

Council Reference: GT1/52  
Your Reference: MP06\_0316

12 October 2010

NSW Department of Planning  
GPO Box 39  
**SYDNEY NSW 2001**

**ATT: Stuart Withington**

Dear Stuart and Tom

**Comments on the Addendum to the Preferred Project Report -  
Concept Plan and the Preferred Project Report for the Project  
Application for Cobaki Lakes**

Council officers have reviewed both the Addendum to the Preferred Project Report for the Concept Plan for Cobaki Lakes and the Preferred Project Report for the Project Application for the central open space and drainage corridor.

Additional required information and proposed conditions are outlined below. Greater details and justifications for these are provided in the attachment.

Required section 94 and 64 contributions can be calculated and provided upon finalisation of the amended subdivision plan.

Council has resolved that it will not accept dedication or maintenance of open space, drainage corridors, environmental protection areas and other infrastructure unless the recommended conditions below are applied and implemented to the satisfaction of the General Manager or his Delegate.

**PART 1 - CONCEPT PLAN – ADDENDUM TO THE PPR**

**Recommended Conditions**

Contributions Cap

1. Approvals issued by the Department of Planning for development at Cobaki Estate do not exceed 3,007 residential lots or equivalent.

Amended Plans and Details

2. An amended Ecological Assessment and Assessments of Significance reports are required which take into account the ecological consent conditions associated with approved development applications for completed earthworks, i.e. requirements within those conditions provided for retention, protection and offsetting of high conservation value areas.
3. An amended Revised Rehabilitation Plan for the Freshwater Wetland Rehabilitation Area should be provided which excludes the central drainage corridor as offset habitat for the threatened Wallum Froglet and Freshwater Wetland Endangered Ecological Community and increases the proponent maintenance period to a minimum period of ten years. The amended Revised Rehabilitation Plan for the Freshwater Wetland Rehabilitation Area should be submitted and approved the Tweed Shire Council General Manager or

Delegate, prior to commencement of work of any subsequent approved Project Application or Development Application. The amended plan should include approved performance criteria and additional details on the Wallum Froglet core habitat offset area.

4. The Revised Saltmarsh Rehabilitation Plan, Revised Freshwater Wetland Rehabilitation Plan, Revised Site Regeneration and Revegetation Plan should be amended to reflect the approved stormwater management and drainage concept approved as part of the Project Application for the Central Open Space and Drainage Precinct, as well as additional road reserve area requested in the southern portion of the site. Discrepancies between plans should be rectified to the satisfaction of Tweed Shire Council General Manager or his delegate prior to issue of construction certificate for the Project Application.
5. Amendments to the proposed rezoning in the Concept Plan should not place limitations on Council's ability to undertake regular environmental management or maintenance of infrastructure within reserves (including drainage, open space, sewer, water and roads), particularly within areas zoned for Environmental Protection. This may be through easements or another lawful mechanism acceptable to Tweed Shire Council General Manager or his delegate.
6. An amended Traffic Report shall be provided, generally in accordance with the Traffic Report prepared by Cardno Eppell Olsen, with the following modifications:
  - a second road link to Piggabeen Road via the Sandy Road alignment.
  - road cross sections in accordance with Tweed Shire Council standards unless otherwise approved by to the satisfaction of Tweed Shire Council General Manager or his delegate,
  - local connector road pavement widths shall comply with Council's Standards,
  - Cycleways with a minimum width of 2.5 metres, and
  - Clarify that access to schools, community facilities, retail and commercial development is not permitted from Cobaki Parkway.

The amended Traffic Report shall be submitted to Council and approved to the satisfaction of Tweed Shire Council General Manager or his delegate prior to issue of construction certificate for the Project Application Central Open Space and Drainage Corridor Precinct.

7. Council requests the current amended version of the Development Code for review and approval prior to lodgement of the first precinct application for subdivision in Cobaki Estate, for which Council will be the consent authority.
8. The Concept Plan should be amended to move the school sites to an acceptable location to Tweed Shire Council General Manager or his delegate. Both the northern and southern schools should be located away from Cobaki Parkway but within close proximity to urban nodes. They should have multiple road and pedestrian / cycleway accesses to facilitate on-site drop off zones without disrupting through traffic or altering speed zones, parking or intersection treatments on Cobaki Parkway.
9. The Concept Plan should be amended to include widened road reserves required for drainage, utility services, batters, associated engineering and maintenance requirements.
10. The Concept Plan should be amended to include a wider northern structured open space area, compliant with Council's Development Control Plan Section A5 Subdivision Manual (minimum width of 170 metres), to the satisfaction of Tweed Shire Council's General Manager or delegate.

11. The Statement of Commitments should be amended to reflect the changes outlined in Table 1 in the attachment (Subdivision Engineer comments).

### Ecological Considerations

12. An Environmental Management Plan must be formulated for each stage Project Application or development application. The Environmental Management Plan must include details sufficient to understand and avoid, mitigate and ameliorate all potential impacts upon the natural environment during construction and subsequent operation of approvals and to delineate responsibilities for specific tasks or actions within the plan. Such matters to include but not be limited to: erosion and sediment control, stormwater quality, protection of trees and habitat areas and acid sulfate soil management.
13. An Environmental Officer must be engaged to implement each approved Project Application and/or development consent and monitor and oversee the environmental effects of development during construction phases. Such officer shall be appropriately (professionally) qualified and refereed environmental scientist with significant experience in on-ground works; and to undertake tasks to be as set out in the approved Environmental Management Plan. Such Officer must be available as the first point of contact with regard to environmental compliance and reporting issues.
14. The central open drainage system is not considered an acceptable offset for the clearing of Freshwater Wetland Endangered Ecological Community and threatened Wallum Froglet habitat.
15. Ecological buffers should be provided to all Environmental Protection Areas including SEPP 14 Wetland areas. The submitted Overview Buffer Management Plan is not approved. Buffers should have a width approved by the Tweed Shire Council General Manager or his delegate and be rehabilitated and clear of asset protection zones, structures and infrastructure. Buffers should be clearly indicated on precinct plans for approval as part of future development applications.
16. All Rehabilitation Areas and Environmental Protection areas proposed to be dedicated to Council as reserve in accordance with the Revised Site Rehabilitation and Revegetation Plan, should be rehabilitated and maintained in accordance with an approved area specific Rehabilitation Plan. Each area specific Rehabilitation Plan should be lodged and approved by Council with future development applications and should include buffer areas. Each area specific Rehabilitation Area plan should include performance criteria approved by Tweed Shire Council General Manager or his delegate.
17. Upon approval of each area specific Rehabilitation Plan, the Revised Site Rehabilitation and Revegetation Plan should be updated to incorporate each approved area.
18. Additional detail should be provided by the applicant on the construction of Wallum Froglet 'core' breeding habitat 'ponds' within the east-west minor drainage corridor located within the Freshwater Wetland Rehabilitation Area including:
  - how Wallum Froglets will move through this habitat,
  - how threats to their survival will be managed,
  - how maintenance of this habitat offset will be funded in the future to ensure long term viability of this population.

This information is necessary to assess the validity of this offset option and should be provided to an adequate standard in consultation with Tweed Shire Council General

Manager or his delegate, prior to any Planning Agreement between the proponent, Department of Environment, Climate Change and Water (DECCW) and the Department of Planning (DOP).

19. The compensatory habitat off-set Planning Agreement between Department of Planning, the proponent and the Department of Environment and Climate Change should be approved prior to commencement of works for the Central Open Space and Drainage Precinct Project Application and include the following:
  - Requirements of the applicant in relation to the identification and delivery of requisite offsets;
  - key milestones for delivery of offsets;
  - Detailed mapping of areas to be offset and areas proposed to be cleared, this should exclude off-sets proposed in road reserve, road batters or road verges;
  - Acknowledge areas required for maintenance within Environmental Protection zones and rehabilitation areas;
  - Details on off-set areas proposed for loss of threatened and protected species and their habitat which were conditioned to be retained or offset within approved Development Applications (detail provided separately) but subsequently cleared during earthworks or not yet offset through restoration, as well as offset for losses apparent with reference to previous and current ecological reports submitted with the concept plan application. This includes: loss of old growth Scribbly Gums; loss of Koala Habitat; clearing within buffer to Osprey nest; loss of Swamp Sclerophyll EEC, loss of freshwater wetland EEC (2.24 ha discrepancy) and loss of the threatened species *Randia moorei*; *Lepiderema pulchella*; *Acacia bakeri*; *Grevillea hilliana* and *Cassia brewsterii* var. *marksiana*;
  - Details of management responsibilities (to be agreed to by Tweed Shire Council General Manager or his delegate);
  - Off-set areas for Freshwater Wetland EEC lost in the Saltmarsh Rehabilitation Area and
  - Provision of suitable buffers to all offset areas which do not serve dual functions (such as asset protection zones).
20. Dedication of any Environmental Protection or Rehabilitation areas will not be accepted by Council until Council approved performance criteria specific to each area are met.
21. The proponent should provide details on a proposed scheme for generation of funds for maintenance and management of Environmental Protection land or reserves (including asset protection zones) proposed to be dedicated to Council. The funds scheme should be prepared in consultation with Council and approved by Council prior to dedication of any land. It should include estimated costs of management of land and mechanisms to allow for on-going availability of funds so management can occur in perpetuity. It should allocate estimated costs appropriate to type of reserve and / or asset protection zones.
22. No work shall be undertaken by the proponent in the Restriction on Use area within Lot 54 DP755740, pursuant to section 88b of the Conveyancing Act. This Restriction on Use area is used by Tweed Shire Council for wetland restoration.

#### Sewer and Water

23. Rainwater tanks with a minimum capacity of 5000 litres per 160m<sup>2</sup> roof area shall be provided and plumbed to supply toilet flushing, laundry cold water taps and outdoor uses for standard housing types.

24. The use of rainwater tanks plumbed to supply toilet flushing, laundry cold water taps and outdoor uses shall be maximised for small lots, multi-dwelling development, commercial and industrial premises.
25. Design and construction of the water main and sewer rising mains proposed along Cobaki Parkway to Cobaki Creek Bridge should be subject to separate approval by Council. The design should take into account soil settlement and geotechnical issues in this area. These pipelines will need to be in place prior to release of the first residential lots. The proponent shall demonstrate that timing of construction of this infrastructure is coordinated with pre-load for all other roadways and structures in this corridor, to the satisfaction of Tweed Shire Council General Manager or his delegate.
26. Water and sewer rising mains proposed through the floodway section and in the embankment between the culverts and Cobaki Creek Bridge must be designed to ensure their integrity during flood events. Design should also consider storage to cope with an outage of any extended period (greater than 8 hours in average flow conditions).

#### Infrastructure Engineer

27. The applicant should adequately deal with the climate change parameters in accordance with Council's flood modelling. Note: the requested amendments to the Statement of Commitments specific to flooding and climate change have been superseded with recent amendments to Development Control Plan Section A3 – Development of Flood Liable Land, which adopts climate change affected flood planning levels for Greenfield residential subdivisions, including Cobaki Estate.
28. If not reflected in the Statement of Commitments, the proponent shall dedicate to Council such extent of the Cobaki Parkway Road Reserve as at the time remains to be dedicated, upon the earliest of:
  - The date upon which the Gold Coast City Council gives the proponent the notice under clause 4.3 of the Deed between the Gold Coast City Council and the proponent to undertake the Boyd Street Four Lane Upgrade or
  - Five years after the date of the approval of the Cobaki Lakes Part 3A Concept Plan.
29. If not reflected in the Statement of Commitments, the proponent shall construct the balance of Cobaki Parkway in two lane standard (including the Cobaki Creek Bridge) to the connection with Piggabeen Road (if not already constructed by others) within twelve months of the release of 3000 lots at Cobaki Estate.
30. If not reflected in the Statement of Commitments, the proponent shall enter into a Deed with Tweed Shire council replacing the Deed between Council and Calsonic Management Services Pty Ltd dated 6 August 1993, which replacement Deed will include the requirement under Conditions 28 and 29 above and additionally release Council from such obligations it has under the current Deed with respect to the Boyd Street Four Lane Upgrade.

#### Masterplan and Staging

31. The developer shall produce an indicative Masterplan of the Cobaki Estate. The Masterplan shall be included with each application for subdivision to create separate lots. The developer shall incrementally update the indicative Masterplan in accordance with any approvals issued for such subdivision, and as planning certainty evolves. The purpose of the Masterplan is to assist the consent authority in its assessment of applications by providing a broader context. The indicative Masterplan will show:

- actual and proposed densities of the Estate by precinct (or other identified nodes);
  - the distribution of parks (structure and casual open space) across the Estate, to the extent that surrounding urban design has been set or is proposed, and their indicative distribution elsewhere;
  - main roads;
  - view corridors;
  - feature buildings;
  - pedestrian and cycleway linkages;
  - wildlife corridors;
  - trunk stormwater drainage (conveyance and water quality facilities); and
  - land forming.
32. All incomplete work in existing Part 4 development applications approved over the site prior to the approval of the Concept Plan shall be surrendered. Note: Existing consents for earthworks and subdivision proposed to be continued concurrent with the Part 3A applications, must comply with all relevant or equivalent conditions for that work as deemed appropriate by the Tweed Shire Council General Manager or his delegate.
33. All future stages of open space embellishment, stormwater quality devices and landscaping in the Cobaki Estate are to be undertaken as required by and to the satisfaction of Tweed Shire Council General Manager or his Delegate in association with future development applications and or project applications.
34. Staging of the development must be coordinated and in sequence with roll-out of infrastructure to ensure that minimum infrastructure, open space and community facilities are available for each stage and appropriate provision of upgrades are provided for future stages, as required and approved by Tweed Shire Council General Manager or his delegate.

#### Environmental Health

35. The containment cell for the remediation of Turners Cattle Dip site shall be located within road reserve generally in accordance with the Gilbert and Sutherland Plan Drawing Number GJ0872.4.0 dated 21 September 2009.
36. An 88B or similar notification on the title of all future residential allotments shall be created advising future residents that the site is subject to noise nuisance due to light aircraft training.

#### Subdivision Engineer

37. Cobaki Parkway shall not be dedicated as a public road and opened to the public for vehicle access until such time as a tick control facility has been installed at the State Border in accordance with Condition 27 of Development Consent 94/194 to the satisfaction of Industry and Investment NSW and Council.
38. All roads and civil infrastructure is to be designed and constructed in accordance with Tweed Shire Council Local Environmental Plan, Development Control Plan and Development Design and Construction Specifications current at the time of each development application being lodged with Council. Variations to current controls and specifications shall be by direct negotiation with Tweed Shire Council and specific to items in the current codes standards.



39. Batters for Cobaki Parkway, which extend beyond the road reserve will be the developers responsibility to maintain unless suitable easements for maintenance are established to the satisfaction of Council.

#### Open Space

40. The applicant must dedicate the required area of structured and casual open space in accordance with rates identified in Council's section 94 plans. The dedicated open space areas must be designed in accordance with the criteria outlined in Tweed Development Control Plan Section A5 (Subdivision Manual), unless otherwise approved by Council. Non-compliant open space areas will not be accepted as open space by Council. Areas of casual open space that exceed Council's contribution requirements may not be accepted by Council.
41. All parks proposed to contain playground equipment must comply with Council's Risk Rating and Design Requirements for Playgrounds.
42. The applicant shall prepare a staged Open Space Embellishment and Dedication Plan which articulates the proposed sequence of casual and structured open space dedication in relation to precinct development. The Plan should identify that sufficient area of structured and casual open space area is dedicated with population growth in accordance with Council's requirements. It should articulate the area of individual open space parcels. It should also identify conceptual embellishment works for each area. The Plan must demonstrate that open space will be provided in a timely manner to coincide with release of residential areas. The Plan must be submitted and approved by Tweed Shire Council General Manager or his delegate prior to issue of construction certificate for the Central Open Space and Drainage Precinct Project Application.
43. Embellishment of open space areas must be in accordance with Landscape Plans to be provided in conjunction with future development or project applications. The Landscape Plans must be consistent with the approved Open Space Embellishment and Dedication Plan.
44. Upon embellishment and dedication of all structured and casual open space areas, the proponent must be responsible for establishment and maintenance of all soft and hard landscaping for a minimum period of twelve months or a longer period determined by the Tweed Shire Council General Manager or his delegate.

## PART 2 - PROJECT APPLICATION – PPR

### Recommended Conditions

#### Ecological Comments

1. An Environmental Management Plan must be formulated for this Project Application prior to commencement of works. The Environmental Management Plan must include details sufficient to understand and avoid, mitigate and ameliorate all potential impacts upon the natural environment during construction and subsequent operation of approvals and to delineate responsibilities for specific tasks or actions within the plan. Such matters to include but not be limited to: erosion and sediment control, stormwater quality, protection of trees and habitat areas and acid sulfate soil management.
2. An Environmental Officer must be engaged to implement the approved Project Application and monitor and oversee the environmental effects of development during construction phases. Such officer to be appropriately (professionally) qualified and refereed environmental scientist with significant experience in on-ground works; and to undertake tasks to be as set out in the approved Environmental Management Plan. Such Officer must be available as the first point of contact with regard to environmental compliance and reporting issues.
3. Clearing within the central open space drain and riparian corridor in the Project Application area, including clearing of habitat for Freshwater Wetland EEC, Wallum Froglet, Wallum Sedge Frog, Brolga and Black-necked Stork should not occur until a suitable compensatory habitat offset Planning Agreement is reached.
4. An Addendum to the Revised Saltmarsh Rehabilitation Plan should be provided which includes:
  - detailed methods proposed to regulate tidal inundation in the Saltmarsh Rehabilitation Area including any levelling, filling and excavation of the current levee system along the banks of Cobaki Creek.
  - amendments which reflect the stormwater drainage concept through to Dunn's Drain.
  - amendments which include a maintenance track adjacent to Dunn's Drain.
  - amendments which address any Swamp Oak and Saltmarsh EEC vegetation that will be lost due to stormwater drains and associated maintenance tracks in terms of impacts on EEC offsetting.
  - Details which demonstrate that Freshwater Wetland EEC will be retained and restored within the Saltmarsh Rehabilitation Area.
  - Amendments which remove proposed Coastal Saltmarsh EEC offset areas from road verges and batters and provide alternative off-set areas.
  - Amendments which increase the proponent maintenance period to ten years.
  - Which includes suitable performance criteria.
  - Detailed information on site hydrology and how proposed changes to stormwater and tidal inundation may affect the site including strategies to ensure success of the rehabilitation.

This Addendum should be submitted and approved by Council prior to issue of construction certificate.



5. The damaged floodgate at the entrance to Dunn's Drain should be replaced by a fish friendly floodgate allowing regulated tidal inundation in the Saltmarsh Rehabilitation Area. This must be undertaken in accordance with the approved Addendum to the Revised Saltmarsh Rehabilitation Plan prior to commencement of work and be subject to an individual Development Application.
6. Works in the approved Addendum to the Revised Saltmarsh Rehabilitation Plan shall be undertaken to the satisfaction of Council prior to commencement of issue of subdivision certificate.
7. The dedication of the saltmarsh shall occur at a time specified by the Tweed Shire Council General Manager or his delegate.

#### Subdivision Engineer

8. The development shall be completed in accordance with the Environmental Assessment, Preferred Project Report and the following Plans:

- Cover Sheet & Locality Plan - YC0229-1P1-D01 A
- Index Sheet - YC0229-1P1-D02 A
- Scope of Works & Key Sheet Plan - YC0229-1P1-D03 A
- Alignment Details - YC0229-1P1-A01 A
- Erosion & Sediment Control Plan - Sheet 1 of 2 - YC0229-1P1-E01 A
- Erosion & Sediment Control Plan - Sheet 2 of 2 - YC0229-1P1-E02 A
- Bulk Earthworks Cut / Fill Plan - Sheet 1 of 2 - YC0229-1P1-EC01 A
- Bulk Earthworks Cut / Fill Plan - Sheet 2 of 2 - YC0229-1P1-EC02 A
- Bulk Earthworks Layout Plan - Sheet 1 of 8 - YC0229-1P1-EW01 A
- Bulk Earthworks Layout Plan - Sheet 2 of 8 - YC0229-1P1-EW02 A
- Bulk Earthworks Layout Plan - Sheet 3 of 8 - YC0229-1P1-EW03 A
- Bulk Earthworks Layout Plan - Sheet 4 of 8 - YC0229-1P1-EW04 A
- Bulk Earthworks Layout Plan - Sheet 5 of 8 - YC0229-1P1-EW05 A
- Bulk Earthworks Layout Plan - Sheet 6 of 8 - YC0229-1P1-EW06 A
- Bulk Earthworks Layout Plan - Sheet 7 of 8 - YC0229-1P1-EW07 A
- Bulk Earthworks Layout Plan - Sheet 8 of 8 - YC0229-1P1-EW08 A
- Bulk Earthworks Sections - Sheet 1 of 2 - YC0229-1P1-ES01 A
- Bulk Earthworks Sections - Sheet 2 of 2 - YC0229-1P1-ES02 A
- Bulk Earthworks Typical Sections - YC0229-1P1-ES03 A
- Major Open Drain Longitudinal Section - Sheet 1 of 3 - YC0229-1P1-DL01 A
- Major Open Drain Longitudinal Section - Sheet 2 of 3 - YC0229-1P1-DL02 A
- Major Open Drain Longitudinal Section - Sheet 3 of 3 - YC0229-1P1-DL03 A
- Minor Open Drain 6 Longitudinal Section - YC0229-1P1-DL04 A
- Cobaki Parkway Longitudinal Section - YC0229-1P1-LS01 A
- Sandy Road Longitudinal Section - YC0229-1P1-LS02 A
- Cobaki Parkway & Sandy Road Typical Cross Sections - YC0229-1P1-XS01 A

prepared by Yeats Consulting Engineers and dated 30/06/10, except where varied by the conditions of this approval.

The Department of Planning should reference other plans as applicable.

9. The use of crushing plant machinery, mechanical screening or mechanical blending of materials on site is not approved under this approval and is subject to separate development application.

