

22 February 2017

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**Attention: Natasha Harras**

Dear Sir/Madam

**Combined comments on the proposed amendments to the modification of the Cobaki Concept Approval (MP06\_0316 Mod 5) and the proposed modification of the Project Approval (MP08\_0200 Mod 4) with regard to water supply and waste water treatment.**

I refer to your email of 1 February 2017 requesting Council's comments on the proposed additional changes to the water services Mod to the Concept Plan and Project Approval.

Council has no objections to the proposal for a private water / sewer network operator for the Cobaki development site and is currently in the process of negotiating an agreement with Northern Water Solutions (NWS) with respect to providing bulk water and receiving trade waste.

However, Council does have concerns with the most recent proposed changes to the Development Code and with the pressure sewer system being proposed by NWS in their application to IPART for a Network Operators Licence.

Essentially, the construction of the proposed piping works can only be undertaken once there is an approval of the current Mod 4 / Mod 5 from the Department and there is an approved subdivision within the site. Subdivision approvals are limited to Precinct 1 & 2 (DA10/0800). The proposed subdivision of part Precinct 6 and part Precinct 7 (DA16/0056) is currently being assessed by Council and is yet to be determined by the JRPP. It should be noted that DA16/0056 incorporates gravity sewer, with the proponent likely to amend the approved subdivision if an IPART licence is issued for the development.

Council has obtained legal advice on the matter, upon which the comments below are based. Once the abovementioned approvals have been obtained and if an IPART licence has not been issued, the steps to be followed would be:

- a) Leda makes application to Council for a Section 68 approval for water supply and sewerage works to be constructed by Leda. Such an application will be conditioned by Council requiring any construction to be in accordance with Council's standards.
- b) Council issue a Construction Certificate (CC) to Leda, but only after the Section 68 approval has been issued.
- c) On receipt of the CC Leda commence construction of the water supply and sewerage works to Council's standards.

It should be noted that Council's standards require that conventional gravity sewer be provided for urban subdivisions. Whilst there is provision for pressure sewer systems, this is only applicable for single dwellings, large lot residential, specific circumstances etc. that are unable to achieve gravity sewer. The Cobaki site is well suited for gravity sewer and any approval from Council under s68 will require such.

There are amenity issues arising from pressure sewer systems, in terms of noise and potential odour impacts. The size of the Cobaki development site (approval for up to 5500 dwellings) is not considered to be appropriate for large scale pressure sewer system (i.e. a pump for every four allotments, as proposed by NWS). As such, gravity sewer systems are required by Council for the proposed development.

Essentially, if the proponent wishes to use a pressure sewer system within the Cobaki development, they must wait for a licence to be issued under the WIC Act.

Whilst in principle Council supports the WIC Act proposal, Council does have concerns that should a licence be issued and a pressure sewer system be constructed at Cobaki, Council could be nominated as Last Resort Provider for the development. If the Private Water Utility operator fails then Council could be required to operate and maintain a system which in our opinion is substandard. This scenario would have implications on Council's ability to provide the resources for maintaining and providing adequate services to Cobaki or other existing sewer systems within the Shire.

Please be advised of the following comments in relation to the proposed new controls for private services infrastructure within section 5.10 of the Development Code:

### **5.10 Private Services Infrastructure**

#### **Controls**

- (1) *In the event that the proponent seeks to pursue Water and or Sewerage connections in accord with the Water Industry Competition Act, 2006, then a licence must be sought and issued by IPART for such works, with the exception of those works that are exempted from approval under the Water Industry Competition Act 2006.***

NWS has applied for a Network Operators Licence through IPART. The exemption being referenced under Clause 19A of the Water Industry Competition (WIC) Regulations does not apply to NWS. The exemptions only apply to Leda as owner of the property. As such, Leda must undertake the proposed piping works.

- (2) *Both conventional sewerage (connection to Tweed Shire Council) and or an alternate Pressure Sewer System pursued under the Water Industry Competition Act 2006, must be designed in a manner consistent with the provisions of Tweed Shire Council Development Design Specification D12.***

With no licence issued by IPART, any piping works constructed by Leda must comply with Council's requirements for a gravity sewer system. A pressure sewer system would not be approved by Council. The Cobaki development is well suited for a gravity system, which is considered to be a superior system to a pressure sewer system.

