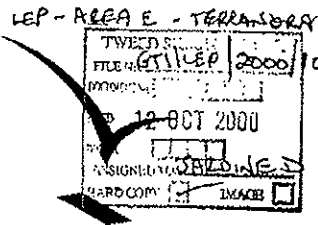


Appendix A

Section 62 and 34A of the
Environmental Planning &
Assessment Act 1979 -
Correspondence from State
Agencies



Dr J F Griffin
General Manager
Tweed Shire Council
PO Box 816
MURWILLUMBAH NSW 2484

Contact: Greg Yeates
Our Reference: G94/00396
Your Reference: GT1/LEP/2000/8Pt 1

Department of
Urban Affairs and Planning

North Coast Region
Level 3, 45 Victoria Street
Grafton NSW 2460
PO Box 6
Grafton NSW 2460

Telephone: 66420622
Facsimile: 66420640
E-mail: duapnorthcoast@dup.nsw.gov.au

10 OCT 2000

Dear Dr Griffin

TWEED LOCAL ENVIRONMENTAL PLAN 2000, PROPOSED AMENDMENT, AREA E, TERRANORA

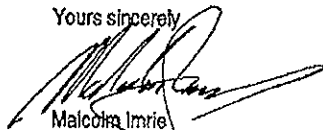
I refer to your letter of 11 August 2000 advising of the Council's decision to prepare the above local environmental plan.

Pursuant to section 74(2)(b) of the Environmental Planning and Assessment Act 1979, the Director-General directs that sections 57 and 61 should apply in respect of the draft plan. An environmental study is therefore necessary to address the matters indicated by Council. In addition, Council should address the value of Area E for agriculture, having regard for Policy 18 on page 22 of the Tweed Shire Strategic Plan 2000+.

When the then Director approved Council's Residential Development Strategy 1991 on 29 March 1991, she indicated that "Area E ... is zoned Agricultural Protection 1(b1). I, therefore, reinforce the need, as specified in this strategy, to consult closely with the NSW Agriculture ... if this land is to be released. Agreement on its release would be a necessary pre-requisite to any rezoning in the area". The views of NSW Agriculture should, therefore, be sought on the proposed rezoning. In this regard, the Department notes that Area E is one of only a few small areas in the Shire zoned 1(b1). It is a scarce resource.

The Department also notes that the "Amendments to Tweed Residential Development Strategy" approved by the Director-General on 2 September 1993 indicate that, with respect to Area E, "whilst noting the inclusion in the Residential Development Strategy, one of the objectives of the "Terranora Strategic Planning Interim Statement (adopted by Council on 5 May 1993) is to retain the integrity of remaining prime agricultural land".

Yours sincerely



Malcolm Imrie
Assistant Director
(North Coast)

c.c. NSW Agriculture

Planning for a better environment, jobs and livable communities

Your Reference : GT11/EP/2000/10 P1
Our Reference : GR118/31 GRFB296
Contact : David Nalder, (02) 6640 2518

LEP - AREA E

TWEED SHIRE COUNCIL	
FILE No.	GT11/EP/2000/10 P1
DATE	5 MAR 2002
ASSIGNED	IN PROGRESS
HAND OFF	

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



12 MAR 2002

Dear General Manager

DRAFT TWEED LEP 2000, AMENDMENT NO 10 - AREA E, TERRANORA

Thank you for the opportunity to provide comments in relation to the abovementioned matter.

We note that any decision to provide for significant urban expansion within "Area E" would result in the irreversible alienation of lands that are currently designated as prime agricultural land. In this context it is important that Council consider strategic landscape issues as they relate to the ongoing provision of opportunity for agricultural enterprise for future generations.

We note from the Cadastral layer presented on Plan No.2 in the information provided that previous planning decisions appear to have generated potential for interface conflicts. A LES may provide an opportunity to reflect on previous decisions and better address appropriate buffering between residential and agricultural protection zones.

A LES compiled to inform the development of the above LEP amendment would need to consider a range of issues. These are outlined as follows.

Protection of Prime Agricultural Land

We note that much of Area E is presently zoned Agricultural Protection 1(b1).

Section 6 of the *Protection of the Environment Administration Act 1991* (POEA Act) clearly outlines the principles of Ecologically Sustainable Development.

The LES must (whilst taking cognisance of the fact that prime agricultural land is a finite resource) clearly demonstrate how inter-generational equity as it relates to the on-going and precautionary provision of opportunities for agricultural enterprise can be delivered as an outcome of any modification to existing land use within Area E.

A relevant LES might also examine and address interface conflicts between existing residential development and a consolidated and reinforced agricultural protection zone.

Environment Protection Authority
PO Box 498 Grafton NSW 2460 Australia
NSW Government Offices 40 Victoria Street Grafton NSW 2460

Telephone 81 2 6640 2500

Facsimile 81 2 6642 7743

ASN 43 692 266 756
www.epa.nsw.gov.au

Stormwater Management

Relevant to any proposed residential development the LES must clearly demonstrate how stormwater will be managed in accordance with the objectives specified in Council's Stormwater Management Plan. It is imperative that the LES provide adequate detail to demonstrate that stormwater can and will be managed to achieve these objectives and protect the Terranora Broadwater, adjacent SEPP 14 Wetland and any SEPP 26 Littoral Rainforest that might be identified through closer investigation.

