

REPORTS THROUGH GENERAL MANAGER

REPORTS FROM DIRECTOR PLANNING & DEVELOPMENT

- 6 [PD-PC] Development Application DA06/1149 for an overpass associated with Tugun Bypass at Boyd Street and Cobaki

ORIGIN:

Development Assessment

FILE NO: DA06/1149 Pt1

SUMMARY OF REPORT:

A development application has been received for an overpass bridge of the Tugun bypass road and rail corridor. The overpass straddles the Queensland/ NSW state border and will join Boyd Street on the Queensland side and an unnamed road reserve on the NSW side of the border. The overpass structure is 700m long with approximately 300 metres of the overpass located in NSW.

RECOMMENDATION:

That Development Application DA06/1149 for a Boyd Street overpass associated with Tugun Bypass at Boyd Street and Sandy Lane, Cobaki Lakes be approved subject to the following conditions: -

GENERAL

1. The development shall be completed in accordance with the Boyd Street Statement of Environmental Effects dated September 2006 prepared by Parsons Brinckerhoff and Plan No. 3003181-BYD-010-1501 Issue 01 dated 22.9.06 and Plan No. 3003181-SK-440 Revision 02 dated 4.8.06. [GEN0005]
2. Approval is given subject to the location of, protection of, and/or any necessary modifications to any existing public utilities situated within or adjacent to the subject property. [GEN0135]
3. All works for the proposed Boyd St overpass project are to be carried out in accordance with the Tugun Bypass Environmental Management Plan (Construction) for the Tugun Bypass Project (PP-034-CEMP).

4. In accordance with Section 109F(i) of the Environmental Planning and Assessment Act 1979 (as amended), a construction certificate for **SUBDIVISION WORKS OR BUILDING WORKS** shall NOT be issued until any long service levy payable under Section 34 of the Building and Construction Industry Long Service Payments Act, 1986 (or where such levy is payable by instalments, the first instalment of the levy) has been paid. Council is authorised to accept payment. Where payment has been made elsewhere, proof of payment is to be provided.

[PCC0285]

5. Permanent stormwater quality treatment shall be provided for all stormwater discharges into Tweed Shire and/or the Cobaki Lake catchment in accordance with the following:

- (a) All road runoff shall be directed to approved stormwater treatment measures in the Tugun Bypass drainage system, provided there is demonstrated spare capacity in these devices to accept the additional flows; or
- (b) Stormwater treatment devices shall be installed in the overpass drainage system to treat road runoff for sediment, hydrocarbon, nutrient and gross pollutants. Proprietary treatment devices must be sized in accordance with Section D7.12 of Council's Development Design Specification D7 - Stormwater Quality, and must be capable of treating, as a minimum, all stormwater flows up to the ARI 3 month storm (deemed to be 40% of the ARI 1 year storm). Higher flows must not result in the remobilisation of captured pollutants from treatment devices.
- (c) an application under Section 68 of the Local Government Act shall be lodged with Council and shall include a detailed stormwater management plan (SWMP) for the occupational or use stage of the development.

[PCC1105]

6. Application for works that involve any of the following:-

- connection of a private stormwater drain to a public stormwater drain
- installation of stormwater quality control devices
- erosion and sediment control works

will not be approved until prior separate approval to do so has been granted by Council under section 68 of the Local Government Act 1993.

Applications for these works must be submitted on Council's standard s68 stormwater drainage application form accompanied by the required attachments and the prescribed fee.

[PCC1145]

7. Erosion and Sediment Control shall be provided in accordance with the following:
- (a) Application under Section 68 of the Local Government Act is to be submitted to Council and must include a detailed erosion and sediment control plan prepared in accordance with Section D7.07 of *Development Design Specification D7 - Stormwater Quality*.
 - (b) Construction phase erosion and sediment control shall be designed, constructed and operated in accordance with *Tweed Shire Council Development Design Specification D7 - Stormwater Quality* and its Annexure A - "Code of Practice for Soil and Water Management on Construction Works".

[PCC1155]

PRIOR TO COMMENCEMENT OF WORK

8. Prior to the commencement of work, the following detail shall be submitted to Council;
- (a) evidence that a Site-Specific Safety Management Plan and Safe Work Methods for the subject site have been prepared in accordance with either:-
 - i. Occupation Health and Safety and Rehabilitation Management Systems Guidelines, 3rd Edition, NSW Government, or
 - ii. AS4804 Occupation Health and Safety Management Systems - General Guidelines on Principles Systems and Supporting Techniques.
 - iii. WorkCover Regulations 2000
 - (b) Where earthworks result in the creation of embankments and/or cuttings greater than 1m high and/or slopes within allotments 17° or steeper, such slopes shall be densely planted in accordance with a detailed landscaping plan.

Such plans shall generally incorporate the following and preferably be prepared by a landscape architect:

- iii. Densely plant to suit the aspect/micro climate with preference to endemic native and exotic species. Emphasis to be on trees and ground covers which require minimal maintenance. Undergrowth should be weed suppressant.
- iv. Mulch heavily preferably with unwanted growth cleared from the estate and chipped. All unwanted vegetation is to be chipped and retained on the subdivision.

- (c) A traffic control plan in accordance with AS1742 and RTA publication "Traffic Control at Work Sites" Version 2 shall be prepared by an RTA accredited person shall be submitted to Council. Safe public access shall be provided at all times.
- (d) Copies of the following design detail shall be submitted to Council.
- i. detailed engineering plans and specifications. The detailed plans shall include:
- earthworks
 - roadworks/pavement design/furnishings
 - stormwater drainage
 - landscaping works
 - sedimentation and erosion management plans
 - location of all service conduits (water, sewer, Country Energy and Telstra)

Note: The Environmental Planning and Assessment Act, 1979 (as amended) makes no provision for works under the Water Management Act 2000

The applicant shall provide certification from an experienced engineer / engineers in the various disciplines confirming the works / structures comply with adopted standards and good engineering practice.

9. Prior to commencement of work all actions or prerequisite works required at that stage, as required by other conditions or approved management plans or the like, shall be installed/operated in accordance with those conditions or plans.

[PCW0015]

10. A Fauna Management Plan prepared by a qualified person and submitted and approved by Council's Environmental Scientist prior to commencement of work. The plan must describe measures to mitigate fauna mortality pre, during, and post construction and include:
- measures outlined within the Roads and Traffic Authority of NSW policies and guidelines to prevent fauna mortality during road construction and management;
 - measures contained within the Tugun Bypass Construction Environmental Management Plans including pre clearing protocols for fauna;

- Provision of a dedicated fauna underpass under the western section of the proposed overpass in accordance with the Long-nosed Potoroo Integrated Plan of Management that will facilitate the movement of the Long-nosed Potoroo and threatened frog populations;
 - construction and operational stage fauna exclusion fencing (including frog exclusion fencing) linking to fauna underpass structures where required and consistent with designs employed in the Tugun Bypass project; and
 - ongoing maintenance regimes during construction.
11. A Flora Management Plan prepared by a qualified person and submitted and approved by Council's Environmental Scientist prior to commencement of work. The plan must describe existing vegetation and species within and adjacent the construction footprint and include:
- procedures for clearing of vegetation, limiting soil disturbance, and protecting adjacent terrestrial and aquatic vegetation and habitats;
 - procedures for protecting wallum heath up to and adjacent fauna movement structures;
 - landscaping and rehabilitation methods for disturbed areas implemented immediately following construction; and
 - plans for replacing medium to large hollows where these are removed through vegetation clearing for the proposal.
 - provision for compensatory Scribbly Gum Woodland planting and Compensatory Paperbark planting.
12. A draft Long-nosed Potoroo Integrated Plan of Management prepared in consultation with relevant stakeholders and a qualified wildlife biologist, and submitted to Council's Environmental Scientist prior to commencement of work. This plan must describe, but is not limited to:
- fauna crossings and fauna exclusion fencing, predator control programs, fire management, and revegetation;
 - time lines and performance indicators for all management measures;
 - defined roles and responsibilities; and
 - reporting and review mechanisms, with specific provision for a 5 year public review.
 - design options for the construction of the future road incorporating management for the Long Nosed Potoroo.
 - the plan is to be finalised in accordance with the Tugun Bypass conditions of approval

13. An Acid Sulfate Management Plan submitted to Council and approved by Council's Environmental Scientist prior to commencement of work. Plans should specifically address changes in pH and activation of ASS resulting from the proposal which may potentially impact on adjacent sensitive terrestrial and aquatic vegetation, habitats, species and receiving waters.
14. A Heritage Management Plan submitted and approved by Council's Environmental Scientist prior to commencement of work. This plan must include an appropriate level of aboriginal consultation and engagement regarding Indigenous heritage mitigation measures.

DURING CONSTRUCTION

15. During construction, all works required by other conditions or approved management plans or the like shall be installed and operated in accordance with those conditions or plans.

[DUR0015]

16. All reasonable steps shall be taken to muffle and acoustically baffle all plant and equipment. In the event of complaints from the neighbours, which Council deem to be reasonable, the noise from the construction site is not to exceed the following:

A. Short Term Period - 4 weeks.

L10 noise level measured over a period of not less than 15 minutes when the construction site is in operation, must not exceed the background level by more than 20dB(A) at the boundary of the nearest likely affected residence.

B. Long term period - the duration.

L10 noise level measured over a period of not less than 15 minutes when the construction site is in operation, must not exceed the background level by more than 15dB(A) at the boundary of the nearest affected residence.

[DUR0215]

17. The proposed earthworks are to be constructed in accordance with the current RTA specifications and Australian Standards. Testing and Third Party Verification is to be undertaken by an independent party, and submitted to Council.

[DUR0795]

18. All work associated with this approval is to be carried out so as not to impact on the environment. All necessary precautions, covering and protection shall be taken to minimise impact from: -

- Noise, water or air pollution

- **Minimise impact from dust during filling operations and also from construction vehicles**

[DUR1005]

19. **Where the construction work is on or adjacent to public roads, parks or drainage reserves the development shall provide and maintain all warning signs, lights, barriers and fences in accordance with AS 1742.3-2202 (Manual of Uniform Traffic Control Devices). The contractor or property owner shall be adequately insured against Public Risk Liability and shall be responsible for any claims arising from these works.**

[DUR1795]

20. **Before the commencement of the relevant stages of road construction, reports shall be submitted to Council from a Registered Consulting Engineer demonstrating.**

- (a) **That the pavement design has been carried out in accordance with RTA Design Specification and approved by Tweed Shire Council.(b) That the pavement materials to be used will comply fully with RTA Construction Specifications. Testing in accordance with RTA Specifications must be undertaken and submitted to Council.**
- (c) **That all site fill and pavement material is compacted in accordance with RTA specifications and the Test Results submitted to Council.**
- (d) **That supervision of Earthworks has been undertaken by a fully qualified Civil Engineer in accordance with RTA specifications.**

[DUR1805]

21. **Any damage caused to public infrastructure (roads, footpaths, water and sewer mains, power and telephone services etc) during construction of the development shall be repaired in accordance with Councils adopted Design and Construction Specifications prior to the issue of a Subdivision Certificate and/or prior to any use or occupation of the buildings.**

[DUR1875]

22. **Regular inspections shall be carried out by the Supervising Engineer on site to ensure that adequate erosion control measures are in place and in good condition both during and after construction.**

Additional inspections are also required by the Supervising Engineer after each storm event to assess the adequacy of the erosion control measures, make good any erosion control devices and clean up any sediment that has left the site or is deposited on public land or in waterways.

[DUR2375]

23. The proponent shall comply with all requirements tabled within any approval issued under Section 68 of the Local Government Act.

[DUR2625]

PRIOR TO ISSUE OF OCCUPATION CERTIFICATE

24. Prior to the use of the structure/works Works as Executed Plans shall be submitted in accordance with the provisions of DCP16 - Subdivisions Manual and Councils adopted Design and Construction Specification.

The plans are to be endorsed by a Registered Surveyor AND a Consulting Engineer Certifying that:

- (a) the plans accurately reflect the Work as Executed.

[PSC0735]

25. The applicant shall provide Council with certification from an experienced engineer / engineers in the various disciplines confirming the works / structures comply with approved plans and specifications.

26. Council's standard "Asset Creation Form" shall be completed (including all quantities and unit rates) and submitted to Council prior to the use of the proposed structure / works.

