



22 Aug 2009

**Network and Technology**  
Integrated Network Planning

Your Ref: TCH 06/102 Pt 1

Forecasting and Area Planning  
6/317 Hunter St, Newcastle, 2300

Mr Darryl Anderson  
Darryl Anderson Consulting Pty Ltd  
Suite 7  
Corporation House  
8 Corporation Circuit  
Tweed Heads South. NSW 2486

Postal: Locked Bag 6018 Hunter  
Region Mail Centre 2310

**Telephone** (02) 4985 8413  
**Facsimile** (02) 4985 8426

[keith.r.bruce@team.telstra.com](mailto:keith.r.bruce@team.telstra.com)

**Re: Proposed Mixed Use Residential and Tourist Accommodation Development at  
Lots 1, 2 and 3 DP 27948 and Lot 4 Section 1 DP 31209 corner of Tweed Coast  
Road and Cypress Crescent Cabarita  
(Major Project No. MP09-0016)**

Dear Darryl,

Based on the provided information relating to the proposed development located at Lots 1, 2 and 3 DP 27948 and Lot 4 Section 1 DP 31209 corner of Tweed Coast Road and Cypress Crescent Cabarita a review was undertaken of the area and nearby telecommunications infrastructure.

Telstra maintains existing network adjacent to the land marked for development. This network is currently not sufficient to meet the likely demand of this development.

Telstra has incorporated the forecast telephone service demand for the development into its overall planning process for the area and has planned to rollout upgrades in telecommunications infrastructure as growth occurs.

To accommodate the proposed development, the telecommunications network would require upgrade. To achieve this, Telstra may require:

- Installation of conduit, cable and pits in developer provided shared trench throughout the development

The technology and services provided would be determined closer to the time of development commencement, depending on Telstra deployment policy and any negotiations based on a commercial agreement.

Further discussions regarding details for network expansion are strongly encouraged once detailed planning for the development is in progress. To inform Telstra of likely commencement of this development, you are requested to register this development on the Telstra Smart Community website: <http://www.telstrasmartcommunity.com>

Please note that Telstra reserves the right to change its decision in relation to network deployment within the development without prior notice.

For future correspondence and enquiries regarding this matter, please contact the undersigned on 02 4985 8413.

Yours faithfully,

Keith Bruce  
Area Planner



**TWEED  
SHIRE  
COUNCIL**

Please Quote  
Council Ref: PF1180/510  
Your Ref No: TCH 06/102 Pt1  
For Enquiries  
Please Contact: Michelle Lynton  
Telephone Direct (02) 6670 2756

[dltr]



Document3

17 September 2009

Darryl Anderson Consulting Pty Ltd  
Suite 7, Corporate House  
8 Corporation Circuit  
**TWEED HEADS SOUTH NSW 2486**

Dear Sir

**Proposed mixed use residential and tourist accommodation development: Lots 1, 2 and 3 DP 27948 and Lot 4 Section 1 DP 31209 corner Tweed Coast Road and Cypress Crescent, Cabarita (Major Project No. MP09-0016)**

Thank you for providing Council with a copy of your report requesting Director-General's Environmental Assessment Requirements for review purposes.

It is noted that you are in receipt of a copy of Council's letter to the Department of Planning dated 21 May 2009 in which our key issues and assessment requirements for the proposal were detailed.

Council has no further issues or assessment requirements to add to this response to the Department of Planning.

Should you have any further queries in relation to this matter, please do not hesitate to contact Michelle Lynton of Council's Development Assessment Unit who is managing this project.

Yours faithfully

**Denise Galle**  
Co-ordinator Development Assessment



CIVIC AND CULTURAL CENTRE, MURWILLUMBAH  
PO BOX 816, MURWILLUMBAH NSW 2484  
TELEPHONE: (02) 6670 2400 FAX: (02) 6670 2429

PLEASE ADDRESS ALL COMMUNICATIONS TO THE GENERAL MANAGER  
ABN 90 178 732 496  
[www.tweed.nsw.gov.au](http://www.tweed.nsw.gov.au)

All communications to be addressed to:

Headquarters  
NSW Rural Fire Service  
Locked Mail Bag 17  
GRANVILLE NSW 2142

Telephone: (02) 8741 5555

e-mail: [development.assessment@rfs.nsw.gov.au](mailto:development.assessment@rfs.nsw.gov.au)