10. The approved works are to be carried out in accordance with Tweed Shire Council Development Control Plan Part A5 - Subdivision Manual and Councils Development Design and Construction Specifications.
11. The approved subdivision/development shall not result in any clearing of native vegetation without prior approval from the relevant authority.
12. Stormwater quality measures shall be implemented in general accordance with the Stormwater Quality Concept Plan Revision 02 prepared by Yeats Consulting Engineers dated September 2010, except where varied by the conditions of this approval.
13. Geotechnical investigations and assessment shall be undertaken to ensure the stability of earthworks and the construction of the Central Open Space Precinct and riparian corridor.
14. No earthworks outside of the Central Open Space Precinct Boundary are approved by this approval.
15. Future applications for structured open space facilities within the central precinct must take into account the flood liability of this land as a result of the bulk earthworks approved by this approval. Any changes to the bulk earthworks levels as approved by this approval must provide an updated Flood Impact Assessment and revised Design Flood Level Map for the Estate.
16. The major central open drain shall not be utilised for any environmental offsets and shall be maintained by Council, following completion of maintenance period for drainage purposes only.

#### **PRIOR TO THE ISSUE OF A CONSTRUCTION CERTIFICATE**

17. **Prior** to the issue of a Construction Certificate, a cash bond or bank guarantee (unlimited in time) shall be lodged with Council for an amount based on 1% of the value of the works as set out in Council's fees and charges at the time of payment.

The bond may be called up at any time and the funds used to rectify any non-compliance with the conditions of this approval which are not being addressed to the satisfaction of the General Manager or his delegate.

The bond will be refunded, if not expended, when the associated Subdivision Certificate is issued.

18. 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.
19. Where earthworks result in the creation of batters and/or cuttings greater than 1m high and/or slopes within allotments 17<sup>0</sup> (1:3.27) or steeper, such slopes shall be densely planted in accordance with a detailed Landscaping Plan endorsed by Council. This Plan shall accompany the Construction Certificate application.

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

- i) Contours and terraces where the height exceeds 1m.
  - ii) Cover with topsoil and large rocks/dry stone walls in terraces as necessary.
  - iii) Densely plant with sub-tropical (rainforest) native and exotic species to suit the aspect/micro climate. Emphasis to be on trees and ground covers which require minimal maintenance. Undergrowth should be weed suppressant.
  - iv) Mulch heavily (minimum 300mm thick) preferably with unwanted growth cleared from the estate and chipped. All unwanted vegetation is to be chipped and retained on the subdivision.
20. All earthworks shall be graded at a minimum of 1% so that the site drains to approved permanent drainage systems.

All earthworks shall be contained wholly within the subject land. Detailed engineering plans of cut/fill levels shall be submitted with the Construction Certificate application for Council approval.

21. Prior to the issue of a Construction Certificate, documentary evidence shall be submitted to Tweed Shire Council demonstrating that a Controlled Activity Approval (CAA) under the Water Management Act 2000 has been obtained for works within 40m of waterfront land (as defined under the Water Management Act 2000) or any works that involve an aquifer interference activity as defined under the Water Management Act 2000.
22. A detailed Landscaping Plan is to be submitted and approved by Council's General Manager or his delegate prior to the issue of a Construction Certificate.

The Landscaping Plan shall detail the rock lined channel of the central precinct. Meanders and fringe native vegetation are encouraged in order to give the channel the appearance of a natural watercourse.

23. Prior to the issue of a **Construction Certificate** for civil works, the following detail in accordance with Councils Development Design and Construction Specifications shall be submitted to the Principal Certifying Authority for approval.

- (a) copies of compliance certificates relied upon
- (b) four (4) copies of detailed engineering plans and specifications. The detailed plans shall include but are not limited to the following:

- Earthworks
  - Clearly showing pre and post development levels (spot levels and contours) at a legible scale.
  - Batter slopes on drain cross sections and in public open space areas shall not exceed 1:4 (v:h), unless otherwise authorised by Council.
  - The maximum disturbed area (that has not been permanently vegetated) at any time shall not exceed 5ha.
- Roadworks
  - Limited to Bulk Earthworks to create road formations for Cobaki Parkway and Sandy Road within the Project Application Boundary.
  - Provision of an all-weather vehicular access to the western side of the major central open drain via the northern and southern Sandy Road crossings, to the satisfaction of Council.
  - Provision of an all-weather vehicular access for maintenance purposes along each side of the major central open drain and along one side of each minor open drain, including the open drain (Dunn's Drain) connecting the major central open drain to Cobaki Creek, to the satisfaction of Council.

- Stormwater Drainage
  - The major central open drain cross section shall be turfed, except for a rock filled channel that shall be constructed along the invert of the major central open drain, to contain low flow events, up to the Q3 month event (deemed to be 40% of the Q1 storm).
    - Dimensions and materials for the rock lined channel shall demonstrate adequate capacity and maintainability, to Council's satisfaction.
    - The invert of the rock lined channel must remain at or above standing ground water level at all chainages.
    - Lateral sub-soil drains discharging to the rock lined channel shall be provided at maximum 50m intervals and as required to provide a generally dry and maintainable drain cross section.
  - All environmental offset and habitat areas provided within the fauna corridor must remain off-line of minor open drain 5.
  - Provision of transverse drainage structures and flood mitigation structures (floodgates and floodway culverts).
- Flooding
  - Flood velocity and velocity-depth product (vxd) data for the central precinct.
    - This data must be accompanied by a Risk Assessment by a suitably qualified and experienced professional in this field, demonstrating that flows and velocities in the central precinct drainage systems do not pose public safety risks, to the satisfaction of Council. Where these risks are unacceptable to Council, the Developer shall mitigate the risk by altering the design of the drainage infrastructure, or by providing adequate safety measures.
- landscaping works
- sedimentation and erosion management plans

24. Erosion and Sediment Control shall be provided in accordance with the following:

- (a) The Construction Certificate Application 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".

25. Flooding

Prior to the issue of a Construction Certificate, the developer shall provide Council with a Design Flood Level Map, showing flood gradients at 0.1m contours along the central precinct for the peak of the 100 year ARI flood event, taking into account climate change impacts (0.9m sea level rise plus 10% increased rainfall intensity) for both regional flooding and flooding from the local catchment. The Design Flood Level Map shall be prepared assuming adjoining urban zoned land is filled above the Design Flood Level. The Design Flood Level Map shall be used as the basis for determining fill and floor levels for adjoining precincts, under separate applications.

26. Stormwater Quality

- All precinct bio-retention basins must be located outside of the major central open drain, but may be located within the Central Precinct subject to separate approvals. Bio-retention basins must be protected from inundation from overtopping of the major

- central open drain up to the Q10 event.
  - Details of bio-retention basins in adjoining precincts, including design verification by way of MUSIC modelling, shall be provided with all future precinct applications. The major central open drain must not be used as a treatment device in MUSIC modelling for Cobaki Estate
27. A drainage channel shall be constructed to provide continuity of flow from the major central open drain to Cobaki Creek, in general accordance with the approved plans, except as varied by this approval. The drain shall be sized to convey at a minimum the Q5 event without overtopping into the adjacent salt marsh rehabilitation areas, unless varied otherwise by the approved Revised Saltmarsh Rehabilitation Plan. The drain shall be contained wholly within road reserve areas, except for the eastern section between Cobaki Parkway and Cobaki Creek (known as Dunn's Drain), which shall be contained within a Council drainage reserve of adequate width to wholly contain the drain formation, as well as an all weather maintenance access road to Council's satisfaction. The maintenance access road shall be constructed as part of the central precinct bulk earthworks.
28. Prior to the issue of a Construction Certificate for any subsequent Precinct of Cobaki Estate, the following works under this approval must be completed to Council's satisfaction, unless approved otherwise by Council:
- i) Bulk earthworks
  - ii) Sub soil drainage
  - iii) Surface drainage (major and minor open drains)
  - iv) Transverse drainage structures under Sandy Road and Cobaki Parkway
  - v) Road formation bulk earthworks for those portions of Sandy Lane and Cobaki Parkway within the precinct boundary.
  - vi) Road formation to trafficable all weather standard from Cobaki Parkway to western side of Central Precinct
  - vii) All weather vehicular accesses for maintenance along all both sides of the major central open drain, and on one side of minor open drains, including the open drain between the major central open drain and Cobaki Creek (Dunn's Drain).
  - viii) Completion of approved landscaping works.

Where works are not complete prior to the request for a Construction Certificate for another Precinct of Cobaki Estate, the Developer may approach Council to enter into bond arrangements for the outstanding works. The acceptance of such a Bond is entirely at Council's discretion and is generally 125% the value of the works being bonded.

#### **PRIOR TO COMMENCEMENT OF WORK**

29. 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.
30. **Prior** to the commencement of works, the applicant shall ensure that a Site-Specific Safety Management Plan and Safe Work Methods for the subject site have been prepared and put in place in accordance with either:-
- (a) Occupation Health and Safety and Rehabilitation Management Systems Guidelines, 3<sup>rd</sup> Edition, NSW Government, or
  - (b) AS4804 Occupation Health and Safety Management Systems - General Guidelines on Principles Systems and Supporting Techniques.
  - (c) WorkCover Regulations 2000



31. Civil work in accordance with a development approval must not be commenced until:-
- (a) a Construction Certificate for the civil work has been issued in accordance with Councils Development Construction Specification C101 by:
    - (i) the Consent Authority, or
    - (ii) an Accredited Certifier, and
  - (b) the person having the benefit of the development approval:
    - (i) has appointed a Principal Certifying Authority,
    - (ii) has appointed a Subdivision Works Accredited Certifier (SWAC) accredited in accordance with Tweed Shire Council DCP Part A5 – Subdivision Manual, Appendix C with accreditation in accordance with the Building Professionals Board Accreditation Scheme. As a minimum the SWAC shall possess accreditation in the following categories:
      - C4: Accredited Certifier – Stormwater management facilities construction compliance
      - C6: Accredited Certifier – Subdivision road and drainage construction compliance

The SWAC shall provide documentary evidence to Council demonstrating current accreditation with the Building Professionals Board prior to approval and issue of any Construction Certificate, and

    - (iii) has notified the Consent Authority and the Council (if the Council is not the Consent Authority) of the appointment,
    - (iv) a sign detailing the project and containing the names and contact numbers of the Developer, Contractor and Subdivision Works Accredited Certifier is erected and maintained in a prominent position at the entry to the site in accordance with Councils Development Design and Construction Specifications. The sign is to remain in place until the Subdivision Certificate is issued, and
  - (c) the person having the benefit of the development approval has given at least 2 days' notice to the Council of the person's intention to commence the civil work.
32. The proponent shall provide to the PCA copies of Public Risk Liability Insurance to a minimum value of \$10 Million for the period of commencement of works until the completion of the defects liability period.
33. Prior to commencement of work on the site all erosion and sedimentation control measures are to be installed and operational including the provision of a "shake down" area where required to the satisfaction of the Principal Certifying Authority.

#### **DURING CONSTRUCTION**

34. All proposed works are to be carried out in accordance with the conditions of development approval, approved management plans, approved Construction Certificate, drawings and specifications.
35. Construction site work including the entering and leaving of vehicles is limited to the following hours, unless otherwise permitted by Council:

Monday to Saturday from 7.00am to 6.00pm



No work to be carried out on Sundays or Public Holidays

The proponent is responsible to instruct and control subcontractors regarding hours of work.

36. 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.

LAeq 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.

LAeq 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.

37. Proposed earthworks shall be carried out in accordance with AS 3798, "Guidelines on Earthworks for Commercial and Residential Developments".

The earthworks shall be monitored by a Registered Geotechnical Testing Consultant in accordance with AS 3798. A certificate from a registered Geotechnical Engineer certifying that the earthworks comply with AS3798 and that the development is suitable for its intended use shall be submitted to the Principal Certifying Authority upon completion.

38. The use of vibratory compaction equipment (other than hand held devices) within 100m of any dwelling house, building or structure is strictly prohibited.

39. No soil, sand, gravel, clay or other material shall be disposed of off the site without the prior written approval of Tweed Shire Council General Manager or his delegate.

40. The surrounding road carriageways are to be kept clean of any material carried onto the roadway by construction vehicles. Any work carried out by Council to remove material from the roadway will be at the Developers expense and any such costs are payable prior to the issue of a Subdivision Certificate.

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

- Noise, water or air pollution
- dust during filling operations and also from construction vehicles
- material removed from the site by wind

42. Landscaping of the site shall be carried out in accordance with the approved Landscaping Plans.

43. Any damage caused to public infrastructure during construction of the development shall be repaired in accordance with Councils Development Design and Construction Specifications prior to the issue of a Subdivision Certificate.

44. Tweed Shire Council shall be given a minimum 24 hours notice to carry out the following compulsory inspections in accordance with Tweed Shire Council Development Control Plan, Part A5 - Subdivision Manual, Appendix D. Inspection fees are based on the rates contained in Council's current Fees and Charges:

**Roadworks**

- (a) Pre-construction commencement erosion and sedimentation control measures
- (b) Completion of earthworks
- (c) Final inspections - on maintenance
- (d) Off Maintenance inspection

**Drainage**

- (a) Excavation
- (b) Bedding
- (c) Laying/jointing
- (d) Backfilling
- (e) Permanent erosion and sedimentation control measures
- (f) Drainage channels
- (g) Final inspection - on maintenance
- (h) Off maintenance

Council's role is limited to the above mandatory inspections and does **NOT** include supervision of the works, which is the responsibility of the Developers Supervising Consulting Engineer.

The EP&A Act, 1979 (as amended) makes no provision for works under the Water Management Act 2000 to be certified by an "Accredited Certifier".

45. The developer/contractor is to maintain a copy of the development approval and Construction Certificate approval including plans and specifications on the site at all times.
46. The works are to be completed in accordance with Tweed Shire Councils Development Control Plan, Part A5 - Subdivision Manual and Design & Construction Specifications, including variations to the approved drawings as may be required due to insufficient detail shown on the drawings or to ensure that Council policy and/or good engineering practices are achieved.
47. 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.

This inspection program is to be maintained until the maintenance bond is released or until Council is satisfied that the site is fully rehabilitated.

**PRIOR TO ISSUE OF SUBDIVISION CERTIFICATE**

48. Prior to issue of a Subdivision Certificate, all works/actions/inspections etc required by other conditions or approved management plans or the like shall be completed in accordance with those conditions or plans.

49. Prior to the issue of a Subdivision Certificate a defect liability bond (in cash or unlimited time Bank Guarantee) shall be lodged with Council.
50. The bond shall be based on 5% of the value of the works (minimum as tabled in Council's fees and charges current at the time of payment) which will be held by Council for a period of 6 months from the date on which the major central drain and open drain between the major central open drain and Cobaki Creek is dedicated as Drainage Reserve. It is the responsibility of the proponent to apply for refund following the remedying of any defects arising within the 6 month period.
51. A bond shall be lodged prior to the issue of the Subdivision Certificate to ensure that the landscaping associated with the drainage corridor is maintained by the developer for a period of 6 months from the date on which the major central drain and open drain between the major central open drain and Cobaki Creek is dedicated as Drainage Reserve. The amount of the bond shall be 20% of the estimated cost of the landscaping or \$3000 whichever is the greater.
52. Prior to the issue of a Subdivision Certificate, a Certificate of Compliance shall be submitted to Council by the Developers Subdivision Works Accredited Certifier (SWAC) or equivalent, verifying that the placed fill has been compacted in accordance with the requirements of AS 3798, "Guidelines on Earthworks for Commercial and Residential Developments" and is suitable for the intended purposes.

The submission shall include copies of all undertaken test results.

53. All landscaping requirements shall be completed to the satisfaction of the General Manager or his delegate **PRIOR** to the issue of a Subdivision Certificate.
54. All Regeneration and Rehabilitation works shall be completed to a level specified in approved Regeneration and Rehabilitation Plans, prior to the release of the associated Subdivision Certificate. These works shall be maintained (as required) to the satisfaction of the General Manager or his delegate. Any trees identified for retention shall not be removed without separate Council approval.
55. Any damage to property is to be rectified to the satisfaction of the General Manager or his delegate **PRIOR** to the issue of a Subdivision Certificate. Any work carried out by Council to remove material from the roadway will be at the Developers expense and any such costs are payable prior to the issue of a Subdivision Certificate.
56. Prior to the issue of a Subdivision Certificate, Works as Executed Plans shall be submitted in accordance with the provisions of Tweed Shire Council Development Control Plan A5 - Subdivisions Manual and Councils Development Design and Construction Specification, D13 - Engineering Plans.

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

- (a) all drainage lines, services and structures are wholly contained within the relevant easement created by the subdivision;
- (b) the plans accurately reflect the Work as Executed.

**Note: Where works are carried out by Council on behalf of the developer it is the responsibility of the DEVELOPER to prepare and submit works-as-executed (WAX) plans.**

57. A Subdivision Certificate will not be issued by the General Manager until such time as all conditions of this Project Application have been complied with.
58. A Section 88B Instrument shall be submitted with the Subdivision Certificate application, for Council's endorsement, creating easements for services, access, rights of carriageway and restrictions as to user as may be applicable under Section 88B of the Conveyancing Act.

Pursuant to Section 88BA of the Conveyancing Act (as amended) the Instrument creating the right of carriageway/easement to drain water shall make provision for maintenance of the right of carriageway/easement by the owners from time to time of the land benefited and burdened and are to share costs equally or proportionally on an equitable basis.

Any Section 88B Instrument creating restrictions as to user, rights of carriageway or easements which benefit Council shall contain a provision enabling such restrictions, easements or rights of way to be revoked, varied or modified only with the approval of Council.

59. Council's standard "Asset Creation Form" shall be completed (including all quantities and unit rates) and submitted to Council with the application for Subdivision Certificate.
60. Prior to registration of the plan of subdivision, a **Subdivision Certificate** shall be obtained.

The following information must accompany an application:

- (a) original plan of subdivision prepared by a registered surveyor and 7 copies of the original plan together with any applicable 88B Instrument and application fees in accordance with the current Fees and Charges applicable at the time of lodgement.
- (b) all detail as tabled within Tweed Shire Council Development Control Plan, Part A5 - Subdivision Manual, CL 5.7.6 and Councils Application for Subdivision Certificate including the attached notes.

**Note:** The Environmental Planning and Assessment Act, 1979 (as amended) makes no provision for works under the Water Supplies Authorities Act, 1987 to be certified by an Accredited Certifier.

61. Prior to the application for a **Subdivision Certificate** a Compliance Certificate or Certificates shall be obtained from Council **OR** an accredited certifier for the following:-
- (a) Compliance Certificate – Roads / Bulk Earthworks
- (b) Compliance Certificate – Drainage

**Note:**

1. All compliance certificate applications must be accompanied by documentary evidence from the developers Subdivision Works Accredited Certifier (SWAC) certifying that the specific work for which a certificate is sought has been completed in accordance with the terms of the development approval, the construction certificate, Tweed Shire Council's Development Control Plan Part A5 - Subdivisions Manual and Councils Development Design and Construction Specifications.
2. The EP&A Act, 1979 (as amended) makes no provision for works under the Water Management Act 2000 to be certified by an "accredited certifier".

62. A six (6) months Defects Liability Period over the major central drain and open drain between the major central open drain and Cobaki Creek commences upon the dedication of that area as Drainage Reserve.
63. Prior to the issue of a Subdivision Certificate and also prior to the end of defects liability period, a CCTV inspection of any stormwater pipes and culverts installed and intended to be dedicated to Council including joints and junctions, will be required to demonstrate that the standard of the infrastructure is acceptable to Council.

Any defects identified by the inspection are to be repaired in accordance with Councils Development Design and Construction Specification.

All costs associated with the CCTV inspection and repairs shall be borne by the applicants.

64. All lots must be graded to prevent the ponding of surface water and be adequately vegetated to prevent erosion from wind and/or water to the satisfaction of the General Manager or his delegate.
65. Prior to the issue of a Subdivision Certificate, Council must undertake a final inspection of the works and be satisfied that all conditions of approval have been complied with.
66. Flooding

Prior to issue of a Subdivision Certificate, the Design Flood Level Map shall be updated to include Works As Executed levels for Bulk Earthworks and any other works that may affect flood behaviour and submitted to Council.

67. Prior to the issue of a Subdivision Certificate for any subsequent urban Precinct, the Developer shall dedicate to Council as Drainage Reserve the major central open drain and the open drain between the major central open drain and Cobaki Creek. All other land within the Central Precinct shall remain private land until such time as it is embellished to a standard acceptable to Council, subject to future development approval, and dedication as public open space. These requirements for dedication may be varied by the Director Engineering & Operations.

#### Environmental Health

68. All remediation works are to be carried out in accordance with the remediation described in the Remediation Action Plan, Turners Creek Dip Site (Sandy Lane), Cobaki Lakes prepared by Aargus Pty Ltd dated June 2003 and with the documents developed as required by Interim Site Audit Advice 0103-0908-01 (22/07/2009).
69. On completion of remediation works, a Remediation and Validation Report prepared by a suitably qualified and experienced person shall be submitted to a NSW EPA Accredited Site Auditor for review prior to a Site Audit Statement being issued. A copy of the Remediation and Validation Report shall be submitted to Council.
70. A Site Audit Statement (SAS) completed by a NSW EPA Accredited Site Auditor in accordance with the provisions of the Contaminated Land Management Act 1997 is to be submitted to Council within thirty (30) days from submission of the final Remediation and Validation Report. The SAS is to certify that the land is suitable for the proposed landuse. Conditions imposed on the SAS shall form part of this approval. Where the SAS conditions, if applicable, are not consistent with this approval, a Section 96 application

pursuant to the provisions of the Environmental Planning and Assessment Act 1979 will be required to ensure the conditions of the SAS form part of the approval conditions.

71. The potentially contaminating activity identified as 'spray race, chemical storage and fuel storage, on-site wastewater disposal' on the Cobaki Lakes Constraints Map (prepared by Michel Group Services, Plan 6400-170A dated 12/10/09) shall be investigated and remediated to the satisfaction of Council prior to dedication of the adjacent long narrow area of open space indicated in the south-western portion of the site adjacent.
72. A detailed Acid Sulfate Soil (ASS) Investigation and Management Plan shall be submitted to Council for review, where ASS is likely to be intercepted. All investigations and management plans must be approved by Council prior to issue of a construction certificate and works undertaken in accordance with approved plans.
73. A detailed Groundwater Investigation and Management Plan shall be submitted to Council for review, where groundwater is likely to be intercepted. All investigations and management plans must be approved by Council prior to issue of construction certificate and works undertaken in accordance with approved plans.

