

TITLE: [PR-CM] Terranora Area E - Progress Report on Planning Processes and Major Project Application MP09/0166 for a 300 Lot Residential Subdivision at Lot 40, 43 DP 254416; Lot 2 DP 778727; Lot 1 DP 781687; Lot 1 DP 781697; Lot 1 DP 304649; Lot 1 DP 175235; Lt 1 DP 169490, Parkes Lane, Terranora (DA09/0701)

ORIGIN:

Planning Reforms

FILE NO: GT1/LEP/2000/10 Pt6, DA09/0701 Pt3

SUMMARY OF REPORT:

The purpose of this report is to provide Council with an update on the various planning processes currently being undertaken within the urban release area known commonly as 'Area E'.

Area E has been recognised in recent decades by both Tweed Shire Council and the NSW Department of Planning as an important strategic site for urban land release and housing supply, catering for a potential, additional residential population of approximately 4,000 people.

In accordance with the Local Environmental Plan gazetted for this site in 2007, Council's technical officers are presently undertaking the preparation of a Draft Development Control Plan (DCP) and Section 94 Plan (s. 94 Plan) to facilitate the orderly and economic development of Area E.

The DCP is advanced with key strategies and a draft structure plan has already been presented to landowners within the release area. Whilst several key issues still need to be reconciled, it is anticipated that the DCP will be completed for public exhibition in late June/early July.

In parallel to Council's process, NSW Department of Planning (DoP) is currently considering, as the consent authority a 321-lot community title subdivision within the eastern portion of Area E, under Part 3A of the Environmental Planning and Assessment Act 1979.

The application seeks project approval for a 321-lot community title subdivision comprising 317 Residential lots, one community association lot (Lot 711), public reserves (Lots 436 and 710) and one drainage reserve lot (Lot 630) and the provision of all usual urban infrastructure including reticulated water, sewer, stormwater, power and telephone. Bulk earthworks across the site will also be required to create the proposed final landform. The application includes a temporary road access to Fraser Drive to service the first stages of the subdivision. Approval is also sought for the construction of a temporary site sales office on proposed Lot 1103.

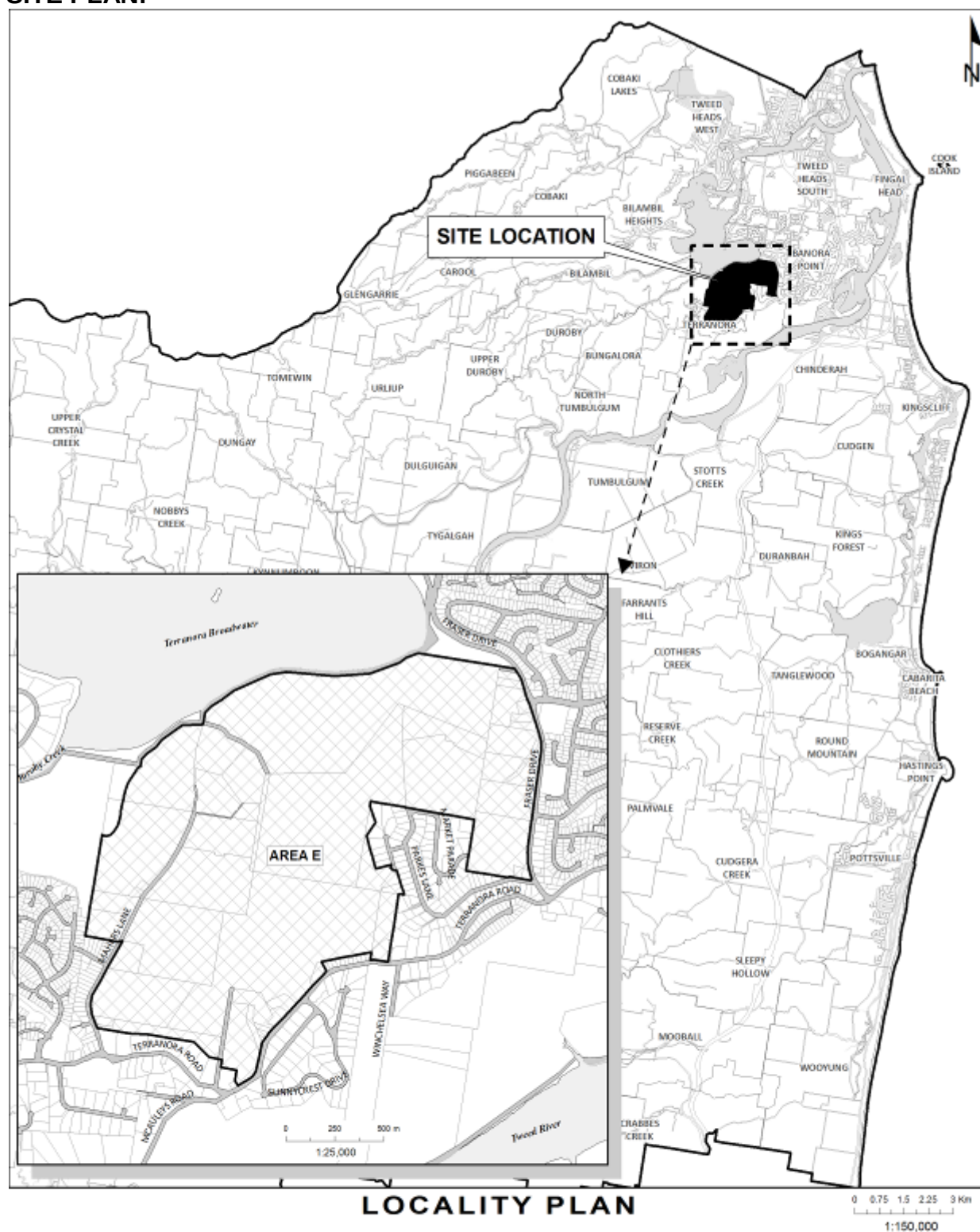
The subject application has been reviewed by Council staff and a number of significant concerns have been raised. A snapshot of the concerns raised is as follows:

- o The proposal was prepared without an endorsed 'whole of site' structure plan or a coherent well planned, strategic direction, resulting in more of a piecemeal consideration of one component of the site;
- o A number of urban design issues pertaining housing density, neighbourhood facilities, orientation and design of lots and slope sensitive building design;
- o A proposed temporary connection to Fraser Drive and lack of certainty surrounding the future Broadwater Parkway design, location, construction by others, including necessity to involve other landowners depending on final alignment.
- o Demonstration of compliance with bulk earthwork criteria contained in Tweed DCP part A5 – Subdivision Manual, Development Design Specification D6 – Site Regrading and Development Design Specification D1 – Road Design. Further, concern regarding lot grades and implications for building design in accordance with Tweed DCP part A1 – Residential and Tourist Design Code;
- o Water and Sewer supply and capacity implications;
- o Subdivision discharges its stormwater via central drainage reserve onto private land (Lot 227 DP 755740). The applicant must demonstrate that this is a lawful point of discharge for stormwater, by obtaining owners consent or creating easements. The applicant must demonstrate that stormwater discharge onto lot 227, which contains SEPP 14 wetlands, is suitable in terms of water quality and quantity;
- o Environmental issues, including flora and fauna assessment, wetland management, environmental areas management; and
- o Connection with overarching s94 implications and feasibility of design and delivery trunk infrastructure. Ad hoc – out of sequence developments, planning should be coordinated with the provision of future road networks, access points, coordinated stormwater treatment etc.

RECOMMENDATION:

That:

- 1. The report on Terranora Area E - Progress Report on Planning Processes be received and noted; and**
- 2. Council endorses forwarding this report to the NSW Department of Planning as a submission in relation to MP09_0166 for a 300 Lot Residential Subdivision at Lot 40, 43 DP 254416; Lot 2 DP 778727; Lot 1 DP 781687; Lot 1 DP 781697; Lot 1 DP 304649; Lot 1 DP 175235; Lot 1 DP 169490, Parkes Lane, Terranora (DA09/0701).**

REPORT:**SITE PLAN:**

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Date Printed: 04 May, 2010

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Coordinate System - WGA Zone 56
Datum - GDA 94



Cadastral: 04 May, 2010
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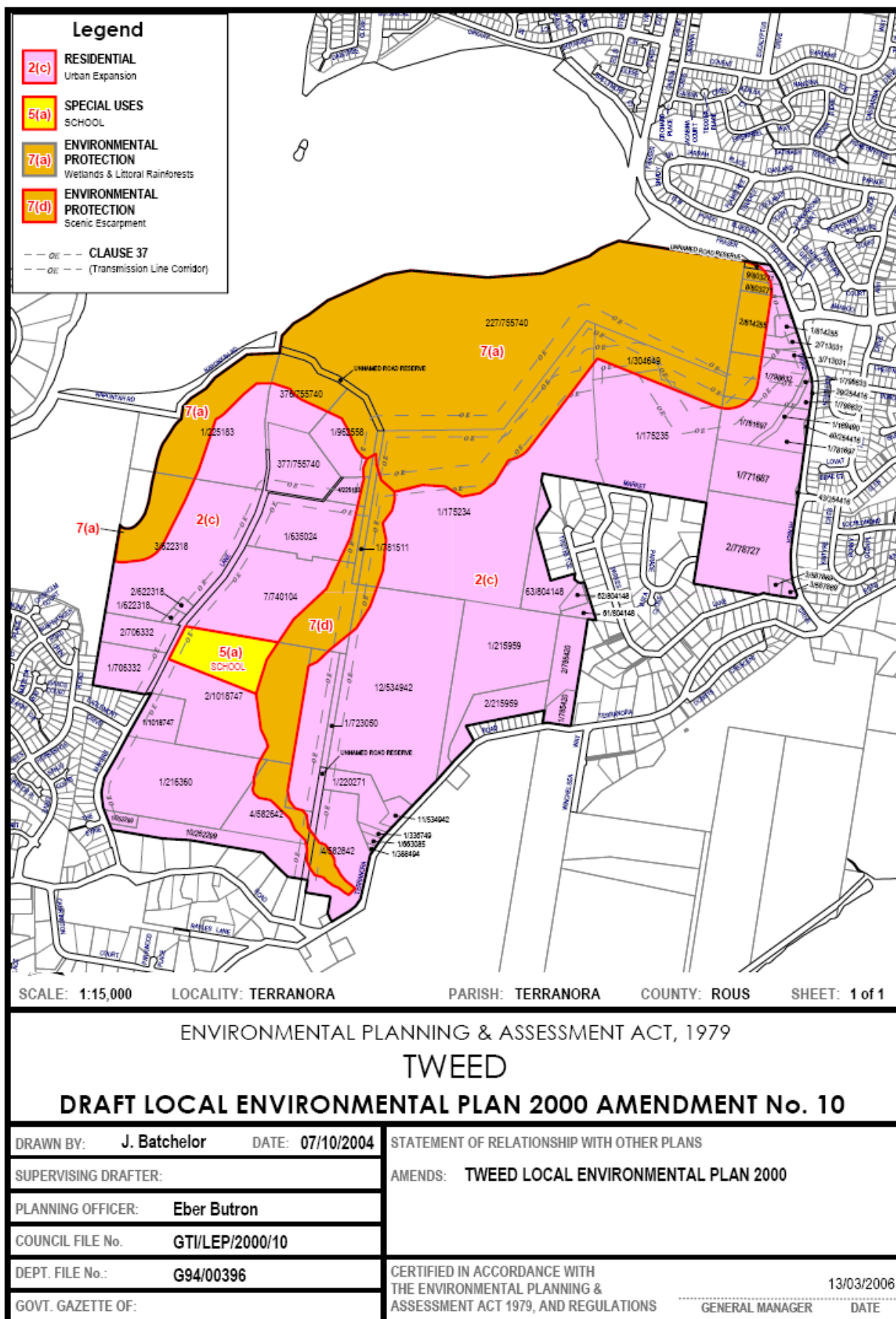
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TWEED
SHIRE COUNCIL

LEP ZONING MAP:



BACKGROUND

Area E is a greenfield development area located in Terranora, bounded generally by Mahers Lane, Terranora Road, Fraser Drive and the Terranora Broadwater to the north.

Within Tweed Local Environmental Plan 2000 – Amendment No. 10 (LEP Amendment), the site was rezoned in October 2007 to:

- o 5(a) Special Uses (School);
- o 2(c) Urban Expansion;
- o 7(a) Environmental Protection (Wetlands and Littoral Rainforests); and
- o 7(d) Environmental Project/Scenic Escarpment.

As part of the LEP Amendment, Clause 53D requires the following:

"(2) The object of this clause is:

- (a) to ensure a development control plan has been developed for the land to which this clause applies to avoid ad hoc development....*
- (3) The consent authority must not consent to development on land to which this clause applies unless it is satisfied that:*
 - (a) a development control plan has been prepared for the land, and*
 - (b) any contaminated land has been identified to the extent necessary to allow for the appropriate location of sensitive land uses, and*
 - (c) any wetland on the land will be restored and managed to the consent authority's satisfaction to restore freshwater wetland values and minimise breeding habitat for saltwater mosquitoes and biting midges, and*
 - (d) the development will generally comply with the Tweed Urban Stormwater Quality Management Plan as adopted by the Council on 19 April 2000."*

In accordance with the above, Council's technical officers within the Planning Reform Unit (PRU) are presently undertaking the preparation of a Draft Development Control Plan (DCP) to facilitate the orderly and economic development of Area E.

The DCP is advanced and key strategies and a draft structure plan has already been presented to landowners within the release area. Whilst several key issues need to be reconciled, it is anticipated that the DCP will be completed for public exhibition in late June/early July.

Key Issues within the Planning Framework

The following section provides an overview of the main site constraints and planning issues relating to the Area E site.