In the context of this proposal it will be important to clearly demonstrate how stormwater from any area to be rezoned is to be managed. It is expected that the LES includes conceptual designs and associated modelling to adequately demonstrate that stormwater can and will be managed appropriately. Any potential impediments to implementation of proposed strategies must also be addressed.

Further, conceptual designs within the LES should incorporate best practice stormwater management that reflects a hierarchy of stormwater management that promotes the retention (and restoration where appropriate) of existing drainage lines and other valuable features of the water environment, and source control over end of pipe solutions.

These conceptual designs should inform a process to identify areas to be used for treatment and transmission of stormwater. Such a process is fundamental to the process of developing any prospective lot layout for the area.

Protection of SEPP 14 Wetland

The buffering of SEPP 14 Wetlands through the maintenance and enhancement of adjacent vegetation communities provides one of the simplest, most effective and least expensive ways of mitigating their degradation due to influx of sediment and attached pollutants. The provision of appropriately sized buffers adjacent to SEPP 14 Wetlands is generally the only practical option for ensuring their long-term integrity.

A State Government inter-agency working group convened to assist the compilation of the Coffs Harbour LEP 2000 determined, that relevant to the North Coast, a buffer of at least 50 metres was necessary to protect environmentally sensitive stream and drainage features. This working group defined SEPP 14 Wetlands as being environmentally sensitive.

The LES must clearly spatially outline a buffer width appropriate to protect the SEPP 14 Wetland.

Waste Water Management

We note that on page 85 of the Draft Interim Strategic Plan Cobeki/Bilambil Heights/Terranora, it is specified that "Any rezoning of Area E should not occur until the Benora Point [Sewage Treatment] Plant is augmented to a capacity of at least 75,000EP or an alternative means of effluent disposal is approved".

Relevant to the Benora Point Sewage Treatment Works, information provided to the EPA by Council on 21 November 2001 lists its actual capacity at 50,000EP based on most limiting factor (UV Disinfection).

Contaminated Land Management

There is a possibility that contamination may have arisen on lands used for intensive horticulture and market gardening as a consequence of the use of agricultural chemicals. The LES should

Page 3


examine the likelihood, extent and nature of contamination within Area E and the potential for any contaminated areas to be remediated in a manner consistent with SEPP 55.

Road Traffic Noise

An evaluation of potential layout design arrangements as they relate to *Environmental Criteria for Road Traffic Noise 1999* (the criteria) should be undertaken as a component of the LES. The LES must demonstrate the efficacy of options for addressing conflicts with the criteria should it be determined that conflicts are likely.

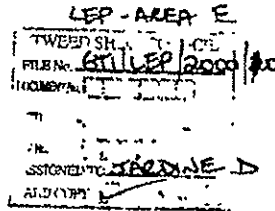
Should you have any queries please do not hesitate to contact David Nader on (02) 6640 2518.

Yours sincerely


GRAEME BUDD
Head Regional Programs Unit
North Coast

Our Ref: GF80H1379
Your Ref: GT1/LEP/200/10 Pt1
Contact: Vanessa Sultmann
Telephone: (02) 6640 2132

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



27th February 2002

Dear Sir

**Draft Tweed Local Environmental Plan 2000, Amendment No 10
Area E, Terranora**

I refer to Council's letter of 5th February 2002 seeking comments on the preparation of an Environmental Study and draft LEP and provide the following comments for Council's deliberation.

It is considered that the following matters should be addressed in the Environmental Study:

- Potential impacts on adjacent Crown land and Crown public roads. Note, application will need to be made to close the Crown public roads within the site if they are going to be impacted by any future development. Alternatively, if it is proposed to construct Crown public roads for access to or within any future development those roads will need to be transferred to Council's control.
- Foreshore development. Note, any occupation of Crown land (including the bed of tidal waterways) would require authorisation under the provisions of the Crown Lands Act, 1989. Normally only persons who own the adjacent land would be granted a tenure over foreshore Crown land.
- Potential impacts on quality, quantity and supply of groundwater and surface water.
- Potential impacts on riparian land, and the bed and banks of Terranora Broadwater.
- Potential impacts on SEPP 14 wetlands and mitigation and protection measures for same.
- Potential impacts on native vegetation. Note, consent may be required from the Department for any clearing of native vegetation under the provisions of the Native Vegetation Conservation Act, 1997.
- Stormwater and wastewater management and disposal including reuse options.
- Land capability assessment including identification of constraints.
- Acid sulphate soil management.
- Erosion and sediment control (structures must not be located below the water table if acid sulphate soils are present). This issue is particularly important in view of the steep nature of the lands.
- The need for a license under the Water Act, 1912 if structures will intercept groundwater.
- Opportunities for environmental repair and enhancement.

76 Victoria Street, Locked Bag 10, Grafton NSW 2460
Telephone: (02) 6640 2000

-
- Bushfire hazard management. Note, where proposed development adjoins Crown land any fire buffer must be established entirely within the freehold property.
 - The need for buffers to environmentally sensitive lands and agricultural lands.
 - The need for a 3A permit under the provisions of the Rivers and Foreshores Improvement Act, 1938 for works on protected land (as defined in the Act).