[PSC0855]

27. The proponents are to liaise with the Department of Primary Industries regarding the reinstatement of the border gate.

GENERAL TERMS OF APPROVAL FOR A LICENSE UNDER THE WATER ACT 1912

- Before commencing any works or using any existing works for the purpose of Temporary Dewatering for Construction Purposes, an approval under Part 5 of the Water Act 1912 must be obtained from the Department. The application for the approval must contain sufficient information to show that the development is capable of meeting the objectives and outcomes specified in these conditions.
- An approval will only be granted to the occupier of the lands where the works are located, unless otherwise allowed under the Water Act 1912.
- When the Department grants an approval, it may require any existing approvals held by the applicant relating to the land subject to this consent to be surrendered or to let lapse.
- All works subject to an approval shall be constructed, maintained and operated so as to ensure public safety and prevent possible damage to any public or private property.

- All works involving soil or vegetation disturbance shall be undertaken with adequate measures to prevent soil erosion and the entry of sediments into any river, lake, waterbody, wetland or groundwater system.
- The destruction of trees or native vegetation shall be restricted to the minimum necessary to complete the works.
- All vegetation clearing must be authorised under the Native Vegetation Conservation Act 1997, if applicable.
- The approval to be granted may specify any precautions considered necessary to prevent the pollution of surface water or groundwater by petroleum products or other hazardous materials used in the construction or operation of the works.
- A license fee calculated in accordance with the Water Act 1912 must be paid before a license can be granted.
- If and when required by the Department, suitable devices must be installed to accurately measure the quantity of water extracted or diverted by the works.
- All water measuring equipment must be adequately maintained. It must be tested as and when required by the Department to ensure its accuracy.
- Works for construction of bores must be completed within such period as specified by the Department.
- Within 2 months after the works are completed the Department must be provided with an accurate plan of the location of the works and notified of the results of any pumping tests, water analysis and other details as are notified in the approval.
- Officers of the Department or other authorised persons must be allowed full and free access to the works for the purpose of inspection and testing.
- Water shall not be pumped from the works for any purpose other than dewatering for construction purposes.
- The use of water shall be conditional on no tailwater drainage being discharged into or onto -

- any adjoining public or crown road
 - any crown land
 - any river, creek or watercourse
 - any groundwater aquifer
 - any area of native vegetation
 - any wetlands
- The work shall be managed in accordance with the constraints set out in the electronic documentation provided to this Department by the Pacific Link Alliance Environmental Manager in the form of an email dated 2/2/07 at 11:00am.
 - The work shall be managed in accordance with the constraints set out in the Statement of Environmental Effects for the proposed development produced by Parsons Brinkerhoff dated September 2006.
 - The volume of groundwater extracted as authorised must not exceed 5 megalitres.
 - The Department has the right to vary the volumetric allocation or the rate at which the allocation is taken in order to prevent the overuse of an aquifer.
 - The licence shall lapse within six (6) months of the date of issue of the licence.

DEPARTMENT OF LANDS CONDITIONS

1. Consent of the Department should be sought for the acquisition of any Crown land affected by the proposed works. Acquisition should proceed pursuant to the Land Acquisition (Just Terms Compensation) Act 1991 prior to commencement of works.
2. No water should be drained or directed on to or diverted to Crown land either during or after construction of the proposed overpass or during operation of the road.
3. No clearing or damage to vegetation on Crown land or disturbance of soil on Crown land is permitted.
4. Crown land should not be used for access or any other purpose without authority.

REPORT:

Applicant: Queensland Department of Main Roads
Owner: Tweed Shire Council
Location: Unnamed Road Cobaki
Zoning: 7(a) Environmental Protection (Wetlands and Littoral Rainforests)
Cost: 3,000,000.00.

Background

Tweed Shire Council originally gave consideration to the provision of an overpass within DA 92/315. The detail of the future structure was again identified within development application S94/194.

The proposed structure forms part of the Cobaki Lakes development and road network linking the future Sandy Lane / Cobaki Parkway to the broader areas of West Tweed Heads and Bilambil Heights.

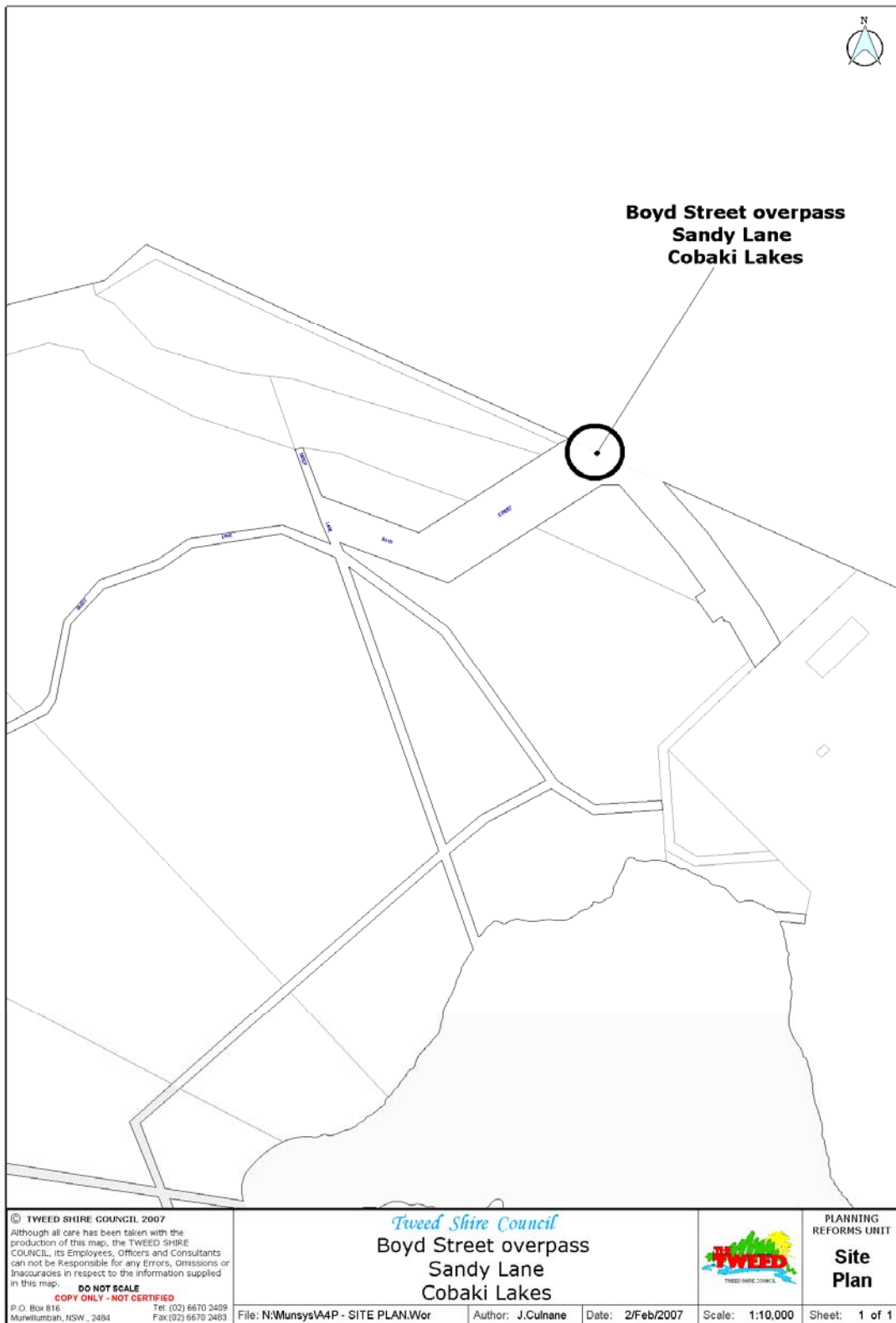
The applicant has advised that as the approved alignment of the Tugun Bypass has moved to the east of the former corridor, the location and design of the Boyd Street overpass has been amended and as such a new development application is required.

Proposal

The applicant seeks Council consent to construct a two lane concrete bridge structure, associated earthworks, drainage structures and fauna underpass. The western approach to the structure, bridge abutment, part bridge deck, earthworks, fauna underpass and sections of the drainage system are located within Tweed Shire Council Local Government Area. However, as the NSW / QLD border runs north / south through the project, the remainder of the overpass is located within the Gold Coast City Council local government area on the Queensland side of the border.

The applicant also provides reference to a possible future upgrade of the overpass to a full diamond interchange providing access from Boyd Street to the bypass road. The upgrading to an interchange including on and off ramps would be subject to separate assessment and approval.

SITE DIAGRAM



CONSIDERATIONS UNDER SECTION 79C OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

(a) (i) The provisions of any environmental planning instrument

Tweed Local Environmental Plan 2000

The subject land is zoned 7(a) Environmental Protection (Wetlands and Littoral Rainforests) under the provisions of the Tweed LEP 2000. Roads are permissible in the zone however Council may only grant consent if the provisions of clause 8 (2) of the LEP are satisfied.

Clause 8(2) of the LEP is as follows-

(2) *The consent authority may grant consent to development specified in Item 3 of the Table to clause 11 only if the applicant demonstrates to the satisfaction of the consent authority that:*

(a) *the development is necessary for any one of the following reasons:*

(i) *it needs to be in the locality in which it is proposed to be carried out due to the nature, function or service catchment of the development,*

(ii) *it meets an identified urgent community need,*

(iii) *it comprises a major employment generator, and*

(b) *there is no other appropriate site on which the development is permitted with consent development (other than as advertised development) in reasonable proximity, and*

(c) *the development will be generally consistent with the scale and character of existing and future lawful development in the immediate area, and*

(d) *the development would be consistent with the aims of this plan and at least one of the objectives of the zone within which it is proposed to be located.*

The objectives of the zone are as follows-

Primary objectives

- *to identify, protect and conserve significant wetlands and littoral rainforests.*

- *to prohibit development which could destroy or damage a wetland or littoral rainforest ecosystem.*

Secondary objectives

- *to protect the scenic values of wetlands and littoral rainforests.*

The aims of the LEP are as follows-

- (a) *to give effect to the desired outcomes, strategic principles, policies and actions of the Tweed Shire 2000+ Strategic Plan which was adopted, after extensive community consultation, by the Council on 17 December 1996, the vision of which is:*

“The management of growth so that the unique natural and developed character of the Tweed Shire is retained, and its economic vitality, ecological integrity and cultural fabric is enhanced”, and

- (b) *to provide a legal basis for the making of development control plans which provide more detailed local planning policies and other provisions that provide guidance for future development and land management, such as provisions recommending the following:*

- (i) *that some or all development should be restricted to certain land within a zone,*
- (ii) *that specific development requirements should apply to certain land in a zone or to a certain type of development,*
- (iii) *that certain types or forms of development or activities should be encouraged by the provision of appropriate incentives, and*

- (c) *to give effect to and provide reference to the following strategies and policies adopted by the Council:*

*Tweed Shire 2000+ Strategy
Pottsville Village Strategy, and*

- (d) *to encourage sustainable economic development of the area of Tweed compatible with the area’s environmental and residential amenity qualities.*

Clause 8 (2) (a) (i) is satisfied as the overpass provides a critical access to the north for existing and future urban development within the Tweed. Release areas of Cobaki and Bilambil Heights are dependant on access to the north via Boyd Street as Kennedy Drive is at capacity with existing development approvals.

Clause 8(2) (b)

The overpass is to be located within an existing cleared road reserve on either side of the border. The site is the most appropriate location for the overpass.

Clause 8(2) (c)

The overpass will form part of the road network from Cobaki Lakes to the north of the Shire and into the southern Gold Coast area. The overpass is located adjacent the realigned Pacific Highway currently under construction and the proposed railway line extension from Robina to Coolangatta Airport and the Airport itself. The overpass is consistent with existing and future development.

Clause 8(2) (d)

The proposal is consistent with the aims of the LEP as the overpass provides an essential transport link for Council's existing and planned urban development. The objectives of the zone are satisfied as the overpass is substantially located within an existing cleared road reserve with relatively minimal disturbance to vegetation. There are no littoral rainforests in the locality and significant wetlands are not disturbed by the overpass.

Clause 25 requires Council to consider the impacts of the development on flora and fauna, the watertable and the impacts on the wetlands of clearing, draining excavating or filling. A plan of management providing mitigation measures for any adverse impacts is also required to be considered. These matters have been considered and comment is provided in section (b) below.