The Need for a Holistic and Comprehensive Planning Framework

The highly fragmented ownership pattern has posed a significant challenge to the coordination, planning and delivery of key infrastructure such as roads, sewer and water, on the Area E site. It is critical that the feasibility, design, location and staging of this infrastructure (and subsequent delivery) is appropriately planned and underpinned by a robust structure plan, development control plan and accompanying Section 94 plan. These Plans require appropriate consultation and input from Council, Area E landowners and the community.

An initial structure plan and Draft DCP and Section 94 Plan were prepared by the Area E Landowners Group and submitted to Council in February 2008 and February 2009 respectively. These Plans contained numerous unjustified departures from the original Local Environmental Study and Council's technical controls. Council's Planning Reforms Unit has since taken stewardship of the preparation of these plans. The following timetable details work undertaken regarding the preparation of the Area E DCP within 2011:

Week Beginning January 17 2011: Constraints analysis and urban structure presented to Area 'E' Internal Working Group

February 10 2011: Group workshop on constraints analysis and project methodology with Area E Landowners.

Week Beginning February 14 2011: Strategic Objectives workshop and discussions Area E Internal Working Group

March 17 2011: Conduct Strategic Objectives workshop with Area E Landowners.

April 19 2011 Council report on progress of Area E DCP and provide comment on Part 3a Major Project application within release area.

Future

May 2011 Conduct 3rd workshop with Area E Landowners

June 2011 Report Draft Area E DCP to Council for public exhibition

June 2011 Commence Public Exhibition

Best practice planning includes the development of a 'whole of site' structure plan providing a coherent, coordinated strategic direction. The DCP currently being prepared by the PRU takes into account the complex interplay of environmental constraints via a detailed Site Analysis report. This Site Analysis, which details the corresponding strategic intent of each constraint, will best inform various development themes including:

- o The use of developable land;
- o Establishing suitable development yields and density;
- o Establishing appropriate building forms to reflect the nature of the area;
- o Coordinating and clearly establishing infrastructure provision;
- o Detail strategies for environmental protection and management;
- o Detail strategies for the provision of structured public open space.

The following key issues highlight the overarching constraints in the development of Area E in a manner which is sustainable, equitable and viable for Council and the wider community. These challenges are highlighted to inform Council and to establish accepted principles and/or objectives to further progress the preparation of the draft DCP.

Broadwater Parkway

Area E is a complex site given fragmented ownership of land and the intertwined relationship of on site constraints. Principally, the location, design, connection and construction of the trunk road, known as Broadwater Parkway, linking Mahers Lane to Fraser Drive, is critical and essential infrastructure to the development of Area E. This infrastructure is paramount to how the release area will unfold.

As part of the DCP preparation, a number of potential alignments to Broadwater Parkway have been identified and considered at a desktop level. In order to advance the DCP and properly inform and consult both Area E landowners and the community, it is considered vital that a benchmark alignment be established at this time.

For the purposes of this report, Broadwater Parkway will be discussed in three (3) sections, as articulated within Figure 1 below:

DRAFT

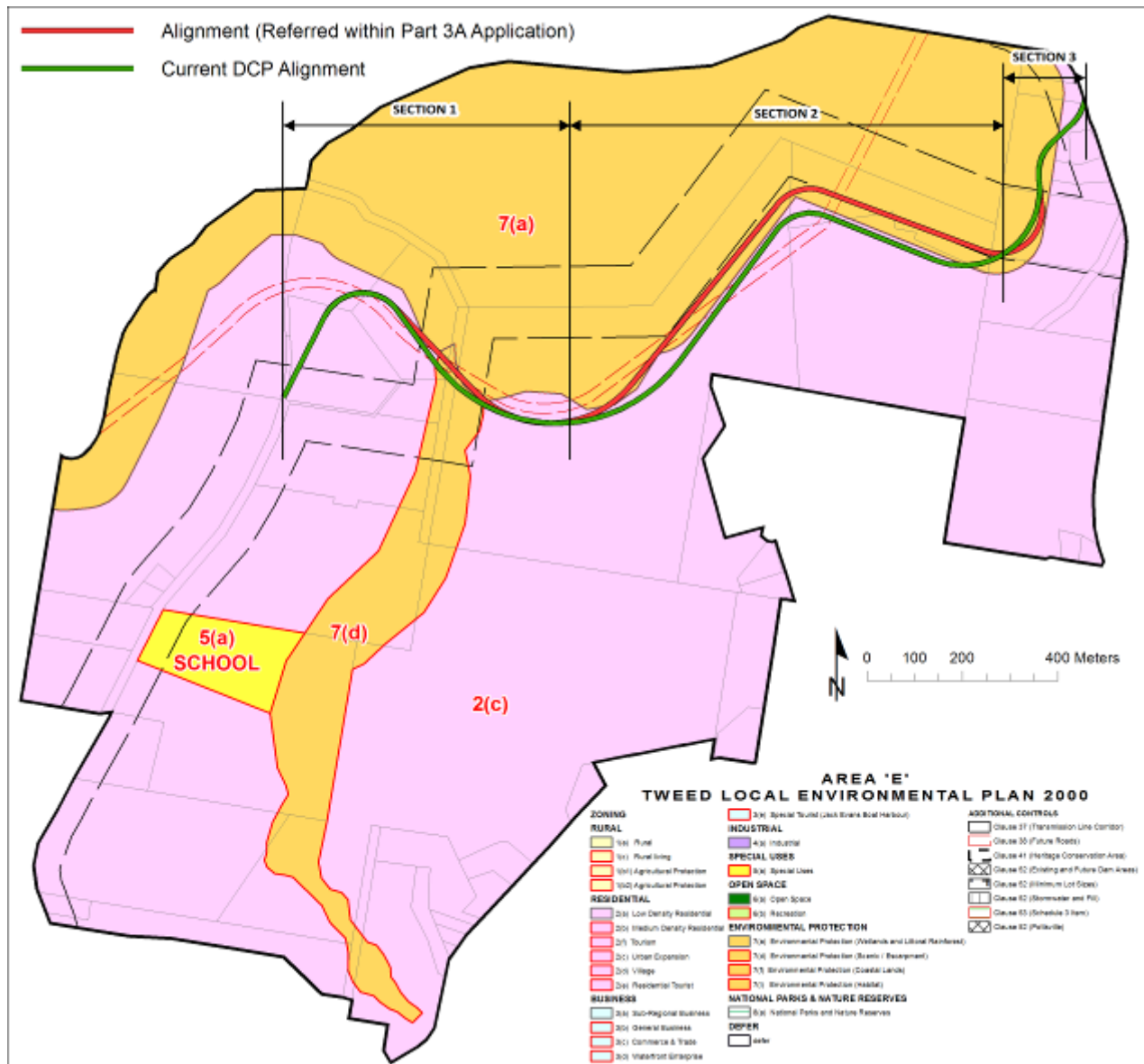


Figure 1: Sections of the Broadwater Parkway Alignment

General Comments

A number of constraints generally impact upon the ultimate alignment of Broadwater Parkway, being:

- o Topography - The topography of the site results in substantial limitations to alignment, particularly at the eastern end of the site, to achieve an appropriate road grade (steepness). Generally, at the eastern end of the site, whilst the slopes are reasonably constant, alignment variations to the south of the alignment shown in Figure 1 increase the height of the land when connecting to Fraser Drive and drastically reduce the length within which the rise of the road is taken;
- o Existing dwelling houses – It has been identified as desirable to avoid an alignment that requires the demolition of existing dwellings;
- o Areas of environmental protection - Various Endangered Ecological Communities and State significant wetlands are present within Area E; and

- o Integration into the wider road network – Council’s engineers have advised that is highly desirable to discourage traffic ‘rat-running’ via Glen Ayr Drive or Amaroo Drive and as such, network connection has been provided to the North of these streets.

Section 1

No concerns have been raised regarding Section 1 within the DCP process to-date. It is acknowledged that the alignment will intersect the 7(d) zone, however given the ‘North-South’ orientation of the escarpment; any road alignment connecting Mahers Lane to Fraser Drive will have to intersect this zone.

Section 2

Section 2 of the alignment has been widely debated within the DCP process thus far. Figure 1 demonstrates the two predominate alignment options, the alignment referred within the Part 3A application contained within the 7(a) Environmental Protection zone and the current draft DCP alignment contained within the 2(c) Urban Expansion zone. It is acknowledged that the draft DCP alignment is not formally endorsed by way of Council resolution however within Council’s internal Area E Working Group, no objection has been raised to this alignment to date.

When considering the Part 3A alignment, the alignment traverses the Environmental Protection zone for approximately 1,108 metres. Within this length, two Endangered Ecological Communities (EECs) are intersected on five occasions. The EECs identified include Lowland Rainforest and Freshwater Wetland. Figure 2 shows the Section 2 alignment over these EECs, the mapping for which was prepared by James Warren and Associates, and previously submitted to Council by Metricon. This alignment is not considered to be a desirable outcome. The current DCP alignment contains the road infrastructure within the urban zone, providing reduced environmental impacts.

Within the 7(a) Environmental Protection zone, roads are permissible with consent, subject to satisfying the provisions of Clause 8(2) of the Tweed LEP 2000. Clause 8(2) states that consent may be granted only if the applicant demonstrates to the consent authority that:

- o *the development is necessary (i.e. it needs to be in the locality in which it is proposed to be carried out, it meets an identified urgent community need, or it comprises a major employment generator),*
- o *there is no other appropriate site on which the development is permitted,*
- o *the development will be generally consistent with the scale and character of existing and future lawful development in the immediate area, and*
- o *the development would be consistent with the aims of this plan and at least one of the objectives of the zone within which it is proposed to be located.*

Investigations into Section 3 have revealed that there are a number of constraints at the eastern end of the road alignment which influenced the final alignment. This component of the alignment is therefore considered to possess an ability to satisfy the provisions of Clause 8(2) as it demonstrates that there is no other appropriate site on which the development can be permitted. Section 2 however is not restricted in the same way. Further, Council has demonstrated through the ongoing DCP preparation process that alternative sites on which the development is permitted are available. Accordingly, the

alignment within the Environmental Protection zone is considered prohibited as it relates to this site.

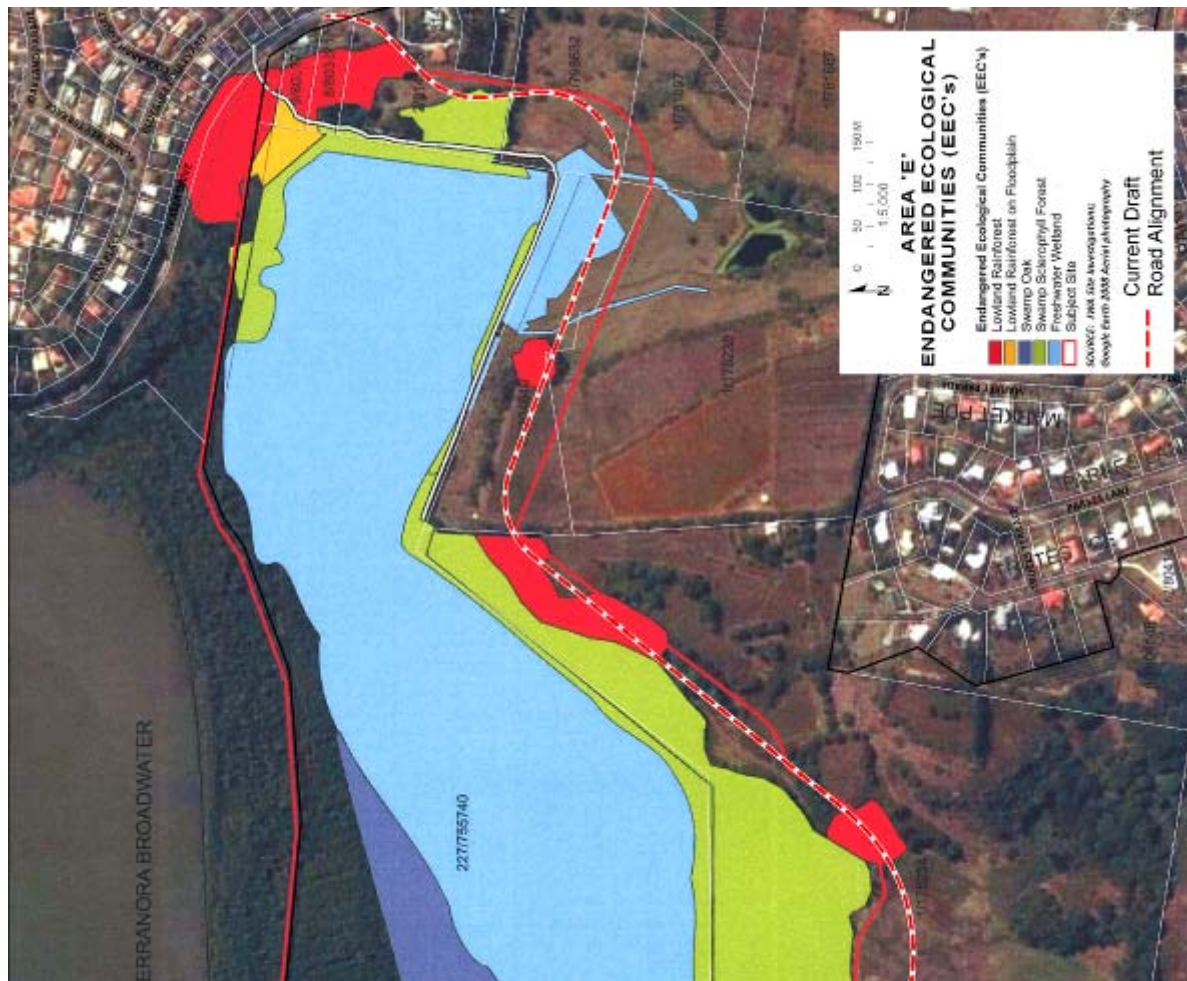


Figure 2 – Part 3A Alignment with Identified Endangered Ecological Communities

The land owner of Lot 1 DP 175235 has raised objection to the location of the road outside of the Environmental Protection zone. The landowner has detailed two (2) key items in objection, being:

1. Perceived 'agreements' as part of the LEP Amendment process

The following information has been submitted by the applicant:

"Further to our meeting on 11 February 2011 and discussions regarding locating Broadwater Parkway in the outer 50m of the 100m 7(a) zone buffer to the SEPP 14 Wetland, I attach a copy of Council's Resolution No. P82 from Council's meeting on 16 November 2005 adopting the Draft Local Environmental Plan and Page 169 of the accompanying report. Your particular attention is invited to the paragraph regarding verbal discussions with DEC Officers and the statement that:

"Verbal discussions were had with DEC officers to discuss the issue of the buffer to the wetlands. It was agreed that the proposed 100m buffer could be made up of 50m of vegetation and fifty metres of other non vegetated land, which can include infrastructure such as roads."

