9 ha of permanent new habitat with constructed wetlands is provided in the southern car park providing a significant buffer to the Billinudgel Nature Reserve and SEPP 14 wetlands. This new habitat significantly reduces the edge distance and any edge effects.

The design of the planting and treatment of the managed parklands areas between the central forest blocks will achieve objectives such as increased canopy connection and increased connectivity for the fauna using these forest blocks.

The bracketed section of the abovementioned comment tends to suggested that DECCW misunderstands the nature of the use proposed. No detailed single "event layout" is appropriate. This is a site – like the Domain or Centennial Park in Sydney which will be used for a variety of cultural, musical and community events. The proponent agrees that an ecological structure plan should be approved with the application and this is submitted as **Plan 1.3** and new Commitment B12.

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].

Comment 4.11
The proposal does not seek the use of amplified noise in the southern part of the site. The proponent has no proposal to establish any for of "buffer zone" from the "central forest blocks". The implementation of such a buffer zone would render the site useless for cultural event purposes.

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.

Comment 4.12
All event areas will be fenced including from forest blocks. All of this fencing will be covered with hessian or similar covering to prevent light penetration.

4 All central swamp forest blocks are to be protected from further degradation by cattle.

Comment 4.13

It has always been part of the proposal that, following an approval, the central forest blocks will be fenced to exclude cattle and a staged camphor laurel removal program will commence in these forest blocks. For abundant clarity, this aspect is addressed at **Table 6** in the Vegetation Management and Biodiversity Plan (Annexure M of Technical Paper E). These works are captured by Commitment A7, point 2.

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 vegetate canopy, shrub and groundcover 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.

Comment 4.14

The proponent has no objection to the abovementioned conditions. They have been incorporated in the updated Statement of Commitments. With respect to point a. above, the majority of the vegetated areas to be established both to the north and south of Jones Road will be away from Jones Road so as not to encourage fauna towards Jones road which is utilised by traffic every day of the year.

6. Any approval of a cultural events site in this location should be based a monitoring 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.

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.

Comment 4.15

The proponent has no proposal for a "trial event". The significant financial requirements to establish the proposed land use cannot be sustained on a trial basis. As set out in the Environmental Assessment, the proponent is comprehensively committed to the principles of monitoring with intensification of use beyond originally 70% capacity and reduced to 60% and less capacity in the updated Statement of Commitments contingent upon ecological, traffic, noise and associated considerations confirming the continued appropriateness of the site for events.

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.

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).

Comment 4.16
The proponent has no objection to appropriate ecological monitoring and has no objection to the use of the proposed regulatory working group as a monitoring agency for that work. In particular, monitoring to examine the corridors effectiveness and changes in fauna use of the corridor over time is considered particularly appropriate. That said, the proponent is disinterested in ad hoc ecological monitoring which is ill defined or economically burdensome.

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].

Comment 4.17
The commitment for additional ranger patrols has previously been agreed with DECCW. For abundant clarity this has been included as a specific commitment (see updated Commitment C9, 18).

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.

Comment 4.18
The proponent has no objection to the establishment of a Bond. For precision this matter has now been added to the Statement of Commitments (see updated Commitment C9, 19).

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.

Comment 4.19
The proponent concurs with the proposal to provide for habitat restoration adjacent to the SEPP 14 boundary and in the southern car park area. The extent of this work is shown in updated Plan 1.3 and the commitment to this work has been stated in the updated Commitments (see updated Commitment B12, 1).

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.

Comment 4.20
The proponent agrees with the implementation of signage. This has been added to the Statement of Commitments (see updated Commitment B10,2).

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.

Comment 4.21
The proponent agrees with the development of a Management Plan covering solid waste. This matter has been added as a Commitment (see updated Commitment C21).

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.

Comment 4.22
The proponent is committed to the development of a comprehensive Operations Plan for effluent disposal system. The condition recommended by DECCW has been added to the updated Statement of Commitments (see Commitment C11, 11).

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.

Comment 4.23
The design and operation of the reticulated sewerage system will ensure that no overflow occurs from the effluent holding dam or wetlands and no surface runoff occurs from the irrigation area. This matter has also been added to the Statement of Commitments (see updated Commitment C11, 12).

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.

Comment 4.24
It is proposed to manage bushfire activity on event by event basis with the Rural Fire Services. This aspect has also been added to the updated Statement of Commitments (see Commitment C12).

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.

Comment 4.25
The proponent has no objection to the implementation of mosquito control strategies based on personal insect deterrent and not broad spectrum chemical or barrier control. This matter has been added as an addition to the updated Statement of Commitments (see Commitment A12).

18 A well formulated and documented evacuation plan should be required in the event of flooding occurring upon the site.

Comment 4.26
A Flood Evacuation Plan was lodged with the application. However, comments received during the exhibition suggesting that the Spine Road should be elevated above the 1% flood and the proponent agrees with the suggestion and accordingly the Flood Evacuation Plan needs to be revised to have regard to this change. This updating of Flood Evacuation Plan is proposed to be addressed by way of a further addition to the Statement of Commitments (see updated Commitment C18, 1).

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",

Comment 4.27

The proponent has no objection to the inclusion of monitoring management and protection of Aboriginal cultural heritage items. The DECCW conditions are to be incorporated in the updated Commitments (see updated Commitment A9, 2A).

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 Form 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.

Comment 4.28

An Aboriginal Site Recording Form for the only previously unregistered Aboriginal site detected during the project assessment (designated 'Yelgun Flat 1 extension', subject of the test excavations detailed in Section 7 of Technical Paper H) was submitted to the DECCW in September 2010. Proposed management strategies for the site (as agreed by the Aboriginal stakeholders) were included on the form. Advice as to the DECCW AHIMS identification number was requested but not received.

A copy of the previously sent Aboriginal Site Recording Form was forwarded to the DECCW North East Branch Planning and Aboriginal Heritage Protection Section in November 2010. DECCW subsequently advised that the site has been registered on the AHIMS database as #4-2-181.

Completion of an application for a Care Agreement for Aboriginal Objects recovered during test excavations on the 'Yelgun Flat 1 extension' was contingent upon knowing the DECCW AHIMS database identification number for this site. Given that this AHIMS Id is now available, the Care Agreement application has been provided to the Tweed Byron Local Aboriginal Land Council for signing, and will be submitted to the DECCW for authorisation as soon as possible. As decided and agreed by the Aboriginal stakeholders, the application seeks temporary LALC custody of the recovered artefacts pending their permanent curation within the proposed Cultural Centre. In the event that the project (and thus construction of the Cultural Centre) is not approved, an alternative permanent deposition location for the subject artefacts will be decided by the Aboriginal stakeholders and a revised Care Agreement application lodged with the DECCW.

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.

Comment 4.29

This matter is incorporated as part of the updated Statement of Commitments (see Commitment A9, 1). The registered local Aboriginal community will be advised prior to soil disturbance/earth moving activities occurring and invited to attend and inspect the site at this time.

23. In the event that surface disturbance identifies a new Aboriginal site, all works must stop in the 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.

Comment 4.30

The proponent agrees with this comment. It is incorporated this matter as a specific commitment (see Commitment A9).

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.

Comment 4.31

The proponent agrees with this suggestion by DECCW and it is incorporated as a commitment (see Commitment A9, 2A).

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. .

Comment 4.32

No items of Aboriginal heritage are proposed to be adversely impacted upon. However, for abundant caution this recommendation by DECCW is incorporated as a commitment (see Commitment A9).

26. 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. '.

Comment 4.33

The Draft Statement of Commitments have been amended with the addition of the following:

- An Aboriginal Cultural Heritage Awareness component will be included in the pre-start induction to be attended by all personnel, contractors and their employees involved in on-site disturbance/construction activities. The induction will highlight the overall high level of Aboriginal cultural sensitivity of the wider project area and the attendant strict requirement for all on-site workers to confine their activities to the approved project area only, advise of legal obligations with respect to Aboriginal sites, and reinforce the need to comply with these legal obligations (including penalties if breaches occur). The induction will also provide an overview of the types of Aboriginal cultural heritage materials that could occur within the project area, and of the procedures to be followed in the event of any possible finds during any stage of the development.

- The Aboriginal stakeholders will be given the opportunity to review, amend, and confirm the content of the Aboriginal Cultural Heritage Awareness induction component prior to its implementation. Aboriginal stakeholder representatives will be invited to attend and participate in all induction sessions.