Clause 33 relates to obstacles to aircraft in the vicinity of the airport. The overpass is approximately 10.5m above the natural ground level and will not be an obstacle to aircraft.

Clause 38 Future road corridors. The site is a designated future road corridor and the objective of the clause is to cater for the alignment of, and development in proximity to, future roads. As the proposal is for a road the objective of the clause is satisfied.

Clause 39 requires consideration of contaminated land. Comments regarding contaminated land are provided in section (b) below.

Clause 44 requires consideration of aboriginal heritage. The proponent advises that known objects /areas of cultural heritage significance within the proposed construction footprint were not identified during impact assessment. A Cultural Heritage Management Plan for the Tugun Bypass has been prepared and actions described in this plan will be implemented during clearing and grubbing and/or unexpected objects of significance identified. Aboriginal cultural monitors from the Tweed Byron Local Aboriginal Land Council and the Eastern Yugambah Limited will be invited to be present during clearing and grubbing works.

North Coast Regional Environmental Plan 1988

Clause 15 requires consideration wetlands and fishery habitats. The overpass structure is located approximately 900m from the Cobaki Broadwater but is within the catchment of the Cobaki Broadwater. Stormwater runoff is the only relevant issue to the waterway. Conditions have been imposed regarding stormwater water quality. NSW fisheries have indicated that the application does not need and approvals under the Fisheries Management Act.

Clause 29A requires consideration of the impact of clearing in an environmental protection zone on wildlife habitat, the scenery and erosion and sedimentation. Clearing is discussed below. The site does not have high scenic values given the existing development in the locality and erosion and sedimentation controls are proposed and appropriate conditions are recommended.

Clause 32B requires consideration of the NSW Coast Government Policy, the Coastline Management Manual, the North Coast Design Guidelines and overshadowing of the beaches and open space. The proposed development is not contrary to any of the above documents and the overpass does not overshadow any beachfront areas.

State Environmental Planning Policies

SEPP-44 Koala Habitat Protection- the site has been identified as potential koala habitat but not core koala habitat accordingly a management plan is not required and the provisions of the SEPP have been satisfied.

SEPP-71 Coastal Protection-clause 8 of the SEPP requires Council to consider the following matters-

- (a) the aims of this Policy set out in clause 2,
- (b) existing public access to and along the coastal foreshore for pedestrians or persons with a disability should be retained and, where possible, public access to and along the coastal foreshore for pedestrians or persons with a disability should be improved,

- (c) opportunities to provide new public access to and along the coastal foreshore for pedestrians or persons with a disability,
- (d) the suitability of development given its type, location and design and its relationship with the surrounding area,
- (e) any detrimental impact that development may have on the amenity of the coastal foreshore, including any significant overshadowing of the coastal foreshore and any significant loss of views from a public place to the coastal foreshore,
- (f) the scenic qualities of the New South Wales coast, and means to protect and improve these qualities,
- (g) measures to conserve animals (within the meaning of the [Threatened Species Conservation Act 1995](#)) and plants (within the meaning of that Act), and their habitats,
- (h) measures to conserve fish (within the meaning of Part 7A of the [Fisheries Management Act 1994](#)) and marine vegetation (within the meaning of that Part), and their habitats
- (i) existing wildlife corridors and the impact of development on these corridors,
- (j) the likely impact of coastal processes and coastal hazards on development and any likely impacts of development on coastal processes and coastal hazards,
- (k) measures to reduce the potential for conflict between land-based and water-based coastal activities,
- (l) measures to protect the cultural places, values, customs, beliefs and traditional knowledge of Aboriginals,
- (m) likely impacts of development on the water quality of coastal waterbodies,
- (n) the conservation and preservation of items of heritage, archaeological or historic significance,
- (o) only in cases in which a council prepares a draft local environmental plan that applies to land to which this Policy applies, the means to encourage compact towns and cities,

- (p) only in cases in which a development application in relation to proposed development is determined:
 - (i) the cumulative impacts of the proposed development on the environment, and
 - (ii) measures to ensure that water and energy usage by the proposed development is efficient.

The majority of the above matters are satisfied due to the distance of the overpass from the coastline and coastal waterbodies. Conditions have been imposed regarding threatened species and stormwater quality. The site is suitable given it is to be located within an existing road reserve and designated road corridor. The statement of environmental effects indicates that the cumulative impact of the by-pass, nearby residential development and the increase in traffic is likely to place the Long-Nosed Potoroo population at risk of extinction. However the overpass structure itself is unlikely to affect the population. A committee has been formed regarding management of the potoroo and consists of the following stakeholders: -

Lewis Ecological (Consultant)
Tweed Byron Local Aboriginal Land Council
Tweed Shire Council (Environmental Scientist)
LEDA – Ecologist
LEDA – Project Manager
DEC - Senior Threatened Species Officer
RTA
PacificLink Alliance (Environment Manager)
Queensland EPA
Commonwealth Department of Environment and Heritage
Manager – Cattle Tick Program
Ecos Environmental (Botanist)
NSW Department of Lands (Project Manager)
PacificLink Alliance (Ecologist)
Community Safety Officer
Rural Lands Protection Board

A condition has been imposed regarding preparation and submission of fauna and potoroo management plan prior to construction of the overpass.

(a) (ii) The Provisions of any Draft Environmental Planning Instruments

Draft LEP 2000 Amendment 21 Vegetation Management is not relevant to this site given the 7(a) zoning of the land.

(a) (iii) Development Control Plans (DCP's)

DCP-17 Cobaki Lakes requires connection from the Cobaki Lakes development through to Boyd Street at stage 1 of the development.

(a) (iv) Any Matters Prescribed by the Regulations

The subject site is within the coastal zone and the Government coastal policy applies. The overpass is not inconsistent with the Policy.

(b) The likely impacts of the development and the environmental impacts on both the natural and built environments and social and economic impacts in the locality

Council's Environmental Scientist has assessed the proposal and has made the following comments-

Ecological assessment of Development Application DA06/1149 Boyd Street Overpass including review and consideration of comment from the Department of Environment and Conservation and public submission to the proposal

The Boyd Street Overpass proposal involves an upgrade of the existing Boyd Street access track to include an overpass over the Tugun Bypass. The proposal is described within the Boyd Street Overpass Statement of Environmental Effects. In assessing the proposal, the following documents were also considered:

- *Review of Design Report Boyd Street Overpass, Report No: DR-103-RD for the Tugun Bypass;*
- *Pacific Link Alliance Tugun Bypass Environmental Management Plans Construction (Volumes 1 –3);*
- *Tugun Bypass Environmental Impact Statement;*
- *Tugun Bypass Submissions Report to the Department of Planning, October 2005;*
- *Boyd Street Overpass referral to the Commonwealth Department of Environment and Heritage (referral number EPBC 2006/3094);*

Comment from the Department of Environment and Conservation (DEC) and one public submission have also been reviewed here as part of the ecological assessment of the proposal. Details of these are as follows:

- Department of Environment and Conservation (DEC) Comment prepared by Jon Keats, Head Industry and Waste Unit, North Coast, Environment Protection and Regulation, Department of Environment and Conservation (DEC).
- Public Submission: - Richard Murray, Secretary, Tweed Heads Environment Group Inc. (THEG).

DEC comment was received following referral of the proposal while the public submission was received following public notification of the proposal.

Summary of ecological issues

The SEE has identified that the proposed development site contains habitat for threatened species and communities listed on schedules of the Threatened Species Conservation Act 1995 (TSC Act). The SEE and response to the proposal note that in particular, both the Cobaki Lakes Endangered Long-nosed Potoroo population and the Wallum Froglet have been identified in the immediate vicinity of the site. Incidentally, two additional species listed under Schedule 2 of the TSC Act, the green-thighed frog and the Coastal Planigale, recently recorded during monitoring studies (Tugun Bypass Submission Report), also occur in the immediate vicinity of the proposal. Both species were overlooked within the SEE for the Boyd Street Overpass and within responses received on the project. Threatened species and communities may be susceptible to habitat clearing, and changes in drainage and water quality (including pH), as a result of the proposal.

The existing constructed access road linking Boyd Street to the Cobaki Lakes development already creates significant ecological impacts such as habitat fragmentation and isolation, barrier effects for local species movements, and suspected changes to local drainage in the area. These impacts are exacerbated through edge effects. Studies for the Tugun Bypass EIS found that the Long-nosed Potoroo is particularly susceptible to the impacts outlined above. In fact, the DEC response outlines that the Boyd Street access track is the definitive impact that resulted in its' subsequent listing as an endangered population under the TSC Act.

For the Long-nosed Potoroo population, and other threatened species in the area, the construction of an overpass is unlikely, in isolation, to cause further impact to this population. That is, the overpass footprint does not present a substantial increase in total habitat clearing. However, of concern are the cumulative impacts to this population (identified in the SEE and raised by DEC). Consequently, the management of the area for conservation, and in particular for the Long-nosed Potoroo population, is considered essential as part of any upgrading proposal. An upgrading to a four lane overpass and interchange in the future (alluded to in the SEE and discussed in the THEG submission) may or may not increase the footprint area, however, the cumulative impacts would again be the primary issue; although as pointed out by the applicant, this would be the subject of a separate application.

The applicant has recognised the potential cumulative effects on the Potoroo Population within the 7-part test presented in the Boyd Street Overpass SEE. From the information provided it is difficult to determine whether a Species Impact Statement (SIS) should be pursued. It is however recognised that the area in question has been well studied and an SIS is unlikely to provide new information. In the absence of an SIS it is imperative that a detailed and workable Plan of Management is provided for the Long-nosed Potoroo population and agreed upon prior to any works commencing.

Adequacy of the proposed mitigation measures

The SEE proposes a number of general mitigating strategies to offset the impacts of the proposal. These strategies are summarised in Table 5.1 of the SEE and essentially involve:

- *Reviewing and implementing relevant impact mitigation measures outlined within the Tugun Bypass Construction Environmental Management Plans; and*
- *Providing a dedicated fauna underpass (1.8m x 2.4 m box culvert at grade) under the western section of the proposed overpass.*

Regarding the dedicated fauna underpass, the DEC note that fauna more readily utilise a wider culvert, and a 4.0 m x 1.8 m reinforced culvert would be more effective at maintaining genetic interchange between potoroo sub populations in the area. DEC also note that suitable fauna exclusion fencing, which also includes frog exclusion fencing consistent with that identified in the Tugun Bypass project, be used for this proposal.

Overall, however, the SEE does not provide any specific detail on mitigation measures but rather defers the management and mitigation of project impacts to proposed plans of management to be developed at a later stage (e.g. Integrated Potoroo Plan of Management and modified CEMP's used for the Tugun Bypass project). Without more detail, it is difficult to assess the adequacy of these measures or to adequately address the questions within the 7-part tests. In addition, the DEC are reluctant to support the proposal unless the TSC seeks further information (or can condition the approval) with regard to:

- *RTA's guidelines to prevent fauna road mortality;*
- *Vegetation clearing;*
- *Location and design of the proposed fauna underpasses;*
- *Details regarding erosion/sedimentation/ASSMP; and*
- *Consultation with the aboriginal community.*

Progressing the proposal to the determination stage

The following measures are proposed to progress the application to the determination stage without the requirement for further information. These measures incorporate general commitments outlined within the SEE and consider recommendations provided within the responses to the project reviewed here. It is recommended that these be included as consent conditions.

