

21 May 2009

Chris Wilson  
Executive Director  
Department of Lands  
PO Box 39  
SYDNEY NSW 2001

Our ref: 22/14532/13483  
Your ref:

Dear Chris

**Residential Subdivision at 740-742 Pacific Highway Sapphire Beach - 06\_0148 Mod 1 and 09\_0060 - Supplementary Services Report**

GHD was commissioned by Sapphire Beach Developments Pty Limited to assess services associated with the redevelopment of the Pelican Beach Resort at 740-742 Pacific Highway, Sapphire Beach. GHD submitted its *Assessment of Services (August 2006)* report based on a development that comprised 122 dwellings comprising a mixture of apartments, town houses and houses.

Subsequently, GHD prepared two further letter reports for the proposed 122 dwelling development, *Response to Coffs Harbour City Council's Comments on Environmental Assessment – Sewerage Provision (December 2006)*, and *Response to Department of Planning's Comments on Environmental Assessment: Infrastructure (December 2006)* that provided additional information supplied by the relevant authorities.

The amended development application is for a 39 lot residential dwellings. This letter report reviews the impacts of the amended proposal taking account of the reduced demand for:

1. Water Supply;
2. Sewerage Infrastructure;
3. Telecommunications; and
4. Electricity Supply.

**Water Supply**

Preliminary modelling of the previously proposed 122 dwelling development suggested that the existing water supply system could satisfactorily service the proposed development. Given that the current application is for a reduced 39 residential lots, the peak daily, hourly, and instantaneous flow rates will be significantly less than those rates previously modelled. The attached correspondence from Coffs Harbour City Council confirms that the existing water supply system will be able to satisfactorily service the proposed 39 residential lot development.

**Sewerage Infrastructure**

Given that the proposed 39 residential lot development will produce a significantly reduced load to the existing sewerage infrastructure than the previous 122 dwelling development, the assertions made in our December 2006 reports remain valid. That is:

- ▶ The proposed development will not cause any extra loading on the sewer system; and



- ▶ Council's scheduled 2011 sewer upgrade will cope with the proposed additional staged development.

The attached correspondence from Coffs Harbour City Council confirms that the existing sewerage system will be able to satisfactorily service the proposed 39 residential lot development.

### **Telecommunications**

Telstra has previously provided notification of its intent to pre-provide telecommunications infrastructure to the proposed development based on 122 dwellings. The proposed 38 residential lot development falls within the previous notification.

### **Electricity Supply**

Country Energy has previously advised that:

- ▶ The adequacy of the 215kVA street supply and 750kVA transformer feeding the street supply will need be determined when the mix of lifestyle resort facilities within the proposed development are more clearly defined;
- ▶ Given the proposed staging of the development, it is unlikely that the 215kVA street supply would be exceeded until post-2010; and
- ▶ If the capacity of the existing 750kVA transformer is insufficient, the 11kV distribution system will need be extended to a new substation on site. The 11KV distribution system will be upgraded by Country Energy in the next few years.

The expected loading from the 39 residential lot development will be less than the loadings previously anticipated for the 122 dwelling development, and so will have no adverse affects on the abovementioned outcomes.

The existing 750kVA transformer is located in the south west section of the site, and feeds power to both north of the existing site and the adjacent Coachman's Close to the south. Preliminary discussions with Country Energy have advised that the transformer and related infrastructure may be relocated.

Further detailed investigations will be required as the project progresses to determine accurate demands for the transformer, and suitable locations should the transformer be relocated.

Yours sincerely  
GHD Pty Ltd

A handwritten signature in dark ink, appearing to read 'Wayne Cooper', is written over a light blue horizontal line.