The report later notes that the DEC later expressed support for the draft LEP in a letter to Council of the 29th of October 2004.

The above documents clearly demonstrate that the siting of Broadwater Parkway as proposed in the Part 3A Application and the Draft Development Control Plan forwarded to Council in February 2008 (ie. showing Broadwater Parkway in the outer 50m of the buffer) is in accordance with Council and the DEC's agreement of 2004/2005."

The submission identifies that discussions were held between Council and DEC staff, concluding that infrastructure, including a road, could be located in the outer 50m of the 100m environmental buffer. This is reflected within the Tweed LEP 2000 by way of various infrastructure land uses being permissible with consent within the Environmental Protection 7(a) zone. However, it is strongly refuted that a verbal agreement that a road *could be* located, results that a road *must be* or, *is endorsed to* go through the environmental land. Further, it is noted that the LEP amendment map detailed within the LES (Figure 3) identified a road corridor within the urban expansion zone and not within the 7(a) mapped land. It is acknowledged that the amount of environmental protection identified within Area E was increased post this map, however the road corridor recommended still lays outside of the 7(a) zone except at the eastern-most portion. It could be reasonably contended that this area (where the road aligns north-south) that the basis for discussions with DEC commenced. The annotation of a road corridor within the LEP instrument was ultimately removed to enable the alignment to be investigated and refined further within the DCP process. Accordingly, it is not considered that any formal endorsement or agreement is in-place that restricts the investigation of alternate options to achieve best practice planning principles.

2. Economic Loss

The landowner details that a road alignment within the 2(c) Urban Expansion zone would have an unreasonable economic impact on the development of the referred parcel. The PRU does not consider these sufficient grounds to limit the road alignment to within the 7(a) zone.

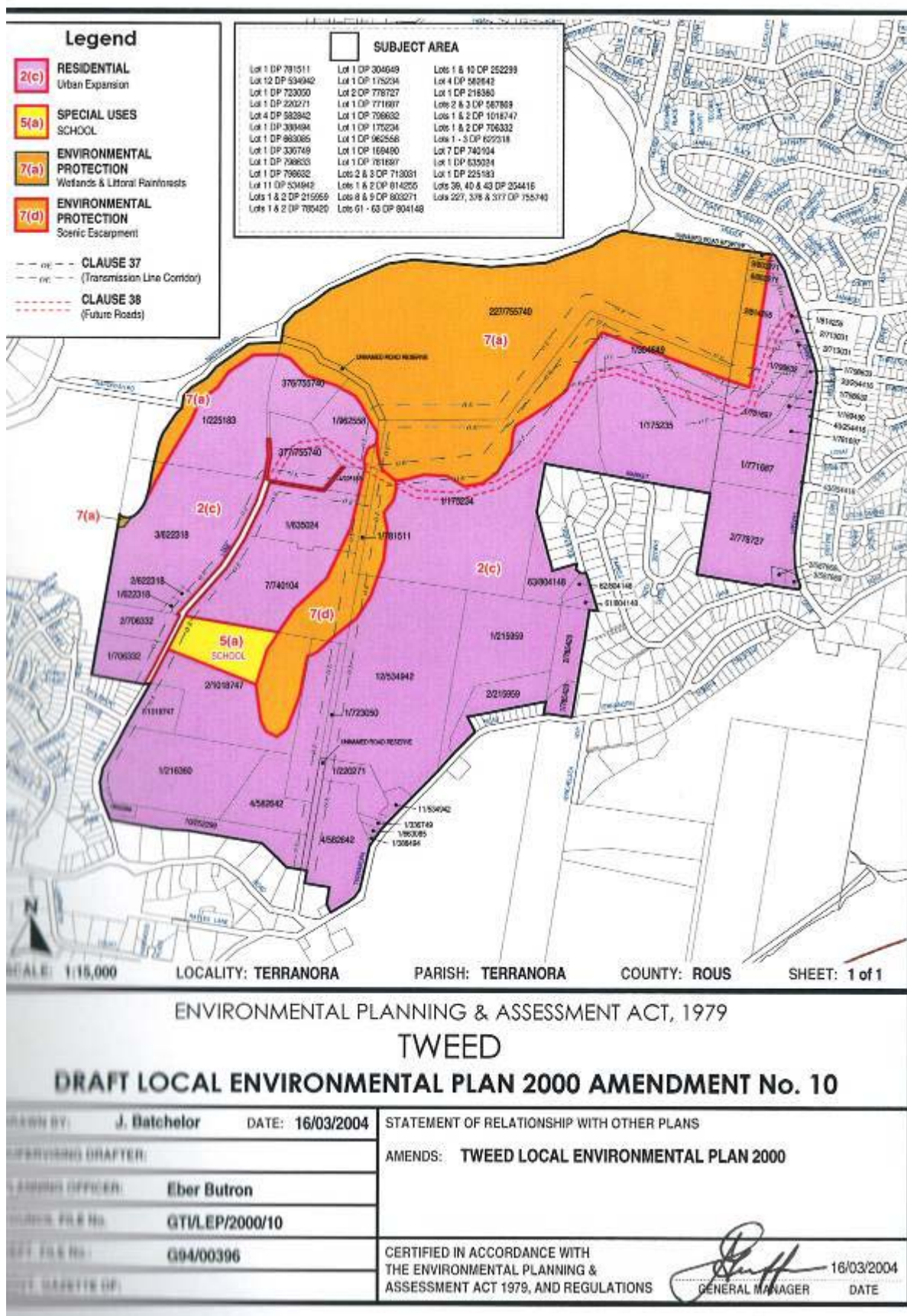


Figure 3 – Draft LEP Amendment Map Displaying the Recommended Road Corridor

Section 3

The alignment of Section 3 is highly constrained by way of slope, the presence of existing dwellings and the need to achieve satisfactory intersection separation. Desktop analysis suggests that this alignment intercepts EECs at two separate points, though predominately the periphery of these areas. It is acknowledged that further ground truthing would need to be undertaken to confirm the status of the EEC and the ultimate alignment of the road.

Council's Engineering Services Directorate has undertaken initial consultation with affected landowners within this section. Based on discussions thus far, it is highly likely that Council will need to exercise its land acquisition powers to obtain the land necessary for this alignment. Accordingly, Council officers should seek to meet with affected landowners and undertake an appropriate process of consultation and establish an appropriate framework for this section of the road.

Additional Alternative

As part of the landowners consultation, a landowner cited that the alignment of Broadwater Parkway be adjusted to intersect the SEPP 14 Wetland, or 'hug' its extent and join further to the North. These options are displayed below in Figure 4



The two routes were reviewed by James Warren and Associates in January 2008, concluding that both alignments will require the removal of relatively significant areas of native vegetation as follows:

Road alignment Option 1 will result in the loss of 2.7 hectares (ha) of vegetation, including:

- o 0.58 ha of the EEC Swamp sclerophyll forest;
- o 1.4 ha of vegetation which is considered to represent the EEC Lowland rainforest;
- o 0.36 ha of the EEC Freshwater wetlands on the coastal floodplain;
- o No threatened species will be lost; and
- o Only minor indirect impacts are expected on the SEPP 14 wetland.

Road alignment Option 2 will result in the loss of 1.4 hectares (ha) of vegetation, including:

- o 0.08 ha of the EEC Swamp sclerophyll forest;
- o 0.65 ha of the EEC Freshwater wetlands on the coastal floodplain;
- o No threatened species will be lost; and
- o Loss of approximately 0.7 hectares of native vegetation from within the mapped SEPP 14 boundary.

Based on the assessments undertaken, it is most unlikely that development consent under Part 4 of the Environmental Planning and Assessment Act or Major Project approval under Part 3A of the Environmental Planning and Assessment Act would be issued for the route through the wetland (Option 2) or the alignment on the eastern side of the wetland (Option 1) given the potential impacts on endangered ecological communities, wetland vegetation and potential changes which would arise to the hydrological regime within the wetland. It is therefore concluded that these alignments should not be pursued further.

Relationship to the Part 3A Application

The alignment of Broadwater Parkway is of significance when considering the submitted Part 3A application for Altitude Aspire. As discussed earlier, the application details the road within the Environmental Protection zoning and proposes residential development to the parameter of the urban zone. As such, should the Part 3A be approved in its current form, whilst it does not seek to construct the road, the alignment of Broadwater Parkway for the frontage of the application would be restricted to the Environmental Protection zone by virtue of approving development to the zone boundary. As such, it is essential to pursue an alignment benchmark now and ensure that DoP are adequately informed of any inconsistencies between Council's position and the Part 3A application.

Desired Outcome for Broadwater Parkway

Council's Planning Reform Unit recommends that the draft DCP alignment displayed on Figure 1 be forwarded to DoP to inform their assessment of the Part 3A application and embodied as the benchmark alignment within the draft DCP. The PRU acknowledges that alternative routes may be present, however any other routes investigated by developers of Area E will need to demonstrate that the alternate route provides an

improved environmental and planning outcome when compared to the present alignment.

Stormwater Management and the significance of Lot 227 DP 755740

Stormwater management is highlighted as a significant challenge within the Area E development area. The previous LES identified the challenges and preliminary management requirements for holistic stormwater at the site. At present, it is the opinion of Council staff that Lot 227, the large lot (accommodating a SEPP 14 wetland) on the boundary of Terranora Broadwater (currently in third party ownership) remains the only feasible discharge point, and therefore represents significant challenges for management of stormwater quality and quantity (location, design, capacity of treatment trains, retention basins, constructed wetlands), lawful point of discharge and also contemporary requirements for water quality in the Terranora Broadwater, the eventual location of discharged stormwater.

Further, the LES identified that wetlands on site provide breeding habitat for salt marsh mosquitos which unless managed will impact on the desirability of residential development in the area. The LES purports that the wetlands need to be rehabilitated and restored to a freshwater regime to limit salt marsh mosquito breeding habitat. It further states on page 239 (within part 6.3.2 – Land Use Option 2 – Urban Development) that *“Given the benefit to the whole of the area this should be addressed and funded by all developers within the area.”* The ‘Landowners Group’ have prepared a ‘Wetland Restoration Plan and associated Habitat Restoration Plan (dated December 2008) which has yet to be reported to or endorsed by Council as being the agreed mechanism for restoration, rehabilitation and ongoing management and monitoring at the site. The timing of works identified within any such Plan will also need to be clarified within the DCP.

Section 94 Contributions Planning

Pursuant to s.94 of the Environmental Planning and Assessment Act 1979, Council may require development contributions (cash or in kind) for services or infrastructure subject to the approval of a contributions plan. Council administers on behalf of land owners / developers the assignment or apportionment of responsibilities for works in local areas.

Clause 53D of TLEP 2000 details that a s.94 Contributions Plan be prepared prior to development occurring within the Area E site. Any s.94 Plan for Area E is inextricably linked to the DCP and forms part of a number of documents that supports the provisions of a DCP. When finalised, the s.94 Plan will likely require a levy for, but not limited to, the following:

- o Structured public open space (whether it be on or off-site);
- o Casual public open space;
- o Wetland acquisition and restoration;
- o Habitat acquisition and restoration;
- o Community Facilities, including a Community Meeting Room/Multi-purpose Hall and a Neighbourhood Centre;
- o Cycleway/walkways and stormwater management Council administers on behalf of land owners/developers the assignment or apportionment of responsibilities for works in local areas.

In regard to road infrastructure, the Tweed Road Contribution Plan (TRCP) prescribes that work items 126-132 (including Broadwater Parkway) are to be totally funded by 'new' development, as works are not required by the broader community. *'The determination of the Local Area Contribution is purely administrative, to allow Council to share local costs between developers. That is, Council would not manage localised situations, if it meant funding or acting as a banker to the release area.'*

The plan also identifies a number of other road works in the Tweed area which will be impacted upon by traffic generated by Area E. Council's Infrastructure and Planning Unit are presently reviewing these provisions, including the associated costings, with an indicative timeline of exhibiting late 2011.

It is anticipated that upon review of the TRCP and the drafting of the Area E specific s.94 Plan that the contribution rates required could be beyond the current \$30,000.00 cap.

Further investigations between Council, NSW Department of Planning and Area E landowners will occur as the s.94 planning framework for Area E develops.

Structured Open Space Provision

The anticipated population of Area E (4,000 people), generates the need for approximately 6.8ha of structured open space to be provided under Council's adopted standards. When considering this land area on a sloping and environmentally constrained site, providing a compliant area of land for typical structured open space uses (i.e. sportsfields) is highly unlikely without substantial earthworks. Accordingly, an ongoing matter to be investigated within the draft DCP is the placement of these facilities.