1. *A Fauna Management Plan prepared by a qualified person and submitted and approved by Council's Environmental Scientist prior to commencement of construction. The plan must describe measures to mitigate fauna mortality pre, during, and post construction and include:*

- *measures outlined within the Roads and Traffic Authority of NSW policies and guidelines to prevent fauna mortality during road construction and management;*
 - *measures contained within the Tugun Bypass Construction Environmental Management Plans including pre clearing protocols for fauna;*
 - *Provision of a dedicated fauna underpass under the western section of the proposed overpass that measures 4.0 m x 1.8 m and includes culvert features that will facilitate the movement of the Long-nosed Potoroo and threatened frog populations;*
 - *construction and operational stage fauna exclusion fencing (including frog exclusion fencing) linking to fauna underpass structures and consistent with designs employed in the Tugun Bypass project; and*
 - *ongoing maintenance regimes and commitments for fences and structures.*
2. *A Flora Management Plan prepared by a qualified person and submitted and approved by Council's Environmental Scientist prior to commencement of construction. The plan must describe existing vegetation and species within and adjacent the construction footprint and include:*
- *procedures for clearing of vegetation, limiting soil disturbance, and protecting adjacent terrestrial and aquatic vegetation and habitats;*
 - *procedures for protecting wallum heath up to and adjacent fauna movement structures;*
 - *landscaping and rehabilitation methods for disturbed areas implemented immediately following construction; and*
 - *plans for replacing hollows where these are removed through vegetation clearing for the proposal.*
3. *A Long-nosed Potoroo Integrated Plan of Management prepared in consultation with relevant stakeholders and a qualified wildlife biologist, and submitted and approved by Council's Environmental Scientist prior to commencement of construction. This plan must describe, but is not limited to:*
- *fauna crossings and fauna exclusion fencing, predator control programs, fire management, and revegetation;*
 - *time lines and performance indicators for all management measures;*
 - *defined roles and responsibilities; and*
 - *reporting and review mechanisms, with specific provision for a 5 year public review.*
4. *Maintenance of existing drainage through the provision of six 1.2 m x 2.4 m proposed culverts. Drainage plans to include water quality measures for the treatment of pavement runoff other than via grass swales due to the sensitive vegetation, habitats and species in the area.*
-

5. *A Heritage Management Plan submitted and approved by Council's Environmental Scientist prior to commencement of construction. This plan must include an appropriate level of aboriginal consultation and engagement regarding Indigenous heritage mitigation measures.*

General Comments

Commonwealth Legislation

Both the DEC comment and public submission to the proposal outlined the requirement for Council to consider matters of National Environmental Significance and the requirement for referral of the project to the Commonwealth Department of Environment and Heritage. Two Matters of National Environmental Significance occur within the immediate vicinity: listed threatened species and communities; and listed migratory species. The proposal was referred by the applicant (referral number EPBC 2006/3094) and determined by the Commonwealth Department of Environment and Heritage as 'Not a Controlled Action' dated 6th November 2006.

The DEC submission noted that the Wallum Froglet is listed under the Environment Protection and Biodiversity Conservation Act 1999. This species is not listed under this legislation at the present time.

Council's Senior Ecologist/Conservation Planner has assessed the application and makes the following comments-

Proposal Overview

The project involves the construction of an overpass over the Tugun Bypass to extend Boyd St across the NSW/QLD border to provide access to the proposed Cobaki Lakes residential development. The works extend approximately 300m into NSW, mostly within an existing corridor cleared under a previous Development Application.

Scope of Comments

The following comments are made on the basis of a desktop assessment of the Boyd Street Overpass – Statement of Environmental Effects (SEE) produced by Parsons Brinckerhoff in September 2006, discussions with Council's Environmental Scientist David Hannah and Pacific Link Alliance Environmental Manager, Darren Brighton, and a brief site visit conducted on 29 January 2007.

This assessment focuses the potential impacts on vegetation, although some comments are made on the potential impacts on a small but highly significant population of Long-nosed Potoroo, which is known to exist in the area.

Major Issues arising from the SEE

Vegetation Clearing

The SEE acknowledges that the proposal will result in the clearing of 4420m² of native vegetation, including 880m² of paperbark forest, which is regarded as Endangered under the Threatened Species Conservation Act 1995 (TSC Act).

While this may be case, it is not apparent from the SEE because although the alignment is shown, the development footprint is not specifically identified either in relation to an aerial photograph (Fig 2.2 of SEE) or in relation to the vegetation mapping used to make their assessment (Fig 4.1 of SEE). The situation is further confused by:

- 1. The fact that at least one of the vegetation communities that is identified in the SEE to be cleared (Scribbly Gum Mallee Heathland; see Table 4.1 of SEE) does not appear on the vegetation map (Fig 4.1 of SEE) in the vicinity of the development; and*
- 2. The vegetation mapping itself is presented at such a coarse scale that makes it almost impossible to evaluate against the proposal.*

Nonetheless, as a result of the site inspection and discussions with Darren Brighton regarding the expected distances beyond the road batters (~3.0m) that will be needed for construction and table drains, the total amount to be cleared appears to be between 4000 and 5000m².

*It should be noted that the area of "paperbark forest" to be cleared is actually dominated by rushes (*Typha orientalis*) with a couple of isolated paperbarks (*Melaleuca quinquenervia*) and swamp mahogany (*Eucalyptus robusta*) trees. The dominance of rushes over small areas is not unusual in communities more generally dominated by paperbark trees and probably represents minor variations in the water table and past disturbance of the site.*

As noted in the SEE, paperbark forest is regarded as Endangered under the TSC Act. The proposal on its own will contribute to the removal of less than 0.1ha of this vegetation community.

Approximately 0.4ha of Scribbly Gum woodland will be removed by the proposal. The SEE makes no comment on its conservation status. Although this community is not at this point scheduled under the TSC Act, it is nonetheless regionally significant.

Under the criteria set out in the Tweed Vegetation Management Strategy 2004 (TVMS; see Table 3.4 of that document) the Scribbly Gum community is considered "Vulnerable" and inadequately reserved by DEC. According to the TVMS there is about 125ha of this community remaining in Tweed Shire representing approximately 16% of its entire distribution within the bioregion (see Appendix 7 of TVMS).

The SEE does not make any provision to compensate for the loss of this vegetation.

Significant Flora Species

It appears from the SEE that surveys for Threatened plants were not carried out for this proposal. Instead the SEE defers to recent studies carried out as part of the approval process for the Tugun Bypass. Given the comprehensive nature of the work carried out for the bypass this approach is probably reasonable.

No significant species were observed during the field visit although a systematic search was not conducted.

Indirect Impacts on Vegetation

The SEE acknowledges potential negative indirect impacts to the vegetation arising from edge effects and weeds but suggests indirect benefits may arise from restoration of the drainage line that is currently blocked by the existing access track, and less erosion due to the creation of a sealed pavement.

There was clear evidence of weed invasion at the edges created by the existing access track. Weed invasion is likely to continue without active and ongoing management.

Cumulative Impacts

This proposal is part of a much larger development to facilitate further development of the access road and a substantial residential development at Cobaki Lakes.

The SEE also anticipates future upgrading of the overpass to include an interchange with the Tugun Bypass. To account for on and off ramps, this would involve substantial further clearing of significant habitat.

As the proposal is key to these future plans the potential cumulative impacts should be addressed at this stage.

Mitigation Measures

As noted in Council's Environmental Scientists' report, the mitigation measures proposed in the SEE essentially involve:

- 1. Reviewing and implementing relevant impact mitigation measures outlined within the Tugun Bypass Construction Environmental Management Plans; and*

2. *Providing a dedicated fauna underpass (1.8m x 2.4 m box culvert at grade) under the western section of the proposed overpass.*

Need for Specific Management Plans

Given the generic nature of the mitigation measures anticipated in the SEE, there is a clear need for more specific management plans to be in place prior to commencement of works. Accordingly the suggestions made in Council's Environmental Scientists' report for specific management plans are supported.

Mitigation of Long Nosed Potoroo Impacts

The mitigation of impacts on the population of Long Nosed Potoroo is the pre-eminent issue facing the development. Although the SEE anticipates various measures to "mitigate" impacts the SEE itself concludes that the proposal, and the developments it is designed to facilitate, may cause the local extinction of this Endangered population:

The proposed overpass is likely to increase the degree of isolation and fragmentation for the Cobaki lakes population. Although mitigation measures have been included in the proposal such as the inclusion of a dedicated fauna underpass, it is unclear to what extent these will be effective. It appears that the individuals are reluctant to cross the current direct access track, and in the future may not use the proposed underpass. The major impacts however are likely to be cumulative, including impacts from the Tugun Bypass and nearby residential development. Despite mitigation measures proposed as part of the bypass and in this document, there remains a risk that the small disjunct population may become extinct as a result of cumulative impacts. (Source: SEE, Appendix D – Impact Assessments, conclusion to section on the Long Nosed Potoroo.)

It is clear from the information provided in the SEE that there is no evidence that potoroos will utilise underpasses. Indeed it is suggested in the SEE that previous trapping work has found no evidence that individuals cross the existing track. While it is clearly desirable to facilitate the movement of these animals across the roadway the SEE acknowledges the proposed underpasses are purely experimental.

It should also be noted, that given the width of the proposed road and allowances for batters and associated table drains, any proposed underpasses would need to be in the vicinity of 50m long. At these distances an overpass of 2.4m wide (as proposed) would essentially form a long tunnel, a very different habitat from the potoroos known preference for low dense vegetation on sandy soil. Being dark confined areas without cover potoroos may also perceive tunnel-like underpasses as a predation risk. To encourage movement across the roadway for this species it is reasonable to assume that:

- 1. Distances between areas of preferred habitat should be minimised; and*
- 2. Intervening areas are as similar as possible to preferred habitat.*

For fauna underpasses this essentially means minimising their length, maximising their width, extending suitable vegetation cover near the underpass entrances and perhaps along their length, and providing as much natural light as possible.

To ensure the persistence of the potoroo population more credible options, in order of preference include:

- 1. Seek an alternative access and rehabilitate the existing access track. This option would avoid the area entirely and with active management could secure the population.*
- 2. Use the existing alignment but construct an elevated roadway at least over a significant proportion of the affected habitat and rehabilitate the remaining areas of the existing access track. An elevated roadway would avoid the need for extensive batters and associated table drains, which significantly increase the width of the roadway footprint. Due to the significant reduction in the roadway width, and the potential for access along the entire roadway length, this would allow suitable native vegetation cover to be planted up to the edge of the carriageway and, would be more likely to encourage movement across the alignment. This solution would also address road mortality issues, unwanted public access, weed invasions and allow for movement by other ground fauna (e.g. Wallum Froglets).*
- 3. Significantly increase the widths of the proposed underpasses. DEC suggest a 4m wide culvert for the current proposal. Under this option numerous similar-sized culverts would be required for the extension of the roadway towards Cobaki. This option would still create tunnels of about 50m in length and although wider culverts may alleviate some of the apparent reluctance of potoroos leave their preferred habitat, it remains unclear whether or not these would be used.*

Conclusions and Recommendations

*The proposal will result in the clearing of about 0.1ha of Endangered Paperbark Forest and about 0.4ha of regionally significant Scribbly Gum Woodland. **Provision should be made to compensate for the loss of this vegetation.***

*The proposal is key to a number of future developments including access to Cobaki Lakes residential development and a proposed interchange with Tugun Bypass. **The potential cumulative impacts should be addressed at this stage.***

*A number of generic mitigation measures are proposed in the SEE, There is a clear need for more specific management plans to be in place prior to commencement of works. **Suggestions made in Council's Environmental Scientists report above for specific management plans are supported.***

The mitigation of impacts on the population of Long Nosed Potoroo is the pre-eminent issue facing the development. The SEE itself concludes that the proposal in its current form, and the developments it is designed to facilitate, is likely to cause the extinction of this Endangered population. Some options to limit further decline in this population are outlined and should be investigated further.

The items raised above will be imposed as conditions of consent however the cumulative impact issue is considered to be dealt with by the requirement of a management plan for the potoroo which includes mitigation of the overpass, existing road and by-pass. The items above discussing mitigation options which includes an alternate route is not possible. However design options for the construction of the future road should be included in the potoroo management plan. The recommended condition requiring the management plan includes provision for this issue.

Council's Environmental Health Officer has assessed the application and makes the following comments-

It is stated in the SEE that impacts that can be avoided or mitigated to an acceptable level through the application of existing environmental management plans are not addressed in detail in this report. The aforementioned plans refer to the detailed Environmental Management Plans for the Tugun Bypass that have been prepared and submitted to Council for review.

Contamination – Checks of the Currumbin topographic map 1984 shows the site as swamp. Aerial photography dated 1970 (Run 5/5177-1), 1976 (Run 3/4066) and 1987 (Run 4/109-1) do not appear to reveal any potentially contaminating activities (swamp and scattered trees).

The Contaminated Land Management Plan for Tugun Bypass Project (PP-047-CLMP) prepared by Pacific Link Alliance (Rev 5) dated 19 October 2006 states that the Tugun Landfill was not constructed with an impervious layer and placement of materials may have occurred below the water table. A groundwater sampling revealed an elevated level of ammonium possibly as a result of leachate from this landfill.