#### Sewer and Water

74. The Project Application does not include approval of trunk infrastructure. A further development application should be provided for approval by Council.

#### Open Space

75. The applicant shall provide details on the actual areas of casual and structured open space proposed to be dedicated as part of the Project Application prior to issue of construction certificate. Spatial break-down of areas should be provided, including evidence demonstrating compliance with Council's Development Control Plan (DCP) Section A5. Council will not accept areas which do not comply with Council's DCP A5.
76. Embellishment of structured open space shall be subject to further Part 4 or Part 5 development applications where required, and design criteria including finished ground levels must take into account flood levels, to the satisfaction of the Council.
77. Prior to dedication of any structured open space areas, the proponent must demonstrate to the satisfaction of Council that use of the sportsfields will not be restricted due to conflict with future adjacent residents, drainage, habitat and wildlife corridor areas (etc.). Particularly in regards to potential conflict between adjoining landuses and sports lights, fertilising programs and other standard sportsfield management practices. This shall be demonstrated through an appropriate buffer distances and demonstrated evidence.
78. The 'Possible Clubhouse / Carparking Location' must be relocated and subject to further Part 4 or Part 5 development applications where required. Separate clubhouse facilities must be provided to service the northern and southern sportsfields.
79. The proponent must submit a detailed landscape plan for the central open space precinct to be approved by Council prior to issue of Construction Certificate. This shall include the drainage corridor and future open space areas.
80. Detailed works as executed plans must be provided for all completed works in the Central Open Space Area. This includes all civil works, building construction, sports lighting, irrigation and others as required by Council.



Subdivision Plan

81. An amended subdivision plan must be provided which includes provision of a separate lot for each of the central drainage corridor and open space areas.

Yours faithfully

**Vince Connell**  
**DIRECTOR PLANNING AND REGULATION**

# **ATTACHMENTS**

**DETAILED MEMORANDUMS AND COMMENTS**

**CONCEPT PLAN – ADDENDUM TO THE PPR**

## Ecological Comments

Note that comments in this section apply to the Concept Plan and the Project Application.

| Issues raised by TSC   | Proponents response   | TSC response   |
|--|---|--|
| <b>Flora and Fauna Assessment</b>  |   |  |
| <i>Section 5A Assessments Required</i>   |   |  |
| Further individual assessment reports are required for the project application in relation to the four threatened flora species, two threatened species and three EECs | Detailed design data now available for the Central Open Space Area at Cobaki Lakes. The Environmental Assessment which was submitted as part of the Preferred Project Report has therefore been revised to consider this additional design detail, including the Section 5a Assessments | Section 5A Assessment have been undertaken for the Cobaki Parkway 'missing link' only. Within areas that earthworks have been undertaken, Section 5A assessments appear to discount the significant ecological conditions associated with relevant DA's which required retention, protection and offsetting for loss of species within these areas and that have not yet been undertaken as they have not yet reached their hold point (subdivision certificate).  |
| <i>Offset Details</i>  |   |  |
| No detail is provided in an offset plan for the removal of Wallum Froglet habitat  | Wallum Froglet habitat is being provided adjacent to the central drainage channel. An off-site offset will also be implemented to the approval of DECCW   | <p>Noted. However the Revised Freshwater Wetland Rehabilitation Plan provides no detail on how Wallum Froglet habitat will be constructed on site, monitoring requirements, contingency planning in the case of failure, etc. As a consequence it is difficult to assess the validity of use of this area as an offset for Wallum Froglet. Regarding an off-site offset area, Council has requested advice from DECCW as to the current status on any offset plan. Council has received advice from DECCW that whilst the proponent has endeavoured to locate acceptable offsets (for Freshwater Wetland EEC clearing and removal of habitat for Wallum Froglet, Wallum Sedge Frog, Brolga and Black-necked Stork), to date this has not been acceptable. DECCW has proposed that a revised Statement of Commitments be inserted into the proposal which requires the proponent to enter into a Planning Agreement with DECCW and DoP. Whilst Council does not consider the removal of Freshwater Wetland EEC and threatened fauna habitat prior to securing acceptable offsets as adequate, it acknowledges that DECCW is the public authority responsible for assessment of Part 3A projects in relation to flora, fauna and threatened species issues.</p> <p>As above, offset requirements have not accounted for existing offset obligations of DA's which have not yet been fulfilled even though the habitat requiring offsetting has been removed. Thus offsets are only sought for further clearing works and this substantially underestimates the actual loss of habitat from the site which should be subject to compensation. Relevant conditions provided below.</p> |
| <i>Treatment and management of Stormwater in Wetland Area</i>  |   |  |
| Location of roads, bike and pedestrian pathways in Wetland Area is unacceptable  | Development will occur in parts of the area presently classified as Freshwater Wetlands in accordance with the approved Concept Plan. Pathways and bike ways are not proposed   | It is noted that bike and pedestrian pathways are not included within the 2.25ha Freshwater Wetland EEC/Wallum Froglet habitat offset area (off-line to the stormwater system). As the central open drainage system is not accepted as an offset area, there is no requirement to reduce bike and pedestrian pathways in this open   |

| Issues raised by TSC   | Proponents response  | TSC response  |
|--|--|---|
|  | within other existing areas or in wetland areas to be created in accordance with the Concept Plan. Roads will cross an intended fauna corridor that will be developed as Freshwater Wetland in accordance with the Concept Plan  | space area (refer to Council's response to Freshwater wetland Plan Deficiencies below)<br>Regarding roads, it is noted the Freshwater Wetland EEC/Wallum Froglet core habitat offset area is bisected by four roads (Sandy Road, Cobaki Parkway and two local roads) and the central open drainage corridor. Some detail has been provided by the applicant on fauna underpass design. However it appears that fauna underpasses will be situated predominantly over the minor open drainage corridor, with a small ledge for fauna to use when drains are full. More detail should be provided by the applicant on how connectivity and ecological function will be maintained within the created Freshwater Wetland and Wallum Froglet habitat areas with numerous barriers to movement in this 'fauna corridor' area. For instance, what is the target fauna that will utilise fauna crossings, is the design suitable (i.e. based on monitoring has it been successful/ unsuccessful), have similar type of crossings been used with success with Wallum Froglet? |
| <i>Salinity Impacts</i>  |  |   |
| Inputs of saline water is incompatible with freshwater wetland and Wallum Froglet habitat                | A lake is no longer proposed   | It is noted that removal of the lake negates the need to transfer saltwater from Cobaki Creek to the lake in order to manage water quality  |
| <i>Acid Sulphate Impacts</i>   |  |   |
| ASS Management Plan does not consider impacts once drains, constructed wetlands and lake are operational | The revised proposal, which includes deletion of the lake and filling of the central drainage area will prevent any significant disturbance of ASS. Regardless, ongoing monitoring during the operational phase is required under the provisions of the ASS Management Plan and the Stormwater Management Plan. If monitoring identifies impacts during the operational phase, these impacts will be managed in accordance with provisions of the ASS Management Plan. | It is noted that the lake has been deleted.   |
| <b>Freshwater Wetland Rehabilitation Plan Deficiencies</b>   |  |   |
| <i>Inadequate offsets are proposed</i>   |  |   |
| The area proposed is not sufficient  | An off-site offset is to be implemented to the approval of DECCW, in accordance with the Statement of Commitments  | The revised Freshwater Wetland Rehabilitation Plan reports that the central open drainage system will enable creation of 19.52ha of Freshwater Wetland EEC. This is not an acceptable offset as this area will be created and managed for stormwater treatment and conveyance. The revised Plan reports that 2.25ha of Freshwater Wetland EEC will be created offline from the stormwater management system but within the east-west minor open drainage channel. The creation and long term viability of these small fragmented wetland 'ponds' is questionable due to their location and surrounding conflicting land uses (roads, stormwater drainage, residential). No ecological buffer to this EEC offset areas is proposed and these areas will require ongoing maintenance. As very little detail has been provided on the construction of Wallum Froglet habitat, it is difficult to assess the validity of use of this area as an offset for Wallum Froglet.  |

| <b>Issues raised by TSC</b>   | <b>Proponents response</b>  | <b>TSC response</b>   |
|---|---|---|
| <i>Stormwater will be unsuitable for Wallum Froglets</i>                                    |   |   |
| Concern wetland will be maintained by alkaline stormwater                                   | The on-site Freshwater Wetland area is to be developed and maintained in accordance with the Revised Freshwater Management Plan. Wallum Froglet habitat will be offline from drainage channels. | The revised Plan reports that 2.25ha of Wallum Froglet 'core' breeding habitat will be created offline from the stormwater management system but within the east-west minor open drainage channel. Whilst Wallum Froglet habitat is to be offline from drainage channels, the configuration of the Wallum Froglet 'ponds' will mean that Wallum Froglets need to utilise several road underpasses and cross the minor open drainage channel to utilise 'core' habitat provided in this area. The Plan notes that the entire Freshwater Wetland Rehabilitation Area will be subject to earthworks for the purpose of creating core habitat areas. However as very little detail has been provided on the construction of Wallum Froglet habitat, it is difficult to assess the validity of use of this area as an offset for Wallum Froglet. |
| <i>Mitigation measures for non-native fauna are not detailed</i>                            |   |   |
| Funding and details for ongoing management or these measures is not addressed               | Details have been provided in the Revised Freshwater Wetland Rehabilitation Plan  | No further details have been provided by the applicant as to how the mitigation measures to reduce impacts from non-native fauna on Wallum Froglets will be funded into the future (Cane Toads, Gambusia, dogs and cats). It is highly likely Council will not have funds to manage these identified threats in the future.   |
| <i>Zoning of Wetland areas</i>  |   |   |
| The freshwater wetland areas should be zoned environmental protection before rehabilitation | The zonings of the site will be determined as part of the Concept Plan approval   | It is noted that the minor open drainage corridor is zoned Environmental Protection and the Central Open Drainage Corridor zoned Open Space. These zonings are acceptable, provided the Central Open Drainage Corridor is not utilised as a Freshwater Wetland EEC offset area and the Freshwater Wetland Rehabilitation Plan is amended accordingly.   |
| <i>Maintenance period too low</i>   |   |   |
| Maintenance period of 2-3 years is insufficient   | Rehabilitation works will not be approved as suitable to go onto the maintenance period until complete. The normal maintenance period is considered adequate.                                   | It is reiterated that the proposed maintenance period of 2-3 years is insufficient. As the Freshwater Wetland Rehabilitation Plan involves creation of Freshwater Wetland EEC and Wallum Froglet habitat to offset clearing elsewhere on the development site, the maintenance period should be minimum 10 years, preferably 15 years. Regardless, Council will not accept responsibility for these areas until Council approved performance criteria are met.  |
| <i>Need for performance criteria</i>  |   |   |
| The performance criteria in the FWRP are inadequate   | More detailed performance/completion criteria have been provided in the Revised Freshwater Wetland Rehabilitation Plan  | It is noted there are a few additional performance criteria. These are still not adequate and Council requests further input into the wording/content of performance criteria. For instance there are no performance criteria relating to water quality of the Freshwater Wetland/Wallum Froglet EEC offset areas. However water quality is integral to the future health of the wetland area, and particular important to manage aquatic weed growth and ensure suitable habitat for Wallum Froglets to survive and breed.   |
| <b>Saltmarsh Rehabilitation Plan</b>  |   |   |
| <i>Stormwater impacts on saltmarsh</i>  |   |   |
| Drainage of stormwater into saltmarsh area will   | Drainage impacts will be reduced due to the extensive   | The Saltmarsh Rehabilitation Plan (October 2009) noted discharge of stormwater from the central open drainage   |

| <b>Issues raised by TSC</b>  | <b>Proponents response</b>  | <b>TSC response</b>   |
|--|---|---|
| <p>result in scouring, sedimentation, increased nutrient input and altered salinity</p>  | <p>wetland construction in the drainage channel. No detrimental impacts are envisaged.</p>  | <p>channel via a series of box culverts under Sandy Lane, with stormwater dispersing over the saltmarsh area and the saltmarsh provided a final polishing zone. Council requested an alternative trunk drainage path and discharge point when initially responding to the Central Open Space and Riparian Corridor Project Application. The Revised Saltmarsh Rehabilitation Plan has removed all references to a final stormwater site discharge point. However the Stormwater Quality Concept Plan shows stormwater discharging from the central open drainage channel from Cobaki Parkway into Dunn's Drain and then into Cobaki Creek. This is considered a more appropriate discharge point in light of constraints with discharging into Cobaki Creek at Cobaki Parkway (topography and major disturbance to ASS).<br/>The revised Saltmarsh Rehabilitation Plan needs to be amended to reflect this and allow for ongoing maintenance of the drain. It also should note any Swamp Oak and Saltmarsh EEC vegetation that will be affected by this stormwater discharge point and whether this has any impact on EEC offsetting.</p> |
| <i>Nutrient levels</i>   |   |   |
| <p>Saltmarsh area should not act as final polishing area for stormwater. Its sole purpose must be rehabilitation and conservation of the target communities.</p> | <p>The stormwater will be treated to a sufficient quality to meet the performance criteria prior to discharge to the saltmarsh area. The saltmarsh area is not needed for final polishing, however, the low levels of nutrients in the stormwater will feed the saltmarsh and in turn be removed from the stormwater</p>  | <p>As noted above, stormwater would be discharged into Dunns Drain from the central open drainage corridor, not discharged into areas of Saltmarsh under rehabilitation. This is considered a more appropriate discharge area for urban stormwater. Whilst it is understood the saltmarsh will be treated it is likely at times there will be elevated nutrient levels. Discharge of the bulk of the stormwater from the development site into Dunn's Drain should lessen nutrient input into the Saltmarsh Rehabilitation Area.</p>  |
| <i>Maintenance of drainage</i>   |   |   |
| <p>Remnant agricultural drains will fail from sedimentation</p>  | <p>Sedimentation is likely to occur at a slower rate than at present as cattle will be removed from these areas and the stormwater management proposal will ensure that water treated to the performance criteria is discharged into these areas. Regardless, the drainage function of the agricultural drains does not need to be maintained for the stormwater management system to function.</p> | <p>The original issue Council raised was that remnant agricultural drains within the Saltmarsh Rehabilitation Area would become filled with sediment over time. As no formalised stormwater discharge point from the central open drainage was proposed, Council would be reliant on existing remnant agricultural drains to drain stormwater. As Council would have no way to access drains to maintain them and ensure their stormwater drainage function, and maintenance works might be restricted in the Saltmarsh Rehabilitation Area, this was not considered a satisfactory option.<br/>Discharge of stormwater drainage via Dunn's Drain and annexing the drain inclusive of a maintenance easement (which has been agreed to by the applicant) is more appropriate.</p>   |
| <i>Modelling of wetland hydrodynamics</i>  |   |   |
| <p>There is no information on how increased stormwater and tidal inundations will affect the hydrodynamics of the saltmarsh area</p>                             | <p>Whilst it is agree (amongst experts in ecology) that the proposed management regime will result in an increase in the distribution and health of the saltmarsh community, an adaptive management strategy is proposed for the tidal inundation regime to ensure that the benefits to the health of the saltmarsh community and the fisheries values of the</p>                                   | <p>It is reiterated that inadequate information is provided by the applicant on site hydrology and how proposed changes to stormwater and tidal inundation may affect the site and therefore the success of the Saltmarsh Rehabilitation Plan.<br/><br/>The revised Plan also notes that 10.67ha of Freshwater Wetland EEC occurring within the SRA will be lost as a result of increased tidal inundation. This was not acknowledged in the original Saltmarsh Rehabilitation Plan. Why is Freshwater Wetland EEC being lost at the expense of creation of another EEC –Coastal Saltmarsh,</p>   |



| Issues raised by TSC   | Proponents response   | TSC response  |
|--|---|---|
|  | broadwater are maximised.   | when there are obviously large losses of Freshwater Wetland EEC in the central open space corridor, and inadequate offsets proposed for this community?   |
| <i>Species for rehabilitation inadequate</i>   |   |   |
| Planting species, composition and density should be based on a reference community located in close proximity to the site  | This detailed information will be collected for a reference site prior to the commencement of the rehabilitation works. The species selection methodology within the Revised Freshwater Wetland Rehabilitation Plan has been amended accordingly. | Additional plant species to be utilised in creation of EECs through revegetation plantings has been provided by the applicant (it is not known if these planting lists are based on a reference community located on or in close proximity to the site). The applicant should still provide information on the relative planting densities. Where the applicant is proposing creation of EECs to offset their clearance, enough information must be provided to ensure these revegetation areas become representative examples of these communities over time.  |
| <i>Climate change impacts</i>  |   |   |
| There is no capacity for landward expansion of the saltmarsh area to keep pace with losses as the sea level rises  | Substantial retreat areas for saltmarsh communities occur within the SRA along Cobaki Creek, adjacent to Piggabeen Road, and within the western portion of the EPZ zoned land.  | Cobaki Parkway still provides a significant barrier for landward expansion of the saltmarsh area.   |
| <i>Detail of tidal gates, pumps, etc</i>   |   |   |
| No detail is provided on the impacts of these structures to control tidal inundations nor is access to these structures provided   | Potential of such impacts is acknowledged and details of the tidal gates and access to these structures will be provided in future development applications   | The original and revised Plan notes that the current levee system along the banks of Cobaki Creek may require additional levelling, filling and excavation. The damaged floodgate should also be replaced with a fish friendly floodgate allowing regulated tidal inundation in the Saltmarsh Rehabilitation Area. In the event saltmarsh areas do not respond positively to removal of cattle, weed control and revegetation, obsolete drain filling or site levelling may also be required as an adaptive management response.<br>It is acknowledged that any structural works to regulate/improve tidal inundation within the Saltmarsh Rehabilitation Area will be undertaken by the applicant and subject to a Development Application. This should be noted within the Saltmarsh Rehabilitation Plan. |
| <i>Revegetation issues and mosquitoes</i>  |   |   |
| Revegetation with Swamp Oak and mixed species may create a corridor for the mosquito <i>Verrallina funerea</i> and other offset area for rehabilitation may be required. | A detailed Mosquito Management Plan has been prepared for the development   | Concerns remain.  |
| <b>Site Regeneration and Revegetation Plan</b>   |   |   |
| <i>Lack of detail for on ground restoration</i>  |   |   |
| There is no detail of the on-ground methods that will be employed to achieve the site restoration strategies   | On-ground methods will be detailed in individual Regeneration & Revegetation Plans prepared for specific stages of the development, and in conjunction with the engaged Regeneration Team   | It is noted that detailed and site specific Regeneration/Revegetation Plans will be prepared and submitted with subsequent Development Applications for precincts. The applicant is to ensure that where environmental protection areas are adjacent precinct areas, a Regeneration/Revegetation Plan for that area is to be provided with the DA for that precinct.  |
| <i>Deficiencies in offset strategy</i>   |   |   |
| Background information to support offset proposal  | Detailed information for proposed onsite offsets will be  | Concerns remain and will be increased if completed earthworks are approved by the Concept without the   |

| Issues raised by TSC   | Proponents response   | TSC response  |
|--|---|---|
| <ul style="list-style-type: none"> <li>- development impacts for which offsetting is proposed</li> <li>- Description and quantification of the offsets accounting for time lag and risk</li> <li>- Securing of the site</li> <li>- Monitoring and reporting</li> <li>- Contingency plans in the case of failure</li> </ul>   | <p>the subject of detailed stage-specific Management Plans at the relevant time. Furthermore, offsite offset are currently the subject of negotiations with DECCW.</p>  | <p>rollover of relevant associated Development application conditions or applicable increases in offset areas.</p>  |
| <i>Amendments required to restoration plans</i>  |   |   |
| <ul style="list-style-type: none"> <li>- Aims and objectives</li> <li>- Measurable and time based performance indicators</li> <li>- Identifications of legislative and physical constraints</li> <li>- Location of noxious weeds</li> <li>- Identification of issues and threats to biodiversity</li> <li>- Actions to address threats</li> <li>- Identify restoration strategies for goal communities across the site</li> <li>- Minimise impacts on existing fauna and flora</li> <li>- Implementation schedule including resource requirements</li> <li>- Qualifications of restoration personnel</li> <li>- Monitoring strategy on aims and objectives being achieved</li> </ul> | <p>As detailed in the Site Regeneration &amp; Revegetation Plan, specific restoration plans will be prepared for each management precinct at the relevant time. These detailed plans will include all information requested by Council in their submission.</p> | <p>Noted that detailed and site specific Regeneration/Revegetation Plans will be prepared and submitted with subsequent Development Applications for precincts.</p>       |
| <b>Annexures</b>   |   |   |
| <i>Use of threatened species in revegetation areas</i>   |   |   |
| <p>No threatened species should be used unless by natural recruitment rather</p>   | <p>A Threatened Plan Species Management Plan will be prepared at the relevant time.</p>   | <p>Council will not approve to the collection, propagation and revegetation of threatened species on the site unless justified and in strict accordance with the ANPC</p> |

| <b>Issues raised by TSC</b>  | <b>Proponents response</b>   | <b>TSC response</b>  |
|--|--|--|
| than collection of genetic material, propagation and revegetation  |  | 'Guidelines for the Translocation of Threatened Plant Species in Australia' and undertaken in accordance with any licences/permits as required by DECCW.   |
| <i>Inadequate buffer areas</i>   |  |  |
| Offset areas should not have a dual function of providing a buffer   | Any offset areas proposed on the subject site will be provided with a buffer where necessary. This detailed information will be the subject of stage specific management plans at the DA stage.<br>It is also noted that the proposed offsets are to be provided in combination with offsite offsets, currently being negotiated with DECCW. The combination of offsets will ensure adequate compensation is achieved for all EEC impacted by the development. | Reiterated that buffers should be provided to all offset areas and asset protection zones do not provide adequate ecological buffers to these areas and must not serve a dual function.<br><br>As detailed earlier with regard to off-site offsets, DECCW has advised that whilst the proponent has endeavoured to locate acceptable offsets, to date this has not been acceptable.  |
| <i>Future maintenance costs and funding</i>  |  |  |
| Estimated costs of maintenance to be provided and a funding source for the restoration areas in perpetuity | The environmental areas will be rehabilitated in accordance with approved plans and maintained for the normal maintenance period. Most of these areas will then be transferred to Council ownership, at which time the funding of ongoing maintenance will be negotiated. Some areas may be attached in ownership to adjacent developments lots and become the responsibility of the owners of such lots.  | The applicant has not provided estimated costs of maintenance or a funding source for the restoration areas in perpetuity. As Council could potentially be dedicated up to 194ha of Environmental Protection areas to manage for conservation purposes and no funding source for restoration areas in perpetuity has been identified, the maintenance period for restoration areas should be minimum 10 years, preferably 15 years. Furthermore, Council will not accept responsibility for these areas until Council approved performance criteria are met. |
| <i>Inadequate regeneration methods</i>   |  |  |
| Details of regeneration methods to be provided   | This detailed information will be the subject of staged specific management plans at the DA stage  | Noted  |
| <i>Licence required for harvesting local seed bank</i>   |  |  |
| A section 132C licence is required for harvesting seeds  | Agreed   | A Section 132C licence should also be required for any bush regenerator who undertakes bush regeneration works within an EEC, or within the habitat of a threatened species  |
| <i>Ecologist required rather than a horticulturist</i>   |  |  |
| A qualified ecologist with suitable experience in restoration is required                                  | The Revised Site Regeneration & Revegetation Plan has been amended accordingly.  | Noted  |
| <i>Threats to significant ecological values</i>  |  |  |
| Existing and potential threats to significant ecological values have not been addressed                    | The intention of the SRRP is to provide a framework/overview for the rehabilitation of the site. Existing and potential threats have been discussed in detail in the Ecological Assessment.  | Noted  |

| <b>Issues raised by TSC</b>  | <b>Proponents response</b>   | <b>TSC response</b>   |
|--|--|---|
|  | More specific details will be provided in the Rehabilitation Plans prepared for each management precinct.  |   |
| <i>Weed control methods</i>  |  |   |
| Weed control details are not provided  | As stated in the SRRP, a detailed weed removal plan will be prepared for each management precinct. Weed control methods to be implemented where necessary are contained within Annexure 5 of the SRRP                      | Noted   |
| <i>Inadequate maintenance period</i>   |  |   |
| Regeneration may take much longer than the proposed 3 year maintenance period  | All detailed Management Plans to be prepared at the DA stage will include completion criteria. If at the end of the maintenance period the completion criteria have not been met, monitoring and maintenance will continue | As above, the maintenance period should be minimum 10 years, preferably 15 years. Regardless, Council will not accept responsibility for these areas until Council approved performance criteria are met. |
| <i>Inadequate performance criteria</i>   |  |   |
| No performance criteria have been provided. These are needed to be agreed by TSC and monitored to assess achievement.  | Revised rehabilitation and revegetation management plans have been submitted   | Performance criteria must be included within each site specific Regeneration/Revegetation Plan. These will be approved by Council at the DA stage.  |
| <i>Water reservoir impacts</i>   |  |   |
| Water reservoir is proposed in an Environmental Protection Area with no justification. Access road would bisect an area of retained vegetation proposed as an offset area. | The water reservoir site has been approved in an existing consent and access is to be provided from an existing road reserve on the boundary of the site. However, the reservoir is not part of the present application.   | Acknowledged the reservoir is not part of the Central Open Space and Riparian Corridor Project Application.   |