In preparation of the draft LEP Council should also identify any opportunities that would facilitate achieving the outcomes envisaged in the Northern Rivers Catchment Management Board First Draft Catchment Blueprint, December 2001.

Similarly, any draft LEP should be seen to implement and support the objectives and principles of the NSW State Rivers and Estuaries Policy, NSW Wetlands Management Policy and the NSW Native Vegetation Conservation Strategy. In addition, regard should be had to the Terranora Broadwater Management Plan.

Should you wish to discuss any of the matters raised in this letter please contact Vanessa Sultmann on the above number.

Yours sincerely



V J Sultmann
Landscape Planning
North Coast

9 April 2002

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

Attention: Douglas Jardine

Our Reference
Your reference:

Ref: 02/130.sjt.1612

FAXED
9/4/02
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LEP - AREA E

TWEED SHIRE COUNCIL	
FILE NO.	G11/LEP/2000/11
DOCUMENT NO.	111111
RECD	12 APR 2002
DIR. NO.	1111
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**NSW
NATIONAL
PARKS AND
WILDLIFE
SERVICE**

Dear Dr Griffin:

DRAFT TWEED LEP AMENDMENT NO. 10 - AREA E, TERRANORA

I refer to your letter dated 5 February 2002 in which you seek consultation pursuant to Sections 34A and 62 of the *Environmental Planning and Assessment Act 1979*, in respect of the above matter. In particular, you seek advice on any matters that should be addressed in the draft Local Environmental Study (LES) and draft Local Environmental Plan (LEP)

The NSW National Parks and Wildlife Service (NPWS) is responsible for the care and protection of native flora and fauna and Aboriginal sites and for the management of the National Parks estate. The following comments are provided in respect of these statutory responsibilities.

General

It is considered important that Council adopt a strategic approach in the formulation of the LES and draft LEP that will enable consideration of the range of landscape Conservation values which appear to be inherent within Area E. In this regard, it may be Programs and advantageous to undertake a preliminary assessment to identify potential constraints Planning Division based on existing information that may provide an indication of the suitability of the Northern Directorate subject area for urban land uses. Policies and strategies such as the *Guidelines for G10 House regional NSW - Sustainable Urban Settlement (Department of Urban Affairs and 24 Moonee Street Planning (DUAP))*, the *NSW Coastal Policy 1997* and the *Independent Inquiry into Coffs Harbour NSW Coastal Lakes - Draft Paper, August 2001* may guide any such preliminary 2450 Australia assessment Locked Bag 914 Coffs Harbour NSW 2450 Australia

It is noted that part of Area E is identified as State Environmental Planning Policy No. 14 (SEPP 14) Coastal Wetlands and is located adjacent to the Terranora Broadwater. These areas are considered to be environmentally sensitive areas which may be susceptible to direct and indirect impacts from inappropriate adjacent land uses. Further, it is noted that the majority of the subject lands are currently zoned 1(1b) Agricultural Protection. Careful consideration should be given to the immediate and future consequences of any determinations which would result in the loss of scarce agricultural resources consistent with the principles of Ecologically Sustainable Development (ESD). 43 Bridge Street P.O. Box 1967 Coffs Harbour NSW 2450 Australia

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Tel: (02) 9585 6444
Fax: (02) 9585 6555
www.npws.nsw.gov.au

In pursuing a detailed investigation of the subject lands it is recommended that the relevant matters in the attached general list of environmental issues be addressed in the LES and LEP. Please note that this attachment comprises a general list only, and that these issues may apply to a lesser or greater degree depending on the site.

Of particular interest are the following matters.

- Areas of significance for native flora and fauna, with particular reference to the value of habitat for threatened plant and animal species, populations or ecological communities and their habitats.
- Areas of significance for regionally significant species and vegetation associations, including Rare or Threatened plants, species at the limits of their geographic distribution, species and communities poorly represented within conservation reserves.
- Areas of archaeological potential and Aboriginal heritage value as identified by the Aboriginal community and sites registered on the Aboriginal Sites Register.
- Potential impacts on areas of NPWS estate.

Flora and Fauna

It is recommended that a search of the NPWS Atlas of NSW Wildlife be undertaken for flora and fauna records. To access the NPWS Atlas of NSW Wildlife database, contact the Data Exchange Officer, Geographic Information Systems Division on 02 9585 6684.

Using any list, from the NPWS Wildlife Atlas and previous studies provided as a guide, it is recommended that both general surveys and surveys targeted towards threatened species considered likely to occur in the study area be undertaken.

Your attention is drawn to the Mitchell's Rainforest Snail for which there is an approved recovery plan (attached) that includes actions to protect populations and habitats. Mitchell's Rainforest Snail is listed as endangered under the *Threatened Species Conservation Act 1995* and has been recorded in proximity to the proposed site. The LES/LEP will need to consider the likely occurrence of Mitchell's Rainforest Snail, potential habitat and relevant actions of the recovery plan.