Site remediation works, involving the relocation of a section of the landfill within the Tugun Bypass footprint is currently being undertaken by Gold Coast City Council, the responsible authority for the landfill. A specific Landfill Relocation Management Plan will outline the mitigation and management procedures for the tasks required to remove the landfill material. Groundwater monitoring at contaminated sites will be coupled to the project wide sampling program already undertaken by an environmental consultant.

The proposed Boyd St overpass portion of the project appears to be appropriately considered via the Contaminated Land Management plan for the Tugun Bypass Project.

Acid Sulfate Soil (ASS) – The soil within the area of the proposed Boyd St overpass is class 2 ASS. Review of the Acid Sulfate Soil Management Plan (PP-043-ASSMP) prepared by Pacific Link Alliance (Rev 4) dated 17 August 2006 indicates that samples HA11, 12 and 13 (collected by SMEC Australia - May 06) and TP2 (collected by Brinckerhoff - 2000) were all taken in the vicinity of the proposed Boyd St overpass footprint. All samples showed very low levels of acidic reaction.

Disturbance is expected to be limited to:

- Excavation of a culvert on the western side (0.5m BGL)*
- Open drainage line west of the main road alignment (1.0m BGL)*
- Excavation for pile caps at pile locations (2m wide, 12m long, 2m BGL)*
- Possible shallow concrete construction pad (approx. 0.5m BGL) adjacent to piling locations).*

Approximately 430m³ of natural soils may be disturbed during construction works. It is stated that all excavated soil during the construction of the Boyd St overpass should be placed directly into trucks and transported to the Tugun Bypass ASS treatment sites for neutralisation. Due to the provisions provided in the Acid Sulfate Soil Management Plan for the Tugun Bypass Project, no objection to the soils excavated during the Boyd St overpass works being treated in accordance with this plan.

Groundwater – The level of groundwater is approximately 1m below the existing ground surface and is may be intercepted during the excavation of footings (to be 3-4m wide and 1.5-2m deep) and some dewatering may be required.

The Acid Sulfate Soil Management Plan for the Tugun Bypass Project states that shallow groundwater quality will initially be compared against the ANZ Guidelines for Fresh and Marine Water Quality trigger values for all freshwater waters 80% species protection (disturbed sites caused by anthropogenic activities).

The Groundwater Management Plan for the Tugun Bypass Project (PP-050-GWMP) prepared by Pacific Link Alliance (Rev 6) dated 17 August 2006 indicates that extracted groundwater will be tested and treated prior to discharge into local waterways by the use of surface holding tanks/ponds, monitoring of pH, and the use of filters and flocculants. It is considered that these plans adequately consider impacts to groundwater as a result of the Boyd St overpass and Tugun Bypass works.

Waste – *The SEE advises that waste generated will be typical of road construction and will be managed by amending the Waste and Resource Management Plan for the Tugun Bypass to include the Boyd St Area. Existing stockpile sites used for the Tugun Bypass will also be utilised for this development so no additional waste storage areas will be created as a result of the overpass works.*

A review of the Waste and Reuse Management Plan (PP-050-WRMP) and the Spoil and Fill Management Plan (PP-051- SFMP) for the Tugun Bypass Project both prepared by Pacific Link Alliance (Rev4) and dated 17 August 2006 revealed an emphasis on waste reduction, reuse and recycling of waste products generated by the Bypass project as a whole, rather than the individual areas of the project. This plan would appear to adequately consider the waste generated by the Boyd St overpass also without the need of a new plan being generated.

Noise – *It is noted that there are no residential properties within close proximity to the works. Due to the proposed noise impacts from the Tugun Bypass itself and that the site is located within 1km of the Gold Coast Airport, noise as a result of the construction and use of the proposed Boyd St overpass is considered negligible.*

Engineering Assessment

Geotechnical / Earthworks

The proposed overpass shall require the construction of an earth approach and associated batters reaching a height of approximately 10.5m above the existing natural surface level. The design and extent of batters is currently in a concept stage. Any final design shall require a full geotechnical assessment of the effected areas.

Roads

Road Network

The proposed Boyd Street overpass provides a link from the future Cobaki Lakes development. The overpass forms an extension of the Cobaki Parkway linking the West Tweed, Bilambil and Cobaki areas to the regional road network.

Road typical cross sections

The detail submitted provides conceptual plan and longitudinal detail only. Future design plans shall detail the full construction detail including batter widths, pavement detail and provision of drainage structures. However the applicant has identified the limits of construction works ensuring the impact on the natural environment is defined.

Footpaths / Cycleway

The detail submitted indicatively identifies a pedestrian network shall be provided on the northern side of the structure.

Traffic Generation

The proposed overpass has been designed to cater for traffic volumes of up to 2236 movements as forecast to the year 2017.

The application had been referred to Councils Traffic and Transport Engineer whom has not raised any issues.

Stormwater Drainage

Construction Phase Operational Phase

The application had been referred to Councils Infrastructure Engineer for comment. The following response was received:

Stormwater management plans for the construction and operational phases of the development have not been provided with the application. However according to the Boyd Street Overpass 85% Preliminary Design Report by Pacific Alliance (Report No. DR-103-RD), the overpass will discharge to the same drainage system as the Tugun Bypass, consisting primarily of existing open drains. It is understood that the local drainage system in the vicinity of the overpass is part of the Cobaki Lake catchment, within Tweed Shire.

Adverse impacts on drainage capacity due to runoff from the overpass roadway are not anticipated, and culvert structures will be constructed where the overpass works intercept existing drainage paths.

The Tugun Bypass provides numerous sedimentation basins and constructed wetlands along its alignment to remove pollutants from road runoff prior to discharge to the local systems. The proposed overpass drainage does not utilise these treatment measures, discharging to a local channel downstream of adjacent ponds. Also, there are no "at-source" treatment devices in the piped drainage system for the overpass roadway. Instead, road runoff from the overpass will only receive "primary treatment" by grassed table drains and swales. It is not considered acceptable for runoff from the roadway to be discharged into the Cobaki Lake catchment without a more substantial pollutant removal system, as required of the Tugun Bypass.

Additional detail will be requested via a condition of consent for a separate s68 Stormwater Approval for the overpass, to rectify the stormwater quality issues prior to issue of a Construction Certificate.

Environment/Amenity

2.1 Noise Impact Assessment

The applicant has identified noise generated by the proposed development shall have the greatest impact during construction however is limited due to the proximity to Tugun Landfill, Gold Coast Highway, Pacific Highway and Gold Coast Airport. The closest residential area to the proposed overpass is approximately 500m to the north. Proposed mitigation measures include the provision of a Noise and Vibration Management Plan.

Landscaping

The applicant has not provided any landscaping detail for the proposed development. It has been tabled that a detailed Landscape Design Plan has been created for the Tugun Bypass.

The overpass is a critical part of the transport network of the Tweed. Council's management of development in the northern part of the Shire is dependant upon an alternate northern access route. The overpass forms an important link in the road network which will ultimately have beneficial and social and economic impacts for the Tweed. The overpass will enable growth management and alleviate traffic pressure on other parts of the network.

Whilst the overpass itself will have minimal impacts the environmental impacts of development in the area related to threatened species are challenging, however the proposal presents an opportunity for Council and other stakeholders to be involved in the management of the Long Nosed Potoroo.

(c) Suitability of the site for the development

The site is a designated road corridor and links to the QLD network. The site is suitable provided careful management of the Potoroo is undertaken.

(d) Any submissions made in accordance with the Act or Regulations

The application was advertised and one submission was received from the Tweed Heads Environment Group and is discussed below. The application was referred to relevant Government Agencies and are discussed below.

Department of Lands

The Department has made comment regarding the Crown Land in close proximity to the by-pass. Conditions will be imposed regarding the Crown Land.

Department of Environment and Conservation

The matters raised by the DEC have been discussed above in section (b). Conditions will be imposed regarding fauna, erosion, sedimentation and consultation.

The submission from DEC is reproduced below with numbered paragraphs and comments from the applicant following with corresponding numbering.

Your reference : DA06/1149
Our reference : GR 2378/11 DOC06/53935
Contact : Kirsty Sutherland, 66402513

The General Manager
Tweed Shire Council
PO Box 816
MURWILLUMBAH NSW 2484

LN: 73179

TWEED SHIRE COUNCIL	
FILE No.	DA06/1149 Pt. 1
Doc. No.	1496762
REC'D	17 NOV 2006
ASSIGNED TO:	MCGAVIN, L
HARD COPY	<input checked="" type="checkbox"/>
IMAGE	<input type="checkbox"/>

Rel Doc: 1482230

16 NOV 2006

Attention: Mr Lindsay McGavin

Dear Mr McGavin

Re: Development Application No.DA06/1149 – Boyd Street overpass associated with Tugun Bypass, Sandy Lane Cobaki Lakes

I refer to your letter dated 17 October 2006 inviting comments from the Department of Environment and Conservation (DEC) in regard of the above Development Proposal. An extension of time until 17 November 2006 was approved for the DEC to respond to this matter. /

The DEC offers the following comments to assist Tweed Shire Council (Council) in its assessment of the likely impacts of the proposal on threatened species and their habitats. 2

The Statement of Environmental Effects (SEE) has identified the proposed development site to contain habitat for threatened species listed on schedules to the *Threatened Species Conservation Act 1995*. In particular, an endangered population of the Long Nosed Potoroo and a local population of the threatened Wallum Froglet have been identified in the immediate vicinity of the site. 3

The SEE states that future developments in the area are likely to place significant pressure on flora and fauna, including the widening of the Boyd Street access track to provide for future large scale residential developments to the north and south of the subject site. It is therefore recommended that cumulative effects of the proposal be considered in the implementation of ameliorative and mitigation measures with regard to threatened species at the site. 4

The Long Nosed Potoroo has already been identified to be under extreme pressure as a result of the construction of the Boyd Street access track; the definitive impact which resulted in its listing as an Endangered Population by the NSW Scientific Committee. The local Wallum Froglet population is also at significant risk from this proposed development given their small size limiting movement between populations, their specific habitat requirements and sensitivity to altered pH. Both species are highly susceptible to road deaths. A study to identify the number and species of road killed frogs on the Coast Road, 5 km north of Lennox Head, was conducted by the Royal Zoological Society of NSW June 2006. The study found that for the summer period (December-March) more than 10,000 Wallum Froglets are killed on this 4 km section of road alone. 5

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Department of **Environment and Conservation** NSW

The following mitigation measures, or adjustment to the proposed mitigation measures provided in the SEE are recommended for inclusion as conditions of consent or that they be further addressed in the SEE. Application of these measures are considered imperative to minimise impacts to the Long Nosed Potoroo population and the Wallum Froglet. 6

It is also noted that an Aboriginal cultural heritage assessment for the proposed development has not been undertaken, which should have been addressed in the SEE. 7

MITIGATION AND AMELIORATIVE MEASURES

The SEE indicates that existing drainage lines would be maintained under the proposed bridge span by six proposed 1.2 m x 2.4 m culverts. This is supported by DEC and we also recommend that water quality and the stability of these drainage lines be maintained throughout the construction phase. It is noted that the SEE has not included the design details or a discussion of mitigation measures with regard to the proposed culverts. 8

Wallum Froglets are highly sensitive to any change in water quality and in particular pH. Care must be taken when disturbing soil during construction given that the site has been identified to contain acid sulphate soils. Further, erosion and sedimentation controls have not been discussed in the SEE. Effective measures to minimise sedimentation entering the drainage lines at the site should be in place prior to construction to reduce impact to water quality and the Wallum heath. Protection of Wallum heath vegetation at the site and, in particular, at each end of the proposed culverts is essential to facilitate use of the culverts by adult Wallum Froglets. 9

The maintenance of Wallum heath (suitable Wallum Froglet habitat) at either entrance to the culverts is crucial in assisting frog thoroughfare. Placing of rocks and gravel along the culvert floor may also encourage usage. Where disturbance of vegetation is unavoidable during the construction phase it should be rehabilitated with particular emphasis on encouraging Wallum Froglet habitat up to the edge of the culverts. It is noted that the SEE predicts that a further 0.05 hectares of vegetation may be cleared for provision of the proposed overpass, however, the impacts of this clearing have not been assessed. 10

The SEE recognises that fauna injury or death could occur as a result of the project's construction and as a consequence of road kills once the proposal is complete. It is stated in the SEE that the Roads and Traffic Authority of NSW has policies and guidelines in place to prevent fauna mortality during road construction, however, there is no commitment in the SEE to implement these guidelines or how they would apply to this proposal. 11