- A register will be kept of all persons inducted for the duration of the project. The register will include dates, names and signatures of those inducted, the type of activity and location in which they will be working, name of the person who provided the induction, and whether any Aboriginal stakeholders were present during the induction.

ATTACHMENT 2: ASSESSMENT OF THE PROPOSAL

Comment 4.34
The covering letter to the DECCW submission condensed key issues into a single concise set of requirements. Each of those requirements have been address individually in comments 4.10 to 4.33. Accordingly, as Attachment 2 mainly is an embellished version of the cover letter, "comment by comment" replies are not provided except in circumstances where it was felt appropriate to provide additional information.

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 are 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 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 BilIin4dgel 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 additional 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 parkland~· 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 *ales 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 'A1" 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 v6f~etation 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.

Comment 4.35
The proponent agrees that monitoring is essential to identify actual impacts, the value of predictions concerning the nature and extent of impacts and the relevance of studies from other areas. However, postulating impacts for "significant proportions of the year" is considered to be quite exaggerated and inaccurate. The majority of time (i.e. hundreds of days per annum) there will be no such effects operating on the site.

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.

Comment 4.36
The unpredictability of disturbance phenomena is explicitly recognised and discussed in the EA (Technical Paper E). The Preferred Project report has limited the initial scale and frequency of events. Monitoring of events and of fauna between events will contribute to an understanding of faunal responses and feed information into the EHMS system to subsequently modify activities which are found to cause adverse effects.

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, Bvron 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.

Comment 4.37
The proposal recognises the need to minimise impacts along the Jones Road ridge and incorporates plantings (existing and future) to enlarge the amount of vegetation in this area. The proposal recognises the need to minimise or eliminate noise effects on native forests in the locality.

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 & Oill 2002 and Beale & Monaghan 2004. p14), DECCW also recommends that fencing in these areas is designed to also provide visual screening (potentially hesslon) 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, O(:CCW 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 proposed Regulatory Working Group). consisting of an independent ecologist approved by DECCW. Byron Shire Council ecologist's) and National Parks and Wildlife office 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.

Comment 4.38

While the arrival of summer migrant avifauna is broadly predictable, for other faunal groups (*e.g.* flying-foxes) no clear annual or other regular temporal cycle appears to operate for the site, therefore no single season/month/time of year can be clearly identified as more or less significant than any other for threatened species. Given this unpredictability an adaptive management approach is the most appropriate management method.

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.

Comment 4.39
It is clearly acknowledged in the EA (Technical paper E) that koalas are a species of importance in management of impacts at the Parklands site.

However, it is apparent from two property wide surveys that the species is absent from most of the site, and identified habitat use has been in a single small area. Future proposed monitoring will identify any areas of koala habitat on the site, and these areas will be carefully managed to minimise or eliminate impacts for this species. Existing and future plantings include koala feed trees and will increase tree cover in any area.

Parklands is willing to cooperate with any wild dog control program proposed for Billinudgel Nature Reserve (including baiting within the Parklands site).

For the past 2 years of operation of Splendour in the Grass at Belongil Fields, a koala has 'turned up' in the Tipi Forest performance area and remained over 24-48 hours at the site. Thus the response of Koalas to musical events is to some extent unpredictable.

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.

Comment 4.40
If core koala habitat is found to present on the Parklands site, following an approval, then event activities will be modified to minimise impacts on habitat for this species. Because the area of 'core koala habitat' has been found to vary significantly over a 2 year period is it is considered important to have contemporary habitat use identified prior to any events taking place on the site.

Monitoring is proposed to identify the impacts of noise on fauna of the site. It is important to note that noise is restricted to event days and for the majority of any year noise levels will be at background levels.

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.

Comment 4.41

Lighting will be managed according to principles described in the EA (e.g. pointing downwards, use of a lighting type which is not attractive to insects or bats, no illumination of native habitats). Lighting will be limited to event times and for the majority of any year no artificial lighting will be operated at the site.

Once grass growth is tall enough to shelter grass owls, any grass areas to be slashed will be searched on foot for the presence of grass owls. If grass owls are found to be nesting in grassland of the site an area of 100m radius around the nest site will be excluded from mowing/slashing and will be excluded from any event activity.

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 unavoidable. §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 A 11). 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 OGR 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 OGR 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 Biliinudgel 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.

Comment 4.42

The Management Manual and other internal policy documents (provided by Rob Doolan separately to DECCW) in relation to previous Splendour in the Grass festivals were provided to DECCW to illustrate a typical framework and principles for addressing the management of solid waste and littering on and off site. The proponent agrees to this requirement and has updated the Statement of Commitments accordingly (see Commitment C20). With respect to littering adjacent to and within the Billinudgel Nature Reserve and other DECCW land parcels, the Environmental, Health and Safety Management Manual an Offsite Management Standard (NBP Standard 007) has been developed.
The Standard requires event operators to:

- Provide a litter response team for the duration of the event covering Jones Road, Tweed Valley Way, Yelgun Road and the Yelgun Interchange; and
- Provide a litter response team for the duration of the event covering designated event shuttle bus stops.

The Standard will be modified to also include the following requirement as detailed in Commitment C13:

- Provide a litter response team for the duration of the event covering Jones Road, Tweed Valley Way, Yelgun Road and the Yelgun Interchange and adjacent to and within the Billinudgel Nature Reserve.

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.

Comment 4.43
DECCW notes 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" 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.
Approval has been granted and an account established with Allconnex for the disposal of wastewater.

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 1arge 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 .

Comment 4.44
Construction Certificate (CC) documentation for the sewerage treatment plant (STP) would as a matter of course include a Management Plan. This would include all operational controls and contingency measures associated with the operation of the STP and the effluent storage and irrigation system. This document would formalise by CC approval and the management practices proposed to ensure that sufficient capacity was available in the holding dam and wetlands, prior to the next event commencing.

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.

Comment 4.45
Monitoring commitments for effluent quality, groundwater and surface water receptors are detailed in the Water Management Plan appended to the Integrated Water Cycle Assessment and Management report. Specific monitoring and maintenance requirements for the STP would be included in the SBMP discussed above and this would include provisions to prevent surface runoff of effluent from the irrigation areas.

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 teaks will be recognised or reported adding the potential for a cumulative effect that would become more significant in flood

events.

Comment 4.46
During a normal event hydrocarbon leakage from vehicles into the parking area will not cause any detectable increase in the presence of hydrocarbon contaminants in the Billinudgel Nature Reserve. All parking is located a minimum of 30 m from the nature reserve. Further, hydrocarbons break down in the environment rapidly, particularly near the surface of the soil profile where oxygen, organic carbon and bacteria are abundant. Even if a flood event occurred immediately after a cultural event on site, the likelihood of detectable hydrocarbon contamination being transferred to the BNR is considered very low as the level of dilution would be enormous and the background water quality of the flood water entering the site would already be poor. The updated proposal to create additional wetlands within the buffer will provide an effective management measure to further protect the BNR wetlands.

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').

Comment 4.47
The DECCW recommendation to place the eastern portion of the car park into a land use that restores native vegetation in perpetuity is agreed. Plan 1.3 (revised) depicts the amended Ecological Structure Plan and assigns all of this areas as 'new habitat areas', thus reducing the edge effect, reducing fragmentation and provided further ecological offsets.

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 (particularity 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.

Comment 4.48
Proposed finishing times are listed in the Table 5-1 at the end of this long table under Maximum Night-time Operations 11pm – 3am. Recorded music would only occur. In the Modelled Noise Impacts tables these are referred to as Music PA's only.

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. Do? 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 Bitlinu~1 Nature Reserve, as well as aquatic fauna on and downstream from the site.

Comment 4.49
North Byron Parklands agrees with DECCW regarding the use of personal insect deterrents rather than broad spectrum control. As such, no broad spectrum mosquito control will be undertaken (see Commitment A12).

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 '0' 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 additional1.6m and 0.2m at the resource centre due to climate change by 2100.

Comment 4.50

The Tweed-Byron Coastal Creeks Flood Study (BMT WBM 2010) included the *location* of the proposed site, but not the proposed development within the site (e.g. the Spine Road or associated culverts). The points made in the comment reflect the findings of the flooding assessments.

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.

Comment 4.51

The proponent concurs with the DECCW recommendation that the Spine Roads and culverts associated therewith be flood proofed to the 1 in 100 year standard.

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.

Comment 4.52

It is never intended to hold an event during a flood! The proposal is premised on the basis of quite sophisticated monitoring of weather conditions, stream flows and the like to ensure that no event occurs at the site during a major flood.