The LES/LEP should identify the local and regional significance of the vegetation and habitat on the site, including core habitat areas, and links to other areas of habitat. Attention should be given to mitigating impacts through appropriate amelioration methods including, where necessary, modifications to the proposal.

Areas within and surrounding Area E have been identified as coastal wetland and subject to SEPP 14. Areas of SEPP 14 should be appropriately zoned environmental protection. The LES/LEP should address in detail the potential impact of the proposed re-zoning on these areas, particularly issues relating to drainage of the subject site and any potential clearance of native vegetation. Consideration should be given to mitigating any potential impacts to areas of SEPP 14 through the application of appropriate buffers.

In this regard, the NPWS supports the outcomes of an inter-agency review of the Coffs Harbour Draft Local Environmental Plan (NSW Government 1996), whereby State natural resource management agencies recommended 50 metre buffers as a minimum for areas of State, regional or local environmental significance. It is preferable that these buffers areas.

- be zoned for the purposes of conservation;

- are not be developed or disturbed for any other purpose. For example walking tracks, bushfire hazard reduction measures and sediment / nutrient ponds should not be permitted within the zone; and
- where cleared be planted out with vegetation indigenous to the local area and maintained under a bushland management plan.

Aboriginal Cultural Heritage

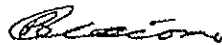
To assist evaluation of the potential impacts of the proposal on Aboriginal heritage values, it is recommended that a search of the NPWS AHIMS be undertaken. The LES/LEP should include an assessment of the archaeological and cultural sensitivity of the subject land. This should include, but not necessarily be restricted to, an assessment based on consideration of vegetation types, previous land use, degree of disturbance, topography, context, the distribution and types of known Aboriginal sites in the local area and in consultation with the Local Aboriginal Land Council. Dependant on the outcome of this assessment there may be a need for an appropriately experienced person in consultation with the local Aboriginal community to undertake an archaeological survey of the subject land.

The outcome of the assessment and consultation should be incorporated in the LES/LEP. For information about the AHIMS, please contact the NPWS Aboriginal Sites Registrar (02 9585 6471, fax 02 9585 6325) or the Database Co-ordinator (02 9585 6345, fax 02 9585 6325).

The LES/LEP should demonstrate that the proposed re-zoning would not compromise the conservation values of the site or the conservation values of the surrounding environment. Any proposed re-zoning should be consistent with existing local and regional planning strategies and environmental planning instruments.

In light of the above, it is recommended that potential environmental and cultural constraints are identified early in the planning process rather than rely on mechanisms at the development application stage.

Should you wish to discuss this matter further, please contact Sarah Tumbers, Conservation Planning Officer, on 6659 8226.



BRENDAN DIACONO
Manager, Conservation Planning Unit
for Director-General

attachment

14 February, 2002

PO Box 1430
Kingscliff NSW 2487



NSW DEPARTMENT
OF PUBLIC WORKS
AND SERVICES

Telephone 02 66 744 018
Facsimile 02 66 744 050
ABN 48 922 006 182
www.dpws.nsw.gov.au
Contact Ian Norris
Phone 0412 278 627

Mr D Jardine
Tweed Shire Council
PO Box 816
MURWILLUMBAH NSW 2484

LEP - AREA E

TWEED SHIRE COUNCIL	
FILE NO.	611 LEP 2000
DOCUMENT NO.	255867
REC'D	14 FEB 2002
BOX NO.	[] [] []
ASSIGNED TO	JARDINE
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copy to 2469

Dear Sir

**DRAFT TWEED LOCAL ENVIRONMENTAL PLAN 2000
AMENDMENT No 10 - AREA E, TERRANORA**

In response to your letter dated 5th February 2002, please be advised that the NSW Department of Public Works and Services no longer has any statutory role under Section 62 of the EPA Act 1979, and as such can make no comment on the above Draft Local Environmental Plan.

Regards
DEPT OF PUBLIC WORKS & SERVICES

IAN NORRIS
Project Manager - Tweed

Delivering Solutions

Document2

Property Section: 438.5214 GC:
Glenn Charleston (02) 6640 1339
Northern Regional Office
Your reference: GT1/LEP/2000/10P11

LEP - AREA E - TERRANORA

TWEED SHIRE COUNCIL	
FILE No	GT1/LEP/2000/110
DOCUMENTS	□□□□□
REC'D	4 APR 2002
AREA	□□□□□
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Roads and Traffic
Authority
www.rta.nsw.gov.au

ABN 64 480 155 255

Northern Region

31 Victoria Street
Grafton NSW 2460
Telephone (02) 6640 1300
Facsimile (02) 6640 1301
PO Box 576
Grafton NSW 2460
DX 7610 Grafton

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

ATTENTION: Douglas Jardine

**TWEED SHIRE COUNCIL. DRAFT TWEED LOCAL ENVIRONMENTAL PLAN 2000,
AMENDMENT NO 10 - AREA E, TERRANORA.**

Dear Sir/Madam

I refer to your letter dated 5 February 2002 concerning the above and advise that the Environmental Study should include a traffic study to determine the impact of the additional volume of traffic generated by development of this area on the surrounding road network and particularly Terranora Road and the Pacific Highway.