## Rezoning

Previous concerns and opposition in relation to the major rezonings to residential use remain valid. Although the change from Open Space to Environmental protection zones for natural areas is supported, comparison of Figures 3 and 4 of the Revised Assessment of Significance clearly shows the overall increase in “pink” or developable areas, particularly in the south of the site where saltmarsh and freshwater wetlands are proposed to be removed. Areas 15 and 16 in particular are opposed.

## Road Reserve over Saltmarsh

It is understood that increasing road reserve width for Cobaki Parkway in the south of the site reduces two previous proposed linear impacts to one. However, a 100m road reserve would appear excessive where EEC’s are being impacted. This additional road reserve area requires consideration in all relevant plans and assessments and should require additional offsetting. Road construction in this sensitive area adjacent Cobaki Creek area is likely to be difficult and strict acid sulfate soil and erosion and sediment control measures must be implemented to avoid significant acid export or sediment input to Cobaki Broadwater.

## Offsets

Proposed offsets do not include offsets already required by existing approved development consents. The Ecological Assessment and Assessments of Significance have based conclusions with regard to impacts and calculation of offsets upon consideration of the site as it currently stands. Earthworks already undertaken on the site were approved by Council on the basis of significant habitat retention, protection and restoration as offsets to the impact of those earthworks.

The current reports do not consider these previous requirements, nor what appears to be loss of species that were to be retained (see for example an extract below from a Species Impact statement which illustrates threatened plants and old growth trees to be retained on part of the site) and appear to discount values and required offsets if areas or species are contained within areas already subject to development consent. Overall, this has resulted in undervaluing the ecological value of the site and thus reducing required retention or offsetting measures by which the development can be considered as not having a significant impact on threatened species, populations or ecological communities. If the earthworks completed to date are to be approved within the Concept Plan approval then the ecological requirements that accompanied the relevant consents must also be undertaken in addition to offsets calculated upon Concept Plan impacts.

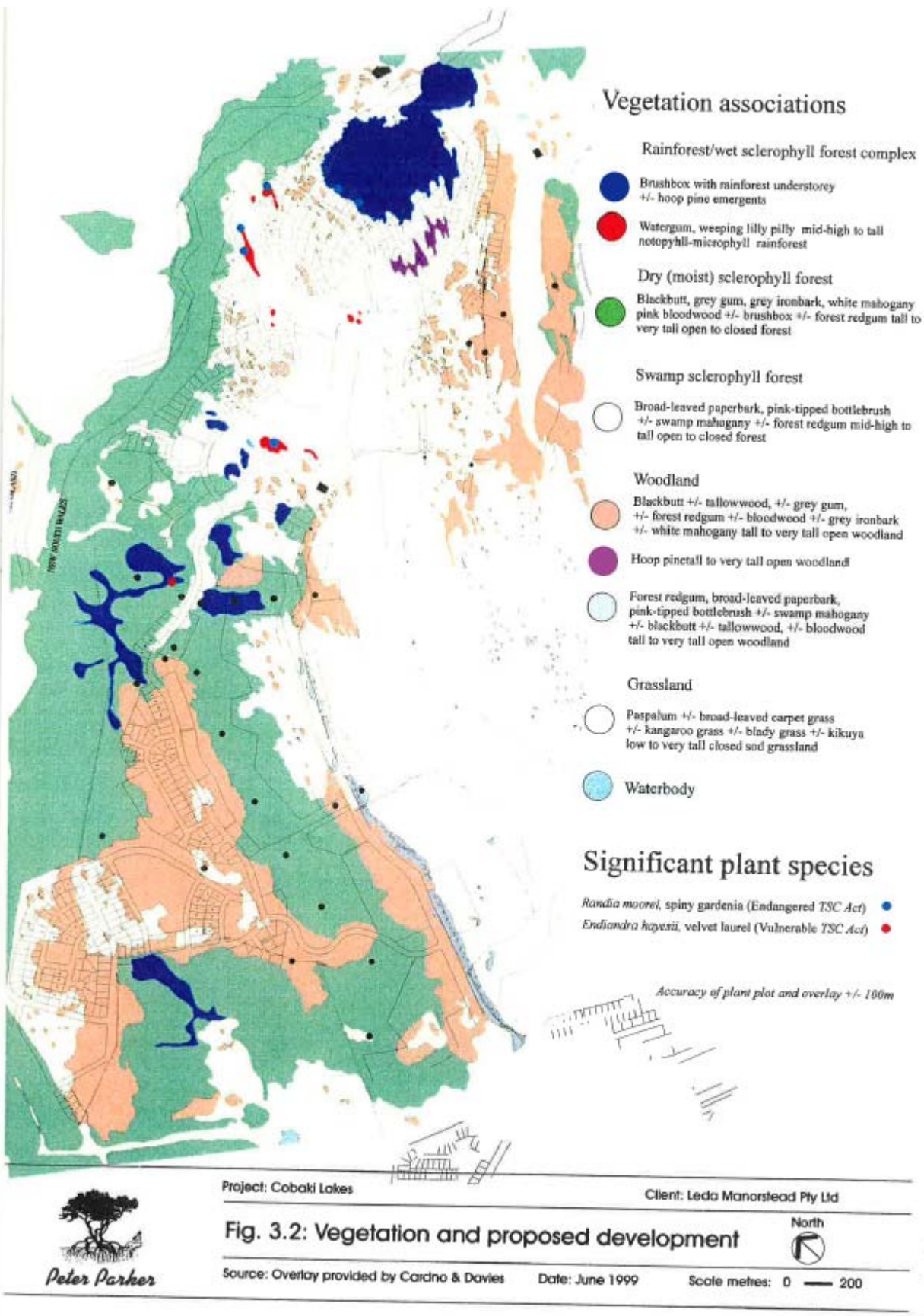


Figure: Extract from Species Impact Statement 1999 which formed the basis of consent conditions requiring retention of the species represented by dots as illustrated. Black dots represent old growth trees required to be retained throughout the site, some of which appear from current aerial photographs to be within a now entirely cleared area, as do some of the *Randia moorei* (blue dots). Loss of these species should be compensated or species require protection within the Concept Plan.

Existing consent conditions relating to the three main development consents over the site that have approved the earthworks undertaken to date are repeated below and are relevant to issues raised elsewhere in Council's submissions to the Department of Planning. Most of the environmental conditions have not yet reached their hold point, which is generally release of a subdivision certificate. Thus, earthworks that were approved based on offsets to be undertaken

#### Previous Consent conditions relevant to environmental controls over the Cobaki Lakes estate

##### **Section 96 Application D94/0438.04 - amendment to Development Consent D94/0438 for bulk earthworks at Lots 205, 206, 209, 199, 228, 305, 54, 55, 46, 200, 201, 202 DP 755740; Lot 2 DP 566529; Lot 1 DP 562222; Lot 1 DP 570077; Lot 1 DP 823679; Lot 1 DP 570076; No. 73 Old Piggabeen Road Cobaki Lakes**

23. *An Environmental Officer to be engaged for the whole period of the proposed work by the proponent, such officer to be an appropriately professionally qualified environmentalist; tasks to be set out in Section 8 of the Statement of Environmental Effects by Sinclair Knight Merz.*
24. *The applicant shall be responsible for the implementation of a Water Quality Management program with supervision by the proposed "Environmental Officer" in accordance with Development Control Plan No 17, Section 3.5 and the guidelines referred to therein. In general the applicant shall be responsible for the:*
  - *design and implementation of a statistically valid baseline monitoring program;*
  - *implementation of construction and operational phase monitoring; and*
  - *periodic report, review of results, modification of the monitoring program, and recommendations with respect to on site systems alterations.*

*The applicant shall be responsible for maintaining and monitoring the program to ensure the quality of supernatant water collected in the sedimentation/Water Quality Pond is released in a controlled manner so that there are no detrimental effects upon Cobaki Creek and Cobaki Broadwater receiving waters to meet the water quality criteria set out in Development Control Plan No 17, Section 3.5.*

- 34a. *Environmental impact of proposed works to be mitigated by implementation of the 17 point recommendations by James Warren, Environmental and Biological Consultant, on page 34 (section 5.2) of his report, November 1994 entitled "Flora and Fauna Assessment" submitted with the development application or by the implementation of such alternative proposals approved by Council based on supporting evidence submitted by the proponent in relation to interim works.*
35. *Applicant to provide details showing that sedimentation pond P1 does not encroach upon or adversely affect the proposed Potoroo Rehabilitation Area as identified in the Management Plan for the Long-Neck Potoroo at Cobaki (September 1994 - J Warren).*
- 36a. *Vegetation Rehabilitation Plan to be submitted for proposed work (cut and fill areas) indicating permanent and temporary revegetation, method of revegetation, plants, fencing, topsoil spreading, mulching, watering, and including vegetated buffers, embellishment plantings, koala food trees, etc, nominated in J Warren's "Flora and Fauna Assessment" November 1994 recommended amelioration measures, or by such alternative plan as approved by Council in relation to interim works.*
37. *Secure fence to be established and maintained around Scribbly Gums to protect these trees during site works.*
38. *Earthworks and disturbance for fill area F9 to provide for 20 metre wide vegetated buffer to the 7(l) zoned Tree and Shrub Heathland areas in accordance with C5 of Section 6.12 of Development Control Plan No 17.*

#### **NOTICE NO. 1262/2001DA**

##### **Section 96 Application 1262/2001DA.02 - amendment to Development Consent 1262/2001DA for a subdivision involving the creation of eight (8) masterlots and bulk earthworks**

9. *The only vegetation that can be removed is that directly required to be removed by earthworks, servicing of the development or providing a house site. No other vegetation is to be removed.*
10. *The network of public bush walking trails relevant to the land occupied by Lots 1 to 8 of this consent shall be constructed in accordance with DCP No. 17 and detailed engineering plans to accompany the Construction Certificate application for each stage.*
16. *An Environmental Officer shall be engaged to implement this consent and monitor and oversee the environmental effects of development during construction phases. Such officer to be an appropriately (professionally) qualified environmentalist, tasks to be as set out in the Management Plan accompanying the Statement of Environmental Effects by Sinclair Knight Merz that was submitted with DA S94/194, as amended by conditions of consent:*



- i. *All significant old growth trees which are to be retained as identified in the Species Impact Statement prepared by Peter Parker dated August 1999 (Figure 4.4) are to be clearly marked prior to commencement of works. This is to be monitored by the Environmental Officer to ensure that the trees are not damaged, destroyed or removed, with the exception of those trees to be removed as identified in the Flora and Fauna Assessment prepared by Peter Parker dated April 2002.*
  - ii. *Stock that currently graze over the site of Lots 1 to 8 of this consent shall be removed prior to the issue of a Subdivision Certificate*
  - (vi) *Vegetated filter strips are to be designed in accordance with (Ref 5.1). They are to be sized to provide 9 minutes average residence time for a design storm of 3 months (deemed to be 0.5 of the Q1 year event).*
18. *The Vegetation Rehabilitation Plan required by Condition 36 of Development Consent 94/438 is to be submitted and approved prior to commencing earthworks and prior to release of the Construction Certificate for the proposed development. All recommendations of the Vegetation Rehabilitation Plan are to be complied with prior to the release of the Subdivision Certificate to ensure that the rehabilitation is maintained by the developer for a period of 1 year or until the landscaping is established, whichever occurs first. The amount of bond shall be 20% of the estimated cost of the rehabilitation works.*

**Section 96 Application K99/1124.06 - Amendment to Development Consent K99/1124 for a 560 lot residential subdivision**

10. *The only vegetation that can be removed is that directly required to be removed by earthworks, servicing of the development or providing a house site. No other vegetation is to be removed.*
- 15A. *A Subdivision Certificate for each stage will not be issued by the General Manager until such time as all conditions of Development Consent No K99/1124 relevant to each stage have been complied with.*
30. *Where tree clearing is to be undertaken and the exclusions and exemption under the Native Vegetation Conservation Act 1997 do not apply, a consent will be required from the Department of Land and Water Conservation for tree removal prior to commencing work.*
31. *A Section 3A permit under the Rivers and Foreshores Improvement Act 1948, is required for any works within 40 metres of a watercourse with defined banks in a natural condition or of natural origin artificially altered with either a permanent or intermittent flow. This licence shall be obtained from the Department of Land and Water Conservation prior to carrying out any work pursuant to this consent.*
32. *An application is to be made to the Department of Land and Water Conservation to have the Crown Public Road closed and incorporated into adjoining freehold property. This Crown Public Road is located to the south of Lot 46 DP 755740 (Stage 6).*
41. *The Vegetation Rehabilitation Plan required by Condition 36 of Development Consent 94/438 is to be submitted and approved prior to commencing earthworks and prior to release of the Construction Certificate for Stage 1 of the proposed development. All recommendations of the Vegetation Rehabilitation Plan are to be complied with prior to the release of the linen plan to ensure that the rehabilitation is maintained by the developer for a period of 1 year or until the landscaping is established, whichever occurs first. The amount of bond shall be 20% of the estimated cost of the rehabilitation works.*
70. *The design of all Vegetated Filter Strips is to incorporate flow spreaders at the upstream end to evenly distribute runoff across the filter strip and all filter strips are not to receive discharges directly from stormwater pipes without energy dissipaters or flow spreaders being installed.*

**ENVIRONMENT PROTECTION**

77. *Suitable covering and protection is to be provided to ensure that no material is removed from the site by wind, causing nuisance to neighbouring properties.*
78. *All battered areas are to be topsoiled and grassed, or other suitable protection provided as soon as filling is placed adjacent to neighbouring properties.*
79. *All work associated with this approval is to be carried out so as not to cause a nuisance to residents in the locality from noise, water or air pollution.*
80. *The use to be conducted so as not to cause disruption to the amenity of the locality, particularly by way of the emission of noise, dust, fumes or the like.*
81. *An Environmental Officer shall be engaged to implement this consent and monitor and oversee the environmental effects of development during construction phases. Such officer to be appropriately (professionally) qualified environmentalist; tasks to be as set out in the Management Plan accompanying the Statement of Environmental Effects by Sinclair Knight Merz that was submitted with DA S94/194, as amended by conditions of consent:*

- i. *All significant old growth trees which are to be retained as identified in the Species Impact Statement prepared by Peter Parker dated August 1999 (Figure 4.4) are to be clearly marked prior to commencement of works. This is to be monitored by the Environmental Officer to ensure that the trees are not damaged, destroyed or removed.*
  - ii. *The flora and fauna survey, (Section 4 of the Species Impact Statement prepared by Peter Parker dated August 1999) identifies and maps a number of threatened species at the site (Figure 4.2). No development shall occur at the site and in areas proximate to these locations and buffer plantings of suitable native plant species shall be provided between the locations and nearby urban development or roads. This work is to be to the satisfaction of the Director General of the National Parks and Wildlife Service and shall be completed prior to release of the linen plan for the relevant stage.*
  - iii. *Stock that currently graze over the site shall be removed prior to the issue of a Subdivision Certificate.*
  - iv. *A monitoring report shall be provided to Council and the National Parks and Wildlife Service six (6) months after the commencement of works and then at twelve (12) monthly intervals and continue for two (2) years after all works are completed. This report will identify the protection afforded to threatened plant species, buffer and corridor plantings, the occupation of the Osprey of its nest site and any breeding results and bushfire impacts.*
- 83A.** *A buffer area of at least 100 metres radius is to be provided around the Osprey Nesting Site as shown on Figure 6BA prepared by Cardno and Davies dated July 1999 and identified as public reserve 8 (lot 303) on plan 6400-163 prepared by Michel Group Services dated 8/8/2008. No development works are to be carried out within this buffer area.*
- 92A.** *The fire break proposed within Lot 249 and public reserve 5 or any other land zoned Environment Protection 7 (I) must not cause any disturbance of conservation value vegetation associations and threatened flora species.*
93. *In construction of fire breaks, a buffer of at least five (5) metres must be provided around the two known specimens of the threatened flora species *Randia mooreii* occurring in the Mount Woodgee wildlife corridor (refer to Appendix 3 - letter from Peter Park). These specimens and the buffer area around them must be obviously marked and brought to the attention of plant operators prior to construction of fire breaks.*
- 94A.** *The vegetated areas of Lot 140 and the 2(c) zoned part of Lot 306, containing the threatened flora species *Randia mooreii*, must not be disturbed. With the exception of one (1) only neighbourhood park of not more than 400m<sup>2</sup> in Lot 140, the cleared parts of these areas must be revegetated with appropriate indigenous native species to provide a buffer. These areas must be managed for conservation purposes and, due to the fire sensitive nature of the existing vegetation associations, these areas must be protected from fire.*
- 95A.** *The neighbourhood park proposed in Lot 140 must not be located within 50 metres of the threatened flora species *Randia mooreii*.*
97. *Any neighbourhood parks within wildlife corridors must be located and orientated so as not to obstruct corridor linkages. In this respect, the neighbourhood park proposed in the wildlife corridor between Lots 415 and 416, must not be constructed, as it presents an obstruction of the corridor linkage. This proposed park may be relocated to the other side of Road No. 32 where the corridor is wider.*
98. *Within areas identified as wildlife corridors all existing vegetation including understorey must be retained, except where fire breaks are proposed.*
100. *Native understorey within wildlife corridors must be allowed to regenerate. Where natural revegetation has not occurred within a two year period of livestock being removed from the site, a revegetation program must be undertaken using indigenous species of local provenance that typically occur within local examples of the vegetation association concerned. Fire may be used to encourage natural revegetation where appropriate (ie. where no fire sensitive native species occur).*
101. *A program to monitor the revegetation of native vegetation within the wildfire corridors must be undertaken which documents the existing understorey and evaluates the revegetation of native vegetation over the initial two year period after stock are moved from the site. The results of this monitoring program are to be utilised to determine if active revegetation of areas are required. The results of the monitoring and revegetation program are to be reported to Council and the NPWS as part of the monitoring report referred to in Condition 81 iv of Council's consent conditions (refer to Section 3 of this report).*

Reason

*To ensure natural regeneration of any native understorey species present, either as extant plants or propagules, is utilised and identify areas where active revegetation of understorey is necessary.*

- 102A.** *The location of the ROTAP species *Cassia brewsteri* var. *marksiana* (Brush Cassia) in Lot 306 identified on drawing 6400-163 prepared by Michel Group Services, dated 8/8/2008 and as indicated by the constraints key*

and map (Figures 15AA and 15BA), is to be determined and clearly marked. A buffer of five metres radius is to be established around this species and planted with appropriate indigenous species of local provenance.

Reason

To ensure species of high conservation value are retained and managed for conservation purposes.

103. Any occurrences of the ROTAP species *Archidendron muellerianum* (Veiny Lace Flower), which the flora inventory (Appendix 2 of the SIS) records within a Blackbutt dominated association, must be located, clearly marked and protected from disturbance. If works are proposed for areas where this species occurs, a translocation program must be prepared and endorsed by NPWS, prior to its implementation and the commencement of such works. The progress in locating this species and results of any translocation program must be reported as part of the monitoring reports referred to in Council's Consent Condition 81 iv.