Headquarters  
NSW Rural Fire Service  
15 Carter Street  
HOMEBUSH BAY NSW 2127

Facsimile: (02) 8741 5550



Darryl Anderson Consulting Pty Ltd  
Corporate House Suite 7  
8 Corporation Circuit  
**TWEED HEADS SOUTH NSW 2486**

**Attention:** Darryl Anderson

Your Ref: TCH 06/102 Pt1

Our Ref: S09/0020  
HQ09/1460



23 October 2009

Dear Mr Anderson,

**Re: Environmental Assessment Requirements - Mixed Residential & Tourist Development - Tweed Coast Road Cabarita Beach - MP09-0016**

I refer to your letter dated 14 September 2009 seeking the NSW Rural Fire Service (RFS) key issues and assessment requirements for bush fire protection measures for the above proposal on behalf of your client.

The RFS Service has previously responded to the Department of Planning advising of several issues which require clarification. The following additional information is required for further assessment:

1. Details of how the proposed asset protection zone (APZ) to the north of the site will be maintained in perpetuity and any agreement that exist with the adjoining land owner for the APZ.
2. The applicant is to demonstrate that radiant heat levels of greater than 10kW/m<sup>2</sup> will not be experienced by occupants or emergency services workers entering or exiting a building. In this regard no part of the building shall be exposed to radiant heat levels of greater than 10kW/m<sup>2</sup>.

For any enquiries regarding this correspondence please contact Garth Bladwell.

Yours faithfully,

Corey Shackleton  
**A/Team Leader**  
**Development Assessment & Planning**

For information on *Planning for Bush Fire Protection 2006* visit the RFS web page [www.rfs.nsw.gov.au](http://www.rfs.nsw.gov.au)



Your reference: TCH 06/102 Pt 1  
Our reference: DOC09/45300 FIL06/2036-05  
Contact: Peter Ekert; 66402514



Mr Darryl Anderson  
Darryl Anderson Consulting Pty Ltd  
Suite 7, Corporate House  
8 Corporation Circuit  
**TWEED HEADS NSW 2486**

30 SEP 2009

Dear Mr Anderson

**Proposed mixed use residential and tourist accommodation development – Lots 1, 2 and 3 DP 27948 and Lot 4 Section 1 DP 32109, Corner of Tweed Coast Road and Cypress Street, Cabarita (Major Project No. MP09-0016)**

I refer to your letter dated 14 September 2009 inviting input from the Department of Environment, Climate Change and Water (DECCW) to assist preparation of an Environmental Assessment for the above proposal.

The Department of Planning consulted DECCW in relation to this proposal earlier this year and we attach for your information a copy of the Environmental Assessment Requirements submitted by DECCW.

If you have any further inquiries, please telephone Peter Ekert on 66402514.

Yours sincerely

A handwritten signature in blue ink, appearing to read "Jon Keats".

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

Enclosure

The Department of Environment and Climate Change is now known as the Department of Environment, Climate Change and Water

PO Box 498 Grafton NSW 2460  
NSW Government Offices  
49 Victoria Street Grafton NSW  
Tel: (02) 6640 2500 Fax: (02) 6642 7743  
ABN 30 841 387 271  
[www.environment.nsw.gov.au](http://www.environment.nsw.gov.au)

Department of **Environment and Climate Change** NSW



Your reference : 09\_0016  
Our reference : DOC09/21528 FIL06/2036-05  
Contact : Peter A. Ekert, 66402514

**CHRONO**

20 MAY 2009

Sally Munk  
Senior Environmental Planner  
North Coast Team – Coastal Assessments  
Department of Planning  
GPO Box 39  
SYDNEY NSW 2001

Dear Ms Munk

**RE: REQUEST FOR PROVISION OF DETAILS OF KEY ISSUES AND ASSESSMENT REQUIREMENTS– (MAJOR PROJECT 09\_0016) – THREE STOREY MULTI-DWELLING HOUSING AND TOURIST BUILDING WITH ASSOCIATED BASEMENT CARPARKING ON THE CORNER OF TWEED COAST ROAD AND CYPRESS CRESCENT, CABARITA.**

I refer to your request for the Department of Environment and Climate Change (DECC) requirements for the environmental assessment (EA) in regard to the above proposal received by DECC on 6 May 2009.