The traffic study should take into account the key issues relevant to the scale of this proposal as set out in Section 2.3 of the Authority's current "Guide to Traffic Generating Developments" (refer copy attached.) This should at least include information relating to:-

- the total traffic impact on the road network including other activities in the area
- intersection sight distances
- existing and proposed access conditions
- detail of servicing and parking arrangements
- a Section 94 Contributions Plan for improvements to the road network

Current AUSTROADS standards should be adopted when designing any necessary upgrading of the surrounding road infrastructure. Detailed plans of any roadworks should be submitted with the Development Application for consideration.

- Access to Terranora Road should be located to provide 'Austroads' Safe Intersection Sight Distance (Table 5.3).
- Terranora Road should be upgraded to cater for the increase in traffic.

Yours faithfully

02 APR 2002

P J Collins
Regional Manager, Northern Client Services

g:\prop\comm\glenn_c\4385314\traffiestudy\10areae.doc

LEP - AREA E - TERRANORA

TWEED SHIRE COUNCIL	
FILE No. 6111	LEP 2000/110
DOCUMENT No. 604490	
RECD	4 APR 2002
BY: []	
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NSW Fisheries
 The General Manager
 Tweed Shire Council
 PO Box 816
 MURWILLUMBAH NSW 2484

28 March 2002

Attention: Mr Douglas Jardine

Dear Mr Jardine

Re: Draft Tweed Local Environmental Plan 2000, Amendment No. 10 – Area E, Terranora

Thank you for your letter of 5 February 2002 requesting NSW Fisheries outline requirements for an environmental study for the above mentioned proposal. I apologise for the delay in my response.

NSW Fisheries is responsible for managing fish (including aquatic invertebrates), fish habitat and aquatic biodiversity throughout NSW. Aquatic biodiversity occurs in permanent and intermittent waterways covering marine, estuarine, fresh, flowing and still waters. Fish populations have and continue to suffer serious decline, consequently in addition to mitigation of deleterious impacts on fish and fish habitat some emphasis must be placed on restoration.

Cognisant of this charter NSW Fisheries requires the environmental studies examine and demonstrate how impacts on aquatic biodiversity issues can be minimised to ensure compliance with habitat provisions in the *Fisheries Management Act 1994* and NSW Fisheries policies that underpin them.

These issues include:

- Identification of threatened species likely to occur in the area or be effected by the proposal;
- How damage to marine vegetation and other fish habitats will be minimised;
- Whether dredging, reclamation or activities that obstruct fish passage are proposed and, if so, how impacts will be minimised;
- The size and location of buffer zones; and
- Opportunities for compensatory habitat.

Regarding buffer zones it should be noted that NSW Fisheries has the following policy:

Terrestrial areas adjoining freshwater, estuarine or coastal habitats should be carefully managed in order to minimise land use impacts on these aquatic habitats./ As a precautionary approach, foreshore buffer zones at least 50

RICHMOND FISHERIES OFFICE
 5 Regatta Avenue ~ PO Box 154 BALLINA NSW 2478
 Telephone: (02) 6686 2018 Facsimile: (02) 6686 8907
 ABN 56 287 047 871

metres wide should be established and maintained, with their natural features and vegetation preserved. Such buffer zones may need to be fenced or marked by signs. The width of these buffer zones may need to be increased to 100 metres or more where they are adjacent to ecologically sensitive areas.

Finally, I have also included as an attachment NSW Fisheries' minimum information requirements for environmental assessments. Please ensure that the consultant address these requirements in the environmental studies. This will facilitate effective assessment of the proposal and reduce delays.

If you have any further enquiries please contact me on (02) 6686 2018.

Yours sincerely



Patrick Dwyer
Conservation Manager (Far North Coast and Border Rivers)

28-3-02

NSW FISHERIES' MINIMUM REQUIREMENTS FOR ENVIRONMENTAL STUDIES

GENERAL REQUIREMENTS

- Describe the purpose of the proposal;
- Describe the location and area of the proposal;
- Detail the location of all component parts of the proposal, including any auxiliary infrastructure;
- Provide a timetable for construction of the proposal with details of each phases of construction;
- Detail likely or possible future needs arising from the proposal;
- Provide a legible topographic map with scale, contours, north represented and the date the map/plan/air photo was prepared;
- Specify zoning, present land use and whether special conditions (eg SEPP 14 wetlands) apply to the land proposed for development or adjacent land;
- Describe the surrounding geomorphology;
- Identify all water bodies including wetlands and floodplains;
- Specify the direction of river flow and provide hydrological and stream morphological including depth contours and stream bed substrate information, water quality and if appropriate tidal characteristics;
- Describe / map aquatic habitats (generally within 100 metres of the boundary of the proposal and sometimes further if downstream) that could be impacted upon either directly or indirectly by the proposal during its construction, life and decommissioning including:
 - gravel beds,
 - deep pools,
 - rocky reefs,
 - aquatic vegetation (seagrass, mangroves, saltmarsh and emergent vegetation such as reeds),
 - riparian vegetation and snags,
 - wetlands and floodplains, and
 - under cut banks.
- Identify recreational and commercial fishing areas and aquaculture ventures that could be effected by the proposal or works during its construction;
- A statement about the presence or absence of threatened species. Threatened species and key threatening processes are listed in Schedule 4 of the Fisheries Management Act and regularly updated on the Fisheries Scientific Committee website: www.fsc.nsw.gov.au
- Detail the potential impacts of the various phases of the proposal;
- Outline ongoing management activities to ensure impacts on aquatic biodiversity are minimised;

REQUIREMENTS FOR ACTIVITIES THAT BLOCK FISH PASSAGE

- Purpose and type of works requiring fish passage to be blocked;
- Timing, duration and manner of proposed restriction / blockage to fish passage;
- Methods to be used to avoid stranding fish and any remediation works.