It is recommended that suitable fauna fencing, consistent with that identified in the Tugun Bypass Environmental Impact Statement, be used for this proposal. The fauna fencing should also consist of a double lipped metal barrier at the base of the fence for effective frog exclusion. Frog fencing should be used along drainage lines to direct frogs into the culverts and away from the overpass and Boyd Street. 12

The SEE states that a dedicated fauna underpass or box culvert 2.4 m x 1.8 will be provided to facilitate safe movement of the two sub-populations of the Long Nosed Potoroo east and west of Boyd Street. The DEC has noted that fauna more readily utilise a wider culvert, and a 4.0 m x 1.8 m reinforced culvert would be more effective at maintaining genetic interchange between these two sub populations. 13

The proposed fauna underpass could provide movement for both the Long Nosed Potoroo and Wallum Froglets (and other fauna) by the provision of a fauna walkway along each wall of the culvert and a rock mattress/gravel floor at a centre low point through the middle of the culvert. This design would also serve for the drainage of high peak flows during rainfall events where Wallum Froglet tadpoles and potentially some adult froglets could be swept through culverts. 14

Page 2

Again, it is noted that the culvert design details have not been included in the SEE. Fauna fencing for the exclusion of the Long Nosed Potoroo should be provided to direct movement of fauna toward the proposed underpass (box culvert) and away from Boyd Street and the proposed overpass. 15

Commonwealth Legislation

The Long Nosed Potoroo and the Wallum Froglet are listed as vulnerable under the Federal *Environment Protection and Biodiversity Conservation Act 1999*. Council should consider the need to refer the development application to the Department of Environment and Heritage for its assessment as to whether the proposal constitutes a "controlled action". 16

Aboriginal Cultural Heritage

The DEC is aware that the subject site holds particular significance to the local Aboriginal community; such significance can be both physical and non physical. It is therefore recommended that an appropriate level of consultation be undertaken with the Tweed Byron Local Aboriginal Land Council and the Eastern Yugambah Limited to ensure knowledge relating to the significance of the area is shared and considered in the development assessment process. 17

Conclusion

The DEC recommends that Council seek further information with regard to impacts from the proposed additional vegetation clearing, the implementation of RTA's guidelines to prevent fauna mortality, the location and design of the proposed fauna underpasses, and details regarding proposed erosion/sedimentation measures before determining whether the proposed development is likely to significantly impact threatened species or their habitats. Consultation with the local Aboriginal community and knowledge holders is also recommended. 18

The DEC's support for the proposal is dependent on the consideration of the above recommendations in the SEE or their inclusion as conditions of consent should Council choose to grant development consent for the proposal. 19

Should there be any other matters, or should Council be in possession of information that suggests the interests of the DEC may be further affected by the proposal, please contact Kirsty Sutherland on (02) 6640 2513. 20

Yours sincerely



JON KEATS
 Head Industry and Waste Unit, North Coast
Environment Protection and Regulation

COMMENTS FROM THE APPLICANT

Paragraph	Comment/Response
1	None required
2	None required
3	None required

Paragraph	Comment/Response
4	The Boyd Street Overpass - Statement of Environmental Effects (SEE) provides an assessment of cumulative impacts and their management, where possible. This includes the commitment to a fauna underpass for species such as the Long-nosed Potoroo. This structure is anticipated to mitigate the existing barrier effect of the Boyd Street access track and future, approved road. An Integrated Plan of Management for the Long-nosed Potoroo is also being coordinated by the Department of Main Roads and has included the BSO within its scope.
5	Environmental impact assessment indicates that the proposed Boyd Street Overpass (BSO) would not have a significant effect on the Wallum Froglet. Road elevation due to bridge structures and fill layers is anticipated to decrease the potential for frog mortality.
6	None required
7	The BSO is contained within the designated corridor of the approved, Boyd Street extension. Commitment to implementing a Cultural Heritage Management Plan is provided within Table 4.3.
8	The proposed culverts are situated within ephemeral drainage lines and are unlikely to contain water during the period of construction. Standard control measures to maintain water quality would be implemented, when and where required. Commitment to developing an Erosion and Sedimentation Control Plan is also provided. Design details on the six culverts are not shown within the SEE as these structures are not within the scope of the BSO. These structures would be built by others.
9	Extensive detail on environmental controls is typically not provided within Development Applications. Table 4.3 commits to the implementation of an Erosion and Sedimentation Control Plan and Acid Sulphate Soils Management Plan, if the project is approved.
10	Revegetation at the entry and exit points to the fauna culvert would be undertaken. Natural features (earth and organic litter) would also be integrated within the culvert floor.
11	Section 4.2 of the SEE (p.34) commits to the use of fencing, with final details to be determined during Detailed Design. Concept drawings within Appendix A show details on proposed fauna fencing.
12	It is agreed that frog exclusion fencing could be beneficial along the common boundary of Boyd Street and known Wallum Froglet habitat. For this measure to be effective, exclusion fencing would be required along a significant section of Boyd Street, of which a limited length is within the scope of the BSO. In isolation, fencing of this section is not anticipated to provide a cost effective outcome and may not be required in this area due to the steep grade of embankments.

Paragraph	Comment/Response
13	Surveys (conducted by the AMBS) of already installed fauna culverts, indicate that the Long-nosed Potoroo will use culverts of the size proposed.
14	The proposed fauna culvert will be designed as a dry cell with a natural covering (earth) over the concrete base.
15	Section 4.2 of the SEE (p.34) commits to the use of fencing, with final details to be determined during Detailed Design.
16	The Wallum Froglet is not prescribed under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> . A referral (2006/3094) for the BSO was lodged with the Department of Environment and Heritage (DEH) on 10 October 2006. The Minister for Environment and Heritage has subsequently determined that the BSO is not a controlled action.
17	Aboriginal cultural heritage monitors (one representative from each group) will be invited to be present during clearing and grubbing works. 48 hours notice will be provided to an existing register (as developed for the Tugun Bypass) of monitors. This register includes representatives of the Tweed Byron Local Aboriginal Land Council and the Eastern Yugambeh Limited.
18	<p><u>Vegetation</u> Section 4.2 of the SEE provides detail on the direct and indirect impacts that could occur as a result of vegetation clearing. Indirect impacts (fragmentation and edge effects) are inexistence and described. Where possible, efforts to avoid vegetation clearing (within the already approved and cleared road corridor) have been undertaken and would result in a small area of clearing. Impact assessment is considered to be sufficient for the type and scale of effect.</p> <p><u>Fauna Mortality</u> Reference to RTA guidelines specifically infers the use of fauna exclusion fencing to prevent road strike.</p> <p><u>Fauna Underpasses</u> Concept details on the location, type and size of the proposed fauna underpass are provided. Section 4.2 (p.33) states that the underpass is a large re-enforced box culvert and would be constructed at grade as to provide a dry base. Commitments to re-vegetation (entry and exit points) are also provided.</p> <p><u>Erosion and Sedimentation</u> Soils and grade within the area of disturbance are not problematic and can be managed using standard control measures. Section 4.2 commits to the development of an Erosion and Sedimentation Control Plan.</p> <p><u>Consultation</u> Noted.</p>
19	Noted.
20	Noted.

Department of Natural Resources

The DNR have provided their terms and conditions for the proposal.

Tweed Heads Environment Group

The THEG have raised a various issues including the Potoroo, Aboriginal Heritage, water quality, controlled action and alternate routes. These issues have been discussed in previous sections of this report.

The submission from THEG is reproduced below with numbered paragraphs and comments from the applicant following with corresponding numbering.



23 November 2006

The General Manager
Tweed Shire Council
PO Box 816
Murwillumbah NSW 2484

Dear Sir,

Re - Integrated Development Application (IDA) No DA06/1149 - Queensland Department of Main Roads (QDMR) Overpass from Sandy Lane (NSW) Cobaki Lakes to Boyd Street Tugun (QLD)

Our group wishes to advise you of our concerns in regards to this proposal, and the serious impact that such work will have on our natural and human environment.

1
2
We call upon the Council to ascertain the impact on local Tweed traffic in having only a two-lane Overpass bridge crossing the Tugun bypass road and rail corridor when a four lane Overpass is necessary to match the QDMR's Cobaki Lakes traffic concept plan. (QMR/Pacific Alliance Plan dated 22 October 2004).

3
The Statement of Environmental Effects (SEE), which accompanied the DA advises that: "consideration was given to a full diamond interchange upgrade at Boyd Street of this overpass to a four-lane dual carriageway with design right turn lanes. Ramp terminals would be signalised. Single lane entry and exit would connect to the Tugun Bypass. The upgrade would be subject to a separate application".

4
No mention was made of traffic ramps on the NSW side of the Overpass nor was any concept traffic plan provided.

5
We consider that the timing of the Cobaki Lakes traffic Interchange has not been shown by the proponent for the following reasons:

- Queensland Main Roads considers that a Cobaki Lakes traffic Interchange would interfere with traffic flow on its four-lane Tugun Bypass (the relocated Pacific highway). There could be traffic delays in this section of four-lane highway when the six-lane sections of the Pacific Highway Nerang to Stewart Road Tugun and the proposed six-lane section of the Tweed Heads bypass are completed.
- The already high cost of the Tugun Bypass. The original agreement with the developer at Cobaki Lakes on who pays for the Cobaki Lakes traffic- Overpass and Interchange is the subject for legal argument with QDMR as the current Overpass has been sited eastwards from NSW to the NSW/QLD State border. QDMR has already created a precedent of providing costly 'free' bridge Overpasses; one to access Gold Coast Airport land and another to access a Tugun Hill residence. There is also the matter that Section 94 Tweed Shire Council funds should not have to be spent partly in Queensland, to provide access across this Federal and State Government funded Highway and rail project.
- The Cobaki Lakes traffic Interchange would occupy a much larger land footprint than a two- lane Overpass and would affect more threatened/rare fauna species and their habitat. Threatened/rare Fauna species include: Long-nosed Potoroo. (Page 4-29 figure 4.7) Wallum froglet, Queensland Giant Dragonfly, Swordgrass Brown (butterfly). (Page 4-28 figure 4.8) Tugun Bypass Species Impact Statement, (December 2004), Vol 1 Main Volume1, and nearby Wetlands.
- The construction of the Cobaki Lakes traffic Interchange at this time would compromise the QDMR's position that the Sandy Lane Boyd Street (Two-lane Bridge Overpass only) is a stand-alone project and is separate from the Tugun Bypass now under construction. Even though the Overpass is a stated stand-alone project it is noted that Pacific Alliance have prepared the SEE document. The exclusion of the future Boyd Street/Sandy Lane traffic Interchange has allowed the Tugun Bypass to be constructed earlier without time delaying construction approvals.

Omissions from Integrated Development Application

On 23 October 2006 Tweed Heads Environment Group together with other community members made a submission to the Department of the Environment and Heritage (DEH) on a Referral Application by QDMR to them concerning the impact on threatened fauna species and other matters relative to *The Environment Protection and Biodiversity Conservation Act 1999 No 90*. 6

Submissions on this Referral Application closed on 25 October 2006.

It is our understanding that the DEH have now processed the QDMR Referral Application, but our group has not received notice of their determination. If the matter is determined a non-controlled EPBC action a request will be lodged for a Statement of Reasons for their decision.

It is noted that QDMR did not raise their outstanding EPBC Act Referral Application (Reference number 2006/3094): "Queensland Department of Main Roads/Transport – land/Cobaki Lakes to Tugun/Qld/Boyd Street Overpass in their Development Application." 7

Queensland Department of Main Road's EPBC Act Referral Application (Reference number 2006/3094) 8

Tweed Heads Environment Group extract of submission to the Department of the Environment and Heritage is pertinent to this Integrated Development Application and states:

(Start of extract of submission) "Description of the proposal - Page 1 Para. 2.1

The proposed Boyd Street Overpass carriageway will carry road traffic from the preliminary earthworks of the New South Wales Cobaki Lakes residential development, across the present road construction of the Tugun Bypass (a controlled action) and the proposed (2016) Queensland light rail service, connecting Robina to Bilinga. Tweed Shire Council Development Control Plan 17 dated April 1990 and adopted 19 November 1992, provides for a four-lane road reserve between the Cobaki Lakes residential development to Boyd Street. Only a two-lane traffic carriageway overpass-bridge is proposed between New South Wales and Queensland.