DECC has considered the details of the project as provided by the Applicant and has identified the information it requires to assess the project concept plan in Attachment A. The proponent should ensure that the EA is sufficiently comprehensive and detailed to determine the extent of the impact of the proposal.

In summary, DECC's recommended key information requirements for the project are:

1. the impacts on local surface water quality;
2. the impacts of the project on threatened species and their habitat;
3. the impacts of the project on Aboriginal cultural heritage values;
4. an assessment of any land contamination; and
5. the actions that will be taken to avoid or mitigate impacts or compensate to prevent unavoidable impacts identified in 1-4 above.

Should you require any further information please contact Peter A. Ekert 66402514.

Yours sincerely



**CHRIS HATTON**  
**Acting Head, Industry and Waste Unit North Coast**  
**Environment Protection and Regulation Group**

Att: Attachment A DECC EA Requirements  
Attachment B Guidance Material

PO Box 498, Grafton NSW 2460  
NSW Government Offices,  
49 Victoria Street, Grafton NSW  
Tel: (02) 6640 2500 Fax: (02) 6642 7743  
ABN 30 841 387 271  
[www.environment.nsw.gov.au](http://www.environment.nsw.gov.au)

## **Attachment A – Department of Environment and Conservation's Environmental Assessment Requirements**

### **Environmental impacts of the project**

1. The following environmental impacts of the project need to be assessed, quantified and reported on:
  - Water quality
  - Contaminated Land
  - Noise
  - Threatened Species
  - Aboriginal cultural heritage
2. These should be assessed in accordance with the relevant guidelines listed in Attachment B.
3. Describe mitigation and management options that will be used to prevent, control, abate or mitigate identified environmental impacts associated with the project and to reduce risks to human health and prevent the degradation of the environment. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.
4. Based on the information provided to the Department of Environment and Climate Change (DECC), the applicant will not require an Environment Protection Licence because the activity is not scheduled under the *Protection of the Environment Operations Act 1997*.

#### **Water quality**

The environmental outcomes for the project in relation to water should be:

- There is no pollution of waters during the construction and operational phases of the development;
- There is no inconsistency with any relevant Statement of Joint Intent established by the Healthy Rivers Commission; and
- It is acceptable in terms of the achievement or protection of the River Flow Objectives and Water Quality Objectives.

The Environmental Assessment (EA) should document the measures that will achieve the above outcomes.

#### **Contaminated Land**

The EA must document the identification, assessment and management of any land contamination to ensure that the land is not allowed to be put to a use that is inappropriate because of the presence of contamination. Under the *Contaminated Land Management Act 1997* there is a responsibility to notify the DEC of sites that pose a significant risk of harm to human health or the environment.

#### **Noise**

The environmental outcomes should include the following:

- The proposal must be designed, constructed, operated and maintained so that there are no adverse impacts from noise (including traffic noise).

## **Impacts of the project on threatened species and their habitat**

### **Vegetation Clearing**

The vegetation on site has the potential to support a wide range of threatened flora and fauna species. Any identified threatened species should be discussed in detail.

The EA will need to include a comprehensive assessment of the following:

1. A field survey of the site should be conducted and documented in accordance with the draft "Guideline for threatened species assessment" and "Threatened Biodiversity and Threatened Species Assessment – Guideline For Developments and Activities".
2. Likely impacts on threatened species and their habitat need to be assessed, evaluated and reported on. The assessment should specifically report on the considerations listed in Step 3 of the draft guideline.
3. Describe the actions that will be taken to avoid or mitigate impacts or compensate to prevent unavoidable impacts of the project on threatened species and their habitat. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.
4. The EA needs to clearly state whether it meets each of the key thresholds set out in Step 5 of the draft guideline.

### **Impacts of the project on Aboriginal cultural heritage values**

1. The EA should address and document the information requirements set out in the draft "Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation" involving surveys and consultation with the Aboriginal community.
2. Identify the nature and extent of impacts on Aboriginal cultural heritage values across the project area.
3. The extent and significance of this site will need to be assessed and preferably any development in this area would avoid disturbance of the site.
4. Describe the actions that will be taken to avoid or mitigate impacts or compensate to prevent unavoidable impacts of the project on Aboriginal cultural heritage values. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.
5. The EA needs to clearly demonstrate that effective community consultation with Aboriginal communities has been undertaken in determining and assessing impacts, developing options and making final recommendations.