Reason

To ensure species of high conservation value are retained and managed for conservation purposes, subject to any translocation program required satisfying NPWS policy requirements and guidelines.

**Note:** most recent ecological assessment states that this species is not present on the site

104. In regard to Council's Consent Condition 81 ii, buffer plantings proximate to threatened flora species must consist of indigenous species of local provenance that typical occur within local examples of the vegetation association concerned. Where substantial variation in the landform occurs within such areas plantings must replicate vegetation associations suited to the landform (eg. Areas up slope from drainage lines supporting rainforest associations be planted with species typical of local wet sclerophyll associations - sclerophyll canopy species with rainforest understorey).

Reason

To ensure revegetation undertaken is appropriate for conservation purposes.

105. In regard to Council's Consent Condition 84 iii, any exotic species to be use in landscape plantings must be non-fertile hybrids.

Reason

To minimise the potential for exotic species to establish in the natural environment as a result of landscape plantings.

106. Threatened species must not be used in any plantings undertaken, such as, landscaping, revegetation and buffer plantings.

Reason

To minimise potential for any future impacts on threatened species, particularly in relation to the genetic integrity of populations.

107. The Erosion and Sediment Control Plan referred to in Schedule A(e) of Council's consent conditions it must be submitted to NPWS, along with Tweed Shire Council, for approval.

Reason

To ensure Council's consent conditions and the NPWS's concurrence conditions are applied within the Erosion and Sediment Control Plan, particularly in relation to those parts of this plan referred to in Council's consent conditions identified in Section 3 of this report.

108. When undertaking site preparation works such as clearing and excavation, if any threatened species or roost sites of threatened fauna are found, works on the site must cease and the NPWS be notified within 24 hours. NPWS will determine the specific protective measures that are required. NPWS will provide written notification of any protective measures. Works must not recommence until such written notification is received.

Reason

To minimise any potential for impacts on threatened species that may not have been identified and addressed by the SIS.

109. The burning of material from clearing of vegetation (as subject to Council's Consent Condition 86) shall be minimised by mulching of suitable material for landscaping. Transfer of excess vegetation, timber, logs, rocks and topsoil to revegetation areas within the subject site shall be undertaken where feasible. This should aim to maximise use of excess vegetation, topsoil and other material in enhancing the creation of new flora and fauna habitat in areas where revegetation is to be undertaken. Burning of cleared material should be undertaken (subject to Council's Consent Condition 86) if this material contains a high proportion of weed species so as to avoid transfer of weed propagules to revegetation areas.

Reason

To maximise use of excess vegetation, topsoil and other material in enhancing the creation of new flora and fauna habitat in areas of the project where rehabilitation is undertaken.

**(f) Clearing Vegetation, Soil Disturbance**

The removal or disturbance of trees, shrubs and ground covers shall be minimised.

Buffer zones consisting of corridors of undisturbed vegetation adjacent to waterways or disturbed area are to be retained to reduce nutrient levels in runoff, unless these areas are protected by other means. Buffer zones are to have the following minimum widths:-

| <b>Slope %</b> | <b>Buffer Width in Metres</b> |
|----------------|-------------------------------|
| 2              | 15                            |
| 4              | 20                            |
| 6              | 30                            |
| 8              | 40                            |
| 10             | 50                            |
| 12             | 60                            |
| 14             | 70                            |

**SCHEDULE B (SEE CONDITION 90)**

**National Parks imposed conditions via concurrence requirements for Species Impact Statement**

**2.3 Ameliorative Measures**

The SIS proposes a range of ameliorative strategies to mitigate impacts on threatened species as follows:

1. The flora and fauna survey report identified a number of threatened plant species at the site. No development will occur at these sites and in areas proximate to these locations and buffer plantings of suitable native species will be provided between these locations and nearby urban development or roads.
2. Stock that currently graze over the whole of the site will be removed. Stock grazing on the endangered plant Spiny Gardenia and a number of locally significant species will thus be eliminated. Vegetation within environmental protection zones and in conservation areas at the site will be protected from stock and buffer plantings will be provided between these sites and proximate developed areas.
3. The flora and fauna survey report identified and mapped all of the significant old-growth trees at the site. The Master Plan identifies how these old-growth trees will be integrated within the development and how most of these trees will be retained for conservation purposes.
4. A substantial area of flora and fauna habitat will be retained to support the interchange of genetically viable wildlife populations over the long-term. Wildlife corridors will be provided throughout the proposed development to assist in the passage of arboreal fauna and provide nesting and foraging sites for avifauna.
5. A monitoring report will be provided to Council and the NPWS six months after the commencement (activation) of a development consent and at 12 monthly intervals for a period of two years. This report will identify the protection afforded to threatened plant species, buffer and corridor plantings, the occupation by the osprey of its nest site and any breeding results, bushfire impacts. It will also address any other matter that Council or the NPWS choose to list.
6. A substantial part of the site is zoned for environmental protection. These areas of support the better quality wildlife habitats, although they are not currently managed for environmental purpose.
7. Part of the site containing high quality wildlife habitat which is not zoned for environmental protection will be retained and conserved.
8. Previously proposed development that had the potential to cause environmental harm, has been removed from this proposal. This includes the golf course and residential development that would have significantly impacted on the Spiny Gardenia and old-growth trees.

9. *A bushfire management plan will be prepared and adopted to protect and minimise the impact of fire on important ecological communities. The objects of a bushfire management will be “to reduce the risk of fire and protect wildlife habitats and private property”. The fire break areas have been detailed on Maps identified as Key 1-3 in section 3 of the SIS. These were inspected by Mr Peter Parker to ensure that the clearing of native bushland is minimised. Setback requirements, emergency access routes and fire hazard reduction areas will be reaffirmed as conditions of development consent.*

### Discrepancies between original and revised Plans

#### *Site Regeneration and Revegetation Plans*

The revised Site Regeneration and Revegetation Plan (June 2010) acknowledges that whilst vegetation mapping for Cobaki Lakes was completed by JWA in 2008, existing earthworks approvals have been implemented in some portions of the site and existing used rights (cattle grazing) have continued. These existing approvals have meant vegetation has been cleared in areas on the site and JWA has updated vegetation mapping accordingly.

Aerial photography in the original Site Regeneration and Revegetation Plan (October 2009) are taken in April 2008, aerial photography in the Revised Plan (June 2010) are taken in March 2010. Figures 8, 8A and 8B in the October 2009 Plan provide detail on the location of all threatened flora occurring on the development site. Figures 8, 8A, 8B and 8C in the June 2010 Plan also provide detail on the location of all threatened flora occurring on the development site.

Whilst JWA acknowledge that existing approvals have resulted in discrepancies with their vegetation mapping which they have updated accordingly, there is no acknowledgement that there has been possible loss of threatened plant species from the site (i.e. records of some threatened plant species no longer appear on revised threatened plant species maps). Possible losses of threatened plant species from the site include:

- Fine-leaved Tuckeroo – 5 individuals
- Marblewood – 3 individuals
- Spiny Gardenia – 2 individuals
- Yiel Yiel – 1 individual
- Brush Cassia - 3 individuals

#### *Saltmarsh Rehabilitation Plans*

The Revised Saltmarsh Rehabilitation Plan (June 2010) notes that up to 10.67ha of Freshwater Wetland EEC that occurs in the Saltmarsh Rehabilitation Area will be lost as a result of increased tidal inundation and conversion to Coastal Saltmarsh EEC to account for losses of Saltmarsh from the central open space area.

This proposed treatment and loss of Freshwater Wetland EEC was not considered in the original Saltmarsh Rehabilitation Plan (October 2009).

#### *Freshwater Wetland Rehabilitation Plans*

The original Freshwater Wetland Rehabilitation Plan (October 2009) notes two vegetation communities on the development site which are consistent with the Freshwater Wetland EEC. These are community 14 - rushland/sedgeland/grassland (mixed aquatic species) totalling 36.96ha and community 18 - tall closed grassland/fernland/sedgeland (mixed species) totalling 0.68ha. Therefore total area of Freshwater Wetland EEC on the site was calculated as 37.64.

The revised Freshwater Wetland Rehabilitation Plan (June 2010) notes only one vegetation community on the development site that is consistent with the Freshwater Wetland EEC. This is community 12 - rushland/sedgeland/grassland (mixed aquatic species) now totalling 35.39ha.

This means a reduction in Freshwater Wetland EEC on the subject site of 2.25ha. The discrepancy between both Plans is not explained.

### Buffer Management Plan

Comment has previously been made that the Director general's Requirements with regard to buffer zones to areas of high conservation significance or ecological sensitivity had not been met. It is noted that a Buffer Management Plan has now been submitted, however, in general it proposes buffers of only 5 or 10m at most, whilst APZ form the buffers in other areas. No buffer is proposed to SEPP 14 wetland adjacent Cobaki Parkway in the very sensitive area adjacent Cobaki Broadwater. This approach is not supported by Council and more effective buffers should be sought

## **Sewer and Water**

The Addendum makes no significant changes in relation to the water supply and sewerage infrastructure.

The deletion of the staging plan from the Concept Plan will have implications in the amount of development that can be progressed before various stages of water and sewer infrastructure are required and may result in more efficient use of the early stages of infrastructure provided by the developer. The issues involved have been discussed with Leda Manorstead and their engineering consultant. This is not considered to be a problem from Council's infrastructure provision perspective.

It is reiterated that the desire that the Statement of Commitments should reflect Council's adopted Demand Management Strategy by mandating minimum 5000 litre rain water tanks connected to a minimum of 160 square metres of roof area and plumbed to supply toilet flushing, laundry cold water taps and outdoor uses for standard housing types, with a requirement that maximises rain water tanks for multiple dwelling housing, commercial and industrial premises and the various small lot dwelling styles.



## Infrastructure Engineering

| <b>Issue</b>             | <b>PPR Comment<br/>(memo 11/1/10)</b>   | <b>PPR Addendum</b>  | <b>Council Response</b>   |
|--------------------------|---|--|---|
| 1. Landforming           | The concept plan does not include a single, coherent landforming plan for the whole site. Without such a plan, proper assessment is not possible, as the finished landform influences the potential environmental impacts of the development, and the future sustainability, safety and amenity of the urban residential area. Without proper consideration of landforming, future allotments may be exposed to stormwater flooding, impacts of high retaining structures, limited accessibility and mobility, and limited housing choice.  | As a result of meetings with Council officers, a masterplanning approach has been proposed to provide a more detailed perspective across the whole Estate than the Concept Plan currently provides. The draft Statement of Commitments (SoC) states: "Each application for subdivision to create separate lots is to include an indicative Masterplan for the whole site to which the application applies. The purpose of such indicative Masterplan is to assist the consent authority in its assessment of the application by providing a broader context. The indicative Masterplan, which will evolve with the certainty of planning intent, will show ... land forming" | A single landforming plan for the Estate provided under the Masterplan structure is acceptable to Council, subject to amendments to the SoC as discussed below.   |
| 2. Stormwater Management | The concept plan does not demonstrate that adequate drainage infrastructure can be provided to cater for external and internal runoff catchments, and convey these flows in a continuous, coherent and sustainable manner to Cobaki Creek. The concept plan lacks sufficient detail to properly account for the steep terrain and existing watercourses and gullies around the site and demonstrate that a stormwater management system, compatible with the earthworks plan discussed above, could be achieved for both the construction and operational phases of the subdivision. There is inconsistent application of water sensitive urban design throughout the concept plan. | The stormwater management system for the Estate has been reconsidered by the applicant's consultants with the deletion of the lakes (see item 2.1), but no significant changes were provided. The trunk drainage system for the Estate is being developed in detail with the separate Project Application for the Central Drainage and Open Space Precinct. This has resulted in a recommendation to widen road reserves at the southern end of the Estate to accommodate drainage infrastructure through to Cobaki Creek. The Masterplan process described in 1 above includes "trunk stormwater drainage".   | A stormwater management plan for the Estate provided under the Masterplan structure is acceptable to Council, subject to amendments to the SoC as discussed below. This will be enhanced by engineering design of trunk drainage through the Central Precinct as part of a separate Project Application, and forthcoming precinct subdivision applications. |
| 2.1 Proposed Lakes       | The PPR deletes the southern lake, but retains a smaller northern lake in the concept plan. As the authority responsible for the ongoing maintenance and operation of the lake, Council expressed concerns as to the potential cost and resource imposition of the lake given the likely issues of water quality, inorganic nutrients, acid sulphates, weeds  | Lakes and pumping system now deleted. Associated change in naming of "Cobaki Estate" noted.  | No further issues associated with lake management.  |

| <b>Issue</b>                                       | <b>PPR Comment<br/>(memo 11/1/10)</b>   | <b>PPR Addendum</b>   | <b>Council Response</b>   |
|--|---|---|---|
|  | and threatened species, which can significantly hamper Council's ability to maintain the lakes, and provide the level of amenity expected by adjoining residents and open space users. The proposed introduction of saline water for management purposes through environmentally sensitive fresh water areas was opposed by Council.  |   |   |
| 3. Urban Design                                    | The PPR included a draft Development Code. Significant revisions were requested in consultation with Council to apply DCP-A5 and the suite of development design and construction specifications, unless otherwise stated in the Code to address small lot subdivision and other site specific issues. The agreed amended Code resulting from consultation workshops should then be publicly exhibited.   | The Development Code is being finalised and will be submitted to form part of the PPR Addendum. | This has not yet been received. Council requests the opportunity to comment on the finalised draft. This should also be publicly exhibited.   |
| 4. Planning Agreements and Developer Contributions | The PPR clarified the applicant's approach to "negotiated" s94 developer contributions. Amendments were requested to the Draft Statement of Commitments   | No further consideration in the Addendum  | Council is now subject to a s94E Ministerial Direction that caps developer contributions per lot to \$20,000, without indexation. This seriously inhibits Council's long term ability to provide the necessary infrastructure to service the Cobaki Estate. As such, Council cannot support the full development of 5,500 lots within Cobaki Estate. Refer to attached Council report and resolution.   |
| 5. Flooding & Climate Change                       | Implications of the Government's sea level rise policies should be addressed by the concept plan. While no formal sea level rise policy has been adopted by Council at this stage, it is considered that for greenfield development, minimum fill levels should be increased accommodate the predicted 2100 flood planning level, with 0.5m freeboard to habitable floor levels. Council provided the Tweed Valley Flood Study update to the applicant, which includes climate change runs based on the 2007 DECC Guidelines, with sea level rise and increase rainfall intensity projections. Amendments were requested to | This is not addressed in the Addendum   | Subject to Masterplanning in accordance with the SoC, the applicant should adequately deal with the climate change parameters in accordance with Council's flood modelling. The requested amendments to the SoC specific to flooding and climate change have been superseded with recent amendments to Development Control Plan Section A3 - Development of Flood Liable Land, which adopts climate change affected flood planning levels for greenfield residential subdivisions, including Cobaki Estate. |

| <b>Issue</b>                | <b>PPR Comment<br/>(memo 11/1/10)</b>   | <b>PPR Addendum</b>   | <b>Council Response</b>   |
|-----------------------------|---|---|---|
|                             | the Draft Statement of Commitments (SoC) to ensure due consideration of flooding and climate change.  |   |   |
| 6. Traffic Management       | Council's traffic engineer raised a number of traffic concerns with the concept plan. The PPR did not include a revised traffic report, so these issues remain outstanding. | This is not addressed in the Addendum. As a result of drainage considerations, the Addendum recommends widening of road reserves at the southern end of the Estate to accommodate drainage infrastructure through to Cobaki Creek. The Masterplan process described in 1 above includes "main roads". | Traffic issues generally remain outstanding. The widened road reserves required for drainage are not shown on the amended concept plan.   |
| 7. Statement of Commitments | Various amendments and additions to the draft Statement of Commitments were requested by Council to address engineering and infrastructure issues.                          | These amendments have not been included in the Addendum - note that this may have been due to a clerical error in the preparation of Council's previous comments. A new SoC has been included to provide a Masterplan for the Estate that will evolve with each precinct application.                 | As above, the adoption of the Masterplan process in the SoC should resolve many of the engineering issues raised by Council, and is supported subject to amendments to the SoC as discussed below. All other SoC amendments previously recommended by Council should be considered by Department of Planning for inclusion. These have been reproduced (refer Mick Denny's report) in a notation where Council's required amendments are clear. |

### Draft Statement of Commitment for Masterplan

Section 16.2 of the Addendum addresses a Council requirement for the developer to provide a Masterplan for the Estate, to give context and additional detail to each Project Application / Development Application for precinct subdivision. The developer's draft wording is as follows:

*“1.1.2. Each application for subdivision to create separate lots is to include an indicative Masterplan for the whole site to which the application applies. The purpose of such indicative Masterplan is to assist the consent authority in its assessment of the application by providing a broader context. The indicative Masterplan, which will evolve with the certainty of planning intent, will show:*

- *actual and proposed densities by precinct (or other identified nodes);*
- *the distribution of parks, to the extent that surrounding urban design has been set or is proposed, and their indicative distribution elsewhere;*
- *main roads;*
- *view corridors;*
- *feature buildings;*
- *trunk stormwater drainage; and*
- *land forming.”*

It is considered this wording provides ambiguity in the purpose and extent of the Masterplan. It is Council's viewpoint that the Masterplan needs to cover the entire Estate, not just each precinct, as

the Masterplan is intended to put each precinct in a broader context and ensure compatibility with adjoining land. Amended wording is provided as follows:

*“1.1.2. The developer shall produce an indicative Masterplan of the Cobaki Estate. The Masterplan shall be included with each application. Each application for subdivision to create separate lots. is to include an indicative Masterplan for the whole site to which the application applies. The developer shall incrementally update the indicative Masterplan in accordance with any approvals issued for such subdivisions, and as planning certainty evolves. The purpose of such indicative the Masterplan is to assist the consent authority in its assessment of the subdivision applications by providing a broader context. The indicative Masterplan, which will evolve with the certainty of planning intent, will show:*

- *actual and proposed densities of the Estate by precinct (or other identified nodes);*
- *the distribution of parks (structured and casual open space) across the Estate, to the extent that surrounding urban design has been set or is proposed, and their indicative distribution elsewhere;*
- *main roads;*
- *view corridors;*
- *feature buildings;*
- *trunk stormwater drainage (conveyance and water quality facilities); and*
- *land forming.”*

### School Sites

The two proposed school sites have been relocated in the addendum. The northern school site has been moved to the eastern side of the town centre, and is now on the northern corner of Cobaki Parkway and Sandy Road. The southern school site has been swapped with the neighbourhood centre, and is similarly located at the intersection of the Cobaki Parkway and southern end of Sandy Road. This places both schools in very busy traffic locations and makes their servicing for car, bus, and pedestrian traffic problematic. It is Council's request that both schools be moved away from the Cobaki Parkway frontages, and located in areas closer to urban centroids that have multiple road and pedestrian / cycleway accesses to facilitate on-site drop off zones without disrupting through traffic or altering speed zones, parking or intersection treatments on Cobaki Parkway.

### Section 94 Developer Contributions

Please refer to an attached Council report and resolution that addresses the \$20,000 cap imposed by the Minister for Planning, and its potential impacts on Cobaki Estate. As per the Council resolution, the Department of Planning is advised that due to the imposition of the s94E Direction capping Developer Contributions:

***Approvals for development at Cobaki Lakes to be issued by the Department should not exceed 3,007 residential lots or equivalent.***

It is noted that the Minister for Planning has recently advised Council that the cap for Greenfield areas will be increased to \$30,000 and Cobaki Lakes is accepted as a Greenfield area. It is acknowledged that there would be room under this cap to account for significant increases in contribution plan rates as a result of revisions to plans and their works programs. Notwithstanding, Council's resolution above remains applicable until a future Direction from the Minister confirming the confirmation of a means of indexation to maintain the \$30,000 cap's real value into the future.

## Traffic Management

Council previously provided comments on the EAR Traffic Report by Cardno Eppell Olsen, and requested various amendments. It is hoped that many of these issues will be resolved once the Development Code is finalised, however if the Traffic Report is referenced by the Statement of Commitments, the following amendments are still required:

### *Part 3.2 Site Access*

The need for a road link to Piggabeen Road via the Sandy Lane alignment is not addressed. Current practice requires 'connectivity' of road networks to provide choice for motorists and alternative access to the development if Cobaki Parkway is blocked for any reason. This should be included in the Draft Statement of Commitments to be addressed at the Project Application / DA Stage that continues Sandy Lane.

### *Part 3.3 Road Hierarchy*

This section should state cross sections are in accordance with Tweed Shire Council standards and if not explain what the differences are for further consideration by Council.

#### *Part 3.4.1 Public Transport*

Some 'local connector' roads may need to have wider pavements to comply with Council's Standards (ie. DCP Part A5) but will be determined at detailed design stage for each DA. However this should be acknowledged in the Traffic Report.

#### *Part 3.4.2 Cycleways*

Plan SK 001.07 shows 2.0m or 2.5m wide cycleways. Tweed Shire Council & Austroads require 2.5m as a desirable minimum and given this is a greenfield site, there are no reasons why 2.5m cycleways should not be provided.

Distributor and Trunk Connector Roads require an off road cycleway as per Tweed Shire Council DCP Pt A5 - Road Design Specification (D1). It should be noted, however that Plan SK 01.06 "Road Cross Sections" states that the cross sections are in accordance with Tweed Shire Council standards so the conflict described above in Plan SK 001.07 needs rectification.

### *Part 3.6 Access to Schools, Community Facilities, Retail & Commercial*

Vehicular access to all these development types should not be permitted to Cobaki Parkway (arterial/sub arterial road network). The second paragraph of the submitted Report discusses the Director General's requirements not permitting such access and stating the development is in compliance. In paragraph 3 it is stated that "this is expected to include controlled/restricted access from the modified arterial/distributor road network".

Conflicting terminology appears to be used in these paragraphs, however, assuming that the 'modified arterial/distributor road network' is the same as the 'arterial/sub arterial road network' in paragraph 2, it appears that non compliance with the Director Generals (DG) requirements is in fact being proposed. This section of the Traffic Report needs to be amended to comply with the DG's requirements which appear to reflect Councils position of no vehicular access to the Cobaki Parkway. A SoC has also been recommended to address this issue.