During the very unlikely flash flooding event when there are patrons at the site, it would not be possible to evacuate by vehicle, as outlined in *Section 3.5* of the Evacuation Assessment report. In such a situation, evacuation would be to local high ground, on foot. The updated commitments now providing for a Spine Road to be set at a level above the 1% flood. This will improve flood evacuation times. The evacuation plan will need to be revised to take this into account.

ABORIGINAL AND CULTURAL HERITAGE ASSESSMENT

Introduction DECCW has reviewed the documentation provided, including Section 4.6 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.

Comment 4.53
Management recommendations contained in Section 4.6 of the EA and Technical Paper H relate specifically to development and operation of the cultural events venue. Additional management strategies either have been or will be implemented as necessary to ensure that Aboriginal sites near the proposal and elsewhere on the North Byron Parklands property are protected and conserved.

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).

Comment 4.54
Yelgun Flat 1 extension- DECCW #4-2-181 (within project area, on the proposed spine road):

- Recommendation 1 of Technical Paper H will be implemented (ie the spine road will be constructed on over-ground fill to minimise disturbance of the existing ground surface to the greatest possible extent, and all heavy machinery activities confined to the road corridor itself).

- Ahead of any construction-related disturbance, a signposted ('Environmental protection area- do not enter' or similar) paraweb fence will be erected along the eastern boundary of the spine road corridor. The paraweb fence will be maintained for the duration of project works to clearly define the boundary of the approved development/ construction footprint and prevent vehicle/machinery and unauthorised human access outside this footprint.

  Yelgun Flat 1- DECCW #4-2-114/115 (outside North Byron Parklands property):
  This site is currently fenced (post and barbed wire) to exclude cattle and vehicles and has re-vegetated such that very few stone artefacts are now exposed on the surface. It is not considered likely that the site would be affected by any development/ construction or event activities given that:

- Ahead of any construction-related disturbance, a signposted ('Environmental protection area- do not enter' or similar) paraweb fence will be erected along the eastern boundary of the spine road corridor. The paraweb fence will be maintained for the duration of

project works to clearly define the boundary of the approved construction footprint and prevent vehicle/machinery and unauthorised human access outside this footprint.

- A 30 metre wide fenced buffer (supporting wetland vegetation) will be maintained around the southern car parking area, effectively separating construction activities and event patrons from the site.

NOS 14 and Yelgun 2- DECCW #4-2-053/110 (outside project area):
This site is separated from the southern car parking area by a deep (water-filled) drain, which would not be altered or otherwise modified. In conjunction with the security measures to be implemented during cultural events, it is anticipated that the drain will sufficiently constrain access such that no specific Aboriginal cultural heritage management measures are necessary or warranted.

NOS 24- DECCW #4-2-097 (outside North Byron Parklands property):
This site contains a low number of artefacts (none detected since 1997) and is sufficiently remote to ensure its protection in the development-related and property management context. No specific Aboriginal cultural heritage management measures are considered necessary or warranted.

GMY-1- DECCW #4-2-121 (outside but close to the project area):
The knoll containing and buffering this site has been fenced (post and barbed wire) to exclude cattle and vehicles and has re-vegetated such that stone artefacts are no longer exposed on the summit.

- The existing post and wire fence separating the knoll footslopes from the project area will be signposted ('Environmental protection area- do not enter' or similar) and flagged for the duration of project works to clearly define the boundary of the approved construction footprint and prevent vehicle/machinery and unauthorised human access outside this footprint.

Yelgun 3- DECCW #4-2-167 (outside but close to the project area):

- Ahead of any construction-related disturbance, a permanent (post wire) fence will be erected around the forest block containing this site to exclude cattle and vehicles.

- The post and wire fence will be signposted ('Environmental protection area- do not enter' or similar) and flagged for the duration of project works to clearly define the boundary of the approved construction footprint and prevent vehicle/machinery and unauthorised human access outside this footprint.

Other Aboriginal cultural heritage management measures applied or to be applied on the North Byron Parklands property:

- Prior to commencement of project planning, all known Aboriginal sites on and near the property were mapped, and an exclusion (buffer) zone at least 20 metres in radius from each was established to facilitate the design of a development footprint that would avoid site impact. These exclusion zones, plus the exclusion area to be maintained east of that section of the spine road traversing the 'Yelgun Flat 1 extension' (#4-2-181), will be marked and annotated on all maps and plans related to development, maintenance and operation of the cultural events venue, and maintenance of the wider property (including vegetation restoration plans).

- Vegetation/environmental restoration works within the site exclusion zones will not entail digging into or other substantial disturbance of the ground surface. Within these

exclusion zones, non-intrusive methods of weed control (foliar sprays, drill injection, cut and paint etc) will be exclusively used.

- All management and exclusion requirements in relation to Aboriginal sites and values will be detailed in the pre-start induction to be attended by all personnel, contractors and their employees involved in on-site disturbance/construction activities, event management and control, and vegetation/environmental restoration. Copies of the map showing the location of the exclusion zones will be provided during the induction. Each of the persons inducted will be required to sign an induction register acknowledging that they have understood and will abide by the management and exclusion requirements.

- The Madhima Gulgan Community Association (a registered Aboriginal stakeholder group in the project) vegetation restoration team will continue work during the course of project development/construction, and will be engaged to undertake at least fortnightly inspections to ensure that the archaeological site management and exclusion conditions are adhered to. Any identified breaches/problems will be immediately addressed and rectified by North Byron Parklands management.

  Once development/construction works are complete, a program of ongoing Aboriginal community monitoring will be implemented. This monitoring will involve annual inspections of the site exclusion zones by Aboriginal stakeholder representatives prior to and following the 'Splendour in the Grass' music festival to assess the effectiveness of existing cultural heritage management measures and facilitate the introduction of more stringent exclusion controls if deemed necessary.

- Recommendation 5 of Technical Paper H will be implemented. Assessment of the value of previously unidentified Aboriginal cultural heritage sites/places (if any) within the project area will include consultation with and the direct involvement of the registered stakeholders to provide a statement of socio-cultural significance, and accepted best practice to assess scientific/archaeological significance (including any archaeological investigations and recording that may be necessary). Management strategies will be developed in liaison with the Aboriginal stakeholders, and Aboriginal Site Recording Form/s submitted to the DECCW as required.

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 'Yelgun 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 'Ye/gun 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 Forms 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.

Comment 4.55
Management measures have been developed in consultation with the Aboriginal stakeholders and will be incorporated into the Event Management Manual.

That part of the spine road corridor subject to subsurface archaeological investigations inland of previously registered site Yelgun Flat 1 (#4-2-114/115) has been recorded as a new site (designated 'Yelgun Flat 1 extension') and attributed the DECCW AHIMS registration #4-2-181.

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 form.

Comment 4.56
An application for a Care Agreement for the recovered 'Yelgun Flat 1 extension' artefacts is in train and will be provided to the DECCW for formal authorisation once signed and received back from the Tweed Byron Local Aboriginal Land Council (the proposed temporary custodian). The Aboriginal stakeholders have agreed and decided that over the long-term, the recovered artefacts should be kept in the Cultural Centre to be built in conjunction with the project. In the event that the project is not approved, an alternative permanent deposition location for the subject artefacts will be decided by the Aboriginal stakeholders and a revised Care Agreement application lodged with the DECCW.

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,

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 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.

Comment 4.57

The proponent has no objection to the implementation of the above recommended conditions of approval for Aboriginal heritage.