- (3) *Before undertaking any plumbing and drainage works, the proponent must seek appropriate approvals under Section 68 of the Local Government before any Plumbing & Drainage works can***

***commence. These works must be consistent with the conventional sewerage or pressure sewer system requirements of Control No.2 above.***

It is unclear whether Control 3 relates to the main piping works within the road network or the internal house connections for the individual allotments. Council considers that plumbing and drainage works refers to internal house connection drains and internal household plumbing – not water supply and sewerage works. S68 of the Local Government Act does not apply to such works, other than the permission to connect to Council's water supply and sewerage systems. Plumbing and Drainage work is under the Plumbing and Drainage Act 2011.

If Control 3 relates to water / sewer mains within the road network and there has been no licence issued by IPART, Leda needs to seek approval from Council under s68 of the Local Government Act for such piping works. Any s68 approval would apply conditions requiring construction works to be in accordance with Council's standards (i.e. gravity sewer). Once the s68 approval has been issued, Council would be in a position to issue a Construction Certificate (CC) for the piping works. Upon receipt of the CC, Leda can commence works on the approved piping works.

If Control 3 relates to internal house connection (i.e. what Council refers to as plumbing and drainage works), the necessary approvals will need to go through NWS if a licence has been issued. Council is the Fair Trading representative for plumbing and drainage approvals associated with Council infrastructure only.

- (4) Should the proponent seek to carry out works in respect of the exemption listed in 1 above and any subsequent Section 68 approval, then in the event that the proponent does not receive a WICA licence and the infrastructure has been constructed on land to be dedicated to Council in the future, then such infrastructure must be removed entirely from the site before Council will accept dedication of the land. Such removal must be done at the cost of the proponent***

Control 4 is considered invalid. If a licence has not been issued to NWS, Leda is required to obtain a s68 and CC through Council for the piping works, as noted in the comments above. Such works would need to comply with Council's standards for gravity sewer. If a licence has been issued to NWS, a s68 is not required from Council and any works undertaken by Leda would need to comply with the standards / conditions applied by IPART to the NWS licence.

- (5) Where a dual reticulation water supply for recycled water is provided throughout the development, this must be designed and constructed generally in accordance with WSA Dual Water Supply Systems and Tweed Shire Council Water Supply Specifications. The layout is to be generally in accordance with figure 5.9.2***

Council does not have any specific controls / specifications relating to recycled water and as such would be relying upon the WSA 03 – 2011 Water Supply Code which includes dual reticulation pipes and related requirements. Please refer to Council's comments below with regard to Figure 5.9.2.

It should be noted that Council's standard subdivision controls do not allow for reticulated non-potable water.

- (6) The developer must incorporate on the title for all allotments created, relevant Restrictions as to the User which enforce the need***

***for all dwellings and buildings with plumbing (including commercial buildings and the like) to make provision for recycled water service facilities to the approval of the relevant water and sewerage authority***

Control 6 is only applicable if a licence is issued to NWS under the WIC Act. A gravity sewer system under Council's specifications would not require new dwellings and buildings to make provisions for recycled water service facilities with the exception of water tanks, as per Council's specifications and the current Development Code.

In regards to the proposed new Figure 5.9.2, the following comments are made.

## 1. Local Road Typical Section

- a. Council's standard (and the current Development Code) specifies a 14.5m road reserve for Local Roads within Cobaki, consisting of 7.5m sealed pavement and 3.5m verges. The latest proposal widens the verge to 4.25m, but has maintained the same road reserve. This has reduced the road pavement to 6.0m, which is not supported.

This reduction is also inconsistent with the proponent's recently submitted Traffic Impact Assessment. Refer to the extract below from the Bitzios Traffic Impact Assessment.



### 3. ROAD NETWORK

#### 3.1 INTERNAL ROADS

The internal road network consists of Access Streets and Low Volume Neighbourhood Connector Roads. The proposed cross-section for the internal Access Streets and Low Volume Neighbourhood Collector Roads are illustrated in Figure 3.1 and 3.2 respectively.