### **Wayne Cooper**

Senior Civil Engineer  
(02) 6650 5600

Attachment: Coffs Harbour City Council Correspondence



"Greg Powter"  
<greg.powter@chcc.nsw.gov.au>

29/05/2009 02:30 PM

To <Wayne.Cooper@ghd.com.au>


cc

bcc

Subject RE: Pelican Beach Resort

Repository: 2214532 "Pelican Beach Resort Redev - Revised DGRs"

History:

 This message has been forwarded.

hello wayne,  
yes i confirm that there is sufficient water and sewer main capacity for the proposed 40 to 50 dwellings.

regards

Greg Powter

ph: 66484420

fax: 66484477

greg.powter@chcc.nsw.gov.au

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From: Wayne.Cooper@ghd.com.au [mailto:Wayne.Cooper@ghd.com.au]

Sent: Friday, 29 May 2009 1:07 PM

To: Greg Powter

Subject: Pelican Beach Resort

Greg,

As discussed earlier, could you please confirm that water and sewer supply for the site will be sufficient, particularly given that the proposed loadings are reduced from what was previously operational at the site.

Also attached is a copy of Michael Herraman's water supply calculations for a previously proposed 117ET development.

Please contact me if you have any queries.

Kind regards

Wayne Cooper

Senior Civil Engineer

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Wayne  
Cooper/CoffsHarbour/GHD  
/AU

22/08/2006 08:23 AM

To Ben Luffman/CoffsHarbour/GHD/AU@GHD

cc

bcc

Subject Fw: Pelican Beach Development and new water loading.

**Repository:** 2212787 "Sapphire Beach Development"

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Wayne Cooper  
Senior Civil Engineer

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----- Forwarded by Wayne Cooper/CoffsHarbour/GHD/AU on 22/08/2006 08:24 AM -----



"Michael Herraman"  
<[michael.herraman@chcc.nsw.gov.au](mailto:michael.herraman@chcc.nsw.gov.au)>

21/08/2006 05:44 PM

To <[wayne.cooper@ghd.com.au](mailto:wayne.cooper@ghd.com.au)>

cc

Subject Pelican Beach Development and new water loading.

**Repository:** 2212787 "Sapphire Beach Development"

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Hello Wayne,

Thankyou for your call regarding the Pelican Beach Development.

The model data is indicative only, and if precise data is required then a full site study and report should be carried out.

I have run the computer water modelling software and made the following assumptions:

- \* 112 Suites will be removed from Pelican Beach Resort.
- \* 83 Apartments, 13 Terrace Houses and 16 Villas will be built at Pelican Beach Resort.
- \* Highest new dwelling will be at 25 metres head.
- \* 150mm PVC Pipe used from highway connection point to Resort.
- \* PVC Pipe from highway to Pelican Beach Resort 40 metres long.
- \* Loading has been given by GHD.
- \* System may change in the future as loading and supply is altered.

Model Run 1:

This model was run for 1 day and 6 hours (extended duration), using peak daily flows, starting at 0500 Hours, using Model file "Coffs pd 2004Pelican Beach GHD.ppp"

Results:

At Pelican Beach node point SAP43 there was 34.3 Metres Head, at .33 Litres a second. The model did not report any undue occurrences.

Model Run 2:

This model was run in Single Balance Mode, starting at 1500 Hours, using Model File "Coffs pd 2004Pelican Beach GHD.ppp"

Results:

There was 34.1 Metres of Head at 1.63 Litres a second. The model did not report any undue occurrences.

Model Run 3:

This model was run in Single Balance Mode, and modelled to achieve zero head at the highway connection point and achieve maximum possible flow for fire fighting purposes. The model starting time was 1500 Hours, using Model "Coffs pd 2004 Pelican Beach GHDfire.ppp"

Results:

At zero metres of head, max. flow was 67 Litres a second.

Please feel free to ring or contact me if you have any questions or require further information.

Kind Regards,  
Michael.

Michael Herraman  
Water Designer  
Coffs Harbour City Council  
Ph: 0266484451  
Fax: 0266484477  
Mob: 0438 470 950  
E-mail: michael.herraman@chcc.nsw.gov.au  
www.coffsharbour.nsw.gov.au

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