## **Subdivision Engineer**

### Widening of part of Cobaki Parkway reserve

The southern part of Cobaki Parkway reserve near the intersection with Sandy Road is proposed to be widened to a total reserve width to approx. 100m in places in order to accommodate utility services, batters associated engineering and maintenance requirements. No issues are raised in regards to the wider road reserve as it accommodates additional drainage facilities and services (outside the Saltmarsh area).

The minimum formation width of Cobaki Parkway (ultimate design) which includes the two carriageways, a central median, and verges with footpaths is 40 metres.

As the construction of Cobaki Parkway in some areas require significant fill embankments of heights of up to 3 metres, at 1:4 grades, this results in batters up to 12 metres in width (on both sides of the road formation).

Council would consider including such batters and drainage facilities to the east of Cobaki Parkway within an extended road reserve, as Council will ultimately be responsible for maintaining this area, but Council will not support the inclusion of such large batters on the western side of Cobaki Parkway (beyond the standard road verge), as these batters can be located within private property and hence become the responsibility of the private owners to maintain. Until such time a Precincts 5, 6 7 & 8 are developed, the created batters to the west of Cobaki Parkway should remain in the ownership and responsibility of the Developer. Council would obtain easements over these batters (as required).

Where the road formation is proposed over highly compressible marine clay (in some cases up to 10 metres thick) the road embankment will be required to be 'pre-loaded' (surcharged). The Addendum anticipates that an additional 2 metres of fill will suffice for the pre-load, however this results in batters extending a further 8 metres (at 1:4). Although this additional width requirement is temporary, the Applicant proposes that it is contained wholly within the proposed road reserve.

Where batters will be temporarily extended as a result of pre-loading, the same consideration as stated above should be supported by Council. i.e. This can be accommodated with a wider road reserve to the east of Cobaki Parkway, but not to the west.

The Addendum makes a global statement that trunk stormwater drainage corridors will be provided adjacent to the road embankment on both sides (of Cobaki Parkway) to ensure that stormwater flows from within the development site can be conveyed in a controlled alignment through to Cobaki Creek. These corridors will be 18 metres wide, with water and sewer infrastructure anticipated to be constructed within these corridors such that they are delivered independently of the road embankment works.

Additional detail is required to clarify what is proposed.

### Withdrawal of 'Release Areas' staging plan

Leda has withdrawing the "Release Areas" staging plan in Figure 9 of the PPR stating that the staging of the development in precincts will depend on a number of factors including the timing of road connection to the south, construction of the M1 Boyd street interchange, market conditions for the different housing product types, provision of utility services, and development economics.

This is only supported if staging of the development is coordinated in such a manner that infrastructure roll-out meets the minimum requirement for each stage and commitments are made for

the provision of upgrades (as required) to meet future stage requirements. This should be incorporated as a condition or Statement of Commitment.

The Addendum **has not** acknowledged or amended the Concept Plan to address the additional Statement of Commitments required by Council for the development to “provide an alternate connection” between Sandy Lane and Piggabeen Road.

### Final Development Code

As per previous correspondence, Council will not support the proposed Development Code until agreement is made between TSC and the Developer in regard to any variation between the proposed document and TSC’s DCP and Development Design and Construction Specifications.

In Council’s submission (dated 21 January 2010), Council requested the following engineering inclusions into the proposed Development Code.

- a. *“It is recommended that all new allotments have a minimum street frontage of 6m where services by rear laneways and a minimum lot frontage of 9m where vehicular access from the street frontage is proposed. Lots located within cul-de-sacs shall have a minimum lot frontage of 12.5m to ensure a kerb distance of 9.0m is achieved. The standard will ensure sufficient resident and visitor parking is provided.”*
- b. Council required The Code to be amended to reference a minimum lot frontage (including those in cul-de-sacs) to be in accordance with Council’s DCP A5.
- c. *“Proposed shared bicycle paths on arterial /collector roads not be supported where road pavements are not widened to provide a dedicated cycleway.”*

Note Figure 6 *Access Open Space Network Plan* of the Preferred Project Report proposes a 1.2m on road cycleway along Cobaki Parkway, however the profile of Cobaki Parkway as approved under the current Construction Certificate CC08/0800 approved a shared 2.5m wide pedestrian / cycleway pathway within the road verge.

At PPR assessment of the Code, Section 5.13 still references that on-road cycle pathways are proposed on Cobaki Parkway. Both the Preferred Project Report and the Development Code need to be made consistent with Council’s requirement above and the approved Construction Certificate.

- d. *“The construction of any fire trail or access for emergency service vehicles be constructed to a standard specified by TSC having low ongoing maintenance costs.”*
- e. As stated in previous correspondence Section 5.9 – Torrens Title Subdivision of Mews Development / Controls of The Code needs to be amended.

A suitable minimal size should be identified. It is also recommended that 2 new points are added.

- The maximum number of lots that can be created through re-subdivision of a Mews is 5,
- Re-subdivision of a Mews will only be considered by Council if all intended Torrens Titled allotments will be serviced by individual services (i.e. sewer and water connections, electricity and telecommunications) as per a standard Torrens Title subdivision under Council standards.

## Amendments to Statement of Commitments

The Addendum has not incorporated the required changes to the Statement of Commitments as proposed by Council in their submission dated 21 January 2010). This may be a result of Council's submission stating that the required amendments and additions are as shown "in red" in their submission, when in fact all but one Statement of Commitments (being No. 3.2.5) was shown in black in the submission. As such, none have been included within the Addendum submission, including No. 3.2.5.

As such, the proposed amended Statement of Commitments should not be supported until the items listed below (which have been updated from Council's submission (dated 21 January 2010) have been included. In regards to engineering matters only, the following amendments to the Statement of Commitments are required.

Table 1.

| Project Component               | Environmental Outcome (Commitment)  | Measure (Commitment)  | Timing for Completion   |
|---------------------------------|---|---|---|
| 1. Concept Plan                 | 1.1 Development is carried out <del>generally</del> in accordance with the Concept Plan, Development <del>Controls, Exempt and Complying</del> Code, <del>Tweed DCP and</del> <u>Tweed DCP and Development Design and Construction Specifications</u> , Statement of Commitments, Environmental Assessment Report, and Preferred Project Report | 1.1.1. Each future stage of development in Part 3A Project Applications, Development Applications and Complying Development Certificates will be <del>generally</del> consistent with the Concept Plan, Development <del>Controls, Exempt and Complying</del> Code, <u>Tweed DCP and Development Design and Construction Specifications</u> , Statement of Commitments, Environmental Assessment Report and Preferred Project Report.   | At each stage of development.   |
| 2. Visual Impact of Development | 2.1 Key attributes of the natural visual landscape on the Cobaki <del>Lakes- Estate</del> site (being the topographical amphitheatre, remnant band of bushland, Cobaki Broadwater forest and wetland, and proposed new central open space <del>and lakes</del> -precincts) are retained and rehabilitated.                                      | 2.1.1. Future Project Applications and Development Applications will retain and rehabilitate the key attributes of the natural visual landscape generally in line with the provisions of the Concept Plan, <u>Tweed DCP and Development Design and Construction Specifications</u> , Environmental Assessment Report and Preferred Project Report.  | At each stage of development.   |
|                                 | 2.2. The visual impact of subdivision and building development is managed.  | 2.2.1. <del>The Development Controls for t</del> he detailed design and construction of development at Cobaki <del>Estate Lakes shall</del> include provisions to manage visual impact in future applications for:<br>-- subdivision design,<br>-- building design,<br>-- visual landscape,<br>-- landscaping, and<br>-- roof material<br><u>in accordance with the Development Code and the Tweed DCP and Development Design and Construction Specifications,-</u><br>2.2.2. Future Project Applications and Development Applications will be <del>generally</del> consistent with the Development <del>Controls and</del> Code <u>and Tweed DCP and Development Design and Construction Specifications</u> for the detailed design of subdivisions and buildings for each precinct. | Prior to granting of any new approvals or consents for subdivision, buildings or landscaping on the site. |
| 3. Road Access                  | 3.1. Road access to the north through Boyd Street and Gold Coast Highway has capacity to accommodate traffic generated by such development that occurs under the Concept Plan.  | 3.1.1 The Developer will meet its legal obligations assigned in the Boyd Street Road Works Deed between Gold Coast City Council and Calsonic Management Services Pty Ltd dated 8 July 1993.   | As specified in the Deed.   |
|                                 |   | 3.1.2 Each subdivision application shall be supported by a traffic study demonstrating that Boyd Street has, at the time of such application, sufficient capacity to accommodate the additional traffic generated out of  | As part of each Project Application or Development Application for subdivision                            |



|                                    |  |  |   |
|------------------------------------|--|--|---|
|                                    |  | the subdivision.   |   |
|                                    | 3.2 Road access to the south through Cobaki <del>Lakes Estate</del> and over Cobaki Creek to connect with Piggabeen Road is provided to accommodate traffic generated by development under the Concept Plan. | (Refer to Council Recommendation from– item 38 on Business Paper for Council Meeting 19 October 2010 relating to this matter and Conditions 28 to 30 in Part 1 of the above correspondence).   |   |
|                                    | 3.3 Internal roads and access arrangements are designed and constructed to contemporary standards of safety and efficiency.  | 3.3.1 Internal roads are designed to meet Tweed Shire Council's <del>DCP and Development Design Specifications standards and guidelines.</del><br>3.3.2 Car parking and loading/ servicing facilities are to be <del>included where relevant in future Project Applications and Development Applications generally</del> consistent with Tweed Shire Council's DCP.<br>3.3.3 Direct vehicle access off Cobaki Parkway is to be <del>restricted prohibited.</del> <u>Access to schools, community facilities, retail and commercial developments shall be off lower order roads.</u>  | As part of each stage of development.   |
| 6. Stormwater and flood management | 6.1 Stormwater on the site is appropriately managed.   | <del>6.1.1 The provisions of the Stormwater Management Plan (Gilbert &amp; Sutherland, May 2008) will be implemented.</del><br>6.1.2 <sup>1</sup> Stormwater management plans will be prepared as part of future Project Applications and Development Applications for each stage of development, and implemented. <u>Stormwater management plans shall be in accordance with Council's DCP, and referenced Development Design Specification D7 - Stormwater Quality.</u><br>6.1.2 Water sensitive urban design (WSUD) measures <u>may be implemented in general accordance with the Stormwater management Plan (Gilbert &amp; Sutherland, May 2008) in areas where geotechnical and slope parameters are compatible. Additional road reserve widths shall be provided, in accordance with Council's standard road cross-sections, to accommodate road-side drainage swales and similar WSUD measures, where they are to be provided.</u><br>6.1.3 The Developer accepts a five (5) year maintenance period over all WSUD facilities. A defects liability period of six (6) months shall apply to the works <u>in accordance with the EP&amp;A Act.</u>                | <del>As part of the completion of infrastructure works for each stage of development.</del><br><u>As part of each stage of development.</u> |
|                                    | 6.2 Flood protection is provided in the design of development.   | <del>6.2.1 Development shall be in accordance with Council's DCP Section A3 Development of Flood Liable Land.</del><br>6.2.2 Detailed flood impact assessments shall be provided by the Developer for each stage of the development, <u>utilising the updated Tweed Valley Flood Study 2009.</u><br>6.2.3 <sup>1</sup> <del>A flood study with flood protection levels addressing government policies on climate change will be prepared and implemented.</del> <u>The development shall adopt flood planning levels that account for the future impacts of climate change, in accordance with government policies. Until such time as Council's DCP Section A3 - Development of Flood Liable Land is updated to reflect these government policies, the developer shall adopt the following flood planning levels, based on the Tweed Valley Flood Study update 2009, and the "high level" impact scenario derived from the 2007 DECC Guideline "Practical Consideration of Climate Change". These levels to accommodate climate change are:</u><br><u>Minimum fill level for development lots = RL 2.9m AHD</u><br><u>Minimum habitable floor level = RL 3.4m AHD</u> | As part of each Project Application and Development Applications for development.   |
| 7. Groundwater Management          | 7.1 Groundwater is appropriately managed.  | 7.1.1 The provisions of the Groundwater Management Plan (Gilbert & Sutherland, April 2008) will be implemented.<br>7.1.2 Groundwater <del>considerations will be integrated</del>  | As part of the completion of infrastructure works for each stage of development.  |

|   |  |   |   |
|---|--|---|---|
|   |  | <del>into Stormwater</del> Management Plans <u>will be provided</u> in future Project Applications and Development Applications.  |   |
| 8. Soils Management                             | 8.1 Geotechnical conditions are appropriately managed.   | 8.1.1 Detailed geotechnical studies, <del>if as</del> required, will be prepared to support earthworks, civil construction and building work, and implemented.  | As part of Project Applications and Development Applications for earthworks, civil and building works.  |
|   | 8.2 Acid sulphate soils (ASS) are appropriately managed.   | 8.2.1 A detailed ASS investigation, <del>if as</del> required, together with an ASS Management Plan will be prepared for the detailed design and construction of development on areas of potential acid sulphate soils, and implemented.  | As part of Project Applications and Development Applications for each relevant stage of development.  |
|   | 8.3 Contaminated sites are appropriately managed.  | 8.3.1 A detailed contamination assessment of potentially contaminated land will be prepared together with a Remediation Action Plan if required, and implemented.<br>8.3.2 Site audit statements will be obtained where necessary to verify the remediation of any contaminated land in accordance with relevant NSW guidelines.  | As part of Project Applications and Development Applications for each relevant stage of development.  |
| 9. Bushfire Protection                          | 9.1 Bushfire protection measures are included in development.  | 9.1.1 Development will comply with the guidelines <i>Planning for Bushfire Protection 2006</i> .<br>9.1.2 <del>The Asset Protection Zone concept plan is to be implemented.</del> Bushfire Asset Protection Zones (APZs) <u>shall only be provided on public land where the land is readily accessible and maintainable by conventional means. Where this cannot be demonstrated to Council's satisfaction, APZs must encumber private land, with relevant title restriction applied.</u>   | As part of each stage of development.   |
| 12. Contributions to local infrastructure costs | 12.1 Contributions are made by the developer to Council infrastructure and servicing costs.                                | 12.1.1 The developer will pay contributions in accordance with Council's s94 Contribution Plans and s64 Sewer & Water Developer Charges.  | Prior to commencement or before completion of such works and, in respect of relevant land, at the time of entering formal agreement for its transfer. |
|   |  | <u>12.1.2 Where the developer makes advanced payment of contributions at the subdivision stage for Nominated Lots within a Plan of Development, the following will apply:</u><br><u>a) Contributions paid in advance shall not be refunded, should development yields reduce for Nominated Lots.</u><br><u>b) Development applications to modify the Plan of Development in order to increase development yield of a Nominated Lot must include a calculation of the outstanding contributions to be paid, and this balance shall be paid to Council in accordance with that consent.</u><br><u>c) Nominated Lot yield shall be calculated based on per bedroom rates included in the Development Code and agreed to by Council.</u><br><del>12.1.2-3 The developer will receive credits for developer contributions for negotiate with Council, the value of works carried out by the developer, or land provided by the developer. The value of credits will be determined based upon the current rates in the applicable contributions plan(s), to be credited against such contributions.</del> | At the time such charges become payable.  |
| 13. Community consultation                      | 13.1 The local community is consulted further in the detailed planning and development of Cobaki <del>Lakes</del> -Estate. | 13.1.1 Future Project Applications and Development Applications for the detailed design and construction of development will be advertised and placed on exhibition for public submissions.<br><u>13.1.2 The Development Code, in a form that is agreed by Department of Planning, Council and the Developer, will be advertised and placed on exhibition for public submissions.</u>   | As part of each stage of further planning of development.   |
| 14. Road noise                                  | 14.1 Dwellings meet residential noise standards.   | 14.1.1 Future project applications and development applications for subdivision or housing adjacent to subarterial, distributor and connector roads are to include an acoustic report that addresses the potential impacts of road noise, and includes measures to mitigate noise and achieve relevant NSW standards for residential noise levels in dwellings.   | As part of each stage of development.   |
| 15. Ownership and                               | 15.1 Open space is owned and   | 15.1.1 The applicant will dedicate the open space and   | As part of each stage of development.   |

|   |  |  |                               |
|---|--|--|-------------------------------|
| management of open space and environmental protection zones | managed by the relevant government authority.  | environmental protection zones in the Cobaki <del>Lakes Estate</del> to Tweed Shire Council as follows:<br>The main central open space corridor <del>and lake</del> on the western side of Cobaki Parkway is to be constructed and landscaped in stages and dedicated to Council two years after works are completed. <del>The lake is to be constructed as part of the first stage of development.</del><br>The environmental protection zone on the eastern side of Cobaki Parkway adjacent to Cobaki Creek is to be rehabilitated as one of the first 3 precinct subdivisions and dedicated to the Council two years after rehabilitation work is complete.<br>The remaining open space and environmental protection zones adjacent to each development precinct will be rehabilitated and landscaped as part of the development of the adjacent development precinct. These areas will be dedicated to Council two years after the completion of rehabilitation and landscaping works.<br><del>15.1.2 The lake will remain in private ownership and management, and will not be the responsibility of Tweed Shire Council.</del> |                               |
| 16. Tweed Shire Council DCP                                 | 16.1 Development at Cobaki <del>Lakes Estate</del> is <del>generally</del> consistent with the Tweed Shire Council DCP to the extent that it is not inconsistent with the Cobaki Concept Plan Development <del>Controls, and Exempt and Complying</del> Code which takes precedence. | 16.1.1 Future project applications and development applications are to be <del>generally</del> consistent with the Tweed Shire Council DCP <del>ad Development Design and Construction Specifications</del> to the extent that the <del>DCP-provisions of the DCP and Specifications</del> are not inconsistent with the Cobaki Concept Plan Development <del>Controls, and Exempt and Complying</del> Code.   | At each stage of development. |

The Addendum also proposes an additional Commitment (No. 3.2.5) requiring a tick control facility to be installed prior to vehicular access being open to the general public between Cobaki Parkway and Piggabeen Road via the Cobaki Creek Bridge. I provide the following comment on this commitment and recommend that it is amended slightly.

Even though it is advised that this commitment has been agreed in principle with Industry and Investments NSW, as this new Commitment effectively replaces Condition 27 of the previous Development Consent No. S94/194 for the construction of Cobaki Parkway, it also needs to be approved and accepted by Council. The documentation submitted with the Addendum doesn't reference where the agreed location is.

Condition 27 also relates to the creation of Cobaki Parkway (as a whole) not just a portion (i.e. the road connection between Cobaki Parkway and Piggabeen Road via the Cobaki Creek Bridge).

The Commitment should be amended to read:

“3.2.5 ~~The road connection between~~ Cobaki Parkway ~~and Piggabeen Road via the Cobaki Creek Bridge~~ shall not be dedicated as a public road and opened to the public for vehicle access until such time as a tick control facility has been installed ~~at the State Border~~ in accordance with Condition 27 of Development Consent No. Section 94/194, to the satisfaction of Industry & Investments NSW ~~and Council.~~”

### Roads and Civil Infrastructure

As per previous correspondence, it was requested that “All roads and civil infrastructure is to be designed and constructed in accordance with TSC LEP, Development Control Plan and Development Design and Construction Specifications **current at the time** of each development application being lodged with Council. Variations to these current codes shall be by direct negotiation with TSC and specific to items in the current codes / standards.”

Until the proposed amended Development Code is submitted for final review, Council cannot comment if this requirement has been incorporated within the addendum.

### Stormwater management

The submitted Ecology Assessment states that the proposed stormwater treatment train provides the following measures:

- Compliance with BASIX;
- Bioretention devices within constructed swales on slopes <5% and Gross Pollutant traps (GPTs);
- Sedimentation basins;
- Constructed wetlands with a minimum 30% soft-edge treatment;
- Diffuse low-flow discharge (<Q3month) and stormwater treatment within the rehabilitation areas;
- High-flow bypass channels to protect the rehabilitation areas; and
- Discharge of fully treated water to the Cobaki Broadwater.

with all stormwater treatment areas occurring within land designated as Open Space or Environmental Protection and have been designed to provide wetland habitat.

The SQMP submitted with the Central Open Space PA in fact does not propose Sedimentation basins, Constructed wetlands or High-flow bypass channels and as such does not provide adequate treatment in accordance with Council requirements (as specified under Design Specification D7 – Stormwater Quality). This will be expressed in more detail under the Central Open Space PPR assessment.

The submitted Ecology Assessment also states that Stormwater Management Plan (meaning SQMP) provides for the diffuse discharge of treated stormwater to both the freshwater and saltwater habitats through the construction of under-drained swales with level-spreader devices.

### Road Widths

Proposed road hierarchy and road widths are acceptable

- Cobaki Parkway (generally 40m), except where varied as explained earlier.
- Sandy Lane / Road 1 = 22.4m road reserve, providing a 13.4m pavement.
  - This will be reinforced with the S96 application K99/1124.06, however for the s96 application 1262/2001DA.02 Council will also require an easement for access to accommodate the road reserve, such that the required 30.0m road reserve (21.0m pavement) is provided for the shopping precinct.
- Road 2 = 19.0m road reserve
  - The proposed 11.0m pavement will be reinforced with the S96 applications K99/1124.06 and 1262/2001DA.02.

## Environmental Health Comments

### Contamination

The proposed amendment will not affect previous comments with regards to contamination. It is noted however in Council's correspondence to Gilbert and Sutherland dated 9/11/09 with regards to the alternative location of the containment cell in relation to the remediation of Turners Cattle Dip Site that "*Council's Manager Development Assessment Unit has suggested that a statement of commitment and/or condition is applied to the concept plan (Cobaki Lakes) which requires that the containment cell is located within road reserve generally in accordance with the Gilbert and Sutherland Plan Drawing Number GJ0872.4.0 dated 21 September 2009. This requirement is considered necessary should the road alignment change as part of the concept plan process*".

No Statement of Commitment or condition has been raised with respect to this matter and should be addressed by the proponent.

### Acid Sulfate Soil (ASS)

The proposed change would effectively reduce the potential disturbance of acid sulfate soil across the site. Given the history of investigations regarding ASS undertaken by the proponent who is well aware of the issues present on the site, the provision of a detailed ASS investigation prior to the detailed designs being finalised is not considered necessary.