The Terranora Area E Landowners Group are seeking to pursue an off-site option, being an augmentation of the existing sportsfields at the base of Terranora Valley. Several preliminary constraints are present in relation to the site initially identified, being

- o Geographic fragmentation – the identified sportsfields are approximately a minimum 1km walk and a maximum >3km direct link walk from Area E.
- o Supporting traffic infrastructure – concern has been raised regarding additional vehicular traffic needing to use residential streets of Terranora Village to access the site.
- o Environmental constraints – insufficient environmental assessment has been undertaken to-date, however a site inspection and desktop knowledge of the site by officers of Council's Natural Resource Management Unit raised concern as to it's viability.
- o Economies of scale – Council's Recreation Services Unit have stated that the existing facilities are to be utilised for tennis courts and that no additional land/courts are being instigated for that immediate area. To introduce another sports use to that site would have a reduced benefit when compared to augmenting a site with planned increased facilities.

Land Acquisition:

A number of concerns relating to the relationship of the proposed road system and possible need for acquisition of private properties has been identified earlier in this report.

PART 3A APPLICATION AREA:



Part 3A Application: Altitude Aspire Area E

Background

Metricon Queensland Pty Ltd lodged a Part 3A Major Project Application with the Department of Planning in October 2009. The proposal to subdivide land into 300 residential lots at Fraser Drive, Terranora, was previously reported to Council (relevant Council report/s attached) with Council's key concerns including:

- o That the proposal was ad-hoc, out of sequence development should not be supported;
- o The proposal was prepared without an endorsed 'whole of site' structure plan providing a coherent well planned, strategic direction rather than a piecemeal consideration of one component;
- o A number of urban design issues pertaining housing density, neighbourhood facilities, orientation and design of lots and slope sensitive building design;
- o A proposed temporary connection to Fraser Drive and lack of certainty surrounding the future Broadwater Parkway design, location, construction by others, including necessity to involve other landowners depending on final alignment.
- o Demonstration of compliance with bulk earthwork criteria contained in Tweed DCP part A5 – Subdivision Manual, Development Design Specification D6 – Site Regrading and Development Design Specification D1 – Road Design. Further, concern regarding lot grades and implications for building design in accordance with Tweed DCP part A1 – Residential and Tourist Design Code;
- o Water and Sewer supply and capacity implications;
- o Contamination investigation and necessary remediation;
- o Subdivision discharges its stormwater via central drainage reserve onto private land (Lot 227 DP 755740). Applicant must demonstrate that this is a lawful point of discharge for stormwater, by obtaining owners consent or creating easements. Applicant must demonstrate that stormwater discharge onto lot 227, which contains SEPP 14 wetlands, is suitable in terms of water quality and quantity;
- o Environmental issues, including flora and fauna assessment, wetland management, environmental areas management; and
- o Connection with overarching s94 implications and feasibility of design and delivery trunk infrastructure. Ad hoc – out of sequence developments, planning should be coordinated with the provision of future road networks, access points, coordinated stormwater treatment etc.

Despite these concerns, the application has subsequently been amended and was publicly exhibited formally from 25 February to 4 April 2011. The application in its current form seeks project approval for a 321-lot community title subdivision comprising:

- o 317 Residential lots,
- o One community association lot (Lot 711),
- o Public reserves (Lots 436 and 710),
- o One drainage reserve lot (Lot 630) and,
- o The provision of all usual urban infrastructure including reticulated water, sewer, stormwater, power and telephone.

Bulk earthworks across the site will also be required to create the proposed final landform. A temporary road access is proposed to Fraser Drive to service the first stages of the subdivision. Approval is also sought for the construction of a temporary site sales office on proposed Lot 1103.

Council officers review and comment of the amended application is as follows.

Scenic Landscape Evaluation

Tweed Council commissioned a Scenic Landscape Evaluation, which was completed in 1995. The study culminated in three volumes, comprising; Volume 1, a background report highlighting the communities desire to protect the aesthetic qualities of the region and what is appreciated as contributing to landscape identity or image and further recommendations; Volume 2, detailing folio data sheets, which describe the districts and their characteristics and management opportunities, and; Volume 3, which provides the district mapping.

It is widely recognised that Tweed Shire has a great diversity of landscapes, with its high diversity of landform and vegetation patterns, predominantly natural character and frequent views to and from the water, with generally high scenic quality. Its scenic and predominantly natural views are a contrast in character to much of south east Queensland and present a highly attractive destination for visitors or a location for development.

Generally, and in more recent times, the parts of the landscape experiencing the most significant change are the coastal hill-slopes, rural valleys and the edges and setting of villages. These are all parts of the Shire landscape that have visibility and prominence, therefore, the changes in the locations, in particular the Area E site, could and most likely would significantly affect the scenic amenity of the Shire.

The protection of the Shire's aesthetic values are instrument to retaining its identity and value as a significant tourist destination, therefore, management of the changes or impact on the scenic amenity resulting from any development is an integral part of the development design and assessment.

In 2005, Tourism Australia and Parks formed a unique partnership to create the Australia's National Landscapes program. This program was developed to provide a long term strategic approach to tourism and conservation in some of Australia's most outstanding natural and cultural environments.

Australia's National Iconic Landscape's program aims to achieve conservation, social and economic outcomes for Australia and its regions through the promotion of superlative nature based tourism experiences, partnering tourism and conservation to:

- Promote Australia's world class, high quality visitor experience;
- Enhance the value of tourism to regional economies;
- Enhance the role of protected areas in those economies; and,
- Build support for protecting Australia's natural and cultural assets.

In June 2008, Australia's Green Cauldron (referring to the Mt Warning Caldera) along with other iconic landscapes, was named a National Landscape at the Australian Tourism Exchange.

With international focus now being placed on Australia's Green Cauldron, and the Tweed at its hart, not just as a tourist destination, but also a place of national scenic and biodiversity value, the need for comprehensive scenic impact evaluation on all, but particularly large scale development, is paramount.

The Part 3A Application is grossly deficient of any acceptable level of assessment on both the scenic impact locally and on the Shire.

The design of the proposed subdivision, with its reliance on significant bulk earthworks and retaining walls, particularly when combined with the relatively small lots and limited opportunity for scenic and landscape (landform) protection, will adversely impact on the Tweed's scenic value, as discussed above, and will undermine the Shire's significance and listing as one of Australia's National Iconic Landscapes.

Given the high sensitivity of this site in a regional as well as local context it is essential that a comprehensive visual impact assessment, undertaken by a suitably qualified person, is undertaken. It must consider the cumulative impact of the proposed development of the Tweed.

Tweed LEP 2000 – Clause 53D – Specific provisions for Terranora Urban Release Area E

As discussed throughout this report, Area E comprises a highly constrained urban release area with substantial infrastructure requirements. The fragmented ownership pattern, the coordination, planning and delivery of key infrastructure such as roads, sewer, water and structured open space require a coordinated approach to the development of the Area E site. It has been identified that the feasibility, design, location and staging of this infrastructure (and subsequent delivery) needs to be appropriately planned and underpinned by a robust structure plan, DCP and accompanying Section 94 plan. These Plans require appropriate consultation and input from Council, Area E landowners and the community.

Council's PRU have been preparing a draft DCP for some time now and anticipate a public exhibition period to commence in approximately July. In this regard, the proposed Part 3A application is 'out-of-sync' as it does not provide certainty or contribute to the construction of critical infrastructure required to facilitate Area E as a whole, and if approved, could stifle the ability of the remainder of Area E to develop efficiently, if at all.

The Part 3A application makes numerous references to the Draft DCP and the proposals consistency with such. Such references are inaccurate and should be removed. The Draft DCP referenced within the Part 3A application refers to a Draft DCP prepared by the Terranora Landowners Group, which was never adopted by Council and was identified as having a number of critical issues. The 'official' Draft DCP for Area E is presently being prepared by Council's Planning Reform Unit. As the document is still being prepared, it is not possible for the applicant to state consistency or inconsistency with the draft.

At it's meeting of 16 November 2005, Council resolved Pursuant to Section 68 of the Act, to forward the draft Local Environmental Plan Amendment No 10 – Terranora Urban Release Area (Area E), to the Minister of DoP (then DIPNR) so the Plan could be made. Council also resolved at that meeting that:

Council shall not consent to development on the site known as Area E unless a Development Control Plan, Section 94 Plan, Master Plan/Concept Plan, Wetland Rehabilitation Plan and A Stormwater Management Plan have been approved for the land.

Council's intent for a DCP and s. 94 Plan to be adopted prior to the development of the land was reflected within the written instrument, via Clause 53D. It is noted that application has satisfied the provisions of Clause 53D by preparing and submitting a draft DCP in 2008. In this regard, Council has previously informed various parties within Area E that the DCP that was prepared was not adopted, endorsed or satisfactory to Council. This position has not changed. As discussed earlier, Council's PRU is presently preparing a Draft DCP for Area E and is anticipating public exhibition of that document in the near future. The PRUs view that a satisfactory DCP has not been prepared for this site and as such the provisions of Clause 53D are not yet satisfied.

Clause 53D also states that the consent authority must not consent to development on land to which this clause applies unless it is satisfied that:

- (c) *any wetland on the land will be restored and managed to the consent authority's satisfaction to restore freshwater wetland values and minimise breeding habitat for saltwater mosquitoes and biting midges,*

Council's Natural Resource Management Unit have reviewed the submitted *Amended Ecological Assessment* (James Warren & Associates November 2010), *Vegetation Management & Rehabilitation Plan* (JWA November 2010) and *SEPP 44 Koala Habitat Assessment* (JWA November 2010) and a Wetland Restoration Plan (JWA December 2008) referred to, but not included within the Part 3A application.

The Wetland Restoration Plan referred was submitted to Council with the Draft DCP, however there does not appear to be any commitment from the applicant of the Part 3A application to implement restoration within the large SEPP 14 wetland area in accordance with a Wetland Restoration Plan.

The Wetland Restoration Plan submitted to Council is not considered satisfactory in its present form. Any Wetland Restoration Plan must include actions and mechanisms to restore a freshwater regime to the wetland area and control saltmarsh mosquitoes, not just be restricted to actions of weed control and revegetation. Additionally, any Plan will need to include detail on restoring previously modified hydrology in the area, including restoration of the levee in Area E to retain freshwater and prevent uncontrolled incursions of saltwater during higher tide events.

Whilst Council is not the consent authority in relation to the subject Part 3A application, it does not appear as though this provision of the LEP has been met and the application should not be approved accordingly.

Living Design Guidelines

The submitted Part 3A application includes 'Living Design Guidelines' which are intended to prevail in the event of an inconsistency with Tweed Development Control Plan 2008. Whilst a number of the items contained within these Guidelines are not of particular concern, two predominate areas are, being:

1. Unjustified departures from established controls within the Tweed DCP 2008
2. Lack of clarity on how, if adopted, these Guidelines sit within the Environmental Planning and Assessment Act 1979.

With regard to issue 1, the Living Design Guidelines contain no supporting justification as to why Council's established DCP controls are irrelevant or impractical to this site. For these controls to have any validity, the applicant is required to justify these departures and demonstrate how Council's existing controls result in a worse outcome than the controls within the Guideline. In their current form, the Living Design Guidelines are not supported.

With regard to issue 2, the Part 3A identifies that the Living Design Guidelines prevail in the event of an inconsistency with Tweed Development Control Plan 2008. The application however does not detail how this will occur within the applicable legislative framework. It cannot be considered that these guidelines are meant to form the basis of a specific DCP for the site as the controls are not comprehensive. In their current form, the Living Design Guidelines would require a second DCP to apply to the site, which is contrary to DoP requirements. Council has an established process for landowners to amend the Tweed DCP, however, no discussions with the applicant have been held in this regard. The applicant is requested to detail how these controls are to integrate within the planning framework.

Housing Density, Affordability and Housing Choice

The Part 3A application details a residential yield of approximately 8.8 lots per gross hectare. The application also states that the North Coast Urban Planning Strategy 1995 target of fifteen dwellings per hectare cannot be met without significantly impacting on landforms and the established character and amenity of the area.

The validity of this statement is questioned when the application involves only single dwelling lots. It is acknowledged that the site is constrained by topography, however the application does not seek to introduce a mixture of housing typologies. Within the NSW Far North Coast Regional Strategy (FNCRS), a target for housing growth of 60% single dwellings and 40% multi-unit within Town and Village Growth Boundaries is established. This target has not been discussed or addressed within the application. The application details that a range of lot sizes have been included in the design of the development to provide potential housing choice for future residents, however this statement is considered narrow in its scope as dwelling types other than a single dwelling house have not been included.

The application seeks subdivision under a Community Title scheme. Accordingly, there appears to be a number of opportunity areas throughout the site where a more 'traditional' community title development could occur, involving private roadways to provide for integrated housing types, such as villas or townhouses. These development forms don't necessarily require additional landforming, and are often used with regularly with slope constrained sites. Council recommends that the housing mix goals of the FNCRS are addressed and that alternate housing typologies are investigated to provide increased housing mix, density and a development form that better acknowledges the topography of the site.

Broadwater Parkway/ Permissibility of Infrastructure

Placement of the proposed Broadwater Parkway within the 7(a) Environmental Protection Zone and buffer area is inconsistent with a number of DGEAR including;

- 5.12 *Ensure environmental objectives are not significantly compromised by the design layout of the proposed road network, including the proposed Broadwater Parkway's interaction with the SEPP 14 wetland.*
- 13.3 Likely impacts on threatened species and their habitat need to be assessed, evaluated and reported on. The assessment should specifically report on the guiding principles for threatened species assessment at section 1.2 of the draft Guideline for Threatened Species Assessment (Part 3A). *Identify measures to protect remaining native fauna and flora on the site where appropriate.*
- 13.4 *Provide an assessment of the proposal that ensures (if possible) adverse impacts on identified areas of ecological significance are avoided or mitigated* (including the adjacent SEPP14 wetland, Endangered Ecological Communities, threatened species habitat etc.)
- 13.6 *Provide appropriate buffers and habitat protection measures for known significant ecological habitats as identified in the constraints map contained in Figure 3.4 of the Tweed Area E Local Environment Study (Parsons Brinckerhoff, 2004).*

Whilst the proposal shows only the section of the proposed Broadwater Parkway alignment within the area subject to the current development application, the ecological impacts of this alignment along the length of the entire road corridor from Mahers Lane to Fraser Drive should also be considered. The portion of the proposed future Broadwater Parkway within the proposal site will result in the clearing of small areas of Lowland Rainforest and Freshwater Wetland EECs. The proposed construction and operational impacts of the Broadwater Parkway will extend further still into areas of remnant and regrowth vegetation, including areas of high conservation value.