Note: If the EA is relying on past surveys that they should check that the work is consistent with the requirements within the above 3A guidelines.



## **Attachment B - Guidance Material**

### ***Water quality***

- National Water Quality Management Strategy: Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC 2000)
- NWQMS Australian Guidelines for Water Quality Monitoring and Reporting (ANZECC 2000)
- Healthy Rivers Commission Report into Coastal Lakes and Statement of Joint Intent
- The relevant targets within the State Water Management Outcomes Plan

### ***Wastewater***

- National Water Quality Management Strategy: Guidelines for Sewerage Systems - Effluent Management (ARMCANZ/ANZECC 1997)
- National Water Quality Management Strategy: Guidelines for Sewerage Systems – Use of Reclaimed Water (ARMCANZ/ANZECC 2000)
- Environmental Guidelines for the Utilisation of Treated Effluent by Irrigation (NSW DEC 2004)
- Environment and Health Protection Guidelines: 'Onsite Sewage Management for Single Households', February 1998 (Silver Book).

### ***Stormwater***

(Note: some of these documents will be revised in 2006)

- Managing Urban Stormwater: Soils and Construction (NSW Landcom, 2004)
- Managing Urban Stormwater: Source Control (EPA 1998)
- Managing Urban Stormwater: Treatment Techniques (EPA 1998).

### ***Contaminated Land***

- Managing Land Contamination: Planning Guidelines - SEPP55 - Remediation of Land, Department of Urban Affairs and Planning and NSW EPA, 1998;
- Contaminated Sites – Guidelines for Consultants Reporting on Contaminated Sites (Environment Protection Authority (EPA) 1997);
- Contaminated Sites – Guidelines on Significant Risk of Harm and Duty to Report (EPA, 1999).

### ***Noise and vibration***

- NSW Industrial Noise Policy (EPA, 1999)
- NSW Environmental Criteria for Road Traffic Noise (EPA, 1999)
- Chapter 171 Noise Control Guideline, *Construction Site Noise, Environmental Noise Control Manual, 1994.*

### ***Threatened Species Impacts***

- Threatened Biodiversity and Threatened Species Assessment – Guideline For Developments and Activities – Working Draft 2004. Available from DECC.
- Draft Guidelines For Threatened Species Assessment - Available from Department of Planning.

### ***Assessing Aboriginal Cultural Heritage Impacts***

- Draft Guidelines For Aboriginal Cultural Heritage Impact Assessment and Community Consultation - Available from Dept of Planning
- Interim Community Consultation Requirements for Applicants
- Aboriginal Cultural Heritage Standards and Guidelines Kit - Available shortly on-line through DEC's webpage.

<http://www3.environment.nsw.gov.au/npws.nsf/Content/Protecting+Aboriginal+objects+and+places>



## Office of Water



Daryl Anderson Consulting Pty Ltd  
Suite 7 Corporate House  
8 Corporation Circuit  
Tweed Heads South NSW 2486

Contact: Christie Jackson  
Phone: 02 6701 9652  
Fax: 02 6701 9682  
Email: [christie.jackson@dnr.nsw.gov.au](mailto:christie.jackson@dnr.nsw.gov.au)

29 September 2009

Dear Mr Anderson,

**Subject: MP09\_0016 Proposed Mixed Use Residential and Tourist Accommodation,  
Tweed Coast Road and Cypress Crescent, Cabarita**

Thank you for your letter dated the 14 September 2009, forwarded to the former Department of Water and Energy (DWE) seeking our comments and requirements for the preparation of the Environmental Assessment (EA) for the proposed mixed use residential and tourist accommodation at Cabarita. Please note, DWE has recently been abolished and the Department's water related functions have been merged with DECC to form the new Department of Environment, Climate Change and Water (Office of Water).

A copy of our previous correspondence to the Department of Planning and yourself is attached. The NSW Office of Water has no further issues to add for consideration. However, we appreciate the opportunity to comment further.

Please note, I am the main contact for Major Projects in the NSW Office of Water for the North Coast area. If you require clarification on any of the above please don't hesitate to contact me on (02) 6701 9652.