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Section

5

Land and Property Management Authority

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

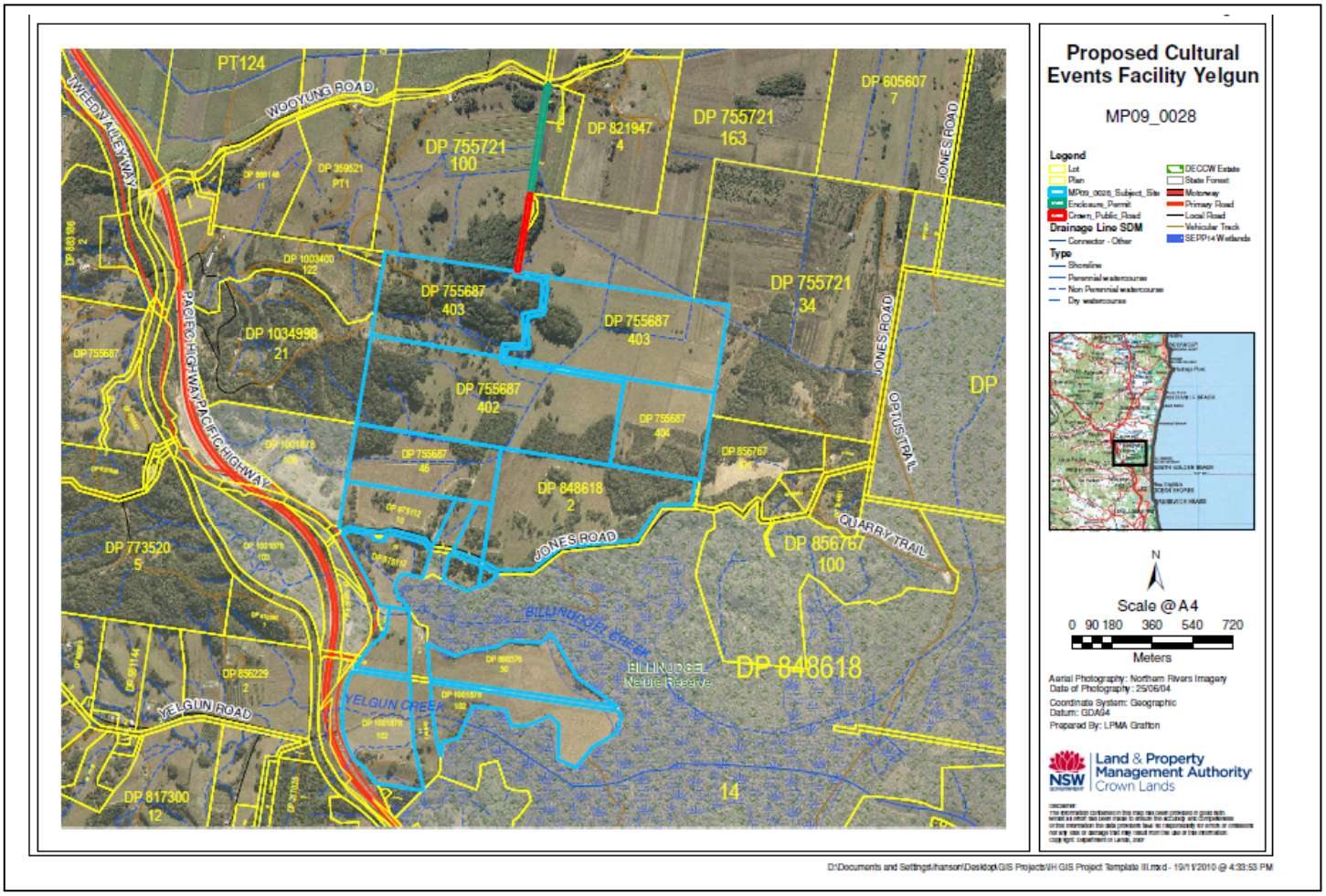
Please feel fr ee to c ontact me on (02) 6640 3436 or ian.h anson@lpma.nsw.gov.au if you have any

questions or concerns in relation to these comments.

Yours sincerely,

Ian Hanson
Senior Environmental Officer Crown Lands Division

Comment 5.1
The Crown public road adjoining the northern boundary of the Parklands site and connecting through to Wooyung Road was proposed in the EA as only being used in instances where emergency vehicles required access or egress from this direction. Application has been made to close and purchase this Crown road reserve (Reference W480961). Emergency vehicle access has been arranged with the adjoining private land holder to the north-east (see **Appendix C**).



Section

6

NSW Office of Water

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 Mignane
Manager Major Projects and Assessment

ATTACHMENT A

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.

Comment 6.1
The proponent agrees with the NOW groundwater observations and will update the Statement of Commitments accordingly - see Commitment C21.

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.

Comment 6.2
The proponent is committed to undertaking the management and mitigation measures in accordance with the ASSMP committed to in the Draft Statement of Commitments – see Commitment B11. It should be noted that the PASSA investigation indicated levels of oxidisable sulfur and net generating acidity potential exceeding the adopted action criteria but no result defining ASS analysis results as *high* were given. The proponent is of the view that no alteration to the Statement of Commitments is required with respect to acid sulfate soil management.

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.

Comment 6.3
The proponent agrees with the NOW observations in relation to water licensing. Commitment B9 with the Statement of Commitments includes the relevant considerations.

Stormwater
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.

Comment 6.4
Technical Paper Q – Stormwater Management Plan provides the details of the Stormwater Management Plan (SWMP) which is in accordance with Water Sensitive Urban Design (WSUD). It is relevant to note that the application now includes further commitments to buffering the SEPP 14 Wetlands. 12.9 ha of permanent new habitat with constructed wetlands is provided in the southern car park providing a significant buffer to the Billinudgel Nature Reserve and SEPP 14 wetlands as depicted within Plan 1.3 – Revised Ecological Structure Plan and addressed within the revised commitments.

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.

Comment 6.5
Issues associated with the revegetation of works adjacent to Yelgun Creek buffering and soil erosion are all matters encapsulated in the proposal and documented by way of Statement of Commitments.

ATTACHMENT B

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

Comment 6.6
The proponent concurs with the recommended conditions of approval. Those conditions have been incorporated into the updated Statement of Commitments (see Commitment 21).

North Byron Parklands

Section 7

Northern Rivers CMA

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

Thank you for your letter dated 30 September 2010 with the opportunity to comment on the proposal. Apologies for our delay in response, we hope our comments can still be considered.

We have reviewed the documents you forwarded in relation to the community's Northern Rivers Catchment Action Plan (CAP) and have found a major issue which is inconsistent with the plan.

Biodiversity Management Target B2 – Habitat Connectivity recognises that corridor habitat and connective pathways of native vegetation are crucial components of ecosystems and that fragmentation and degradation can lead to significant pressures on biodiversity, threatened species and ecosystem health.

The Northern Rivers Catchment Management Authority (NRCMA) considers that the location of the events site between and adjacent to the Billinudgel Nature Reserve and the regionally significant Marshalls Ridge Wildlife Corridor is inappropriate and would degrade the existing corridor. We feel that the regular impact of noise and people within the corridor and adjacent to the reserve would be detrimental to the animals that the Nature Reserve has been set up to protect and that it will negatively affect the use of the corridor by much of the native wildlife.

To achieve the Management Target B2 of the CAP, the NRCMA develops and implements projects to reduce the fragmentation and other factors to improve vegetative wildlife corridor connectivity. The establishment of a festival site within the corridor reduces the likelihood of future improvement in terms of increasing the connectivity value of the corridor and its use by the native wildlife

The NRCMA supports the recommendations listed in the publication North Coast guide for avoiding and reducing rural land use conflict and interface issues (Centre for Coastal Agricultural Landscapes – Southern Cross University, June 2007) which was produced by the NRCMA to help reduce landuse conflict in rural environments.)

However, in this case, due to the nature of the events proposed for the site in terms of music volume, frequency of events and numbers of people attending the events, the buffer zones to SEPP wetlands, Nature Reserve and corridors of significance should be a lot greater than listed (p92) but this should not be to the detriment of the wildlife corridor.

If you have any queries regarding this matter, please contact Peter Boyd, Catchment Coordinator, on 66767 393 or via e-mail at peter.boyd@cma.nsw.gov.au

Yours sincerely
Deb Tkachenko
General Manager 6 December 2010.

Comment 7.1
Section 4.3 of Technical Paper T assesses the consistency of the proposal with the Catchment Action Plan (CMA) and finds that the proposal will contribute to achieving nine key targets of the Northern Rivers Catchment Action Plan across themes such as Community, Land use Planning, Biodiversity, Water and Soil/Land Management Themes.

The report concluded that the proposal was particularly consistent with Biodiversity Theme targets and especially Target B2 – Habitat Connectivity as the project was assisting the targets by a variety of means including:

- Placing the whole site under contemporary environmental management and monitoring systems (compliant with AS/NZS ISO 14001 – Environmental Management Systems);
- Implementation of the comprehensive Parklands Vegetation Management and Biodiversity Plan;
- Significantly increasing the size and function of the Marshalls ridge wildlife corridor;
- Dedicating strategic wildlife corridor land to DECCW;
- Allocating significant portions of the site to habitat use and revegetating such areas where required; and
- Implementing pest species management and control measures across the Parklands site (for example, weeds, common mynah and wild dog control).