However looking beyond the proposal site to the west and northeast, the alignment of the proposed Broadwater Parkway as provided for in this development application is highly likely to result in additional clearing of Lowland Rainforest EEC, Lowland Rainforest on Floodplain EEC and/or Swamp Sclerophyll on Floodplain EEC, in addition to impacts beyond the actual road itself including altered hydrology, sedimentation, acid sulfate soil runoff, fragmentation and edge effects to vegetation and habitats, etc.

Should this Part 3A application be approved, it will significantly limit the location of the proposed Broadwater Parkway alignment. Therefore the ecological impact for the entire road alignment should be considered within the current proposal.

The proposal notes that within the proposal site, the future Broadwater Parkway and 15m wide transmission line corridor are located within the 7(a) Environmental Protection Zone. Whilst the proposal does not include the actual construction of the Broadwater Parkway and transmission line corridor, the proposed residential lot layout is wholly reliant on the location of these future infrastructure corridors to service future development within Area E.

The Revised Environmental Assessment Report notes that *"Development for the purposes of roads and public utility undertakings is permissible, with consent, as an Item 3 use in the 7(a) zone. The Local Environmental Study which informed Tweed Local Environment Plan Amendment No. 10 in respect of the Area E Release Area foreshadowed the use of the outer 50m of the 7(a) buffer for the purposes of roads, utility*

installations and urban stormwater facilities. The proposal is consistent with the provisions in the Local Environmental Study."

As above, for development consent to be granted for the future Broadwater Parkway and transmission line corridor in the 7(a) zone, the development would need to satisfy clause 8(2) of the Tweed LEP. As discussed elsewhere in this report, Council has identified alternative routes within the Area E land release area. Accordingly, it is not considered that Clause 8(2) of the Tweed LEP is to be satisfied.

It is critical to the assessment of the Part 3A Major Project that an acceptable road alignment be resolved, so that it can be determined whether the proposed subdivision layout is compatible with the future provision of the road, as required by the DGRs. As detailed throughout this report, the alignment of Broadwater Parkway detailed within the Part 3A application is not considered to satisfy the provisions of Clause 8(2) of the Tweed LEP 2000 and does not represent the desired alignment within the Draft DCP.

Stormwater infrastructure is also proposed within the 7(a) zone. With reference to whether stormwater infrastructure is allowable development within the 7(a) zone as per the Tweed Local Environment Plan 2000, the Revised Environmental Assessment Report notes that *"Development for the purposes of "environmental facilities" (i.e. stormwater/sedimentation ponds) is permissible, with consent, as an Item 2 use."*

Under the Tweed LEP 'environmental facilities' is defined as:

a structure or work which provides for: (a) nature study or display facilities such as walking, board walks, observation decks, bird hides or the like, or (b) environmental management and restoration facilities such as bush restoration, swamp restoration, erosion and run off prevention works, dune restoration or the like.

The stormwater infrastructure proposed in the 7(a) zone would be seemingly be defined as 'urban stormwater water quality management facilities' which is permissible in the 7(a) zone but only after the provisions of clause 8(2) of the Tweed LEP are satisfied. Similarly to road infrastructure, it is unlikely placement of stormwater infrastructure in the 7(a) zone would satisfy clause 8(2) as there are other locations on the proposal site this infrastructure could be located.

Acoustic Barrier

The application details the construction of a 2.4m high acoustic fence along the Fraser Drive frontage. This is not considered to be a satisfactory urban design outcome and is not considered to enable view sharing as detailed within the Part 3A application. The application suggests that:

With regard to views from residences along Fraser Drive, it is unlikely that any fences, walls, or future built form on the site would affect views from these residences in any significant way. The proposed development would affect views of travellers along Fraser Drive, who currently enjoy an open view across the site as this view would be obstructed by fencing and future built form along the Fraser Drive boundary of the site. However, this loss of views would be consistent with what would be likely to occur from any typical residential development of the site. This is deemed to be an appropriate view sharing outcome and so the proposal can be seen to comply with the relevant planning provisions and guidelines.

It is not demonstrated how the construction of a 2.4m high fence along the perimeter of Fraser Drive will enable view sharing. In addition, it is considered unreasonable to claim that the loss of views is consistent with any typical residential development for the following reasons.

1. With regard to residential development 'generally', dwellings would seek to address Fraser Drive, providing articulation and visual interest in their form, as opposed to an acoustic fence. Additionally, the dwelling would include the provision of side setbacks and building massing controls to enable view corridors to be maintained.
2. With regard to the subject application, the extensive level of cut along the Fraser Drive frontage results in the majority of future single storey dwelling houses to be contained below the level of Fraser Drive, enabling views to be achieved over these residences.

It is acknowledged that the acoustic barrier provides purpose, however better site planning could have embodied these constraints into the subdivision design. This may have resulted in bigger or deeper lots fronting Fraser Drive, mitigating the need for a barrier of this scale. Of note, this would likely assist in achieving a reduction in the landforming required at the boundary of the property.

Landforming

Much of the land is steeply sloping (exceeding 25% in parts), with elevations above RL 80m AHD at Parkes Lane, grading down to level flood prone land at the north of the site at about RL 1m AHD, adjacent to SEPP14 wetlands and Trutes Bay. The site is bisected in a north-south direction by a gully line and watercourse, to which most of the site drains. The site is bound by Fraser Drive (a designated road) along its eastern boundary.

The proposal was presented to a Development Assessment Panel (DAP) meeting of 26 March 2010. A number of concerns were raised at that meeting regarding road access, site regrading, access to water and sewerage infrastructure, and stormwater discharge. It is noted that despite the above issues being identified, the subdivision layout provided with the EA is generally the same as that considered by DAP.

The development aims to provide balanced cut and fill. According to the report, 18% of the site will require earthworks greater than 5.0m in depth. This does not comply with Council's Development Design Specification D6 - Site Regrading, which restricts these larger cut/fill depths to 10% of the site by area. The report specifies that the majority of this is deep fill proposed in the existing watercourse (up to 13.5m deep), which raises concerns about future flood risk and conveyance function of this watercourse in the post development scenario. Various clauses in both DCP-A5 Subdivision Manual and D6, aim to incorporate and preserve watercourses in the urban form. The proposal to fill the watercourse to reduce allotment grades elsewhere in the subdivision and to create new allotments on this fill within the watercourse is contrary to these clauses.

Further earthworks are proposed to reduce lot gradients to 5-15%. A network of interallotment retaining walls and batters is proposed, across the majority of lots, ranging from 1.2m - 1.8m in height. This does not comply with D6, which restricts interallotment retaining walls to a maximum height of 1.2m, and only in cases where the lot gradient will not be reduced below 10%.

Perimeter retaining walls up to 3m high are proposed along the eastern boundary along Fraser Drive and the south-western boundary adjacent to Market Parade. 2 x 3m high tiered walls are also proposed along the south-eastern boundary adjacent to residential lots off Parkes Lane. Again, this does not comply with D6, which restricts perimeter subdivision walls to a maximum height of 1.2m.

The report does not provide any specific justification for these departures from Council's standards, and as such, variations are not supported. Council's adopted policy is that subdivisions should be designed to fit the topography rather than altering the topography to fit the subdivision. As such, the application is recommended for refusal, unless the landforming plan is amended to comply with Council's site regrading policy.

Proposed Drainage Reserve

The application is highly unclear on the role and ongoing management and maintenance of the proposed drainage reserve. As is discussed elsewhere in this report, Council has strong concerns regarding the following components of the drainage reserve:

- o The mixture of land uses (Adjoining residential, drainage purposes, compensatory EEC areas, casual open space)
- o The extent of earthworks; (up to 13.5m fill)
- o Significant loss in potential flow area, and corresponding velocity increase in order to maintain flow capacity;
- o Removal of available storage volumes and vegetation, affecting times of concentration, channel roughness and peak discharge rates
- o Hydraulic modeling that examines pre-development and post-development flow regimes
- o Creation of compensatory EECs in an area that will have conflicting land uses (i.e. stormwater treatment and conveyance and passive open space)
- o The extent of embellishments (viewing decks, waterfalls etc) without a corresponding management and maintenance component.

Council requests that all lots between Roads 2 and 5B be deleted, and fill be significantly reduced within the gully line. Council also advises that the creation of an EEC in an area that will have conflicting land uses (i.e. stormwater treatment and conveyance and passive open space) is not supported.

In addition, further clarification is required from the applicant as to how these land uses can co-exist as it appears at present that many of these items conflict and do not have appropriate management plans for their maintenance in the future.

Council's Works Unit has advised that alternative land dedication or management arrangements must be identified if the current level of embellishment is to be retained. A clear delineation between the 'community association property' and Council managed reserves will be required in this regard.

Should the level of embellishment and plantings for the drainage reserve be accepted, further negotiation is required on the detail of these embellishments. For example:

- Galvanised steel blades as balustrade on the bridge represents long term issues such as sharp edges, possible entrapment points in the carving, strength, long term maintenance and replacement costs.
- The drainage corridor is nominated as a revegetation area and includes proposed translocation of threatened plant species. Councils Works Unit manages drainage reserves, and is not resourced to manage special plantings with conservation status.

Infrastructure

Water

The proposed water supply system purports to be in alignment with the strategy set out in the Area E LES. Council officers does not agree with such statements as the LES also identified the need for an established planning framework, via an adopted DCP for Area E, which would establish the water infrastructure requirements for the site. The proposal but gives no guarantee that the LES detailed service reservoir, pump station and associated pumping and distribution mains will actually be built at any stage in the future nor does it provide any financial contribution towards the construction of these assets.

The Revised Preliminary Engineering Report for Altitude Aspire (PER) cites that the “PB report proposes an interim water supply strategy for the development of the Altitude Aspire which consists of a temporary connection to the 600dia main (including PRV as required) and a co-current connection to an existing 100dia main on Fraser Drive to service the higher level allotments.”

However, Council officers have been unable to identify where this is clearly articulated. Further clarification and referencing is requested in this regard.

Beyond the findings of the LES, more recent water infrastructure studies relevant to the study area have been undertaken. These studies have shown that the current loading on the Rayles Lane Large and Rayles Lane Small reservoir system to have only 500EP spare capacity despite the design demand having recently been reduced.

With relation to water supply networks in Fraser Drive adjoining Area E, there are two separate water supply zones:

1. The 100 dia main is in the Rayles Lane Small supply zone which is already significantly over loaded in relation to reservoir capacity.
2. The 250/300 dia main that connects the 600 dia trunk main through Water Pump Station 22 to Chambers Reservoir as well as returning water from Chambers Reservoir to the reticulation system in Glen Ayr Drive and Amaroo Drive. The recent revision of the Water Network Analysis has shown that the 3.2 ML Chambers Reservoir is now fully committed.

Accordingly, it is now established that there is no spare capacity within the water networks in the vicinity of Fraser Drive. Whilst it has been identified that there is approximately 500EP spare capacity in the Rayles Lane Large zone, this zone only services the Mahers Lane end of Area E.

To service any of the zone directly from the 600 dia trunk main is considered very high risk for a number of reasons which have previously been detailed to the applicant. Consequently, Water Unit will not agree to the proposed interim connection of this development to the 600 dia trunk main. Accordingly, Council's Water Unit requires that a service reservoir be provided for this development with all portions of it being supplied from that service reservoir.

One suggested scheme to satisfy this criterion would be to develop a small reservoir adjacent to Council's existing Chamber Reservoir, seeking to utilise the same base and top water levels. In addition, Council would be willing to enter into discussions with the applicant to contribute to the incremental marginal cost to build a larger reservoir than required by this application to address potential growth of loading in the existing Chambers Reservoir Zone. Whilst some upgrades would likely be required, including a distribution main from the reservoir to the development, pressure reducing valves and potentially a booster pump station, at a desktop level, this potential scheme appears viable.

Should the proponent does not wish to pursue this option, it will be necessary for the construction of the 3ML reservoir supply mains and water pump station and a distribution main from Mahers Lane to the subject site to be constructed as in the PB LES strategy.

Demand Management Strategy

In addition, it is requested that the statement of commitments include a commitment to ensure that the provisions of Council's adopted water supply demand management strategy be implemented within the proposed development. In light of the subdivision method, use the Community Title Scheme and/or Section 88B instruments to enforce the minimum tank size and connected roof areas within the strategy for development is also recommended.

In particular, the strategy for green field sites within Tweed Shire requires as a minimum:

Single Dwellings	Minimum 5000L rainwater tank with a minimum 160 m ² roof area connected to it.
Multi Dwellings & other buildings	Rainwater tanks to be provided on a similar basis connecting 80% – 90% of the roof area

These tanks shall be plumbed to provide water for external uses, toilet flushing and laundry cold water for washing machines.

Key Outcomes

Council reiterates that the proposal in its current guise is unacceptable. A Water Supply Strategy is required to be developed in conjunction with and approved by Council to finalise connection to the Tweed District Water Supply. Alternatively, the proposal implements the essential water infrastructure as detailed within the DCP for Area E, when finalised.

It is requested that the proponent incorporate the Tweed Shire Council's adopted Demand Management Strategy within its Statement of Commitments and use the Community Title Scheme and/or Section 88B instruments to enforce the minimum tank size and connected roof areas within the strategy for development.

Sewer

The point of connection for this development as a stand alone development is the Banora Point Wastewater Treatment Plant as there is no capacity in the existing transport system available for this development.