Yours sincerely

Christie Jackson  
Planning and Assessment Coordinator

Department of  
**Environment, Climate Change and Water NSW**





NSW Government  
Department of Water & Energy

Department of Planning  
Attention: Sally Munk  
GPO Box 39  
Sydney NSW 2001

Contact: Christie Jackson  
Phone: (02) 6701 9652  
Fax: (02) 6701 9682  
Email: [christie.jackson@dnr.nsw.gov.au](mailto:christie.jackson@dnr.nsw.gov.au)

7 May 2009

Dear Ms Munk,

**Subject: Request for Director-General's Requirements  
Proposed mixed use residential and tourist accommodation development  
Cabarita, Tweed Shire**

I refer to your email dated the 4 May 2009 seeking the Department of Water and Energy's (DWE) comments on the preliminary assessment and draft Director-General's environmental assessment requirements for a proposed mixed use residential and tourist accommodation development at Cabarita in the Tweed Local Government Area. The Department's general requirements for inclusion in the Environmental Assessment are attached in Appendix A, whilst more specific issues are addressed as follows.

**Water Supply:** One of the main issues associated with developments is the provision of a sustainable and efficient water supply. The Department requires the proponent to identify in the environmental assessment all proposed sources of water for the development, including town water supply, groundwater, harvestable right, collection of water in rainwater tanks etc. If all proposed sources are identified early, the Department is able to provide accurate advice regarding our requirements. The proponent will also need to ensure they have all appropriate water licences, if required.

The Coastal Floodplain Alluvial Groundwater Sources and highly connected Alluvial Groundwater Sources of Coastal Catchments – Regional NSW is embargoed for new groundwater licences. However there are exemptions under this embargo which may be utilised.

**Groundwater:** The environmental assessment will need to include a groundwater assessment report outlining the potential effects of the development on groundwater quality and quantity, other groundwater users, acid sulfate soils and groundwater dependent ecosystems. If groundwater will be intercepted during the construction phase of the development then a dewatering licence will be required.

**Surface water:** The environmental assessment will need to outline any potential impacts the development may have on surface water hydrology, including quality and quantity.

**Stormwater Management:** The environmental assessment will need to outline the general measures for stormwater and effluent management. Plans and maps should be included which outline all proposed structures and works. All stormwater management works should be conducted in accordance with the NSW Department of Housing 'Managing Urban Stormwater – Soils and Construction Volume 1 (NSW Department of Housing, 2004). Appropriate stormwater management will need to be implemented to minimise impacts on downstream environments, surface water, groundwater and adjoining land.

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Department of Water and Energy Noel Park House Level 3 155-157 Marius Street, PO Box 550 Tamworth NSW 2340 Australia  
t (02) 6701 9600 | f (02) 6701 9682 | e [information@dwe.nsw.gov.au](mailto:information@dwe.nsw.gov.au)

[www.dwe.nsw.gov.au](http://www.dwe.nsw.gov.au) | ABN 58 132 718 272

**Acid Sulfate Soils:** The environmental assessment must identify all areas of acid sulfate soils and identify mitigation and management options in accordance with the ASSMAC guidelines.

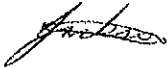
**Erosion and Sediment Control:** The environmental assessment will need to include an erosion and sediment control plan for the site which outlines all measures to be utilised on site prior to construction and until all disturbed areas are appropriately reinstated and revegetated.

**Riparian Areas:** All drainage lines, creeks, rivers, wetlands need to be identified in the environmental assessment. This includes outlining all management options for these areas such as buffer zones.

**Flooding:** The environmental assessment will need to outline the potential flood risk on the site including any mitigation measures (structures, levee banks etc) to control any impacts.

If you require clarification on any of the above please don't hesitate to contact me on (02) 6701 9652.

Yours sincerely,



Christie Jackson  
Planning and Assessment Coordinator  
Major Projects and Planning

cc Darryl Anderson Consulting Pty Ltd

## Appendix A

## Department of Water and Energy

**General Assessment Requirements for Major Project Proposals  
Under Part 3A of *Environmental Planning & Assessment Act 1979***

The Department of Water and Energy (DWE) provides the following advice for consideration:

**Relevant Legislation**

The assessment is required to take into account the requirements of the following legislation (administered by DWE), as applicable:

- *Water Act 1912*
- *Water Management Act 2000 (WMA)*

In particular, proposals and management plans should be consistent with the Objects (s.3) and Water Management Principles (s.5) of the WMA.