The CMA, in their submission, view the proposal as inconsistent with Target B2 – Habitat Connectivity and have stated '*corridor habitat and connective pathways of native vegetation are crucial components of ecosystems and that fragmentation and degradation can lead to significant pressures on biodiversity, threatened species and ecosystem health*.'

In the circumstances of this site, the existing corridor habitat, in places, is very degraded and the corridor habitat is fragmented thus creating barriers and vulnerability sections along connective pathways. The Parklands proposal actually provides a one off opportunity to significantly improve the corridor habitat and connective pathways thus resulting in a substantial (>50ha) increase in the area of native vegetation across the Parklands site which will enlarge and strategically expand the 'wildlife corridor'. Plan 1.3 depicts the extent of proposed habitat creation on the Parklands site. The environmental repair work will result in unprecedented connectivity improvements for local fauna.

In terms of buffers, a site specific approach has been adopted for the site. NSW I & I (Fisheries) accept the proposed buffering to protect the wetlands as described within Section 10 of this report. NSW Office of Water in Section 6 of this report provide conditions relating to buffering of the wetland and use of Water Sensitive Urban Design (WSUD), with all runoff being appropriately treated prior to leaving 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.

DECCW, in Section 4 of this report, recommend that a permanent habitat restoration approach be outlined for the area between the car parking and the SEPP 14 boundary. The updated commitments have fully accepted these recommendations and the Preferred Project adds further land for buffering of the SEPP 14 wetlands (12.9 ha. in total) and that wetlands are to be constructed in the buffers.

The revegetation process has already commenced by this proponent with the successful planting of over 7,400 endemic native trees, introduction of nest boxes and coordinated weed and fencing removal with the NPWS.

Approval of the subject application will result in significant environmental restoration programs that reinstate the landscape in a manner which is entirely consistent with the Byron Shire Council Biodiversity Conservation Strategy goals for this locality.

Alternative land use options for this large amalgamated site are limited to continuance of agricultural activities with no obligation to increase and improve habitat and wildlife functions. Failure of this

proposal is likely to result in fragmented ownership of the amalgamated landholdings and subsequent loss of opportunity to provide coordinated and complementary ecological gains to the landscape of the locality at a regional level of achievement.

It is our view that the Parklands proposal will actually achieve many targets of the Northern Rivers Catchment Action Plan. We are strongly of the view that the proposal will reduce fragmentation improve vegetative wildlife corridor connectivity and will not degrade the existing corridor.

The updated Statement of Commitments for the proposal are consistent with the requirements of DECCW, NSW I&I (Fisheries) and NSW Office of Water.

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Section 8

Rural Fire Service

8.1 Rural Fire Service First Letter

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

Comment 8.1
The bushfire consultant consulted with RFS following receipt of their response to the EA. The subsequent response to the RFS included a recommended set of conditions as requested by RFS. These were to be added to the Statement of Commitments and were as follows:

RECOMMENDED CONDITIONS:

1. The RFS will be a key governmental agency invited to attend the Regulatory Working Group as necessary.

2. A Bushfire Emergency Evacuation Plan will be prepared prior to use of the site. The objective of the plan is to ensure the co-ordinated response to emergencies by all agencies having responsibilities and functions in emergencies.

   The draft Bushfire Emergency Evacuation Plan will be reviewed by NSW RFS. The plan will specifically include:
   - *a.* Roles and responsibilities of person's co-ordinating the event.
   - *b.* Roles and responsibilities of persons remaining on site following evacuation.
   - *c.* Procedures for contacting emergency services e.g. NSW Rural Fire service District Office, NSW Fire Brigades, NSW Police Service, NSW Ambulance Service and the State Emergency Service.
   - *d.* Training of event staff and security personnel
   - *e.* Number of Police Officers to be on site for the duration of the event.
   - *f.* Number of RFS personnel to be available on site during the event and available equipment.
   - *g.* Location of assembly areas.
   - *h.* Location of access and egress roads.
   - *i.* Situations where the site will be evacuated.
   - *j.* Location/s where evacuated persons will be directed.

3. The Emergency Evacuation Plan will be reviewed following each major event. Such review to include event and site management, representatives of the Police, RFS and security provider.

4. A Bushfire Management Plan will be prepared prior to use of the site. The draft Bushfire Management Plan will be reviewed by NSW RFS. The plan will specifically include:
   - · Demonstration that North Byron Parklands has the necessary experience, resources and funds to undertake the directions contained within the BMP in perpetuity.
   - · The range of specific management options available to the development, its prescription and its location;
   - · The predicted timing intervals of the management options.
   - · The range of specific management options for managing the risk of the potential for ignition of peat soils

5. On the anniversary of the first Major Event (and every year thereafter) Parklands provide the following two reports to the Department of Planning:
   1. A Management Manual Assessment Report that provides documentary evidence of event activities, compliance with the Management Manual (including EH&S Policies and Procedures and applicable EH&S Standards), findings from audit reports, non-conformances and corrective actions.
   2. A Management Manual Modification Report that documents any material changes `to the management system, the reasoning behind such changes and a summary of `expected improvements as a result of such changes.

6. All habitable permanent structures to be assessed as special fire protection purpose.

7. All events involving the conference centre and associated accommodation and cabins be approved subject to specific reference in the Evacuation Emergency Plan.

8. All events that will be open to the public and involve outdoor entertainment and/or use of camping areas, Major Events will be referred to the RFS a minimum of three (3) months prior to such event. Small and moderate events require 4 weeks notice to the Rural Fire Service.

8.2 Rural Fire Service Second Letter

I refer to the bush fire consultant's response dated 21 December 2010, addressing the concerns and comments from the NSW Rural Fire Service (RFS) dated 8 November 2010.

The RFS has considered the response and advises that it still has concerns over the safe evacuation of large number of persons from a constrained site under stressful and hazardous conditions. The RFS is prepared to sit on a joint committee to consider the preparation of an Emergency Plan for the site. In this regard it is recommended that the Department seek the endorsement from the Local Emergency Management Committee.

Comment 8.2

The Regulatory Working Group (RWG), the joint committee, will consider the preparation of the Emergency Plan with RFS as a member of the RWG. The endorsement of the Local Emergency Management Committee will then be sought for the Emergency Plan.

You are advised that the option to assemble large numbers of patrons and remain on site during a large scale bush fire event is not considered feasible given the site coverage and the required setback considered safe for unprotected persons.

Comment 8.3

The endorsed Emergency Plan will specify the circumstances of assembly and any evacuation in the unlikely event of a large scale bushfire occurring when an event is taking place. Subsequent to the exhibition of the EA, the owner of the large rural property consisting of cleared grazing paddocks to the north of the event area has provided permission for both emergency vehicle access and patron evacuation in the event of an emergency. This property, with access to Wooyung Road, is the closest neighbouring property to the event area and has large grazing pasture paddocks well away from any forest.

It is noted that the conference centre and the accompanying accommodation rooms and cabins are a concept at this stage and will be assessed under a separate application as special fire protection purposed developments. It is also noted that ancillary structures will be setback a minimum 10 metres from unmanaged vegetation

Comment 8.4

The subsequent separate application for the conference centre and accompanying accommodation will be prepared in the context of the special fire protection purpose provisions. All ancillary structures will be setback a minimum of 10m from unmanaged vegetation, as stated in the revised Statement of Commitments (see Commitment C12, 16).

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Section

9

Roads and Traffic Authority

9.1 First Letter from RTA

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.

Comment 9.1

The proponent has provided further information and analysis as invited by the RTA at the conclusion of this RTA submission so as to determine 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. Appendix B to this report provides the additional information provided.

The RTA responded by recommending an opening event with a capacity of 35,000 patrons with a range of conditions including the use of multiple exit ramps both north and south of the Yelgun Interchange.

The Preferred Project proposes an opening event of a maximum of 30,000 patrons with use of multiple exit ramps both north and south of the Yelgun Interchange as contingency measures. The rationale for this approach is:

- that the opening event traffic footprint will impact on less local communities in contrast to use of multiple ramps which will impact on more communities; and
- the Yelgun Interchange will be more robustly utilised thus providing better monitoring of its actual capacity in contrast to not utilising it to its capacity.

An opening event of 30,000 patrons and down size initial years of operation will permit the acquisition of real data upon to test the effectiveness of travel demand measures. The conservative analysis method, in Appendix B incorporating additional measures of safety has shown that Yelgun Interchange can accommodate the traffic from the opening event, with reduced reliance on travel demand measures.

The additional measures of safety include:

- An additional 15% base traffic to cover daily fluctuations in traffic; and
- No queuing beyond the Link Road at the Yelgun Interchange.