Connection to Banora Point WWTP may utilise some discrete portions of the existing system but may require the development to upgrade such facilities and construct new sewer rising mains. For example, it may be possible for this development to construct a SRM to gravity sewer at Fraser Drive, but the receiving sewer pump station SPS 3018 is currently fully loaded and may need upgrading to handle existing connections. A further upgrade of this SPS would be required. The size of the upgrade would depend on the size of rising mains from the SPS to Banora Point WWTP. When the full flow from this development is added to the existing flow estimated at SPS 3018, the friction losses in the existing sewer rising main become excessive resulting in higher pressures to be generated by the pumps than is desirable. The power required to pump becomes greater exponentially and will require an upgrade of the pump station to a greater size than the site can accommodate.

The strategy for Area E requires the construction of a regional sewer pump station that will ultimately pump directly to the WWTP through a new 375 diameter SRM. Interim staging proposed had included using the existing route but had not anticipated the growth in loading that has eventuated in the catchment of SPS 3018 prior to the development of Area E as it had been expected that Area E would have progressed further prior to build out in the catchment of SPS 3018.

In relation to the preliminary internal sewerage design, the layout of sewers may not be the most optimal as the arrangement to minimise works for early stages results in a greater length of sewer main and more manholes than may otherwise be required. This can be negotiated during detailed design phases and may depend upon any alterations to the layout prior to approval.

The estate proposes two sewer pump stations where it would appear that a single sewer pump station would have sufficed. Detailed justification of this will be required before the finalisation of the design. It should also be noted that Council required sewerage pump stations to be located in separate lots to be transferred to Council in fee simple, rather than the pump stations being located on road reserve, park land or other reserves.

Key Outcomes

Whilst sewerage is available for this proposal with connection at the Banora Point Wastewater Treatment Plant, large portions of existing transport infrastructure will require upgrading as a result. The development may necessitate upgrading of an intermediate pump station or construction of a sewer rising main between the intermediate pump station and the treatment plant. A Sewerage Strategy is required to be developed in conjunction with and approved by Council to identify the scope of improvement works, the provision of separate lots for the proposed sewerage pump station/s and finalise connection to Banora Point Wastewater Treatment Plant.

Alternatively, the development could be developed as part of the broader Area E scheme that provides a regional pump station and associated mains to service the whole of Area E.

Stormwater

There are a number of issues with the proposed stormwater management system:

- A lawful point of discharge has not been demonstrated on the downstream private property (Lot 227 DP 755740). In this regard, the applicant must obtain the landholder's consent to create an easement to discharge over the receiving property. Given the applicants belief that this consent is not required, it is recommended that DoP seek independent legal advice.
- Stormwater catchments differ significantly between the Stormwater Management Plan (SWMP) and the engineering report. This has a significant bearing on constructed wetland sizing. Clarification is sought in this regard before Council is able to make any further comment.
- Wetland sizing has been significantly discounted based on lot level rainwater tank installation, which requires adoption of tank arrangements that exceed BASIX requirements. As discussed on-site with DoP officers, Council's demand management strategy details controls also above those prescribed in BASIX, however the relationship between those controls and BASIX is not entirely clear. The application needs to address this matter further to support their wetland sizing.
- Maintenance access to the wetlands is via Broadwater Parkway, and alternate measures are required until this road is constructed;
- Continuity of major system flow paths from the street system to the central watercourse has not been provided, many of these would pass through residential lots. This requires reconfiguration of allotments adjacent to the watercourse;
- A water recirculation pump station and rising main has been proposed for the central watercourse, with no explanation or apparent net benefit. (During site inspection this was clarified verbally to be an aesthetic feature only to provide trickling water through the bypass channel.) The applicant intends for this infrastructure to be in Council ownership. Until the net benefit of this infrastructure is identified, Council will not accept the dedication of this infrastructure. Further comment can be made upon the receipt of further information;
- No consideration of external catchment from Fraser Drive, noting there is a 3m high retaining wall proposed along this boundary;
- No consideration of interallotment drainage along the western boundary, to control stormwater discharge to private land (Lot 1 DP 175234);
- Provisions for inter-allotment drainage (IAD) lines in general, have not been satisfactorily addressed. The generally narrow lots do not make appropriate allowance for future building areas (within the lots) where easements along side boundaries will be required – for both IAD and sewer provisioning. For example: Lot 506 should be widened to cater for an IAD line (and probably

sewer) from Lot 502 and possibly Lot 501 (although Lot 501 could be serviced via Lot 503). This issue arises in several locations – such as the rear of Lots 408, 431, 629, 622, and 615.

- Sag points in all roads will require provision of relief overland flowpaths. Clarity of the submitted plans is insufficient to depict chainages at critical points to assess this issue.
- No information provided on the adequacy of the proposed watercourse filled cross section, in relation to capacity, maintenance, environmental impact and public safety (refer also to detailed comments in Section 4);
- Water Sensitive Urban Design is not considered an appropriate design consideration for most of the site, due to gradients generally exceeding 5%, however the proposed Broadwater Parkway is an ideal thoroughfare where WSUD can be implemented.

Traffic

The report discusses the proposed "temporary access" from the subdivision to Fraser Drive, near the south eastern corner of the development. The report states that construction of Broadwater Parkway is to occur concurrently with Stage 7 of the development, subject to acquisition of the road corridor for the Parkway. Once connected to Broadwater Parkway, the "temporary access", which would be provided as an easement over a residue parcel, would be closed and redeveloped into residential allotments.

As discussed previously with DoP, Broadwater Parkway is included in the Tweed Road Contribution Plan (TRCP) works program, and is subject to a Local Area Contribution. As a result, the construction is dependent on the development of Area E alone, not the broader Terranora / Banora Point area. As such, limited investigation of the road alignment and its potential environmental impacts has occurred, and no efforts have been made at present to acquire a future road alignment or to gain approval to construct the road.

The draft preliminary road alignment that is referenced in the EA from Tweed Shire Council is not a final or endorsed route. As is discussed elsewhere in this report, further analysis has been undertaken, identifying an alternate alignment, displayed in Figure 6.

The Broadwater Parkway is a long term prospect linked to other potential development projects in Area E, and cannot be relied upon by the subdivision for road access. As such, the subdivision must demonstrate that it has an acceptable alternate road access, to be considered a stand alone development.

Proposed Fraser Drive Access

The notion that the road access to Fraser Drive is "temporary" should not be factored into engineering assessment of the proposal. The subdivision application must demonstrate that all road and traffic objectives for the subdivision can be achieved for two cases: with and without Broadwater Parkway. The submitted application generally shows that the subdivision will operate satisfactorily in terms of road, public transport,

cycleway and pedestrian networks with the Broadwater Parkway, but neglects to examine the alternative and more immediate scenario without the Parkway in place.

To address this concern, the following information is provided for consideration:

The design of the internal T-intersection, where the connection road from Fraser Drive meets the main internal road in Stage 4 requires either:

- a. a priority route realignment to minimise potential vehicle collisions (refer to Austroads "Guide to Traffic Engineering Practice – Part 5: Intersections at Grade" and Austroads "Guide to Traffic Management Part 6 : Intersections, Interchanges and Crossings"). This has not been commented on in the report; or
- b. a roundabout at the intersection of the connection road from Fraser Drive and the main internal road in Stage 4.

Any consent for the development must include a condition which requires that the connection road from Fraser Drive which meets the main internal road in Stage 4 must be realigned generally in accordance with Drawing No. E-01 (refer to Attachment 1) or a roundabout is to be constructed at the intersection of the connection road from Fraser Drive and the main internal road in Stage 4.

Bus routes are depicted in Figure 6.2 of the report based on the Broadwater Parkway being constructed. The report should also consider an alternative bus route based on the Broadwater Parkway not being constructed. This will affect carriageway widths which are to be designed to cater for any anticipated bus route (i.e. 9 m minimum carriageway widths). These routes should be provided for further assessment or alternatively a condition of consent should be included in any approval requiring the identification of potential bus routes without the proposed Broadwater Parkway being constructed.

The current proposed easement for the road connection does not give Council adequate tenure to carry out its duties as road authority. The road corridor, to standards required by DCP-A5 must be dedicated to Council. Should a future connection to Broadwater Parkway occur, the applicant may apply to close the road and re-subdivide it with adjacent residue land. The application for road closure would be supported by Council, provided a public pedestrian and cycleway connection is maintained through to Fraser Drive. In addition, the applicant will also be responsible for removing any embellishments including 'entry statement' items should that site is to be converted to residential allotments.

Internal and External Connectivity

A second road connection stub to the north-east (from Road 5B) should be provided to adequately cater for appropriate development potential of adjoining lots.

Proposed Roads 10 and 11 should be relocated to the west, to align with the existing ridge line at the property boundary. Alternatively, a second road connection stub to the west (from Road 11) should be provided to adequately cater for appropriate development potential of adjoining lots.

The application includes less than desirable connectivity to Parkes Lane, with the existing road carriageway and stormwater infrastructure being predominately ignored.

The proposed carriageway location is too far east of the existing road, and is poorly angled – requiring total reconstruction of the existing intersection with Market Parade. This is considered unnecessary and should be avoided. Council encourages an extension to Parkes Lane that prolongates the existing road direction and generally follows the ridge line at the property boundary. Should this not be possible, a second road connection stub to the west (from Road 11) should be provided to adequately cater for appropriate development potential of adjoining lots.

The proposal fails to adequately address the frontage to Market Parade. Investigations into large-sized lots for the Market Parade frontage, as a reasonable way of merging with the existing urban fabric on the south side of the road are encouraged. The erection of rear boundary fences should be avoided along this frontage.

The Market Parade extension warrants reconsideration: Lots 516/517 should be merged to create a larger lot and avoid an immediate visual barrier of rear and side fencing.

Poor pedestrian / cycleway connectivity is provided to Fraser Drive. A permanent pathway link from Road 5A to Fraser Drive, near to the Glen Ayr Drive intersection – somewhere in the NE area of Stage 1 is considered desirable.

Road Gradient

Road gradients are illegible and cannot be verified whether compliant or not. Plans with improved clarity are required prior to further comment being made in this regard. All proposed allotments on grades greater than 15% should be required to demonstrate that practical vehicular access from a constructed street from both cut and fill sides can be provided.

Road Width Comments

Road hierarchy establishment is inappropriate: the Transport Assessment Report by Bitzios is incompatible with the Preliminary Engineering Report by Bradlees regarding Neighbourhood Connector road width nominations.

Road 10 is nominated as a Neighbourhood Connector and should have an 11m carriageway, in lieu of the 7m carriageway shown in the Engineering Report.

The carriageway of Road 2 should be altered to 9m for the initial section coming off the existing end of market Parade, to align with the existing carriageway width – and only to the intersection with Road 3. No objections are raised however, to the 11m width for the remaining length of Road 2, for the intention of a future bus route over this section of road.

All other roads, excluding Broadwater Parkway, are shown as having 7m carriageways, which are not compliant with Council's standard Access Street width of 7.5m and should be widened accordingly.

Cut/Fill Balance

As discussed elsewhere, the overall site regrading plans do not comply with D6, and are not supported in their current form.

Flooding

The application fails to adequately address the impacts of the proposed filling of the watercourse through the centre of the site, and construction of the bypass channel. There is a significant upstream urban catchment (38 hectares) feeding into this channel, as well as surcharge flows from the future subdivision lots. The current gully line is wide, deep and vegetated, with variable grades, and includes dam storages. As an example, a cross-section between future lots 719-606 has an approximate existing gully width of 80m and a depth of 7m. The proposed works will reduce this channel to a trapezoidal cross section maximum 15m wide with 1:4 batter slopes and depths of less than 2m. This is a significant loss in potential flow area, and velocities must increase in order to maintain flow capacity. Available storage volumes and vegetation will also be removed, affecting times of concentration, channel roughness and peak discharge rates.

These works all point to a significant change in the hydraulic regime, with potential impacts on the receiving environment, increased flood risk to adjoining land, and risks to personal safety and property damage associated with the increased flow velocities. As the filling of the watercourse is also intended to support further residential development, there is also a risk associated with long term stability of this filled land, and scour and erosion problems.

Key Outcomes

Accordingly, Council requests that all lots between Roads 2 and 5B be deleted, and fill be significantly reduced within the gully line.

Further information must detail hydraulic modelling that examines pre-development and post-development flow regimes, and a report that satisfactorily mitigates the potential adverse impacts of the subdivision.

Section 94

On 3 March 2011 the Minister for Planning issued Section 94E Direction PS11-012, which confirms that Area E is subject to a \$30,000 per allotment cap on s94 developer contributions (Schedule 2(14)).

As identified within the application, existing s.94 Plans currently require \$21,355.90 per lot. This is expected to increase significantly with a pending review of the Tweed Road Contribution Plan (TRCP, CP No.4), unless Council resolves to delete or otherwise amend the Broadwater Parkway Local Area Contribution.

In February 2009 Darryl Anderson Consulting prepared a draft s.94 plan for Terranora Area E, on behalf of the Terranora Land Owners Group. This plan proposed new contributions for:

- Structured open space
- Casual public open space
- Wetland acquisition and rehabilitation
- Habitat acquisition and rehabilitation
- Community buildings
- Cycleway / walkways

- Stormwater management

The s.94 plan was proposed by the land owners group in order for the costs of provision of the above infrastructure and environmental works to be shared equitably between the separate land owners over the life of the development. Normal Shire Wide s.94 charges would still apply, specifically:

- CP No.4 TRCP
- CP No.11 Library Facilities
- CP No.13 Eviron Cemetery
- CP No.18 Council Admin Office and Support Facilities
- CP No.22 Cycleways
- CP No.26 Regional Open Space

The 2009 draft plan is presently being reviewed and modified by Council staff to comply with current practice (e.g. occupancy rates, admin charges). Pending a more detailed review of the works program and cost estimates for the various facilities, the following additional s94 charges (per lot) are proposed by the draft contribution plan:

Structured open space	= \$2,277
Casual open space	= \$3,072
Other facilities	= \$7,249
TOTAL	= \$12,598

These new charges, when added to existing charges, bring the total for s94 contributions to \$33,953.90 per lot, exceeding the cap imposed by DoP.