The proponent advises that "a detailed ASS investigation together with an ASS Management Plan will be prepared for the detailed design and construction of development on areas of potential acid sulphate soils, and implemented". This is considered satisfactory.

### Aircraft Noise

Gold Coast Airport advise in the Preferred Project Report Response to State Agency Submissions dated 13/7/10 (page 4 of 20) that training for light aircraft will occur over the Cobaki estate and potential purchasers should be advised of these impacts. The response from the proponent was "*Leda will from time to time determine the information that is given by it to prospective purchasers*".

It is noted that the entire Cobaki Lakes development site is located outside of the ANEF for Gold Coast Airport and as such the issue of noise from aircraft movements was not triggered for comment by Council's EHOs.

Council officers consider that the Gold Coast Airport and the proponent should take responsibility for management of complaints in the future and advise future residents of the potential nuisance through a mechanism such as an 88b. Correspondence has previously been provided to the Department on this issue.

## Recreation Services Unit

### Development code

Comments provided in the table below

| Page | Clause          | Description  | Issue  |
|------|-----------------|--|--|
| 8    | 1.2             | The concept plan provides the ministers approval for .....<br><ul style="list-style-type: none"> <li>Open space and landscape management concepts</li> </ul> | The concept plan currently provides minimal information on casual open space and landscape concepts. More detail on layout of casual open space and landscape concepts are required.   |
| 15   | 2               | Exempt and Complying Development   | This contains many references to tree pruning and removal, Events on Community Land (subdiv. 15), Film Shoots (subdiv 17), landscape structures (subdiv 22), Public Art (subdiv 31) and water features and ponds These controls already exist. |
| 20   | Subdivision 7   | Barbecues  | The code places controls over the size and location of barbecues but does not specify if this is for domestic or public facilities. Such controls should not be placed over public facilities.   |
| 29   | Subdivision 31  | Public Art   | Council has an existing Placemaking and Public Art Policy that is not referenced. This is an example of potential conflict by creating an unnecessary document.  |
| 95   | 4.2 (5) and (6) | Town Centre: High amenity pedestrian streetscapes .....  | Several references to high amenity standards for public areas, town squares and similar references. Approval for such standards can only follow assessment of detailed landscape plans with consideration of function and maintenance needs.   |
| 95   | 4.3 (5) and (6) | Neighbourhood Centres: High amenity pedestrian streetscapes .....  | Several references to high amenity standards in neighbourhood centres. Any approval for such standards can only follow assessment of detailed landscape plans with consideration of functionality and maintenance needs.                       |

### Addendum to the Preferred Project Report for the Cobaki Lakes Concept Plan, June 2010

A comparison of comments applicable to the Addendum and the previous 'Preferred Project Report (October 2009) is provided in the table below.

|   | Comment on 'Addendum to Preferred Project Report' - June 2010  | Previous Comment on Preferred Project Report, October 2009   |
|---|--|--|
| 1 | <u>Open Space required:</u> 12,000 pop'n creates a need for 33.9ha of open space – 20.4ha structured and 13.5ha casual open space<br><br><u>Open space proposed:</u> 20.4ha Structured. Amount of Casual OS is not defined but apparently exceeds the required 13.5.   | <u>Open Space required:</u> 12,000 pop'n creates a need for 33.9ha of open space – 20.4ha structured and 13.5ha casual open space<br><br><u>Open space proposed:</u> 20.4ha Structured and 57.6ha Casual |
| 2 | Actual amount of Casual Open Space is not defined. Much of it includes the development's main drainage area. Several additional parks are now proposed under detailed precinct plans. A clear statement of actual areas of Structured and Casual Open Space must be provided. Note additional OS comes at a management cost. | Actual amount of Casual Open space is not defined and can only be inferred from overall open space amounts proposed  |
| 3 | The amended structured open space proposed (north of   |  |

|    | Comment on 'Addendum to Preferred Project Report' - June 2010  | Previous Comment on Preferred Project Report, October 2009  |
|----|--|---|
|    | previously accepted area) appears to not meet TSC requirements for sportsfields under S. A5 of the Tweed DCP – minimum width to be 170m. The drain adjoining proposed sportsfield further reduces the area available for use because a buffer to the drain is needed.  |   |
| 4. | Structured Open Space (Sportsfield) adjoins drainage and future habitat areas. This would mean future restrictions on sportsfield use due to habitat impact, in particular sports lighting with other possible impacts including high nutrient run off. TSC requires a guarantee through the approval process that full use of the sportsfields will be allowed, including full sports lighting and standard sportsfield management practices.   |   |
| 5  | Much of the open space is proposed for areas of Acid Sulphate Soils. The developer will be required to demonstrate how such soils will not be a constraint for future use of sportsfields and managed parks, prepare ASS management plans as appropriate, and undertake appropriate works to ensure the areas can be used as a sportsfield.  | Much of the open space is proposed for areas of Acid Sulphate Soils. The developer will be required to demonstrate how such soils will not be a constraint for future use as sportsfields or parkland, prepare ASS management plans as appropriate, and undertake appropriate works to ensure the area can be used as a sportsfield.  |
| 6  | The Concept Plan indicates several areas of open space that cannot meet the criteria. For example, the linear sections adjoining Cobaki Parkway and Sandy Lane would not be considered as a contribution towards casual open space. It is not clear why they have been nominated as open space when it adjoins the Environmental Protection Area. Other areas, particularly in precincts 1 and 2 appear very small and may not meet the OS criteria. Dedication of the linear strip in precinct 10 is opposed until an acceptable explanation for its existence is provided – this has been repeatedly queried with no response ever provided. The interaction of the covenant protected areas with other open space is unclear and must be clarified. | The Concept Plan indicates several areas of open space that cannot meet the criteria. For example, the linear sections adjoining Cobaki Parkway and Sandy Lane would not be considered as a contribution towards casual open space. It is not clear why they have been nominated as open space when it adjoins the Environmental Protection Area. Other areas, particularly in precincts 1 and 2 appear very small and may not meet the criteria. The reason for the dedication of the linear strip in precinct 10 is unknown, and the function of the 'revegetation and wetland area' in precinct 9 is also unclear, although it is also indicated as a 'conservation area' (figure 4, Site Regeneration and Restoration Plan, Oct 2009) |
| 7. | Much of the central drainage system/casual open space adjoins the central drain and potential habitat areas.. RSU requires a guarantee that open space provided will meet the required criteria, and also not be restricted in the way it can be developed as parkland without restrictive conservation requirements.  | Most of the casual open space proposed for dedication comprises the central drainage system. The actual area of functional land is significantly less than indicated as much of it will be the watercourse or small adjoining areas. It remains unclear just how much of this open space will meet Councils criteria.   |
| 8. | The Concept Plan does not allow full assessment of open space against Council's Subdivision criteria because essential detail (such as road frontage) is not provided. Guarantees must be provided that all TSC open space guidelines will be met. Any approval of the concept plan depends on this, with a condition that if any such guarantees are not met then the concept Plan approval is void.  | The concept plan does not allow full assessment of the performance criteria described in S. A5 of the Tweed DCP (Subdivision Manual)  |
| 9  | Contaminated sites are identified by the developer adjacent to the thin linear strip of Casual open space in precinct 10, and in the northern dipsite area. Insufficient information is provided on the impact of this on Councils management of nearby open space. These areas cannot be accepted without this matter being satisfactorily dealt with.  |   |

# **DETAILED COMMENTS AND MEMORANDUMS**

**PREFERRED PROJECT REPORT FOR THE PROJECT APPLICATION FOR THE CENTRAL  
OPEN SPACE AND RIPARIAN CORRIDOR**



## Subdivision Engineer

| <i>Issue</i>                      | <i>EAR Engineering Assessment Report (25/02/10)</i>   | <i>PPR</i>  | <i>Council Response</i>   |
|-----------------------------------|---|---|---|
| <b>1. Subdivision</b>             |   |   |   |
| a) Current Approvals              | The EAR seeks approval for the subdivision of the Cobaki Lakes Estate into 11 lots which contradicts previous approvals (namely Consent 1262/2001DA) which is for "subdivision involving the creation of eight (8) master lots and bulk earthworks". The Applicants needs to clarify their intention of overlapping approval. | The amended PPR now seeks approval for the subdivision of the Central Open Space (COS) and riparian corridor into 6 lots (Lots 801 to 806) leaving a large lot (lot 807) for future urban development.  | Proposed residual lot 807 encompasses the 8 master lots approved under 1262/2001DA. The PPR has still not addressed how these 2 overlapping applications will operate.  |
| <b>2. Stormwater Management</b>   |   |   |   |
| a) Lake                           | The weir length of the lake has been determined to ensure that the proposed northern lake water surface level remains below RL 3.0m during a Q20 event. The weir needs to consider flows up to the Q100 storm event.  | Lake is no longer proposed.   | Issue resolved  |
| b) Open Channel / Treatment Train | Concern was raised in regards to the Depth x Velocity Further information requested to confirm design capacity, safety factors and freeboards to adjoining urban areas and open space, for minor and major storm events.  | A Stormwater Quality Management Plan (SQMP) and Revised Local Flooding and Flood Impact Assessment was provided. Following numerous Workshops, the Stormwater Quality Management Plan (SQMP) has been re-amended. Current version = September 2010 Revision 02.                             | The latest SQMP has still not provided DV information. Council's concern remains.<br><br>Appropriate conditions relating to DxV data have been recommended.   |
|                                   |   | The proposed treatment train consists of:<br>-rainwater tanks<br>-swales<br>-bio filtration   | Infrastructure Engineer (see below) provides detailed comment on proposed treatment train meeting the water quality objectives (WQOs) of TSC.<br><br>Council's DCP D7 allows for Rainwater tanks to be included within the Treatment Train.             |
|                                   |   | The latest SQMP proposes individual bio-filtration zones (BFZs) to service each precinct. Some of the BFZs are located within the COS, some external. With these zones not being constructed until each associated Precinct is developed, the BFZs are not part of this project application | With the COS being inundated by flows Q100 and above, there is potential to remobilise captured sediment within the BFZs. It is proposed that the BFZs provide immunity against the Q10.<br><br>The main central drain shall be utilised for stormwater |

| <b>Issue</b>                 | <b>EAR Engineering Assessment Report (25/02/10)</b>  | <b>PPR</b>  | <b>Council Response</b>  |
|------------------------------|--|---|--|
|                              |  |   | conveyance only, and not included within the treatment train. Refer Infrastructure Engineer (see below) report for further explanation.  |
|                              | Council was concerned that sections of the COS will be permanently wet.  | The SWMP advises that the ground water level is at approx. RL 0.3m AHD  | Council will enforce that the COS is designed to address groundwater issues, with a central rubble lined drain proposed to convey low flows and groundwater. This matter has been workshopped with Yeats. Refer Infrastructure Engineer (see below) report for additional comment. Appropriate conditions are recommended. |
|                              |  | The PPR proposes that no water quality monitoring will be undertaken post development.  | Council's DCP does not require water quality monitoring post development, however it is recommended that standard during construction water quality monitoring is maintained until the nominated maintenance period has lapsed or else as required under any other approved management plan.                               |
| c) Salt Marsh Polishing Zone |  | The PPR advises that stormwater will be treated prior to discharge to the Saltmarsh area.   | The latest SQMP proposes that stormwater will be treated to the required water quality objectives for each Precinct, prior to discharge into the COS. This will produce acceptable stormwater quality prior to discharge into the Saltmarsh area.  |
| d) Sandy Lane                | The proposed bridge on Sandy Lane crossing the lake needs to be a minimum 18m wide (i.e. providing 3.5m wide verges), with an 11m roadway (kerb to kerb).  | Bridge is no longer proposed.   | Culverts are now proposed over the COS.  |
|                              | Concern was raised that portions of the EAR submission referenced Sandy Lane with a FSL of RL 3.0m AHD.  | The PPR acknowledges that Sandy Lane (now Sandy Road) will have a minimum FSL of RL 3.1m AHD.   | Issue resolved   |
| e) Constructed Wetlands      | Council required the PPR to accommodate constructed wetlands, sized to 5% of their contributing urban catchment, (i.e. with zero discounts applied) in accordance with Council's Development Design Specification D7 – <i>Stormwater Quality</i> . Concessions can then be | The PPR does not propose any constructed wetlands, but intends to rely upon BFZs and vegetated swales within and adjacent to the COS to treat runoff from future Precincts. | The proposed concept and submitted SQMP has been accepted by Council, subject to conditions. Refer Infrastructure Engineer (see below) report.   |

| <b>Issue</b>   | <b>EAR Engineering Assessment Report (25/02/10)</b>   | <b>PPR</b>   | <b>Council Response</b>  |
|--|---|--|--|
|  | adjusted, subject to provision of appropriate justification, during the detailed design phases of the development.  |  |  |
| f) Salt Water Pump Station   | Concern was raised in regards to the proposed use of the salt water pump station. It was also requested that comment be obtained from Industry & Investment NSW on such a proposal. | With the removal of the lake, the salt water pump station is no longer required.   | Issue resolved   |
| g) Sustainable Aquaculture Strategy (OISAS).   | Council requested that the Department consider the potential impacts of the development on downstream oyster farming areas in Terranora Broadwater.                                 | Gilbert + Sutherland responded to the DPI stating that as there is no aquacultural activity downstream of the subject site.  | To be considered by the DPI.   |
| h) Stormwater Conveyance Downstream of Sandy Lane  |   | The PPR provides a low flow channel to direct minor flows from the Sandy Road culvert crossing to the existing agricultural drain (Dunns drain), with ultimate discharges into Cobaki Creek. Runoff from storms exceeding the capacity of the low flow channel will discharge over the salt marsh. | The submitted Civil Plans (Dwg YC0229-1P1-ES03 A) shows a very small bund proposed to maintain low flows within the intended drain south of Sandy Road towards Cobaki Parkway but does not provide capacity details. As per Infrastructure Engineer (see below) report, Council's Engineers recommend that this low flow drain is sized to convey flows up to the Q5 storm event, unless varied otherwise by the approved Revised Saltmarsh Rehabilitation Plan. |
| <b>3. Flooding</b>   |   |  |  |
| a) Flooding  |   | Under a Q100 storm event, the Revised Local Flooding and Flood Impact Assessment Report (RFIA) indicates that the COS will be conveying up to 134m <sup>3</sup> /s of stormwater at a depth of 1.5m.   | As requested above, the PPR needs to provide Depth x Velocity values for the COS.  |
| b) Tidal Influences  |   | The PA proposes floodgates on the downstream side of all culvers under Sandy Road (near the Saltmarsh) to prevent the ingress of tidal water and regional floodwaters upstream of Sandy Lane into the central open space area.   | For comment on the appropriate timeframe for the installation of these floodgates refer Infrastructure Engineer and Ecological comments within this Report.  |
| <b>4. Staging of Construction</b>  |   |  |  |
| a) <u>Stage 1</u> - Implementation of Saltmarsh Rehabilitation Plan (SRP), and Biting Midge and Mosquito | This includes;<br>- Adjustable weir structures are proposed within the existing drain on Cobaki Creek to control of the   | Intended to commence immediate after approval.   | Refer comments from Council's Infrastructure Engineer (see below) Ecologists and Entomologist.   |

| <b>Issue</b>  | <b>EAR Engineering Assessment Report (25/02/10)</b>   | <b>PPR</b>   | <b>Council Response</b>  |
|---|---|--|--|
| Control Plan.   | number of tides which flood the Saltmarsh area. This may require additional levelling, filling and limited excavation so as to ensure the complete and efficient flooding and draining of the Saltmarsh habitats.<br>- Floodgates installed to prevent tides from entering the COS. |  |  |
| b) <b>Stage 2</b> - All earthworks (cut and fill) - Construction of the lake and landscaping its edges.   | Intended to commence within 6 months after approval.  | Removal of Lake - Still intended to commence within 6 months after approval.   | No issues raised   |
| c) <b>Stage 3</b> - Landscaping of open space and roads - Implementation of relevant flora and fauna management plans.  | Intended to commence in conjunction with civil works for the subdivision of adjacent precincts.<br><br>Note - EAR did not cover any road construction apart from the proposed bridging structure over the lake.   | Removal of Lake & Bridge - Still intended to commence in conjunction with civil works for the subdivision of adjacent precincts. | No issues raised.<br><br>The roadworks component of this PA now involves the construction of sections of Sandy Road and Cobaki Parkway that contain the culverts associated with the conveyance of stormwater through the COS.<br><br>The Cobaki Parkway section also includes a 10m wide floodway at RL1.50m to reduce the impacts of flood levels from major regional storm events to upstream rural properties. Infrastructure Engineer (see below) may provide additional comment on this. |
| d) <b>Stage 4</b> - Landscaping of structured open space/ playing fields.   | Intended to commence on a pro - rata basis with subdivision of adjacent precincts in accordance with Tweed DCP rates.   | Still intended to commence on a pro - rata basis with subdivision of adjacent precincts in accordance with Tweed DCP rates.      | No issues raised   |
| <b>5. Operation Management</b>  |   |  |  |
| The EAR includes a commitment for the proponent to manage and maintain the COS, lake and riparian corridor for 2 years after works are complete in each stage and then dedicate the land to Tweed Shire Council for public use. | Council requested a longer maintenance period as the proposal is non-standard (i.e. injecting salty water into the lake and wetlands) and adequate time needs to be given to ascertain any maintenance issues.  | Lakes removed – no longer injecting salty water – Current proposal is more traditional.  | Issue resolved   |
| <b>6. Geotechnical Stability</b>  |   |  |  |
| a) The Concept Plan assessment identified 5 categories of   | Council were comfortable that the proposed commitment for detailed  | The PPR commitment still references that “construction of the lake”.   | Lake reference to be removed.  |

| <b>Issue</b>  | <b>EAR Engineering Assessment Report (25/02/10)</b>  | <b>PPR</b>   | <b>Council Response</b>   |
|---|--|--|---|
| geotechnical constraints to urban development within the site.                        | geotechnical studies to be carried out prior to works commencing to ensure geotechnical stability. |  |   |
|   |  | The Final Statement of Commitments proposes that "Geotechnical studies will be prepared to ensure the stability of earthworks and the construction of the lake and riparian corridor" with the "Recommendations in the Geotechnical Report are to be implemented." | This will suffice.  |
| <b>7. Erosion and Sediment Control</b>  |  |  |   |
| An ESCP in accordance with TSC's Design Specification D7 is required to be submitted. |  | Proposed ESC was submitted with the Civil Plans attached to the PPR.   | The submission included plans only, with no supporting documentation. Proposed ESC included rock check dams only in-line with the Q100 major storm. This in not in accordance with will be insufficient for such catchments. Sedimentation Basins, in accordance with Council's D7 will be required. Amended documentation will be required with the detailed design. Appropriate Conditions have been recommended. |
|   |  |  | To minimise potential breaches of sediment loss, earthworks associated with the development should be limited to no more than 5ha of land being disturbed at any one time.  |
|   |  |  | Additional comments to be provided by Council's Infrastructure Engineer (see below)   |

## Infrastructure Engineer

| <i>Issue</i>                    | <i>PA Comment<br/>(memo 22/2/10)</i>  | <i>PPR</i>   | <i>Council Response</i>  |
|---------------------------------|---|--|--|
| <b>1. Stormwater Management</b> |   |  |  |
| a) Lake                         | 7.86Ha lake proposed at northern end of project site. The lake and its salt water pumping system are opposed by Council, in accordance with submissions on the Cobaki Lakes Concept Plan. Council requests deletion of the lake.  | Lake is no longer proposed.  | Issue resolved   |
| b) Open Channel                 | Further information requested to confirm design capacity, safety factors and freeboards to adjoining urban areas and open space, for minor and major storm events.  | Revised Local Flooding and Flood Impact Assessment provided.   | Refer to discussion below.   |
| c) Salt Marsh Polishing Zone    | Stormwater flows from central drainage will be dispersed across salt marsh environmental land downstream of Sandy lane culverts. This fails to provide a continuous and maintainable drainage path for Council's ongoing management, and fails to address environmental impacts on the salt marsh environment. Council requests an alternate permanent flow path.   | The PPR still makes reference to diffuse stormwater discharge across salt marsh areas, although the engineering reports nominate an alternate flow path option to Cobaki Creek via widened road reserves and easements.  | Refer to discussion below.   |
| d) Sandy Lane                   | Request clarification of the extent of Sandy Lane works included in the PA. Concerns raised about low invert level of culverts at downstream end of the drainage system, and compatibility of this design given likely tailwater levels. Complete long section of drainage precinct through to Cobaki Creek requested.  | Based on engineering drawings approximately 500m of the southern section of Sandy Road, plus the southern 500m section of Cobaki Parkway, is included in the PA. This includes the road intersection and two major convert structures. Drainage long section provided, with drain invert raised to be above ground water levels.   | Shall be considered in approval conditions relating to staging of works. |
| e) Constructed Wetlands         | Concerns raised regarding compatibility of future small lot subdivision and the treatment train approach proposed. Request identification and dedication of 5% catchment areas for treatment facilities. Lake not supported as a treatment facility, and should be deleted or taken offline. Difficult to assess suitability of treatment devices in the absence of plans for future upstream precincts. Request that these devices be deferred and provided with future PAs/DAs. Council is currently reviewing stormwater specifications to conform with "Water By Design" approach from SEQ. Constructed wetlands are not compatible with proposed salt water flushing system, so is opposed by Council. | Lake and salt water flushing system no longer proposed. Stormwater Quality Concept Plan provided. Revised concept does not provide constructed wetlands, but relies on bioretention basins in each precinct to treat future developed catchments. MUSIC modelling provided based on assumed development yields from each precinct. | Refer to discussion below.   |

| <i>Issue</i>              | <i>PA Comment<br/>(memo 22/2/10)</i>  | <i>PPR</i>  | <i>Council Response</i>  |
|---------------------------|---|---|--|
| <b>2. Flooding</b>        | Variations are noted between Council's flood study results and the applicant's modelled flood levels for design events and climate change influence, due to various assumptions. Design flood levels need to be increased particularly upstream of the lake weir due to the local catchment flood peak. 0.5m freeboard must also be applied to residential development. | Revised Local Flooding and Flood Impact Assessment provided. Lake and weir no longer proposed, requiring remodelling. Climate change runs also adjusted to adopt 10% rainfall increase rather than previous 30% increase. 0.5m freeboard adopted for residential development. | Refer to discussion below.   |
| <b>3. Other Matters</b>   |   |   |  |
| a) Further Approvals      | Council requests clarification that usual construction certificate and subdivision certificate process applies to PA.   | Not addressed in PPR  | Clarification provided by DoP - issue resolved   |
| b) Conditions of Approval | Council requests clarification that the PA will be subject to approval conditions, including the need for subsequent applications to Council.   | Not addressed in PPR  | Clarification provided by DoP - issue resolved   |
| c) Cut and Fill           | Contours illegible on plans   | Amended civil drawings provided. Fill levels have been iteratively developed with flood modelling to achieve adequate levels and freeboards, including consideration of local flood gradients.  | Issue resolved for subject application only. Further landforming information required with future precincts. |
| d) Road Access            | Sandy Lane is integral for access to central precinct, so request commentary on staging of this road construction.  | An ultimate road access plan has been provided, however need commentary on staging of road access while the central precinct and the adjoining precincts are being developed.   | Refer to staging discussion below.   |
| e) Staging                | Clarification sought on staging of drainage works   | Not addressed. Staging (3.6 of PPR) still does not include drainage works.  | Refer to staging discussion below  |

## Stormwater Quality Concept Plan

The applicant's consultant engineers have provided a Stormwater Quality Concept Plan (SQCP) with the PPR. As a result of workshops on drainage matters with Council officers, Revision 02 of this plan has been provided. The following comments and conditions relate to this revised version.