This is in addition to the other contingency measures included in the Traffic Impact Assessment – Technical paper C1:

- Assumed day patron arrival rates 60% higher than observed arrival rates at Woodford, assumed camper arrival were around 85% higher than the arrival rates observed at Woodford.
- Advertising in local newspapers advising of traffic management measures and potential delays.
- Traffic management measures introduced if the queue of vehicles on the Pacific Highway Ramps extends beyond 97 m on the southbound off-ramp and 247 m on the northbound off-ramp. These values include a 100 m buffer to the stopping sight distance:
    - hold northbound movement on the Tweed Valley Way allowing uninterrupted discharge of Link Road queue
    - hold northbound off-ramp queue if arrival rate on southbound off-ramp continues to cause queuing issues
    - close northbound off-ramps if queuing extends beyond 97 m on the southbound off-ramp and 247 m on the northbound off-ramp.

Travel data from the Splendour in the Grass event held in 2010 at Woodford in the Queensland Sunshine Coast hinterland indicates that:

- Car occupancy of day patrons, without any travel demand measures, is 2.68 people per car – better than the 2.5 people per car base assumption.
- The arrival rate of campers and day patrons is lower than modelled for the North Byron Parklands site. The maximum arrival rate was 12.6% of day patrons within one hour, whereas the traffic assessment assumed a maximum of 20% in one hour.

These results indicate that the assumptions used in the analysis have been conservative and have added an extra level of contingency.

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.

Comment 9.2

The 100% Major event would not be considered until events have been held with travel behaviour that would indicate that it's traffic could be accommodated within the road network. With the incremental increases in event capacity only occurring if the previous event has complied with all assessment parameters, a 100% event would only be considered after years of events that incrementally increased to this size.

The proposed opening event is smaller, with lower traffic generation. The demand management measures proposed are within the achievable range and additional contingency has been built in to the

analysis. The 2010 event held on Woodford Queensland achieved a higher car occupancy that the RTA base assumption, and had an arrival rate around 60% lower than that assumed in the analysis. Based on this, the input assumptions are not optimistic.

The demand management measures would be tailored to suit the type and size of event. The range of measures that could be included are:

- Reduced price combination bus and event entry tickets to provide financial incentives to use bus or coach travel.
- Selling timed entry passes for campers driving to the site to spread arrivals (see below).
- Pre-paid parking for all patrons driving to the site so patrons know before they leave whether they have a parking space reserved or not. Tickets sold without a parking permit would be automatically provided with bus information from nearby towns.
- Partial reimbursement voucher for vehicles with three or more ticket holders – to promote higher car occupancy.
- Restricted numbers of parking tickets available. This would encourage car sharing and use of bus services.
- Partial reimbursement voucher for day patron vehicles arriving before 12.00 pm – to spread arrivals.
- Resolution bay for vehicles arriving without valid parking pass to avoid delays to vehicle processing.
- Convenient and well-planned network of public transport services to the site.
- Well-publicised shuttle bus offering trips from site to Brunswick Heads to minimise traffic leaving the site once already settled.
- Facilities provided on site to reduce the need to travel off-site.
- Separate gate entry for bus services to provide priority for public transport services.

Patrons wishing to park at the site could be required to pre-purchase their parking ticket along with their event ticket. They would be required to select their time of arrival. Only a certain number of tickets would be sold for each timeslot. Timeslots would be:

- Wednesday AM & PM - 20% of campers;
- Thursday AM - 20% of campers and PM - 30% of campers; and
- Friday AM - 30% of campers.

This would:

- spread arrivals across the day; and
- cap the number of arriving vehicles to an amount agreed with the RTA to not threaten the capacity of the Yelgun Interchange.

Tickets would specify the arrival period, e.g. between 6.00 am and 12.00 pm. Campers who miss their slot would be directed the day patron parking area and transferred to the site by shuttle bus.

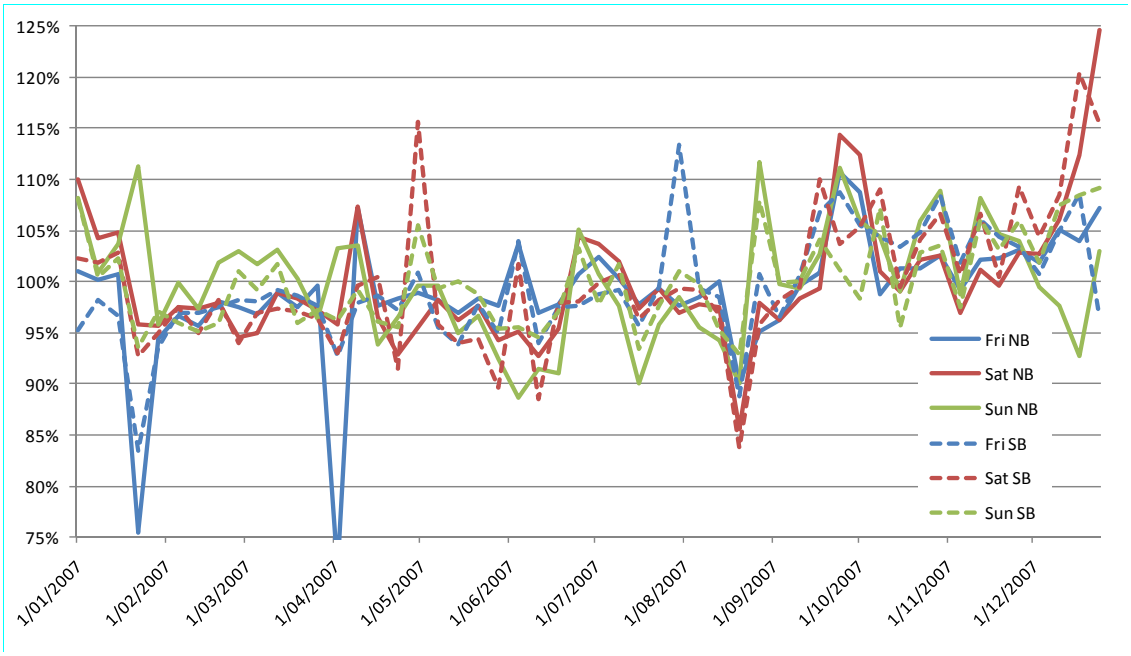
The on-line survey results were used as an aspirational basis of what the upper limit of demand management could achieved. The traffic impact of a number of input values was analysed as sensitivity testing. The base assumptions were as described by the RTA.

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 RT A. 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.

Comment 9.3

The use of Minjungbal Drive was not critical to the traffic analysis method. It was used to demonstrate that the seasonal variation is not as large on roads other than the Pacific Highway. More recent traffic data has been obtained from the RTA. The data for the Tweed Bypass is shown below.

Daily variation in Friday, Saturday and Sunday traffic volumes (2007) on the Tweed Bypass:



Source: Roads & Traffic Authority 2008, *Traffic Volume Data for Hunter and Northern Regions 2007* site 04.010, Tweed Bypass at Terranora Creek Bridge

The more conservative analysis method for the opening event has included a 15% increase on the average daily traffic volumes to allow for the typical daily variation in traffic. It is proposed that the opening event would not be held between Christmas and New Years Day or at Easter, the times of highest traffic.

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.

Comment 9.4

The traffic assessment has been undertaken on the basis that it should not have a significant impact on the safety or performance of the Pacific Highway. The revised assessment method has included additional margins of safety to reduce the impact of an incident should it occur.

The traffic management plan would vary depending on the size and type of event. The traffic management strategy for the Yelgun Interchange for major events includes:

- manually operated portable traffic signals at the intersection of Tweed Valley Way and the Yelgun Interchange Link Road, and on the northbound and southbound off-ramps.
- traffic control staff with two-way communication stationed on Pacific Highway off-ramps (behind barriers) at buffer zone to advise of queuing issues.
- advanced warning signs advising of the potential use of traffic signals.
- advanced VMS signs advising of the potential queuing on off-ramps.

- crews with barriers positioned at beginning of Pacific Highway off-ramps with 'Ramp closed proceed to next exit' signs ready to be implemented with minimal delay if necessary.
- VMS to be changed if ramp closed.

The Traffic Impact Assessment – Technical paper C1 included typical traffic control plans for a major sized event.

Highway traffic volumes and traffic behaviour in regional areas can be variable in nature, and result in un predicted outcomes. By way of example, the peak hour arrival rate for the Bluesfest in 20 I 0 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 unforseen changes. Simply relying on manual traffic control or demand management is not sufficient to ensure that safe traffic flows will be achieved.