Any new s94 Plans are also required to be sent to DoP for concurrence prior to public exhibition (DoP Circular PS10-022, 16 September 2010). The Circular outlines a process whereby Council, with support of the developer, may make application to DoP to approve a higher contribution amount. This would need to be approved by the Minister before determination of the subject application; otherwise all required infrastructure and facilities cannot be provided for the development. All Area E landholders would need to be party to this agreement, not just limited to the subject developer.

Community Title Considerations:

The Community Title scheme proposed for this development differs from the usual arrangement in that the developer is not including any infrastructure within the scheme other than the proposed community club.

Accordingly, all infrastructure and associated easements must be designed and provided as per the requirements established within Council's existing planning framework (predominately Tweed DCP 2008 - Section A5).

As discussed with the applicant during an on-site meeting, this form of Community Title subdivision is an untried 'hybrid' scheme. The likelihood of a separate Community Management Statement being required for each of the individual stages, culminating in (for example) all lots in Stage 11 being subject to and part of eleven different Community Management Statements, should be avoided if possible. Further information as to the mechanics proposed is requested.

Open Space

Structured Open Space - Sportsfields:

The development proposes sportsfields be provided off site adjacent to an existing small playing field west of the Area E release area. Council Officers note that the EA states that Council Officers have agreed in principle to this location. This statement is not completely accurate as Council Officers have indicated that this site could only be considered suitable if environmental and road access limitations had been addressed, and the site identified within the DCP for Area E.

As discussed earlier within this report, investigations regarding the provision of structured open space are ongoing within the DCP process and an agreed outcome or strategy is not yet finalised. Certainly, it is preferable that as much structured open space as possible be dedicated within the Area E release area. However, it is acknowledged that the topography of the land provides a significant impediment to providing such facilities without excessive landforming. Accordingly, it is not currently appropriate to rely upon the provision, via a developer contribution, of off-site structured open space. In this regard, the proposal should not proceed on this matter until the DCP process has been finalised. It is preferable that as much structured open space as possible be dedicated within the Area E release area.

Casual Open Space:

The applicant proposes to contribute 10,587m² as useable casual open space as follows:

- Lot 436 - a 7,046m² parcel made up primarily of a water storage surrounded by steeply sloping land.
- Lot 710 – a 3,541m² land parcel.

Lot 436

However, Council's investigations have identified that Lot 436 does not comply with established criteria for casual open space. Lot 436 should be considered environmental or drainage open space. Features that do not comply with Council casual open space requirements include:

- Around 50% of the area is the existing dam along a drainage line. Such water bodies do not comply with Casual Open Space requirements and cannot be considered.
- The balance of the land surrounding the dam slopes steeply. Much of it exceeds 25% and does not meet Councils landform criteria.
- Further clarification is required the plan nominates 'passive open space areas (Figure 4) and revegetation areas in the same location, seemingly creating a potential land use conflict.

As a result, the amount of acceptable casual open space proposed for contribution is not sufficient.

- Amount of Casual Open Space required for dedication - 9,311m²
- Acceptable Casual Open Space proposed for dedication – 3,541 m²
- Shortfall is 5,770m²

Lot 710

The 'playground park' (Lot 710) appears to meet the necessary criteria for Casual Open Space, however the following matters should be addressed by the applicant.

- Clarify slopes within the park. The slope analysis for the development is very broadly drawn and does not confirm that the slopes comply with the landform criteria, which states 80% of the area is to have slopes less than 8%. In particular areas designated as 'kick about' areas need to be reasonably level.
- The landscape proposal for this park will require further review. Matters to discuss include the amount of paths, design of the playground area, use of 'Gabion blade walls to mirror structure to opposite side of street' and interaction of the steep parts of the park with the road reserve adjoining the park.
- No 'entry statement' type structures are to be included in the park.

In addition, it is noted that within the Vegetation Management and Rehabilitation Plan, Lots 710 and 711 are incorrectly referred to as sportsfields. They are in fact proposed as a park and the 'community association property'. It also indicates Lot 630 as passive open space. (Reference Figure 4), where it is clearly referenced on the subdivision layout plans as a drainage reserve.

General open space comments

Comments on this masterplan have been kept at a general level as there are many conceptual issues to resolve before the detail of each landscape proposal can be considered. Some specific matters noted at this early stage include:

- Electricity substation locations should be determined at the planning stage with Council. Last minute requests to locate these in parks once the plans have been approved will not be accepted;
- Minimise the use of retaining walls on public land wherever possible. Any retaining walls separating public and private land must be located on the private land; and
- No 'entry statement' infrastructure is to be installed on public land.

Threatened species

Comb-crested Jacana

Within the area subject to the current proposal, Figure 3.4 of the LES has identified an area of Comb-crested Jacana habitat (listed as Vulnerable under TSC Act) that should be protected and buffered from development where possible (refer to Figure 5 in this report). This habitat area is located along a natural watercourse comprising drainage lines and several small waterbodies surrounded by regrowth rainforest in the centre of the proposal site.

Whilst the drainage line has been incorporated into the stormwater conveyancing system for the proposal, the 3 waterbodies occurring in this area which were identified as providing habitat for the Comb-crested Jacana will be filled, with this area incorporated

partly into a stormwater drainage reserve and partly into residential allotments (refer to Figure 6).

The Fauna Assessment (Appendix 3 of the Ecological Assessment), notes Comb-crested Jacana as being recorded within 10km of the site but then notes in the habitat assessment that suitable habitat does not occur on site with dams generally having poor vegetation cover and therefore this species was unlikely to occur.

Consistent with point 13.6 of the DGEAR habitat for the Comb-crested Jacana should be protected and buffered from development where possible within the development site. Waterbodies and buffering vegetation should be retained and incorporated into the Vegetation Management & Rehabilitation Plan area.

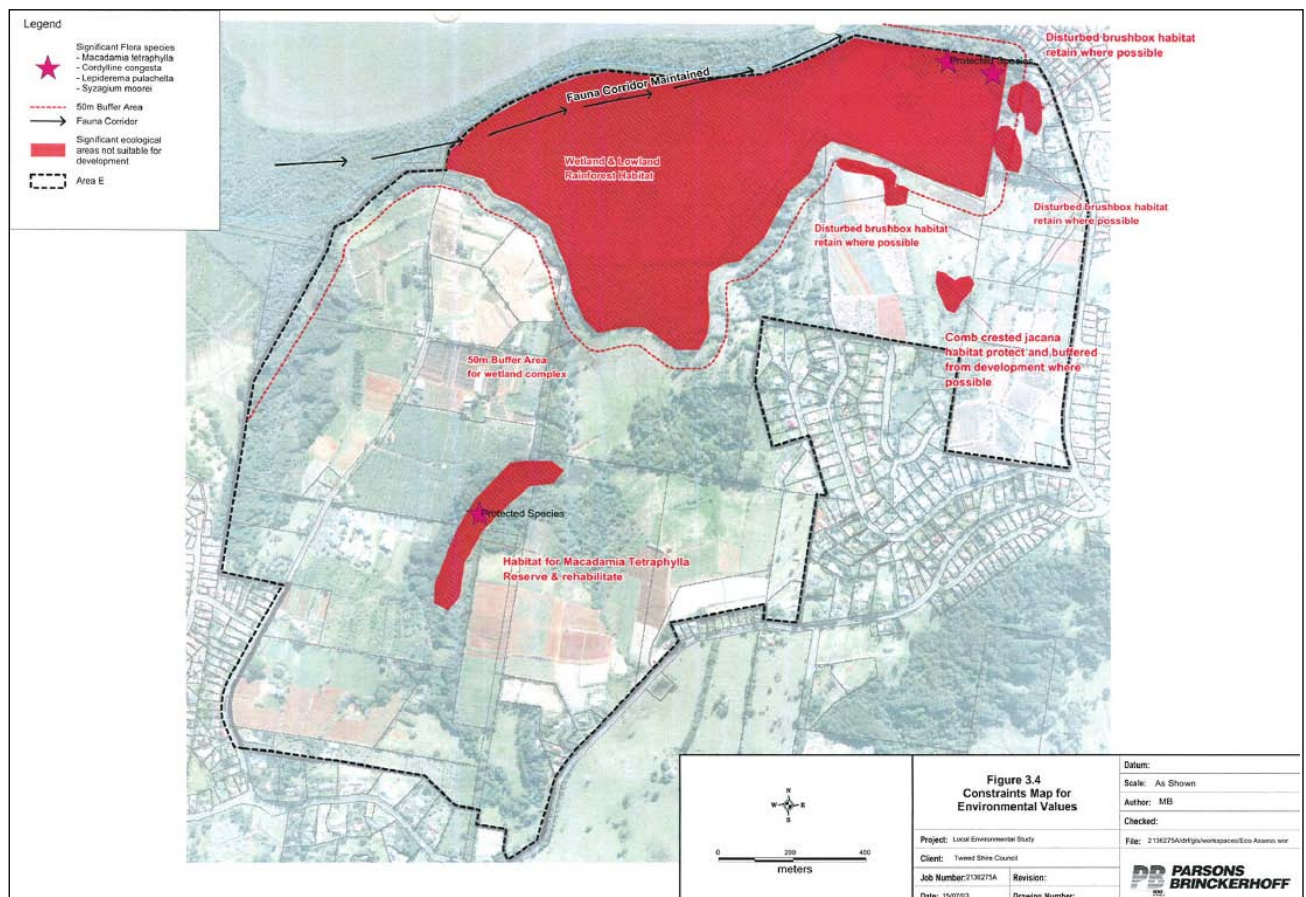


Figure 5: Figure 3.4 of the LES - Constraints Map for Environmental Values of Area E.

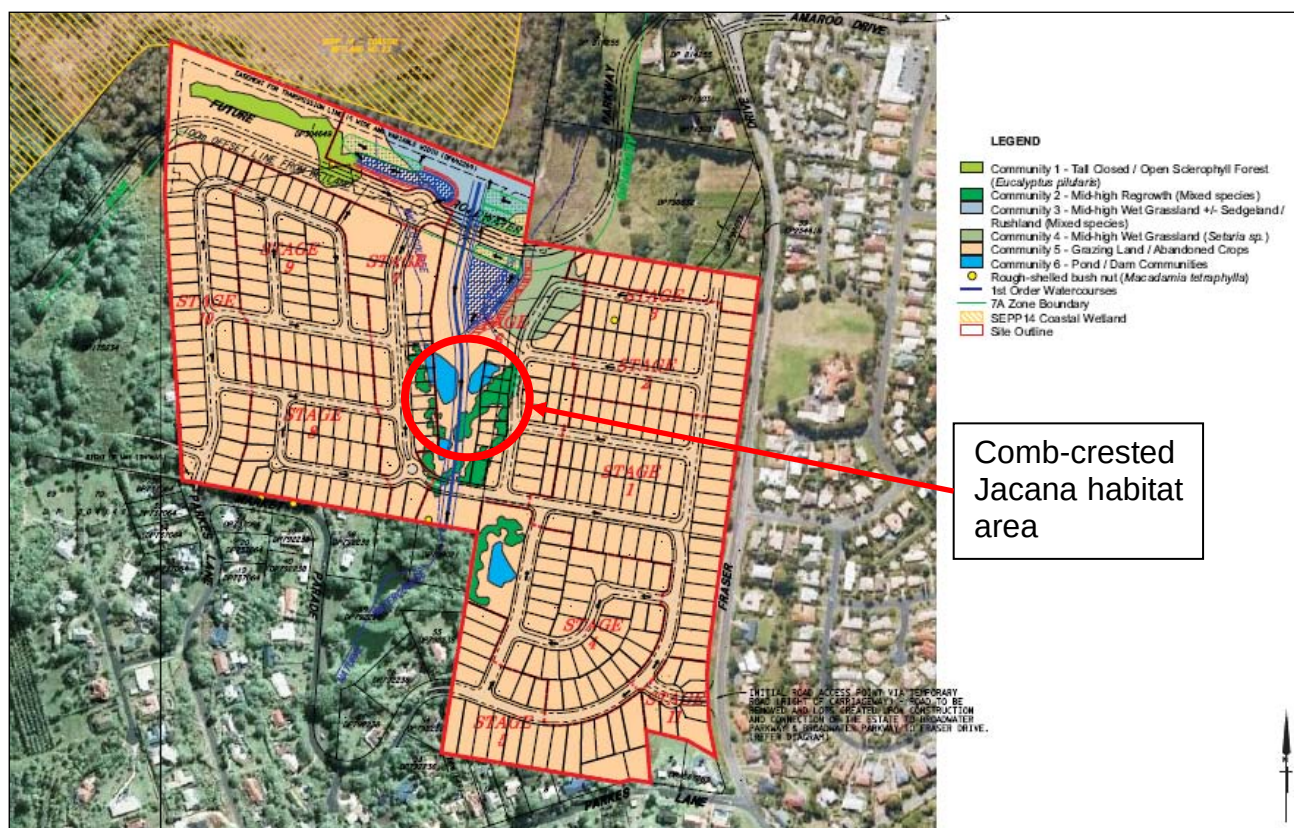


Figure 6: Environmental features & proposed development (Fig 11 Ecological Assessment).

Rough-shelled Bush Nut

Five individuals of this species were recorded on the proposal site (refer Figure 11 of JWA Ecological Assessment November 2010). One of these occurs within a proposed residential allotment with translocation of this individual proposed. Whilst the LES did not pick up occurrences of Rough-shelled Bush Nut that occur on the development site, it is noted that occurrences of this species elsewhere within Area E were significant and states that buffering and habitat rehabilitation should be undertaken to protect occurrences of this species on site.