NSW FISHERIES' MINIMUM REQUIREMENTS FOR ENVIRONMENTAL STUDIES

REQUIREMENTS FOR DREDGING AND RECLAMATION WORKS

- Purpose of works;
- Type(s) of marine vegetation in the vicinity of the proposed works;
- Distance of adjacent marine vegetation from the outer boundary of the proposed works;
- Method of dredging or reclamation to be used;
- Duration of dredging or reclamation works;
- Time of dredging or reclamation works;
- Dimension of area to be dredged or reclaimed;
- Depth of dredging height of reclamation activities;
- Nature of sediment to be dredged, including Acid Sulphate Soil and Potential Acid Sulphate Soils;
- Method of marking area subject to works;
- Environmental safeguards to be used during and after works;
- Measures for minimising harm to fish habitat under the proposal;
- Spoil type and source location for reclamation activities;
- Method of disposal of dredge material;
- Location and duration of spoil stockpiling, if planned;
- Volume of material to be extracted or placed as fill.

REQUIREMENTS FOR ACTIVITIES THAT DAMAGE MARINE VEGETATION

- Type of marine vegetation to be harmed;
- Amount of marine vegetation to be harmed, map distribution noting percentage densities of species of marine vegetation;
- Reasons for harming marine vegetation;
- Methods of harming marine vegetation;
- Construction details;
- Duration and timing of works/activities;
- Measures for minimising harm to marine vegetation under the proposal;
- Environmental measures to be employed;
- Method and location of transplanting activities or disposal of marine vegetation.

NSW FISHERIES' MINIMUM REQUIREMENTS FOR ENVIRONMENTAL STUDIES

REQUIREMENTS FOR ACTIVITIES THAT COULD IMPACT ON THREATENED SPECIES OR CONTRIBUTE TO KEY THREATENING PROCESSES

- All assessments require a statement about the presence or absence of threatened species. Up to date listings are available on the Fisheries Scientific Committee website: www.fsc.nsw.gov.au
- In determining the presence of threatened species, consideration must be given to the habitat types present within the study area, recent records of threatened species in the locality and the known distributions of these species;
- The condition of the habitat within the area must be discussed noting habitat requirements of threatened species likely to occur and the effect of relevant historical events (including land clearing, agricultural activities, water abstraction/diversion, dredging, de-snagging, reclamation, siltation, commercial and recreational activities);
- Assess potential impacts on threatened species via the 'Eight-Part Test' and upon completion, consultation with NSW Fisheries prior to the EIS being finalised;
- The proponent should note that where significant impact on threatened species is likely, a detailed Species Impact Statement must be prepared to assist in forming a determination.
- The proponent should also note that the *Fisheries Management Act 1994* contains provisions for strict penalties (up to \$220,000 and 2 years imprisonment) to be imposed for individuals or companies that harm an endangered species, population or community or their habitat without proper authority carries.

ASSESSMENT OF LIKELY IMPACTS

- Investigate and report on an area extending downstream and/or upstream as far as is necessary to take all potential impacts into account;
- Discussion possible indirect effects of the proposal on species/habitats in the area surrounding the subject site: for example, through altered hydrological regimes including stormwater runoff and drainage, soil erosion or pollution;
- Outline the habitat requirements of threatened species and species important to commercial or recreational fishing likely to occur in the study area;
- Discuss fish habitats within the study area and the nature and extent of habitat removal or modification which may result from the proposed action;
- Discuss the potential impact of the modification or removal of habitat on fish species in the area;
- For all species likely to have their lifecycle patterns disrupted by the proposal to the extent that individuals will cease to occupy any location within the subject site; the EIS must describe and discuss other locally occurring populations of such species;
- The relative significance of this location for these species in the general locality must be discussed in terms of the extent, security and viability of remaining habitat in the locality;
- Describe the potential contribution of the proposal to cumulative impacts on fish and fish habitat in the vicinity of the proposal.

NSW FISHERIES' MINIMUM REQUIREMENTS FOR ENVIRONMENTAL STUDIES

AMELIORATIVE MEASURES

- Discuss measures for minimising impacts on fish and fish habitat and other environmental safeguards to be employed such as how erosion and run off will be reduced and water quality maintained;
- Specify the nature of any rehabilitation or environmental compensatory works to be undertaken and ongoing maintenance of these works to ensure their benefits are maintained;
- Describe ongoing management actions within the proposal, both during construction and after completion, which relate to impact minimisation eg Environmental Management Plans;
- Detail monitoring programs, including methodologies that assess Before and After, Control and Impact sites to determine the success of techniques used to ameliorate impacts on aquatic biodiversity level of impact of the development;

The EIS must consider how the proposal has been or may be modified and managed to conserve fisheries habitat on the subject site and in the study area.