**Water Sharing Plans**

Gazetted Water Sharing Plans (WSPs) prepared under the provisions of the WMA establish rules for access to, and the sharing of water between the environmental needs of the surface or groundwater source and water users. If the proposal is within a gazetted WSP area the assessment is required to demonstrate consistency with the rules of the WSP.

Refer to: <http://www.dnr.nsw.gov.au/water/plans.shtml>

**Relevant Policies**

The assessment is required to take into account the following NSW Government policies, as applicable:

- *NSW Groundwater Policy Framework Document - General*
- *NSW Groundwater Quantity Management Policy*
- *NSW Groundwater Quality Protection Policy*
- *NSW State Groundwater Dependent Ecosystem Policy*
- *NSW State Rivers and Estuaries Policy*
- *NSW Sand and Gravel Extraction Policy for Non-Tidal Rivers*
- *NSW Wetlands Management Policy*
- *NSW Farm Dams Policy*
- *NSW Weirs Policy*
- *NSW Coastal Policy*

In addition assessments should consider the following strategies:

- *NSW Salinity Strategy*
- *NSW Water Conservation Strategy*

The majority of these documents can be found at:

<http://www.dnr.nsw.gov.au/water/legislation.shtml>

**Guidelines**

The assessment is required to take into account the following DWE Guidelines for Controlled Activities (February 2008), as applicable:

- Riparian corridors (and associated Vegetation Management Plans)
- Watercourse crossings
- Laying pipes and cables in watercourses
- Outlet structures
- In-stream works

Refer to: [http://www.dnr.nsw.gov.au/water/controlled\\_activity.shtml](http://www.dnr.nsw.gov.au/water/controlled_activity.shtml)

## **Groundwater**

DWE is responsible for the management of groundwater resources so they can sustain environmental, social and economic uses for the people of New South Wales.

### Groundwater Source

The assessment is required to identify groundwater issues and potential degradation to the groundwater source and provide the following:

- Details of the predicted highest groundwater table at the development site.
- Details of any works likely to intercept, connect with or infiltrate the groundwater sources.
- Details of any proposed groundwater extraction, including purpose, location and construction details of all proposed bores and expected annual extraction volumes.
- Describe the flow directions and rates and the physical and chemical characteristics of the groundwater source.
- Details of the predicted impacts of any final landform on the groundwater regime.
- Details of the existing groundwater users within the area (including the environment) and include details of any potential impacts on these users.
- Assessment of the quality of the groundwater for the local groundwater catchment.
- Details of how the proposed development will not potentially diminish the current quality of groundwater, both in the short and long term.
- Details on preventing groundwater pollution so that remediation is not required.
- Details on protective measures for any groundwater dependent ecosystems (GDEs).
- Details of proposed methods of the disposal of waste water and approval from the relevant authority.
- Assessment of the need for an Acid Sulfate Management Plan (prepared in accordance with ASSMAC guidelines).
- Assessment of the potential for saline intrusion of the groundwater and measures to prevent such intrusion into the groundwater aquifer.
- Details of the results of any models or predictive tools used.

Where potential impact/s are identified the assessment will need to identify limits to the level of impact and contingency measures that would remediate, reduce or manage potential impacts to the existing groundwater resource and any dependent groundwater environment or water users, including information on:

- Details of any proposed monitoring programs, including water levels and quality data.
- Reporting procedures for any monitoring program including mechanism for transfer of information.
- An assessment of any groundwater source/aquifer that may be sterilised as a consequence of the proposal.
- Identification of any nominal thresholds as to the level of impact beyond which remedial measures or contingency plans would be initiated (this may entail water level triggers or a beneficial use category).
- Description of the remedial measures or contingency plans proposed.
- Any funding assurances covering the anticipated post development maintenance cost, for example on-going groundwater monitoring for the nominated period.

### Licensing

All proposed groundwater works, including bores for the purpose of investigation, extraction, dewatering, testing or monitoring must be identified in the proposal and an approval obtained from DWE prior to their installation.