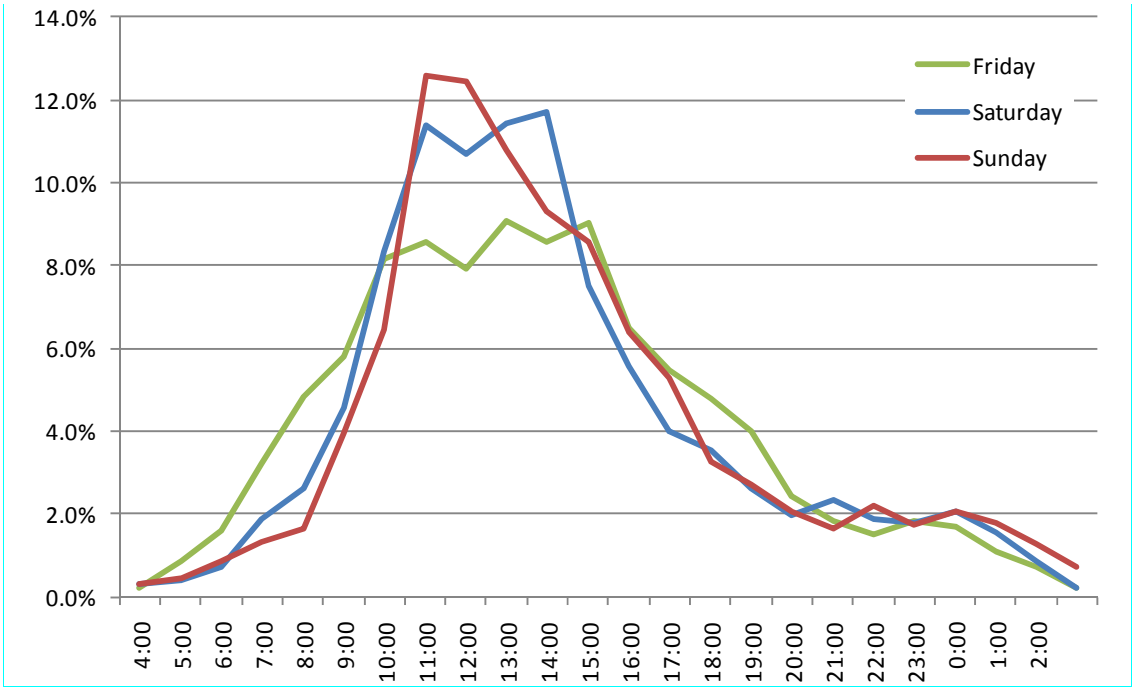
Comment 9.5
The events to be held at this site and BluesFest are different events, with different demographics, location and management:

- Bluesfest is held at Easter, coinciding with the busiest weekend of the year. Large events at the NBP site would not coincide with Easter or the Christmas – New Year's Day period to avoid busy traffic times on the Pacific Highway;
- the Tyagarah Tea Tree farm is closer to the nearest interchange with the Pacific Highway, meaning that any internal traffic issues would affect the Pacific Highway sooner. Traffic management at the NBP site has approximately four times the distance to the Yelgun Interchange;
- Bluesfest attracts a different type of festival patron, being more family oriented, while the SITG event is more aimed at a younger audience. The SITG audience is more likely to use public transport than a family with children.

The Splendour in the Grass event held in Woodford Queensland in July 2010 showed arrival rated 60% below the levels assumed in the traffic analysis.

The arrival of day patrons on each of the main event days is shown below. The maximum recorded value was 12.6% in one hour. The traffic analysis assumed a maximum of 20% in one hour. Therefore, the analysis has assessed a more critical scenario than if the arrival pattern from Woodford was transferred to the North Byron Parklands site.

Day patron arrival at Splendour in the Grass Woodford 2010 is shown in the graph below.



Source: Gate entry counts taken at Woodfordia site 28/7/10 to 3/8/10

Camper arrival was spread from the Wednesday to the Friday. The traffic assessment has indicated that it would generate lower traffic volumes. To control the arrival of campers, the times ticket system described in Comment 10.2 would be used.

The contingencies described in Comment 9.1 would provide the buffer to protect the operation of the Pacific Highway.

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.

Comment 9.6
The 50,000 patron event would only be sought when the site and travel demand measures have been progressively proven to be effective enough to achieve the traffic reductions required to reduce levels to within the capacity of the road network.

The revised (more conservative) analysis method for an opening event of 35,000 patrons has indicated that some travel demand would be required. However, the reductions needed to be achieved are less than originally anticipated. The 2010 event in Woodford achieved higher car occupancies and lower arrival rates than assumed in the traffic analysis, without any travel demand measures. With these measures in place the required change in behaviour is smaller than when considering the RTA's base assumptions as a starting point. For example, the Woodford event achieved a car occupancy of around 2.68. The revised analysis indicated that it required a value of between 2.7 and 2.9 (depending on the mode share and arrival rate). The change required is much smaller than if the RTA's base assumption of 2.5 people per car is used as the starting point. The preferred project initial event size sought is 30,000 patrons.

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.

Comment 9.7
The proponent and the traffic and transport consultant have had on-going discussions with the RTA to achieve an acceptable opening event with which to gather site specific data on travel behaviour and the success of traffic management and travel demand management for use in the planning of future events.

While the RTA have now agreed to an opening event of 35,000 capacity, the Preferred Project proposes an opening event of 30,000 capacity as outlined in Comment 9.1 above.

The proponent would organise an annual debrief with the Police, RTA and Council to determine if any modifications are required to manage traffic. Data would be gathered at the first and second year events to enable an assessment of travel behaviour.

The event traffic management plan and traffic control plans would be prepared by each event promoter for consideration by both the North Byron Parklands management and the RTA. These plans would take into consideration any outcomes from the annual debriefing after the event(s) of the previous year.

Any events larger than the opening event would be subject to submission of a traffic management plan and approval by the RTA.

If you have any further inquiries regarding this matter please contact Mr Michael Baldwin on 6686 1832, or
email

Yours faithfully

David Bell
Regional Manager, Northern Region

9.2 Second Letter from RTA

File No. 10/2120
Mr Michael Baldwin

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

The Roads and Traffic Authority (RTA) met with representatives of North Byron Parklands on December 15 last year. At this meeting supplementary information to the Traffic Impact Statement (Traffic Impact Assessment – Technical Paper C1) supporting the proposal was provided to the RTA. A copy is attached for your information.

Comment 9.8
The additional provided to the RTA is contained in **Annexure B** herewith.

The RTA has had an opportunity to review this additional information and assess the impacts on the Yelgun interchange and the Pacific Highway. The RTA remains concerned the scale of the proposal has the potential to adversely impact on the safe operation of the Interchange and create a real risk to traffic travelling on the Pacific Highway. The RTA objects to a permanent approval for events at the Byron Parklands site, at this time.

The interchange design includes a short length of road, approximately seventy metres, that links the interchange roundabout to the Tweed Valley Way. The performance of this link road is very sensitive to changes in arrival and car occupancy rates. Small changes in these variables make a significance difference to the performance of the Yelgun Interchange. The margin between adequate performance and queue generation is quite small. Small increases in arrival rates and reductions to car occupancy used for calculations in the Traffic Impact Assessment – Technical Paper C1 will cause queuing into the interchange. This in turn has the potential to restrict access from the Highway southbound off ramp and consequently generate queues on this ramp that would impact on the Pacific Highway. The scale of queuing will be dependant on the actual arrival rates and car occupancy for any given event. The Highway at this location has a 110km/h speed limit and traffic queuing onto the Highway is an unacceptable risk.

At this time the RTA also remains uncertain if the car occupancy and arrival rates used to support the proposal can be achieved. Due to a high level of sensitivity to changes in arrival rate and car occupancy it is not acceptable to proceed with a permanent development approval at this site until network traffic capacity issues are resolved. The RTA would, however, suggest that a one time only event of 35000 patrons, 17500 campers and 17500 day patrons (as proposed by the proponents), could be achievable, with provisions, for the North Byron Parklands site in order to collect valuable traffic information. With traffic data attributable to the site, its geographical restrictions and site management, a more realistic understanding of the impacts of a permanent festival site could be achieved This event will need to be planned in accordance with the Guide to Traffic and Transport Management for Special Events, a copy can be found on the RTA web site at http://www.rta.nsw.gov.au/trafficinformation/downloads/special_events_guide_part1.pdf This data collection is necessary to ensure that traffic generation rates applicable to the site are adopted and to

ensure development of appropriate traffic management arrangements, if this site were to be considered for future permanent events.