Another Queensland entry from the approved Cobaki Lakes residential development is via New South Wales' distributor roads Kennedy Drive and Piggabeen Road. 9

At some future time, a further access road to Queensland could occur, when the NSW eastern section of Piggabeen Road is connected to the western section of Piggabeen Road in Queensland.

Our Comment

The proponent's referral statement: "The Overpass will create the only access to the residential development once the Tugun Bypass is complete" is clearly wrong as another access point to Queensland already exists. 10

The proponent has written in Community Liaison Group Minutes to our community advising that the Boyd Street Overpass project 'concept design' will include the provision of a on/off ramp traffic interchange that will allow future access for NSW West Tweed local traffic to the Tugun Bypass. (the relocated Pacific Highway).

Incomplete description of the Overpass proposal

We consider that the proponent has left out critical information (a future Interchange) in their Referral Application. This Referral Application indicates that the project concerns only environmental issues of an Overpass from Boyd Street to the access road leading to the Cobaki Lakes residential development. Undisclosed information about an interchange does not allow the Environment Minister to fully consider this proposal. 11

In the Mees v Roads Corporation (8 April 2003) FCA 306 Justice Gray of the Federal Court found: 'the referral document must contain information that is truthful and complete, so as not to mislead. The purpose of the EPBC Act, to protect the environment, would be subverted if the Environment Minister were to be called upon to make a determination in relation to proposals without full information of the kinds required by the EPBC Act and the EPBC Regulations'.

There is sufficient information in recent documents to indicate the construction of a future Boyd Street Interchange.

Pacific Link Alliance Community Liaison Group Minutes 9 August 2006 advise on the Boyd Street Update:

- The design is compatible with a future Interchange.

• The alignment will cut through the Recycling Centre (a known Aboriginal Cultural Heritage site)
The Tugun Bypass Boyd Street information Sheet (June 2006) advises of a future Interchange: "In 1993 the Gold Coast City Council, the Tweed Shire Council, Main Roads and a developer signed a number of Deeds of Agreement". "The Deeds refer to the construction of an overpass or interchange where Boyd Street crosses the proposed Tugun Bypass route, road widening along Boyd Street, and traffic signals at a new intersection with the Gold Coast Highway. 12
These works would be undertaken progressively a traffic demand on Boyd Street increased".

The Tugun Bypass Submissions Report also advises:

"In summary, the Tweed Shire Council raised the following issues in support of a Boyd Street Interchange:

- The removal of the Boyd Street interchange has jeopardised the Tweed Shire Arterial Road Network. Tweed Shire Council requests that the necessary planning and environmental approvals be sought for the Boyd Street interchange as part of this EIS process, to facilitate its future construction.
- The existing approvals for the Cobaki Lakes Development were preceded by satisfactory arrangements being established with Gold Coast City Council and QDMR. The Boyd Street interchange would connect the Cobaki Parkway to service the future urban areas of Cobaki Lakes and Bilambil Heights.

This arrangement led to a series of legal agreements between the developer of the Cobaki Lakes, Gold Coast City Council and QDMR that ensures road access from the Cobaki Parkway to Boyd Street is entitled.

Without the interchange it is uncertain how these legal agreements can be met. The Cobaki Parkway could function with an overpass rather than a full interchange at Boyd Street, however there would be a number of access and traffic impacts". (4.9.4 Interchanges and Overpasses - Page 4-101)

It was also advised: "However the Tugun Bypass would be designed to permit a four (4) lane overpass bridge, thereby maintaining access along Boyd Street. If such a structure were to proceed, it would be subject to separate planning approval".

Tweed Shire Council Minutes dated 16 March 2005 also advise: "Council will reconsider its opposition to the proposal (The Tugun Bypass) if the Queensland Department of Main Roads issues a supplement to the currently exhibited EIS which includes a full interchange at Boyd Street and that this interchange becomes an integral part of the Tugun Bypass proposal in terms of the environmental process".

Our Comment

It is considered that the matter of (if and when) the Boyd Street Interchange might be built will be understood, when the Boyd Street Overpass Development Application has been determined by Tweed Shire Council after consideration of the proponent's current Development Application for the Boyd Street Overpass. 12

Tweed Shire Council has advised, that the proponent's development application for the 'Boyd Street Overpass', lodged two weeks ago, will be placed on public exhibition for 28 days from 25 October 2006.

Assessment of the 'Boyd Street Overpass' project by Tweed Shire Council will proceed after 22 November 2006.

If the Development Application is approved without Council's preferred condition of a timed Boyd Street Interchange, the start of the Boyd Street Overpass project will be much later than stated in this Referral Application: "Construction for the proposed activity is due to commence in October 2006 and be completed by December 2008" (Para 2.3 Timeframe). 14

Thus the proponent should describe the larger action of a future Interchange as required in part 2.6 of the Referral Application or categorically state that a Boyd Street Interchange is definitely a non-event.

Information re Long-nosed Potoroo – Listed as an endangered population under Schedule 1, Part 2 of the Threatened Species Conservation Act 1995.

The Tugun Bypass Environmental Assessment Report January 2006 advises on the Cobaki Lakes and Tweed Heads West population of "Long-nosed Potoroo – 'an endangered population'" NSW Government Gazette, 3 December 2004. 15

"The Species Impact Statement (SIS) notes that the regional abundance of this species is unknown, but quotes estimates of approximately 250 A population of at least 55-65 individuals, and possibly as high as 85 individuals, occurs in a 88ha area to the west of the alignment (at the site of the Boyd Street Overpass), near the intersection with Boyd Street.

Scribbly Gum Mallee Heathland, Tree Broom Heathland and Swamp Mahogany-Scribbly Gum Forest support the highest densities of Potoroo.

The EIS indicates that about 0.5ha of the eastern edge of known Potoroo habitat would be removed by the Tugun Bypass proposal, a *controlled action* (EPBC 2004/1861)

The EIS notes that a development access track to the Cobaki Lakes development (located west of the Bypass and accessed from Boyd St) has bisected the habitat for the Potoroo and acted as a barrier to movement".

Our Comment

Boyd Street Overpass is an additional project to that of the Tugun Bypass and affects a much larger area of Long-nosed Potoroo habitat. The additional area of lost Long-nosed Potoroo habitat is not declared in the Referral Application. 16

If the Boyd Street Overpass/Interchange concept plan proceeds, a considerable part of the Long-nosed Potoroo habitat and population will be destroyed or seriously affected.

The Referral states that the overpass could partially mitigate the barrier effect of the Cobaki Lakes track by including underpasses for the Long-nosed Potoroo, and suggests the highway verge each side of the 700 metre long Boyd Overpass bridge "is likely to maintain, if not increase connectivity for this population" (Page 13, paragraph 5).

The Tugging Bypass Species Impact Statement (SIS)(February 2005) advises:

"The highest densities were also recorded north and south of the access track to the Cobaki Lake development. No individuals were observed crossing the track, indicating that it has effectively divided the population into two sub-populations". (Page 5-3. Paragraph 5.) 17

Our Comment

Fauna consultants advise that underpass mitigation measures are unproven for the nocturnal and shy Long-nosed Potoroo. It is noted that the Tugun Bypass EIS (Page17-11) recommends two underpasses to facilitate north-south movements of the Long-nosed Potoroo stating that "the effectiveness of these were unknown" and were "experimental in nature". 18

Other mitigation measures

The construction management plan for the Long-nosed Potoroo is to be implemented throughout the various stages of construction and would include, but not be limited to the following:

• Initiation of fox control measures within Long-nosed Potoroo habitat on the area of NSW Crown land, to the west of the Tugun Bypass. 19

• Provision of fauna exclusion fencing along the Bypass corridor extending from chainage 2400 – 3600 metres to deter domestic dogs and cats from residential areas to the east from accessing Long-nosed Potoroo habitat.

Our Comment

The Tugun Bypass project has been underway since March 2006, yet the above mitigation measures to protect the Long-nosed Potoroo have not been implemented. 20

Description of important features of the project area

(i) known Indigenous heritage values

Aboriginal Cultural heritage

A descendant of local Aboriginal traditional owners has advised our group that the proponent has not consulted local traditional owners, who are more than 177 in number.

The Overpass/Interchange is a separate project to the construction of the Tugun Bypass and consultation with Aboriginal traditional owners should have been undertaken. 21

I have also been informed that more than 177 from the 180 plus local Aboriginal traditional owners have rejected the PacificLink Alliance Aboriginal Cultural Heritage Management Plan for the Tugun Bypass.

An Aboriginal cultural heritage management plan should be developed in consultation with the Traditional owners to deal with any material that might be discovered during the subsurface testing or during construction. 22

If any unexpected non-Indigenous places, objects, items or issues of potential cultural heritage are encountered during the course of construction works, works should cease and the Queensland Environment Protection Agency and/or NSW Heritage Office should be contacted, depending on jurisdiction.

C 4 Chainage - 2200 metres, page 15-6 Vol. 1 Main Vol. EIS”.

The abundance of Aboriginal surface objects in this Tweed Shire Council's Cobaki and Terranora Broadwater 23

Aboriginal Cultural Heritage Management Plan

Map B of the Tweed Shire Council's 'Cobaki and Terranora Broadwater Aboriginal Cultural Heritage Management Plan (August 2006)' identifies an area beside the proposed Boyd Street Overpass as a location of Cultural Significance, which contains significant sites.

The Tweed Shire Council's plan indicates that the proponent's statement that "possible Indigenous heritage value is very low" is not accurate. (Page 10 of the Referral Application)

An indication of the density of past Aboriginals presence in the Boyd Street Overpass area lay in the fact that the Kombumerri Corporation for Culture Museum contains thousands of stone artifacts collected from the Gold Coast area.

- The Tugun Bypass Environmental Impact Statement advises: "One of these (surface) collections was undertaken in the 1960's by amateur archaeologists and local scout groups. Almost every visible stone was collected around
- John Flynn Hospital and Medical Centre area are low because of these past surface collections.

Sub-surface investigation is likely to produce further objects and evidence of ancient Aboriginal occupation.

Paragraph 4.2 - Likely impacts on the environment (page 12)

No action that will be taken on Commonwealth land or that may affect Commonwealth land 24

The proponent answered 'No'

The proponent's statement is questioned for accuracy.

Approximately 45 hectares of the Commonwealth land, covered by the Cobaki Broadwater and located approx. 1000 metres south east of the proposed Boyd Street Overpass, can be affected adversely by this project.

Drainage

I am not aware of any creek adjacent to the Boyd Street Overpass as mentioned on page 10 of the Referral Application, but have seen constructed drains that enter NSW SEPP 14 Wetlands (Map 1), bordering the Cobaki Broadwater. A Boyd Street Overpass presents a potential risk to the physical environment, most notably on water quality in the "stressed" Cobaki Broadwater.

- The C4 Tugun Highway construction project could expose soils during earthworks that when as suspended sediment with associated pollutants (Gold Coast tip-site), can be washed into nearby watercourses, causing silting of waterways and damage to the Cobaki Broadwater marine ecosystem.

Drainage from known acid sulphate soils in the Boyd Street Overpass area is a major source of dissolved iron in our estuary and when mixed with nutrient laden sediments could release massive toxic algae blooms into the Lower Tweed Estuary.

Cobaki Wetlands - an area of High Conservation Value

The Cobaki wetlands have been identified as having significant high conservation value with one of the highest levels of flora and fauna species biodiversity in Australia, with more than 800 native species.

The subject area, described by scientists as an 'environmental goldmine' includes the following species: 25

- A total of 71 listed threatened/endangered species
- An additional 31 species of regional/distributional significance
- 5 endangered ecological communities
- Significant Coastal habitat
- An Important waterfowl and migratory wetland bird - nesting, feeding and roosting habitat, protected by International Treaties (JAMBA and CAMBA) and the RAMSAR and Japanese Agreements

The Cobaki Wetlands also provide access as a wildlife corridor to other significant environmental areas.

Community alternatives to existing Boyd Street Overpass corridor.

•Alternative access routes to the Cobaki Lakes Development should be investigated. The existing Boyd Street access should be closed and rehabilitated to address impacts on threatened species - the Long-nosed Potoroo as approvals for an overpass or interchange at Boyd Street pose significant environmental difficulties. It is considered the Boyd Street access was not included as part of this assessment because it could delay the Environmental assessment of the C 4 Route of the Tugun Bypass.