### Groundwater Dependent Ecosystems (GDEs)

The assessment is required to identify any impacts on GDEs. GDEs are ecosystems which have their species composition and natural ecological processes wholly or partially determined by groundwater. GDEs represent a vital component of the natural environment. GDEs can vary dramatically in how they depend on groundwater from having occasional or no apparent dependence through to being entirely dependent. GDEs occur across both the surface and



subsurface landscapes ranging in area from a few metres to many kilometres. Increasingly, it is being recognised that surface and groundwater are often interlinked and aquatic ecosystems may have a dependence on both.

Ecosystems that can depend on groundwater and that may support threatened or endangered species, communities and populations, include:

- Terrestrial vegetation that show seasonal or episodic reliance on groundwater.
- River base flow systems which are aquatic and riparian ecosystems in or adjacent to streams/rivers dependent on the input of groundwater to base flows.
- Aquifer and cave ecosystems.
- Wetlands.
- Estuarine and near-shore marine discharge ecosystems.
- Fauna which directly depend on groundwater as a source of drinking water or that live within water which provide a source.

The *NSW Groundwater Dependent Ecosystem Policy* provides guidance on the protection and management of GDEs. It sets out management objectives and principles to:

- Ensure the most vulnerable and valuable ecosystems are protected.
- Manage groundwater extraction within defined limits thereby providing flow sufficient to sustain ecological processes and maintain biodiversity.
- Ensure sufficient groundwater of suitable quality is available to ecosystems when needed.
- Ensure the *precautionary principle* is applied to protect GDEs, particularly the dynamics of flow and availability and the species reliant on these attributes.

A number of gazetted WSP list and map priority GDEs and set out the management strategies and actions for sharing and protecting groundwater quality, quantity and dependent ecosystems.

### **Surface Water**

DWE is responsible for the sustainable management of rivers, estuaries, wetlands and adjacent riverine plains.

### Watercourse/Riparian

The assessment is required to consider, the impact of the proposal on the watercourses and associated riparian vegetation within the site and provide the following:

- Identify the sources of surface water.
- Details of stream order (using the Strahler System).
- Details of any proposed surface water extraction, including purpose, location of existing pumps, dams, diversions, cuttings and levees.
- Detailed description of any proposed development or diversion works including all construction, clearing, draining, excavation and filling.
- An evaluation of the proposed methods of excavation, construction and material placement.
- A detailed description of all potential environmental impacts of any proposed development in terms of vegetation, sediment movement, water quality and hydraulic regime.
- A description of the design features and measures to be incorporated into any proposed development to guard against long term actual and potential environmental disturbances, particularly in respect of maintaining the natural hydrological regime and sediment movement patterns and the identification of riparian buffers. (See note below)
- Details of the impact on water quality and remedial measures proposed to address any possible adverse effects.

The *Rivers and Foreshores Improvement Act 1948 (RFIA)* has now been repealed and the controlled activity provisions in the *WMA* have commenced. The provisions relating to controlled activities replaced the *RFIA* from 4 February 2008. Riparian corridors form a transition zone between terrestrial and aquatic environments and perform a range of important environmental functions. The protection or restoration of vegetated riparian areas is important to maintain or improve the

geomorphic form and ecological functions of watercourses through a range of hydrologic conditions in normal seasons and also in extreme events.

Although Part 3A Major Projects are exempt from requiring a controlled activity approval (s91 of WMA), the assessment is required to take into account the objectives and provisions of relevant legislation and guidelines.

**Note:** Recommended Core Riparian Zones (as applicable):

- Minimum of 10m for any intermittently flowing 1<sup>st</sup> order watercourse;
- 20m for any permanently flowing 1<sup>st</sup> order watercourse or any 2<sup>nd</sup> order watercourse;
- 20m – 40m (merit based assessment) for any 3<sup>rd</sup> order or greater watercourse.