Comment 9.9

The proponent is very confident of achieving the car occupancy in arrival rates proposed and appreciates the RTA's agreement to a 35,000 event. The implementation of "one time only event" to collect data confirming the occupancy rates is not commercially acceptable. The amended Statement of Commitments provides for 3 initial events in year 1, one of 30,000 and one of 25,000 and the other of 20,000 maximum capacity. The events will seek to distribute campers and day patrons on a 50/50 basis.

Data collection should include but not limited to:

- Numbers of staff, entertainers, the support staff and setup staff. When they arrive, vehicles involved, including vehicle type with arrival and departure rates and direction of travel.
- Patronage of bus services, including numbers of patrons on buses, bus occupancy rates, arrival and departure rates for buses, timing of bus arrival and departure.
- Number of campers' arrival and departure rates, vehicle occupancy, direction of travel.
- Number of day patrons, vehicle occupancy arrival and departure rates, direction of travel.
- Background traffic counts on the pacific Highway and Tweed Valley Way.
- Number of patrons that arrive by bicycle, arrival and departure rates.
- Queue monitoring and recording of maximum queue length during peak traffic periods.
- Taxi arrival and departure and occupancy rates.
- Pickup and set down vehicle arrival, departures and occupancy rates.

This event would need to be carried out with significant care regarding the managing of traffic to ensure that risks are minimised. This would include, excluding the Yelgun Interchange as the primary Highway access to the site for day patrons and campers. Other interchanges in the vicinity including Cudgera Creek, North Brunswick and South Brunswick Interchanges could be used as the primary exit and entry points for festival traffic. It should be understood these routes will include significant lengths of local and regional roads. Consequently, both Byron and Tweed Shire Councils will need to be consulted about any impacts from the increased traffic on these roads.

Camping patrons, with an earlier planned arrival target could potentially use the Yelgun interchange, as long as contingency measures were adopted. The inspection area for camper arrival has the potential to create queuing that will impact on the adjoining road network. At least six inspection isles should be provided on site with at least three inspection bays each. The inspection of vehicles would need to cease when queuing vehicles extend from the inspection area to the boundary of the site with the Tweed Valley Way. Inspections of vehicles should not commence until vehicle queues have reduced to manageable lengths.

Comment 9.10

The proponent has no objection to the collection of data as described above. This matter has been included in the updated Statement of Commitments (see Commitment C8).

The RTA does not believe that an event of this proposed size can be managed using the Yelgun interchange as a single access for all patrons, even with a suite of contingency measures. In the event that traffic queues extend from the Tweed Valley Way into the Yelgun interchange, contingency plans for implementing traffic management will be insufficient to manage queuing traffic on the southbound off ramp. Due to the short distance between the Tweed Valley Way and the interchange roundabout, the time available to recognise and respond to queuing traffic will be too short to affect a suitable solution. Implementing traffic control measures on the Highway under high travel speeds will also introduce significant risk to personnel. For these reasons other exits from the Highway need to be adopted as the primary access for any event of significant size. All manual traffic control measures implemented to support the event traffic management plan need to be in accordance with the RTA Traffic Control at Worksites Manual.

Comment 9.11
The proponent seeks to operate the proposed events utilising the Yelgun Interchange with other access points to the Tweed Valley Way used for contingency purposes only. This will ensure the minimum impact on the local road system and it more robustly tests the Yelgun Interchange.

With day patron arrivals, a minimum of 7000 bus only access tickets should be made available to ensure that the predicted mode share of forty percent arrival by bus is achieved for an event of 17500 day patrons.

Comment 9.12
The proponent seeks to operate the proposed events utilising the Yelgun Interchange with other access points to the Tweed Valley Way used for contingency purposes only. This will ensure the minimum impact on the local road system.

The arrival rates and car occupancy are more difficult to manage by ticketing. There will be some vehicles that arrive without valid parking tickets. These vehicles need to be processed and re-directed to parking areas where they can use buses to access the festival. The impact of this additional traffic into the site needs to be considered. Sufficient parking at the various bus pick-up locations needs to be available. The event organisers need to satisfy the relevant local government authority that overflow parking will not cause disruption or inconvenience to adjoining communities.

Comment 9.13
The proponent has no objection to this proposal.

Regardless of the scale of development, this event will have significant impact on the amenity of the local road network adjoining the site. The access to the site should be designed so that the level of service for local traffic and through traffic on the Tweed Valley should not fall below LoS D. It is noted in the Traffic Impact Assessment – Technical Paper C1 that a seventy five metre turning lane is to be provided for site access from the Tweed Valley Way. Further, if additional storage length for right turning traffic is required this will be achieved by manual traffic control and use of the road shoulders. The Traffic Impact Assessment – Technical Paper C1 identifies the Tweed Valley Way as having two 3.5 metre lanes and shoulders of half to one metre. This shoulder width is insufficient for use by through traffic in the event the right turn lane reaches its capacity.

Comment 9.14
The Statement of Commitments seeks to ensure that the Tweed Valley traffic will not fall below LoS D.

Heavy traffic densities are likely during peak festival arrival and exit times. Vehicle break downs or minor vehicle collisions will be inevitable under these traffic conditions. These types of incident can severely impact on capacity and generate delay and queues. Recovery procedures need to be developed and recovery vehicles need to be available to respond in a timely manor to lessen the impact of incidents.

Comment 9.15
The proponent proposes to ensure recovery vehicles are available to immediately respond in the event of minor traffic accidents.

Due to high seasonal traffic volumes on the Pacific Highway during the Christmas and January holiday period, events should not be planned for this time of year. Easter also experiences high traffic flows and, combined with the Bluesfest event being carried out adjacent to the Highway twelve kilometres to the south, would also make this time of year unsuitable for events.

Comment 9.16
The proponent does not intend to hold an event that clashes with BluesFest. It is intended to calibrate event size with seasonal traffic volumes on the Pacific Highway to ensure that the highway utilisation is not compromised.

Unauthorised parking and camping in the vicinity (including the Yelgun rest area) will be an issue that needs to be managed. The Traffic Impact Assessment – Technical Paper C1 and Supplementary information identifies special event clearways as a method of control. It should be noted only the RTA can implement Special Event Clearways. The towing of illegally parked vehicles can not be carried out unless special legislative requirements are met, including appropriate signage, authorised towing vehicles and secure storage compounds. The facilities to provide special event clearways are not currently available in the RTA Northern Region. Implementation of Special Event Clearways will require liaison with the RTA and would be funded by the proponent. Traffic Management measures affecting the Pacific Highway will require a Road Occupancy Licence. Detail for licensing requirements can be obtained by e-mail to ROL_Northern@rta.nsw.gov.au.

Comment 9.17
The proponent will seek to obtain Special Event Clearway status in major event situations and accordingly and additional Commitment has been added to the Statement of Commitments which requires the proponent to obtain Special Event Clearway approval as required.

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

Yours faithfully

David Bell
Regional Manager, Northern Region

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Section

10

Industry and Investment

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.

Comment 10.1
No objection is raised by the proponent in relation to the planting of native endemic wetland riparian species within the 30 m buffer. The proposal plans have been revised to reflect this commitment. Further, the Statement of Commitments has been updated to also reflect this undertaking.

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.

Comment 10.2
The proponent has committed to the implementation of the rehabilitation plan. It is contained at Commitment A7.

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.

Comment 10.3
Agricultural use of the property is intended to continue generally. Accordingly, there is no need for a "rehabilitation Plan" as the site will be continually maintained and managed to permit agricultural uses.

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.

Comment 10.4
Consultation will continue to occur with farmers on working farms adjoining the event usage area to ascertain their requirements such as fencing.

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

Comment 10.5
A monitoring program in relation to effluent irrigation will be undertaken for on-site effluent disposal.

The modelling undertaken to assess the impacts of the irrigation of effluent in irrigation areas shows that the areas can sustainably assimilate the effluent loading based on irrigation according to soil moisture deficit. Additionally, the proposed management of the irrigation areas would strictly prohibit the irrigation of these areas during or after rainfall. This means that there would be no run off of effluent from the irrigation areas, nor of rainfall contaminated with effluent.

In addition, the detailed design of the irrigation areas would incorporate standard mitigation measures such us clean water diversion mounds on the up-slope side of the irrigation area and retention mounds on the down-slope side.

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