The Amended Ecological Assessment and the Vegetation Management & Rehabilitation Plan do not appear to provide detail on buffering or habitat rehabilitation of the remaining occurrences of Rough-shelled Bush Nut. The proponent needs to provide information on how occurrences of Rough-shelled Bush Nut will be protected, buffered from development and habitat rehabilitated to ensure long term survival, consistent with DGEAR 13.4.

Endangered Ecological Communities (EECs)

Two EECs were recorded by JWA on the proposal site being Freshwater Wetlands on Coastal Floodplains and Lowland Rainforest. This is relatively consistent with EEC mapping also provided by JWA (March 2008) in the proposed Wetland Restoration Plan Area E Terranora (submitted to Council with the Draft DCP for Area E). However an additional area of Lowland Rainforest EEC was identified on the proposal site by JWA in 2008, located at the eastern extent of an area of Eucalypt forest (refer to Figure 7). Further investigation and clarification is sought in this regard.

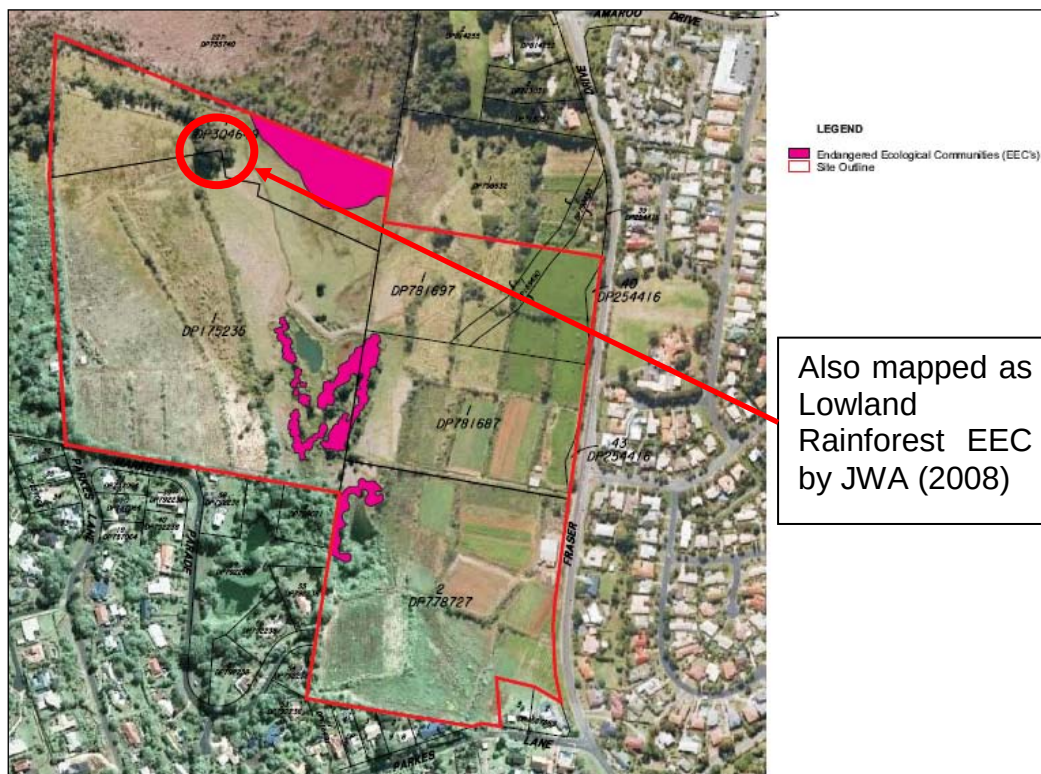


Figure 7: Mapped Lowland Rainforest EEC on the proposal site (JWA 2008 & 2010)

Lowland Rainforest in the NSW North Coast and Sydney Basin Bioregions

The proposal notes a large portion of the Lowland Rainforest EEC will be cleared for residential allotments, internal roads and also the central stormwater drain. The significance assessment (7 part test) notes that whilst Lowland Rainforest will be cleared, loss of this EEC will be compensated for through the creation of this EEC along the riparian area of the constructed central drainage line. Creation of an EEC to compensate for EEC clearing is not supported due to the time lapse and level of risk involved in recreating an EEC. Avoidance of EEC clearing is always the preferred option. Creation of an EEC in an area that will have conflicting land uses (i.e. stormwater treatment and conveyance and passive open space) is also not supported. This area is not zoned Environmental Protection and the proposed uses for this area are stormwater management and passive recreation. Therefore the security of a planted Lowland Rainforest EEC can not be assured in the future.

Whilst it is noted in the Ecological Assessment that occurrences of this EEC are regrowth and disturbed, and it is also acknowledged that this area is quite fragmented, the species list of this community indicates high diversity including less common plant species and species that typically occur in more intact stands of rainforest. The species list also notes the occurrence of five Rare or Threatened Australian Plants (as per Briggs & Leigh 1996) including Silverleaf (*Argophyllum nullemanse*), Black Walnut (*Endiandra globosa*), Veiny Lace Flower (*Archidendron muellerianum*), Ardisia (*Ardisia bakeri*) and Long-leaved Tuckeroo (*Cupaniopsis newmanii*). No assessment has been undertaken on whether the development will impact on these ROTAPs.

Freshwater Wetlands on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions

The proposal notes that a portion of Freshwater Wetlands on Coastal Floodplains will be removed in order to create stormwater detention/treatment basins and a stormwater drain (refer to Figure 2). The significance assessment (7 part test) notes that whilst Freshwater Wetlands on Coastal Floodplains will be cleared, loss of this EEC will be compensated for through the creation of this EEC as part of the stormwater management infrastructure.

Creation of an EEC to compensate for EEC clearing is not supported due to the time lapse and level of risk involved in recreating an EEC. Avoidance of EEC clearing is always the preferred option. Creation of an EEC in an area that has the primary function of storing and treating stormwater prior to release into wetland areas is also not supported. Whilst this area is zoned Environmental Protection, future maintenance of stormwater detention basins will mean this recreated EEC (if successful) would be subjected to disturbance for maintenance. Therefore security and ecological function of a recreated Freshwater Wetland in this location can not be assured in the future.

Removal rather than the retention of areas of Lowland Rainforest and Freshwater Wetlands on Coastal Floodplains EECs on the proposal site is also inconsistent with DGEAR 13.4.

With reference to Figure 3.4 of the Area E LES and DGEAR 13.6, the proposal should also provide appropriate buffers and habitat protection measures for known significant ecological habitats. Lowland Rainforest areas occurring along the sites centrally located watercourse are not identified within Figure 3.4 of the LES. However the LES notes that waterway corridors (creek systems with associated vegetation stands) should be retained and integrated into a network of natural onsite stormwater mitigation measures. Whilst these areas are not included in Environmental Protection zoning, controls to protect from development were to be identified and implemented within a Development Control Plan for Area E. According to Figure 3.4 of the LES, the occurrence of Freshwater Wetlands on Coastal Floodplains on the development site is protected within the 50m buffer area of the wetland and lowland rainforest habitat significant ecological area. Clearing of an EEC to provide for urban stormwater management infrastructure in this 50m buffer is not consistent with DGEAR 13.6.

Wetland rehabilitation and management of salt marsh mosquitoes

The LES notes that the hydrology of wetland areas at the northern extent of the site and proposal area have been considerably disturbed through drainage construction and as a consequence these areas are now influenced to a greater degree by tidal influences. Prior to drainage construction this area was influenced more by freshwater from the surrounding catchment. As a result of these disturbances to hydrology, the wetlands provide habitat for salt marsh mosquitoes which unless managed have the potential to impact upon residential development in the area. The LES recommends that the wetland area which has been previously modified will need to be rehabilitated to restore a freshwater regime and subsequently limit salt marsh mosquito breeding habitat. The LES also notes that given the benefit of mosquito management to the whole of Area E these restoration works should be addressed and funded by all developers within the area (inclusive of land included within the current Part 3A application).

The Vegetation Management & Rehabilitation Plan includes no provision to rehabilitate or restore freshwater flows to wetland areas adjacent Trutes Bay. The Vegetation Management & Rehabilitation Plan provides actions for revegetation and assisted regeneration only in the centrally located watercourse/drainage line and a narrow area at the northern extent of the proposal site and adjacent SEPP 14 Coastal Wetlands.

The Biting Insect Management Plan (HMC Environmental Consulting November 2010) notes that *"A Wetland Restoration Plan has been prepared by James Warren & Associates Pty Ltd to address removal of weeds and planting to restore the native vegetation to pre-clearing form within the bunded SEPP 14 wetland area. This restoration, together with the hydrological management via modified floodgates and existing levees is likely to reduce biting insect habitat."* The Wetland Restoration Plan referred to above was submitted to Council with the Draft DCP for the Terranora Urban Release Area (Area E) but this document has not been approved, neither does there appear to be any commitment from the proponent of this Part 3A application to implement restoration within the large SEPP 14 wetland area in accordance with a Wetland Restoration Plan. Additionally, this Plan does not provide any detail on restoring previously modified hydrology in the area, including restoration of the levee in Area E to retain freshwater and prevent uncontrolled incursions of saltwater during higher tide events (see below).

Whilst it is noted that tidal flushing in this area has been improved through recent modifications to existing floodgates, which in turn increases predator complexes and reduce salt marsh mosquito numbers, the extent that tidal flushing in this area can control salt marsh mosquitoes is limited. There are large areas of freshwater wetlands and forested floodplain communities that occur within and adjacent the SEPP 14 wetland area that need to be protected from tidal inundation. Both the Cobaki and Terranora Broadwater Catchment and Estuary Management Plan (Australian Wetlands 2010) and Council's Entomologist have identified restoration of the bund in Area E to reduce mosquito habitat, with Council's Entomologist noting that levee maintenance as a management strategy would need to be included in any Wetland Restoration Plan.

Key Outcomes

The area of Comb-crested Jacana habitat occurring along the centrally located drainage line and as noted in the constraints map in Figure 3.4 of the Tweed Area E Local Environment Study (Parsons Brinckerhoff, 2004) should be protected and buffered from the proposed residential development.

Retained occurrences of Rough-shelled Bush Nut should be protected, buffered from development and the surrounding habitat rehabilitated where possible to ensure long term survival.

Occurrences of the five ROTAP species should be retained and protected on the development site wherever possible.

Areas of Lowland Rainforest and Coastal Wetland on Floodplain Endangered Ecological Communities on the proposal site should be avoided, rehabilitated and protected in conservation areas where possible. Clearing of EECs is not supported to construct stormwater infrastructure, create residential allotments and internal roads. Creation of EECs to compensate for clearing is not supported, particularly when creation is proposed

within areas not secure from future development and with conflicting land use requirements (stormwater treatment and conveyance and passive open space).

Revegetation of Rainforest and Wetland communities in the Vegetation Management and Rehabilitation Plan area is supported. However, creation of Lowland Rainforest and Coastal Wetland on Floodplain EECs within this area to compensate for clearing of these EECs on the proposal site is not supported. This area will largely be 'operational' land and therefore conservation outcomes conflict with other land use requirements i.e. recreation and stormwater management.

Some of the plant species included in the Landscape Master Plan are unsuitable as they are non-native, cultivars or not locally occurring. Suitable locally occurring native species should be substituted.

The Local Environment Study for Area E recommended restoration of the large northern wetland area which coincides with the 7(a) Environmental Protection zone. A Wetland Restoration Plan was submitted with the Draft Development Control Plan for the Area E site but the Wetland Restoration Plan has not been approved or adopted. Regardless of this, in order to control saltmarsh mosquitoes, and to ensure the wetland is resilient to the impacts of adjacent residential development, the Local Environment Study also notes that given the benefit to the whole of the area, wetland restoration actions should be addressed and funded by all developers within the Area E area. Therefore it is recommended a mechanism is developed to ensure that the development proponent is responsible for funding and implementing restoration within the 7(a) Environmental Protection zone of Area E in accordance with an approved Wetland Restoration Plan, proportional to the extent of the current proposal as part of the whole Area E land release area. The Wetland Restoration Plan must include actions and mechanisms to restore a freshwater regime to the wetland area and control saltmarsh mosquitoes, not just be restricted to actions of weed control and revegetation.

CONCLUSION:

This report highlights some of the key challenges surrounding the development of Area E. It is highlighted that a holistic planning approach is preferred to ensure the most appropriate form of development at the site, in its entirety. Critically, the progression of the Area E development revolves around the feasibility of a key infrastructure development at the site. To progress with the Part 3A application without finalising these issues is considered undesirable and as such, these concerns have been documented through an initial submission to the Department of Planning.

A holistic planning approach to the development of Area E is necessary to underpin and work through the key issues on site and for the wider community. This work is being undertaken by Council staff. In addition, it is therefore considered an imperative for Council officers to continue to liaise with both the NSW Department of Planning and Metricon and seek the deferral of consideration of the current Part 3A Major Projects application, until a Council endorsed position has been reached on a new Draft DCP and Section 94 Plan for the entire Area E site. The officers will continue to keep Council informed of the progress of this liaison.

LEGAL/RESOURCE/FINANCIAL IMPLICATIONS:

Nil.

POLICY IMPLICATIONS:

The redevelopment of Terranora Area E needs to be underpinned by comprehensive and sound planning and infrastructure principles. It is essential for Council to put into place a new Development Control Plan and Section 94 Plan for Area E, prior to any further advancement of major development proposals for the site.

UNDER SEPARATE COVER/FURTHER INFORMATION:

*To view any "**non confidential**" attachments listed below, access the meetings link on Council's website www.tweed.nsw.gov.au (from 8.00pm Wednesday the week before the meeting) or visit Council's offices at Tweed Heads or Murwillumbah (from 8.00am Thursday the week before the meeting) or Council's libraries (from 10.00am Thursday the week of the meeting).*

1. Drawing E-01 (ECM <<Insert DataWorks Document Number or location details here>>
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