Refer to DWE Guidelines for Controlled Activities (February 2008) – Riparian Corridors available via: [http://www.naturalresources.nsw.gov.au/water/controlled\\_activity.shtml](http://www.naturalresources.nsw.gov.au/water/controlled_activity.shtml)

#### Water Management Structures/Dams

DWE is responsible for the management and licensing of these structures under water legislation. If the proposal includes existing or proposed water management structures/dams, the assessment is required to provide information on the following:

- Date of construction (for existing structure/s).
- Details of the legal status/approval for existing structure/s.
- Details of any proposal to change the purpose of existing structure/s.
- Details if any remedial work is required to maintain the integrity of the existing structure/s.
- Clarification if the structure/s is on a watercourse.
- Details of the purpose, location and design specifications for the structure/s.
- Size and storage capacity of the structure/s.
- Calculation of the Maximum Harvestable Right Dam Capacity (MHRDC).
- Details if the structure/s is affected by flood flows.
- Details of any proposal for shared use, rights and entitlement of the structure/s.
- Details if the proposed development/subdivision has the potential to bisect the structure/s.

DWE's Farm Dams Assessment Guide provides details on harvestable rights and the calculation of the MHRDC. Refer to: <http://www.dnr.nsw.gov.au/water/dams.shtml>

#### **Basic Landholder Rights**

The WMA identifies Basic Landholder Rights (BLRs) for access to water whereby landholders over an aquifer or with river or lake frontage can access water for domestic (household) purposes or to water stock without the need for a water licence (although a works approval may still be required). This has the potential to impact inequitably on existing licensed water users (under a WSP) in the case where riparian frontage continues to be subdivided, creating new basic rights for water extraction. If this is an issue for the proposal the assessment should identify any potential for creation of new BLRs along the frontage to major waterways or over any sensitive aquifers. For those subdivisions fronting rivers/lakes, innovative subdivision design which allows the creation of additional lots without direct river/lake frontage or utilises collective or community title to manage the use of any existing BLR could provide a satisfactory way of managing this issue whilst still allowing for subdivision. Subdivisions over a sensitive aquifer however, may be more limited in using this approach.

#### **Sustainable Water Supply**

Many gazetted WSPs to-date have identified particular surface and groundwater systems that are currently over-allocated (that is, water licence volumes issued to landholders operating in these catchments exceed the sustainable volumes/flows within these systems). In the case of over-allocation, the systems have subsequently been embargoed and no new water licences are to be issued within these catchments. Any new or expanded development within such catchments will therefore be unable to obtain any new water entitlements directly and will have to enter the water trading market (if available within that catchment) to seek additional water. Therefore, there can be no guarantees of obtaining additional water via this mechanism and there is the potential of

restrictions on further development within such catchments. Whilst there is provision in the WMA to allow for limited growth in Town Water Supplies (TWS) this could still impact subsequently on other water users.

The assessment is required to address the issue of provision of a sustainable water supply for any project proposal. The assessment should include Water Management Plans detailing how a sustainable and efficient water supply can be sourced and implemented with minimal reliance on accessing valuable surface and groundwater resources. Through the implementation of BASIX, Integrated Water Cycle Management and Water Sensitive Urban Design, any proposed development must also be able to exhibit high water use efficiency. Access to information on sustainability can be found via: [http://www.deus.nsw.gov.au/business\\_industry.asp](http://www.deus.nsw.gov.au/business_industry.asp)

File No: 438.5351/N01560 09/2016  
Vanessa Barnett



Darryl Anderson Consulting Pty Ltd  
Suite 7  
Corporate House  
8 Corporation Circuit  
TWEED HEADS SOUTH NSW 2486

Re: Propose Mixed Use Residential and Tourist Development, Lots 1-3 DP 27948 and  
Lot 4 Section 1 DP 31209, Cnr Tweed Coast Rd and Cypress Crescent, Cabarita (MP09-0016)

Dear Sir

I refer to your letter dated 14 September 2009 inviting the Roads and Traffic Authority (RTA) to comment on the Environmental Assessment currently being prepared for the subject development proposal.

The RTA has reviewed the information in accordance with the Director General Requirements (DGRs) provided by the Department of Planning and notes that the proposed development involves the relocation of the existing vehicular access from Tweed Coast Road to Cypress Crescent. Consequently, the RTA is satisfied with the draft response to the DGR's in regards to the classified road network and would have no objection to the proposed development.

A formal determination cannot be made by the RTA, however, until it has reviewed the final Environmental Assessment. Consequently, the above comments should be considered as indicative only.

Should you have any queries regarding the above comments please contact the RTA's Development Assessment Officer, Vanessa Barnett on 6640 1347.

Yours faithfully

A handwritten signature in blue ink, appearing to be "David Bell".

David Bell  
Regional Manager, Northern Region

13 OCT 2009