In discussing alternatives to the proposal, and the measures proposed to mitigate any effects of the proposal, consideration must be given to developing long term management strategies to protect areas within the study area which are of particular importance for fish species. This may include proposals to restore or improve habitat.

Any proposed pre-construction monitoring plans or on-going monitoring of the effectiveness of the mitigation measures must be outlined in detail, including the objectives of the monitoring program, method of monitoring, reporting framework, duration and frequency.

Please Note: Persons undertaking aquatic surveys may be required to hold or obtain appropriate permits or licences under relevant legislation. It is recommended that, prior to any field survey activities taking place, those persons proposing to undertake those activities give consideration to their obligation to obtain appropriate permits or licences which may be required in the specific context of the proposed survey activities.

For example:

Fisheries Management Act 1994

- Permit to take fish or marine vegetation for research or other authorised purposes (Section 37)
- Licence to harm threatened (aquatic) species, and/or damage the habitat of a threatened species (Section 220ZW).

Animal Research Act 1985:

- Animal Research Authority to undertake fauna surveys.

NSW FISHERIES' MINIMUM REQUIREMENTS FOR ENVIRONMENTAL STUDIES

USEFUL DEFINITIONS

The definitions given below are relevant to these requirements:

Fish means any part of marine, estuarine or freshwater fish or other aquatic animal life at any stage of their life history (whether alive or dead). Fish include oysters and other aquatic molluscs, crustaceans, echinoderms and beachworms and other aquatic polychaetes.

Marine vegetation means any species of plant that at any time in its life must inhabit water (other than fresh water).

Waters refers to all waters including tidal waters to the Astronomical High Tide Level (AHTL) as well as flowing streams, irregularly flowing streams, gullies, rivers, lakes, coastal lagoons, wetlands and other forms of natural or man made water bodies on both private and public land.

Further Information

The NSW Fisheries Policy and Guidelines series contains more detailed information on techniques and practices that satisfy NSW Fisheries requirements to minimise impacts of developments on fish and fish habitat. The Guidelines are available at www.fisheries.nsw.gov.au. Considering the information in these documents prior to developing and submitting your proposal is strongly recommended.

Another document "*Guidelines for the Assessment of Aquatic Ecology in EIA*" (Draft 1998) produced by the Department for Urban Affairs and Planning (now planningNSW) may prove useful in outlining appropriate procedures and methodologies for conducting aquatic surveys required for the preparation of an EIS.



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

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LEP - AREA E - TERRANORA

TWEED SHIRE COUNCIL	
FILE No.	GT1/LEP/2000/10 Pt1
NO. OF PAGES	10
DATE	27 FEB 2002
ISSUE	1
ASSIGNED TO	BOB BROWN
HARD COPY	<input checked="" type="checkbox"/>
IMAGE	<input type="checkbox"/>

OUR REF: L02/0053
YOUR REF: GT1/LEP/2000/10 Pt1

Dear Sir,

Draft Tweed LEP 2000, Amendment No 10 – Area E, Terranora

Thank you for your letter dated 5 February 2002 requesting advice on this Department's requirements for the proposed Environmental Study and draft LEP for the subject amendment.

The Department of Mineral Resources considers that the proponent should investigate the potential impact that the proposed rezoning might have upon known or potential mineral or extractive resources. Information on known and potential mineral and extractive resources can be obtained from the Department if required. Any impact upon existing S117 notification areas should be taken into account.

The proponent should also address the need for continued use of local roads by extractive industry haulage vehicles to and from existing extraction sites in the area.

If major earthworks are to be carried out, consideration should be given to making any extracted materials available to the local construction materials industry, particularly since some types of construction material are in short supply in the area.

Should you have further queries, please contact geologist Bob Brown at our Armidale office on 6770 2116.

Yours faithfully,

S R LISHMUND
for Director-General



RDA Unit

Our Ref: RW/PLATW/LEPA/10-Terranora
Your Ref: GT1/LEP/2000/10/P1

NSW Agriculture

Wollongbar
Agricultural Institute
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4 March 2002

The General Manager
Tweed Shire Council
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Telephone (02) 6626 1200
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LEP-AREA E

Attention: Douglas Jardine

TWEED SHIRE COUNCIL	
FILE NO:	GT1/LEP/2000/10
DOCUMENT:	
REC'D:	8 MAR 2002
ASSIGNED TO:	JARDINE
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Dear Mr Jardine

DRAFT LOCAL ENVIRONMENTAL PLAN 2000, AMENDMENT NO. 10 AREA E - TERRANORA

I refer to your letter of 5th February 2002 advising that Council has resolved to prepare a draft LEP for land currently zoned 1(b) Agricultural Protection at Terranora.

The proposed environmental study and draft LEP provides an opportunity for a detailed, considered and contemporary examination of the potential suitability of the subject lands for rezoning.

It is acknowledged that "Area E" has been targeted for potential urban settlement for some time. This locality also contains a unique agricultural resource and provides opportunities for intensive coastal agriculture. However conflict at the rural/urban interface appears to be a major issue.