We thank you for your consideration of this matter and request acknowledgement of this communication.”
(End of submission)

Tweed Heads Environment Group requests take the above submission into account when you are assessing this development application.

26

Omitted and questioned information contained in the Development application

There appears to be deficiencies in the applicant's Integrated Development Application (IDA). The respondent answered 'No' or N/A to the following answer boxes in its IDA development application.

27

QDMR's Development Application advises:

- N/A - Filling of the land (road embankment leading to the overpass and flood prone Sandy Lane.
- N/A - NSW Cobaki Broadwater Fisheries (impact of drainage on wetlands and Cobaki Broadwater)

Our Concern

1. Considerable earthwork fill will be required for the 5000 metre, 5.6% grade Overpass embankment and the build up of Sandy Lane beyond flood level, causing damming effects.
2. Overpass, road and storm drainage to nearby Wetlands and the Cobaki Broadwater could be damaging to Water quality and therefore to fisheries and wetland bird feeding habitat,
3. Flooding caused by damming of acidified land in the Sandy Lane Reserve area (zoned "7 (a) " Environment Protection - Wetland and littoral Rainforests) is likely to cause 'poor' water quality to drain into the Cobaki Broadwater.

28

- N/A - Heritage Office Heritage Act
- N/A - National Parks and Wildlife Act 1974 – Section 90, Destruction of Aboriginal relics and places.

Our Concern

4. Significant Aboriginal Cultural Heritage identified in the Tweed Shire Council's Cobaki and Terranora Broadwater Aboriginal Cultural Heritage Management Plan (August 2006) have been listed in the Council plan, and the proponent has not adequately addressed this matter. (refer to the DEH submission).

- 'No' - Requires concurrence of other authorities for: 'Critical habitat under The Threatened Species Act'.

Our Concern

5. Matters of national environment significance that are relative to *The Environment Protection and Biodiversity Conservation Act 1999 No 90* are being assessed by the Department of Environment and Heritage. No advice of determination has been received.
I am not aware of any response from the Department of Environment and Conservation NSW regarding threatened species of flora and fauna present within the Cobaki and affected by the Overpass/Interchange. Has NSW Fisheries provided a response?

There is a requirement for an Environmental Impact Statement

Although a Statement of Environmental Effects has been exhibited by the proponent's IDA, Tweed Heads Environment Group requests that an Environmental Impact Statement be prepared in terms of NSW Planning laws for the following reasons:

- Considerable earthwork fill will be required for the NSW 5000 metre, 5.6% grade Overpass embankment and the build up of Sandy Lane beyond flood level, Overpass, road and storm causing a damming affect.
- 'Poor' water quality from inadequate drainage works and the loss of threatened species habitat will adversely affect the natural environment. Cobaki Broadwater migratory wetland bird - nesting, feeding and roosting habitat, protected by International Treaties (JAMBA and CAMBA) and the RAMSAR and Japanese Agreements could be adversely affected by loss of Broadwater feeding and roosting habitat.

29

- Insufficient compliance of *The Threatened Species Conservation Act 1995 (NSW)*, matters relating to Map 1 SEPP 14 Wetlands adjacent to this project and matters of national environment significance relative to *The Environment Protection and Biodiversity Conservation Act 1999 No 90*
- Sandy Lane - Cobaki Lakes. The new Sandy Lane road reserve, on which the Overpass/Interchange will be built, was declared a public road in 1993. It is not certain whether this lane is now declared Council 'operational' land, which will allow road construction. It is also unclear from the IDA (Appendix A) plan dated October 2004, whether the curved Overpass/Interchange fits within the existing Sandy Lane road reserve.

- The following Tweed traffic matters, that remain inadequately addressed include:
 - * An upgraded Tweed traffic concept plan should be provided, including NSW traffic on and off ramps from Sandy Lane to the Tugun bypass in the future diamond Overpass interchange (not mentioned in the SEE). The Traffic plan should indicate the timing and the estimated costs for such works. 30

- * The absence of a "future" traffic Interchange at the Sandy Lane/ Boyd Street Overpass connecting to the Tugun Bypass, will increase adverse traffic conditions for Sandy Lane/Boyd Street traffic users. 31
- Boyd Street traffic, increasing to 29,000 vehicles per day will cause unacceptable delays for Tweed residents trying to reach Tweed commercial centres through several sets of grade level Gold Coast highway traffic lights. Without funding the Boyd Street/Sandy Lane future Interchange may not be built when required.

- *Increasing traffic from several mega developments: Cobaki Lakes (14000) person and other West Tweed and Tugun residential developments, John Flynn Hospital, several Boyd Street sporting clubs, Desalination Plant construction, Gold Coast City Council rubbish tip clients, future Gold Coast Airport non-aviation development and general Tugun usage will expedite unacceptable levels of service for traffic users of Boyd Street. Once traffic levels rise, the construction of a planned four-lane Boyd Street will add to the need for a four-lane bridge Overpass of the Tugun Bypass highway and rail corridor 32

- *Considering the changed location of the two-lane Overpass proposal, which now straddles the NSW/QLD State border, the question is raised of who will pay for a future Boyd Street/Sandy Lane traffic Interchange. The future interchange will need to provide for: a duplicated two-lane carriageway, a costly tunnel/overpass to cross rail, so as to connect the Tugun Bypass to the eastern 'on' and 'off' ramps to Boyd Street and also to NSW on/off ramps. The eastern ramps will provide access to John Flynn Hospital, Tugun and Tweed suburbs. 33

Requests for Information

- Following my request for information from both the Tweed Shire Council and Queensland Main Roads I was assured that a CD document which covered contents of the large SEE document would be provided to assist with my enquiries. 34

Yesterday I was advised by phone from QDMR that the CD will not be posted until after the closing date for submissions. Therefore our submission is based on a rushed examination of exhibited documents.

Please give consideration to our submission and acknowledge receipt of this communication.

Yours sincerely

R W Murray

Richard W Murray
Secretary

COMMENTS FROM THE APPLICANT

Paragraph	Comment/Response
1	No comment required.
2	No comment required.
3	No comment required.
4	The BSO does not include an interchange, however the design is compatible with such a structure, if required in the future.
5 -9	No comment required.
10	<p>The following is an extract from the DEH referral for the BSO,</p> <p><i>The Boyd Street Overpass project once complete will carry road traffic from the Cobaki Lakes residential development east, over the Tugun Bypass (Pacific Highway) and the proposed Robina to Tugun Rail Line and into Tugun and the surrounding areas. The Overpass will create the only access to the residential development once the Tugun Bypass is complete.</i></p> <p>Review of the 2005 Gold Coast Street Directory indicates that Boyd Street (and therefore the BSO) is the only direct access route into the State of Queensland.</p> <p>The following is an extract of the <i>Tugun Bypass - Southern Community Liaison Group Meeting No.3</i> minutes, as undertaken on the 6 September 2006,</p> <p><i>Q: Will Tweed Shire Council require an interchange? I'm interested if the cost of the interchange will be passed onto the ratepayers of Tweed Shire Council? What are the current funding arrangements with Tweed Shire Council?</i></p> <p><i>A: The Development Application only covers an overpass. However, planning is compatible with an interchange being added in the future. The developers have lodged a deposit with Tweed Shire Council. A Deed of Agreement between Tweed Shire Council and Cobaki Lakes was signed in 1993 when a bond was given.</i></p> <p>No commitment has been given to construct an interchange.</p>
11	The design of the overpass would allow for construction of a future interchange. However, the timing for a future interchange is speculative with no commitment to construction provided.
12	No comment required.
13	No comment required.

Paragraph	Comment/Response
14	The Development Application for the BSO does not include an interchange. The Commonwealth Minister for Environment and Heritage has considered the information supplied within the referral and has decided that the proposal is not a Controlled Action. Further information was not sought prior to this decision and is therefore assumed to have been sufficient.
15	No comment required.
16	No comment required.
17	No comment required.
18	No comment required.
19	No comment required.
20	Development of an Integrated Plan of Management for the Long-nosed Potoroo has commenced and will detail those measures required to manage potential threats to this species/population. The first meeting of the respective stakeholder group was undertaken on 14 December 2006. Roles, responsibilities and timing for the implementation of management measures will be detailed within this integrated plan. All measures proposed within the <i>Tugun Bypass Species Impact Statement</i> will be implemented and within the timeframes specified within the Tugun Bypass Species Impact Statement.
21	Extensive consultation on Cultural Heritage has been undertaken (as part of the Tugun Bypass) regarding the area within and immediately adjacent to the Tugun Bypass road corridor. Cultural heritage was also assessed during impact assessment for the Boyd Street extension. Records indicate no known objects of cultural significance within the footprint of the proposed BSO. Commitments to implementing the Tugun Bypass Cultural Heritage Management Plan (CHMP) are provided within Table 4.3 of the SEE. Actions to manage any unexpected finds are detailed within this plan and are committed to within Table 5.1.
22	<p>Actions to manage cultural heritage have been determined through consultation with the local indigenous groups. This consultation was undertaken during development of the CHMP for the Tugun Bypass and is considered suitable (unexpected finds) for the BSO.</p> <p>Unexpected finds would be reported to the either NSW Department of Environment and Conservation or the QLD Department of Natural Resources and Water.</p>

Paragraph	Comment/Response
23	Known objects/areas of cultural heritage significance (within the proposed construction footprint) were not identified during impact assessment. As a precautionary measure, actions described within the CHMP for the Tugun Bypass would be implemented during clearing and grubbing and/or unexpected objects of significance identified. These measures are considered to be best practice and have been successfully implemented during construction of the Tugun Bypass.
24	Significant impacts on the environment of Commonwealth land are not anticipated during the construction or operation of the BSO. In his assessment, the Minister for Environment and Heritage has also considered this matter and determined that the proposed activity is not a Controlled Action. Grades within the area are low and soils able to be readily managed using standard and proven construction methods. The Cobaki Broadwater is distant to the proposed activity and is situated approximately 850 metres to the south.
25	No comment required.
26	Comment (by the proponent) on the general alignment of Boyd Street is not considered appropriate. This aspect may be best discussed, if required by the relevant local government authorities.
27-28	The BSO is approximately 650 metres in length, with 300 metres situated within NSW (with the first 90 metres of this length to be constructed by others). Importation of fill will be required to achieve the required approach grades and flood immunity. Cross drainage structures include the provision of a bridge (overpass) and a fauna culvert, which would provide an additional overland flow path during large hydrological events. Afflux as a result of construction is not anticipated. Storm water would be managed through the use of standard construction techniques (as to be identified in an Erosion and Sedimentation Control Plan) and by wetland basins during operation.
29	The significant impacts inferred by the Tweed Heads Environment Group Inc. are considered to be highly unlikely. An Environmental Impact Statement is not considered to be required as the proposed activity does not trigger the designated provisions for an EIS within the <i>Environmental Planning and Assessment Act 1979</i> . Great efforts have also been undertaken to integrate the proposed overpass within the existing footprint of Boyd Street – thereby minimizing environmental impacts. Standard and recognized controls would be implemented to prevent localized flooding and poor water quality.
30-33	Road hierarchy and traffic modelling details are currently available within the Development Control Plan No.17 – Cobaki Lakes. Further plans are not considered to be required.
34	No comment required.

(e) Public interest

It is in the public interest for the overpass to be constructed to facilitate the road network in the Shire. It is also in the public interest to manage the impacts of the overpass to minimise deleterious effects. The proposed conditions and mitigations measures will achieve a balance between the required infrastructure and environmental protection.

POLICY IMPLICATIONS:

The absence of a link through to Boyd Street will have implications for Council's Traffic Management and Urban Development Strategies.

OPTIONS:

1. Approve the application as per the recommendation.
2. Refuse for specified reasons.

LEGAL/RESOURCE/FINANCIAL IMPLICATIONS:

The applicant has a right of Appeal in the NSW Land and Environment Court if they are dissatisfied with the determination.

POLICY IMPLICATIONS:

The absence of a link through to Boyd Street will have implications for Council's traffic management and urban development strategies.

CONCLUSION:

The competing objectives of traffic/growth management and environmental protection are the key aspects of the proposal. A range of conditions is recommended so that a balanced outcome is delivered.

UNDER SEPARATE COVER/FURTHER INFORMATION:

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

Nil.