The central precinct works consist mainly of earthworks to provide the Estate's stormwater conveyance system. Compared to the EAR, the revised plan raises the level of the central drain to avoid groundwater and excavation of acid sulphate soils.

Stormwater treatment measures are no longer proposed within the open drain through the central precinct. It has been agreed that treatment requirements conflicted with conveyance functions of this drain, and that each precinct of future urban development would be required to provide its own off-line treatment measures. As such, these treatment measures will be subject to separate applications, and the subject project application no longer includes stormwater treatment facilities.

The stormwater management for the Estate includes rainwater tank capture and reuse at lot level (at the source). This has benefits for potable water demand, and mitigates transmission of pollutants in the stormwater train by mitigating flows.

To maximise the conveyance function and minimise the long term maintenance issues for Council, the open drain will primarily be designed and constructed as a grassed swale, providing long residence times with flat longitudinal grade and shallow flow depths. Although the open drain has been excluded from the SQMP as a treatment device, the applicant proposes to provide a bioretention swale along the invert of the drain. Council has reservations about this design, and prefers a simplified rock lined channel along the invert. This will act to keep the rest of the cross section dry for low flow events, and with the addition of lateral sub soil drains, will allow slashing and other maintenance activities to occur in the grassed sections without bogging. Maintenance considerations are essential, as due to the flat grades any rutting damage would create ponding problems.

The SQCP does not discuss conveyance capacity of the open drain. A separate Revised Local Flooding and Flood Impact Assessment Report (RFIA) has been provided, which provides the results of various hydraulic models.

Gross pollutant basins will be provided at all drainage outlets to the open channel system. These will be rock lined to dissipate flow energy and minimise scour and erosion at these points. Again, these will be the subject of separate applications for the urban precincts.

The SQCP provides MUSIC modelling results for this treatment train, adopting TSC D7 parameters and assumed development splits, rainwater tanks and bioretention devices for future precincts. As the following table demonstrates, the treatment train successfully meets the water quality objectives (WQOs) except for total nitrogen.

| Parameter | Post-Development<br>(Treated kg/yr) | Post-Development<br>(Treated kg/Ha/yr) | TSC WQO<br>(kg/Ha/yr) | Objective<br>Achieved? |
|-----------|-------------------------------------|--|-----------------------|------------------------|
| TSS       | 44,400                              | 143                                    | 300                   | Yes                    |
| TP        | 247                                 | 0.79                                   | 0.8                   | Yes                    |
| TN        | 2,780                               | 8.94                                   | 4.5                   | No                     |

Council is also looking to update D7 to adopt facets of the Water By Design Guidelines (WBD) developed in South East Queensland. WBD sets "Design Objectives for Water Management" in terms of percentage reductions from post development untreated to treated flows. The SQCP demonstrates the treatment train complies with these revised WQOs, including total nitrogen:

| Parameter           | Post-Development<br>(Untreated kg/yr) | Post Development<br>(Treated kg/yr) | %<br>Reduction | WBD<br>WQO (%) | Objective<br>Achieved? |
|---------------------|---------------------------------------|-------------------------------------|----------------|----------------|------------------------|
| TSS                 | 333,000                               | 44,400                              | 87             | 80             | Yes                    |
| TP                  | 830                                   | 247                                 | 70             | 60             | Yes                    |
| TN                  | 5,060                                 | 2,780                               | 45             | 45             | Yes                    |
| Gross<br>Pollutants | 72,500                                | 0                                   | 100            | 90             | Yes                    |

Given the MUSIC modelling is conservative by not allowing for any treatment to occur in the central open drain, and acknowledging the difficulties in achieving the nitrogen WQO using Council's parameters, it is considered that the SQMP does provide best practice water sensitive urban design for the Cobaki development. Having said this, none of the precinct based treatment devices are included in the subject PA.

As the open drain is to be maintained for its drainage conveyance function, it is considered inappropriate for it to be used as an on-line freshwater wetland rehabilitation area. It is understood from workshops with the applicant that all environmental offsets will be provided offsite, with the



exception of the fauna corridor through Precinct 6, which will include Wallum Froglet habitat areas located offline to the minor drain in this area.

### Civil Drawings

The applicant's engineering consultants have provided a set of revised civil drawings in Attachment J to the PPR.

It is noted that in Attachment J 14 sheets are provided. The Drawing Index (Drawing YC0229-D02) lists 26 sheets in total, which are all necessary for proper assessment of the application. Fortunately the missing sheets have been provided by the applicant's consultants separately, so have been able to be reviewed. It is critical that all of these plans are referenced by any approval conditions issued by DoP for the PA.

No significant concerns are raised with the civil drawings. Any issues are addressed by recommended approval conditions below.

### Erosion and Sediment Control

An erosion and sediment control plan (ESCP) should be provided, including all information required by Development Design Specification D7 - Stormwater Quality, and complying D7- Annexure A "Code of Practice for Soil and Water Management on Construction Sites".

The ESCP should considered measures in place for the construction phase of the subject central drainage precinct, as well as the measures required for the future subdivision construction of adjoining precincts, as well as the house building phase of each precinct. This will involve large time frames, and may involve a management system combining the developer's and Council's resources, bonds, sacrificial works and the like.

Of particular note, the ESCP must address:

- Diversion of clean upstream runoff around development sites
- Staging of ground disturbance works and revegetation
- Overflow/bypass arrangements to cater for the Q100 event without erosion, scouring or structural damage to erosion-sediment control devices, or re-mobilisation of previously captured sediment
- Sediment basin sizing and supporting calculations
- Monitoring and actions to address any non-compliance.

### Stormwater Conveyance Downstream of Sandy Lane

The EAR previously recommended diffuse discharge of stormwater from a floodgated culvert structure under Sandy Road located at the downstream end of the open channel drainage. This water would be directed across salt marsh areas and eventually discharge to Cobaki Creek. This was promoted as a final treatment measure, however it presented Council with concerns in terms of ongoing maintenance and ecological impact.

The PPR still refers to diffuse discharge to a salt marsh "polishing zone", however the engineering drawings now show a low flow stormwater channel downstream of the Sandy Road culverts. This drain runs along the southern side of the Sandy Road formation, within the road reserve, then under Cobaki Parkway via a large culvert structure. The drain then turns in a northerly direction to link to an existing agricultural drain that discharges to Cobaki Creek.

Concerns raised with this system include:

- Capacity of the formed drain / frequency of overtopping into salt marsh areas
- The u-turn in the drain alignment
- The ownership and ongoing management, access and maintenance of the existing channel, and its outlet arrangement to Cobaki Creek (e.g. easements, management plans)
- Compatibility with the saltmarsh rehabilitation plan.

These concerns have been raised with the applicants in various workshops, and Council is satisfied that subject to amendments to the salt marsh rehabilitation plans to address drainage through this area, the proposed system will operate satisfactorily, subject to conditions. Council have recommended that this drain is sized to convey at a minimum the Q5 event without overtopping into the adjacent salt marsh rehabilitation areas, unless varied otherwise by the approved Revised Saltmarsh Rehabilitation Plan.

### Flooding

A design flood level of RL 2.9m AHD has been adopted for the Estate, which is in line with Council's predicted climate change affected regional 100 year ARI flood event (0.9m sea level rise and 10% rainfall intensity increase to the year 2100). This complies with recent amendments to Development Control Plan Section A3 - Development of Flood Liable Land.

The Revised Local Flooding and Flood Impact Assessment Report (RFIA) examines the local flood impact of the development within the central open space precinct drainage systems, to confirm that adjoining urban land has adequate flood immunity.

Unfortunately these results are not clear, but indicate that the open drain through the central precinct has capacity to convey runoff events up to the 10 year ARI event. Larger events will inundate the remaining central drainage precinct area (structures and casual open space), which provides flood storage and additional flow cross section for these major storms.

Results of flood modelling demonstrate a flood gradient for the design flood (100 year ARI) through the central precinct, which needs to be taken into account in the landform design and the application of suitable flood planning levels for adjoining development. The regional design flood level (with climate change) of RL 2.9m AHD applies to the southern portion of the site, however due to the local flood gradient, a design flood level of RL 3.4m AHD would apply in the vicinity of the northern Sandy Road culvert crossing (e.g. community facilities, town centre), and up to RL 3.7m AHD in the upper tributaries for the northern precincts. Fill levels have been iteratively revised to reflect this flood gradient, so are satisfactory.

Provision of filled sports fields to RL 1.9m AHD (that is DFL - 1m) meets Council's DCP-A5 requirements for structured open space. The northern structured open space area indicatively includes tennis courts and other facilities that require a higher level of flood protection and therefore a higher design flood level, ideally to the same 100 year ARI event as adjoining urban land. Additional filling will have flow on effects to flood levels and flow conveyance in this area, so needs further consideration with future applications for such facilities.

The flood assessment does not include velocity or flow data. This is of concern to Council due to potential safety issues with members of the public in these dual use drainage / open space areas.

## Staging

A proper understanding of staging for the central precinct, particularly the drainage aspects, is critical to the overall orderly development of Cobaki Estate. Despite previous requests, this still has not been adequately discussed in the PPR. Conditions will be recommended to resolve the following issues:

- The staging of construction of the central drainage, including provision of erosion and sediment controls
- The prerequisite works required for the central drainage to allow upstream precincts to be developed
- The staging of construction of drainage structures (culverts, floodgates) and road access to the central drainage and open space areas, including maintenance accesses.
- Compatibility of drainage staging with environmental rehabilitation areas, and any pre-requisites
- Handover of works to Council / bonding arrangements

## Ownership and Management

The PRR states that the works in the PA are to be dedicated to Council in stages two years after works are completed in each stage. This will be addressed as considered appropriate by the various asset owners within Council via conditions.

## Planning

The PPR for the Project application specifies that works include “*minor cut and substantial fill, structured open space and parkland areas, revegetation and rehabilitation of environmental protection areas, establishment of freshwater wetland and fauna corridors, revegetation and rehabilitation of saltmarsh areas, including associated tidal flow management, roads with culverts crossing the central open space, road with culverts together with trunk sewer and water services predominantly across saltmarsh areas and subdivision*”. Despite this statement, the proponent has also identified that landscape works and open space embellishments will be staged and future works will be required with future precinct development applications. Similarly, whilst not reflected in the PPR the applicant has identified that future details relating to rehabilitation and revegetation of the freshwater wetland and fauna corridors and saltmarsh areas will be provided in the future. There is some concern with the uncertainty associated with the extent of works, embellishment and landscaping proposed to be approved with the PPR, particularly for open space, environmental protection areas, stormwater drainage and infrastructure. It is considered necessary that the PPR include a condition that future stages of open space, stormwater and landscaping embellishment in the central precinct are undertaken as required by and to the satisfaction of Council in association with future development applications.

## **Sewer and Water**

There are two areas of concern, both relating to the conditions of the water main and sewer rising main corridor along Cobaki Parkway to the Bridge.

First is that the considerable settlement in this area is taken into account in the design of the pipe lines as it is necessary for these pipelines to be in place prior to the release of the first residential lots. It may be that timing will require construction prior to completion of consolidation by preload for all of the roadways and other structures in this corridor. Design of these pipelines which is not included in this application needs to take into account the geotechnical information in this application.

The second consideration is the protection of the water and sewer rising mains through the floodway section and in the embankment between the culverts and Cobaki Creek bridge. These two assets will be crucial links in the servicing of Cobaki estate. Particular attention will be needed to ensure their integrity during flood events. Whilst there is some storage proposed for water supply after the initial stages of the development, it is likely that the sewerage system will have inadequate storage to cope with an outage of any extended period (greater than 8 hours in average flow conditions). Once again, this is not part of the current application but needs to be considered in the detailed design of these assets.

Council officers had not had the opportunity to review the final Development Code. This should be provided prior to lodgement of the first development application or project application requiring Council assessment.

## Environmental Health Officer

### Contamination

Contamination issues can be broadly divided into two areas - that associated with the remediation of Turners Cattle Tick Dip Site and that associated with other potentially contaminated activities resulting from the previous uses of the site in general.

It is noted that Turners Cattle Dip Site is located within the area identified as the proposed central open space and riparian corridor.

It is stated in Section 4.0 Final Statement of Commitments, Cobaki Lakes Estate Preferred Project Report July 2010 that the abandoned cattle dip site is to be remediated in accordance with an approved Remediation Action Plan and issued with a Site Audit Statement from an accredited auditor prior to completing the construction of the lake. This is no longer valid as the lake has been deleted from the project.

Remediation of Turners Cattle Dip Site is to be completed as part of this application in accordance with recommended conditions:

With regards to other areas of potential contamination, comments provided by Brad Pearce dated 22/12/09 state that *"in respect to contamination generally the applicant has provided in their Statement of Commitments that detailed investigation of those areas of potential contamination as identified in the Stage 1 Preliminary Site Contamination Assessment will be carried out in support of future project applications and development applications"*.

The potentially contaminated areas (excluding Turners Dip) as outlined within the Gilbert and Sutherland Stage 1 Preliminary Site Contamination Assessment Cobaki Lakes Concept Plan dated May 2008 includes chemical and fuel storages, old drum or chemical disposal sites and the spray race where insecticides are applied.

The Cobaki Lakes Constraints Map (prepared by Michel Group Services, Plan 6400-170A dated 12/10/09) and Proposed Amended Containment Cell Location (prepared by Gilbert & Sutherland, drawing no: GJ0872.4.0 dated 21/09/09) were compared with the proposed central open space and riparian corridor however none of the identified potentially contaminated areas were present within this area. Note plans attached.

It is noted however in the document "RE- Response to submissions from the State Agencies and Local Government issues for the proposed residential community development at Cobaki Lakes" prepared by Gilbert & Sutherland dated 7 July 2010 that *"the long narrow area of open space corresponds with a proposed drain. It is agreed that the potentially contaminating activity adjacent to this drain should be investigated prior to the dedication of this area to Council. This could be incorporated into the statement of commitments"*.

No Statement of Commitment has been raised with respect to this matter and should be addressed by the proponent.

### Acid Sulfate Soil (ASS)

It is noted that the proponent has completed various studies on ASS across the site however as detailed in comments dated 9/1/09 and 22/12/09 by Brad Pearce, the Acid Sulfate Soils Management Plan (ASSMP) referred to in the Environmental Assessment under the "Soil Survey, Geotechnical

Review, Acid Sulfate Soils Assessment and Management Plan dated December 2008 was not attached or provided for review.

The revised proposal includes deletion of the lakes and stormwater treatment ponds, and filling of the central drainage area. It is understood that the park will be filled to a level of 1.9m which will provide a buffer between 1.5m and 2m to the underlying ASS. Stormwater movement through the central drain is to have no contact with ASS as the drain will be lined and elevated above the ASS material.

Although the majority of the earthworks are proposed to be within this fill level, which will prevent significant disturbance of ASS, there will still be areas where ASS is intercepted and treatment will be required. The proponent states that reduced risk would allow for the provision of detailed investigations of ASS to be deferred until the Construction Certificate (CC) application stage.

The proponent also advises that groundwater assessments have been revised on the basis of the amended design and demonstrates no drawdown of groundwater. Ongoing monitoring and management during the operational phase is required under the provisions of the ASS Management Plan.

It has been advised that a comprehensive program of monitoring is proposed for the construction and maintenance phase of development and that reports will be provided to Council (once detailed design is finalised) for review as required. This information is to be submitted for review prior to the CC being issued.

Upon completion of detailed designs, if ASS will be or is likely to be intercepted, a detailed ASS investigation and management plan shall be submitted for review. All investigations and management plans shall be carried out in accordance with the NSW ASSMAC Guidelines.

### Groundwater

The proponent states that baseline surface and groundwater hydrology assessments have been completed and no significant change to the natural groundwater and surface water conditions has been identified. More detailed investigations are to be conducted at the Construction Certificate stage.

Previous comments from Council's Environmental Health Officer (dated 9/1/09 and 22/12/09) consider the response from the proponent satisfactory regarding groundwater.

Upon completion of detailed designs, if groundwater will be or is likely to be intercepted, a detailed groundwater investigation and management plan shall be submitted for review.

### Aircraft Noise

Gold Coast Airport advise in the Preferred Project Report Response to State Agency Submissions dated 13/7/10 (page 4 of 20) that training for light aircraft will occur over the Cobaki estate and potential purchasers should be advised of these impacts. The response from the proponent was "*Leda will from time to time determine the information that is given by it to prospective purchasers*".

It is noted that the entire Cobaki Lakes development site is located outside of the ANEF for Gold Coast Airport and as such the issue of noise from aircraft movements was not triggered for comment by Council's EHOs.

From the comments provided from Gold Coast Airport, it is apparent that they intend for an 88b restriction or similar planning instrument to be placed upon each of the future dwelling sites as a

mechanism to advise prospective purchasers of the potential noise impacts from aircraft noise. The response from the proponent is not considered satisfactory and is likely due to the proponent not wanting such a restriction to apply to their site.



## Recreation Services Unit

Below are comments and suggested conditions for the 'Preferred Project Report on the project Application for Central Open Space and Riparian Corridor'. Please note that while conditions are provided, it is clear there are many matters to resolve before any approval can be given. Department of Planning must not approve this application without resolution of these issues, or RSU will not accept management responsibility for the land allocated as public open space.

The Central Open Space is also the main central drainage reserve for the development and the implications for this in terms of available useable open space, both casual and structured, must be acknowledged.

Approval conditions and comments where applicable include:

1. All areas of Structured and Casual Open Space must comply fully with TSC's contribution rates for open space, which are based on the proposed population. They must also comply with the criteria outlined in Tweed Development Control Plan S.A5 (Subdivision Manual, Section A5.4.11)

**Comment:** Much of both Structured and Casual Open space does not appear to meet the Subdivision Manual's design criteria. No Open Space will be accepted if it does not comply, and should it be discovered during later embellishment that compliance issues are present, any prior approvals must be revised to ensure compliance. In particular it is noted that:

- The relocated northern sportsfield area (Structured OS) does not appear large enough to meet TSC's size requirements. Note TSC has repeatedly requested more information on this area but it has not been provided.
  - Minimal detail of road locations and their relationship to parks or open space has been provided in this application. From the little information provided, there is insufficient road frontage to meet Councils requirements as described in the Subdivision Manual.
  - It is not clear how much Casual Open Space is to be dedicated considering the ongoing design of individual precincts with additional parks in them. Clarification of the actual area of Casual Open Space that is to be contributed as part of this application, and the areas to be contributed as part of each precinct must be provided before approval of the Central Open Space application is given.
2. Should hard infrastructure be approved for parts of the Central Open Space, the design criteria, particularly levels, will need to be revised to ensure paved or hard facilities such as tennis courts or skate facilities are not subject to flood impacts
  3. All parks proposed to contain playground equipment must comply with Council's Risk Rating and Design Requirements for Playgrounds, which have yet to be incorporated into the Subdivision Manual.
  4. The central and lateral drainage areas are to have a separate land parcel created over them, separate to the central open space adjoining it. These drainage area are to classified as such on the subdivision plan.
  5. Landscaping of the drainage areas is to take account of the reduced maintenance programs undertaken in such areas. As they are not managed in the same way as parkland, plantings and landform design must provide for a simplified maintenance regime.

6. All Structured Open Space approved as part of this Central Open Space application must be accompanied by a guarantee that the sportsfields will be able to be fully utilised without restrictions due to the adjacent residents, drainage, habitat and wildlife corridor areas. In particular this refers to sports lights, fertilising programs and all other standard sportsfield management practices.

**Comment;**

- There is to be no negotiation on this. Previous sportsfield approvals have been subsequently rejected due to wildlife and native vegetation issues when RSU has come to upgrade or develop the fields. .

7. The 'Possible Clubhouse/Carparking Location' must be relocated, with separate facilities to service the northern and southern sportsfields.

**Comment:**

- The current location of the clubhouse and distance to all fields means it will not work. It is clearly too far away to be of any value to the sportsfields.

8. Full embellishment of the Central Open Space areas will be required prior to dedication to Council. Such embellishment and dedication to Council is to be guided by a staged embellishment and dedication program designed to ensure open space is developed in a timely manner to coincide with release of residential areas.
9. Embellishment of the Central Open Space is to be guided by detailed landscape plans which must be provided prior to issue of a Construction Certificate. Such plans must be approved by the Manager, Recreation Services.
10. An 'establishment and maintenance period' is required once any area of public open space has been embellished and dedicated to Council. The developer is to be responsible for maintenance of all soft and hard landscaping, and any facilities, for a period of 12 months.
11. Detailed work as executed plans must be provided for all completed works in the Central Open Space Area. This includes all civil works, building construction, sports lighting, irrigation and others detail as identified.
12. It is understood there is a contaminated site (cattle dip site) in the northern section of the Central Open Space. Clarification is sought on the actual location of this constrained area, how it is to be treated, and the implications for public open space if it is to be incorporated into the public open space system.