The primary issues for this agency that require attention include:

1. Strategic planning context of the locality and any proposed change in land use;
2. Social/community attitudes and aspirations as to future land uses;
3. The Legislative and planning framework which applies to future development of the site;
4. The quality of the subject agricultural lands and their values;
5. Present agricultural uses of the subject and individual allotments involved;
6. The value of the agricultural production and local food production from these lands including direct and indirect values and employment;
7. Rural/urban interface issues - existing and potential issues and strategies for mitigating conflicts;
8. Suitability of the locality for urban development;
9. Use and management of areas not suitable for urban development.

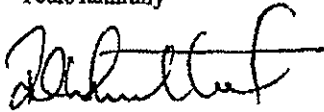
It is suggested that Council initiate firstly a preliminary appraisal of the opportunities and constraints presented by the subject lands prior to undertaking or commissioning a detailed environmental study.

It is suggested that this preliminary appraisal be a "desk-top" type assessment of the potential land use(s) of the site given existing and known data as well as the statutory and policy framework that applies. The *Sustainable Urban Settlement Guidelines for regional NSW* is considered an appropriate reference and guide for undertaking a preliminary urban suitability appraisal. This preliminary appraisal can be used to identify key issues and constraints enabling further and more specific consultation with agencies as well as more strategic issue focus within the Local Environmental Study.

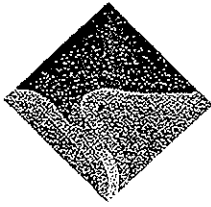
High quality agricultural lands such as occur at Terranora and Cudgen provide a unique opportunity for a diversified economy and local food production with resulting flow-on effects. It is recognised however that previous decisions have led to urban incursions into the Terranora area. The conversion of such lands to non-agricultural uses should only take place where fully justified in a strategic planning and sustainable development context.

Thank you for the opportunity to comment. Please contact me on (02) 6626 1349 if you require further advice or if I can be of further assistance.

Yours faithfully



Rik Whitehead
Agricultural Environment Officer
NORTH COAST



Coastal Council of NSW

LEP - AREA E

TWEED SHIRE COUNCIL	
FILE No. ...	GT1/LEP/2000/10
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BOX No.	111
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Our Reference: S01/119/2
Your Reference: GT1/LEP/2000/10Pt1
Date: 26th September 2002

Dr John Griffin
General Manager
Tweed Shire Council
PO Box 816
Murwillumbah NSW 2484

Attention: Mr Douglas Jardine

Dear Dr Griffin

Draft LEP Amendment No 10 - Area E, Terranora

I refer to your letter of 5 February providing Coastal Council with opportunity to comment on the proposed LEP amendment pursuant to s62 of the EP&A Act, 1979. I apologise for the delay in responding on this issue. The delay has been due to this proposed amendment being deemed of such significance in its own right and within the context of larger issues that this proposal raises for the planning of the coastal zone of NSW including Planfirst, the Comprehensive Coastal Assessment and Catchment Blueprints.

The opportunity to consider future use of this diverse landscape at Terranora delineated as 'Area E' in the maps presented to Coastal Council is one that **demand**s a very thorough and expansive local environmental study that considers options within the context of ESD for the region as specified in the NSW Coastal Policy 1997 page 25. The landscape currently supports a mosaic of native vegetation corridors, wetlands in the north, and agricultural activities throughout dissected by a number of watercourses. Any planning for future use of this diverse landscape should be considered in terms of the rich variety of its current form and what this diversity supplies to the region and will offer future generations.

An environmental study will need to consider this diverse landscape within the context of NSW Government policy. The NSW Coastal Policy 1997 provides a clear framework for consideration of current and future utilisation of the coastal zone's natural and cultural resources while ensuring preservation of those resources for the benefit and enjoyment of future generations.

It is understood that Tweed Shire Council has resolved to review the Tweed Residential Development Strategy 1991. The Coastal Council would be happy to provide advice for the formulation of a Strategy that promotes the principles of ecologically sustainable development (ESD) within the coastal zone.

The area contains much prime agricultural land. Given that such lands provide many unique and rare opportunities for the regional economy and social well-being of local and regional communities, NSW Agriculture and Tourism NSW must be consulted. It will also be necessary to consult with the NSW National Parks and Wildlife Service with reference to the flora, fauna and cultural heritage (Aboriginal and non-Aboriginal) within the local area and region.

The Coastal Council recognises the great value in maintaining a diversity of landscapes and land uses across the coastal zone. Goals 5 and 6 of the Coastal Policy present a number of objectives and supporting strategic actions that are particularly useful in consideration of this landscape while maintaining the vision of ecological sustainability for the region and ultimately for the benefit of future generations.

If there are any aspects of our advice you would like to discuss please contact Thomas Williams on 9762 8189.

Yours sincerely,



for
Bruce Thom
Chair

cc The Hon Andrew Refshauge MP, Deputy Premier, Minister for Planning
Mr David Papps, Executive Director, Regional NSW Planning, PlanningNSW
Mr Steve Murray, PlanningNSW, Northern Region