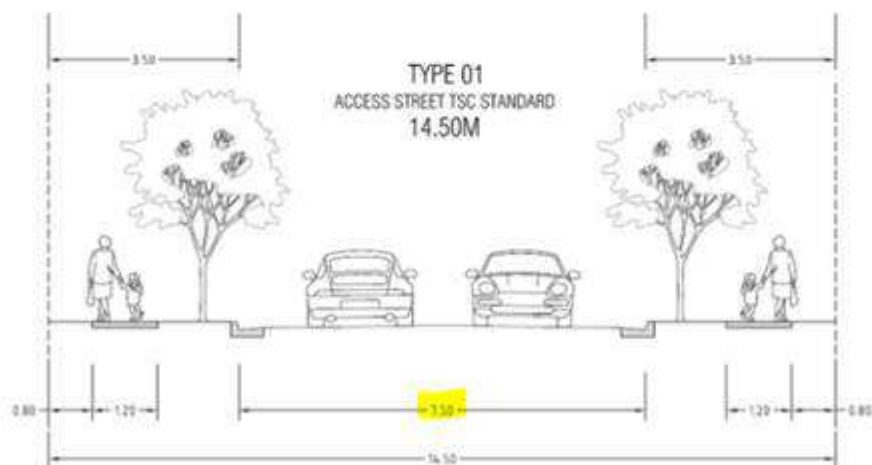


Figure 3.1: Proposed Access Street Cross-Section

If wider road verges are needed to accommodate the required services, then the road reserve needs to be widened and all plans amended accordingly to ensure consistency. This may impact on lot layouts for existing and future subdivision configurations.

- b. The provided Typical Section does not show the required 1.2m footpath on at least one side of the street.
- c. The Pressure Sewer Main needs to be a minimum 300mm below the Recycled Water main.
- d. A minimum clearance between proposed Pressure Sewer Main and Communications & Electricity compliant with WSA requirements needs to be specified for Council's further consideration.
- e. Council requires a minimum 3.0m wide easement if the sewer main is to become a Council asset. The main should also be located centrally within the easement.
- f. Council questions whether the proposed 2.0m wide PSU Easement is wide enough. Has provision for a control box/power meter been considered within the easement? Further detail / clarification is required in this regard.
- g. The Section needs to clearly specify the horizontal and vertical clearance between the proposed Potable Water main and Communications & Electricity, compliant with WSA requirements. Please document the Section accordingly.

## 2. Collector Road Typical Section

- a. The proposed Collector Road needs to be re-labelled "*Low Volume Neighbourhood Connector Road*" as per the previously submitted "draft Access Network Plan and Potential Bus Route" for Mod 4 of the Concept Plan.
- b. The submitted Typical Cross Section references a Road Reserve width of 19.0m, however the submitted "draft Access Network Plan and Potential Bus Route" associated with Mod 4 of the Concept Plan, plans associated with approved DA15/1026 and the current proposed subdivision for DA16/0056 all reference an 18.5m Road Reserve, as per Council's standard .  
  
Subject to points c. to i. (below) being addressed, if a wider road verge is required to accommodate services, then the total road reserve needs to be widened and all plans amended accordingly to ensure consistency. This may impact on lot layouts for existing and future subdivision configurations.
- c. The submitted Section shows one 1.2m footpath. A "*Low Volume Neighbourhood Connector Road*" requires one 1.2m footpath and one 2.5m shared cycleway / footpath either side of the street. Plans should be amended accordingly.
- d. It appears that insufficient horizontal clearance is provided between the proposed Recycled Water main and the street light.
- e. It is considered that insufficient horizontal separation is proposed between the Recycled Water main and the Pressure Sewer Main. WSA07-2007 Pressure Sewer Code requires 1000mm separation. Plans should be amended accordingly.
- f. The Pressure Sewer Main needs to be a minimum 300mm below the Recycled Water main.
- g. Council requires a minimum 3.0m wide easement if the sewer main is to become a Council asset. The main should also be located centrally within the easement.

- h. Council questions whether the proposed 2.0m wide PSU Easement is wide enough. Has provision for a control box/power meter been considered within the easement? Further detail / clarification is required in this regard.
- i. The Section need to clearly specify the horizontal and vertical clearance between the proposed Potable Water main and Communications & Electricity, compliant with WSA requirements. The offset is also a function of the pipe diameter. Please document the Section accordingly.

### **3. Distributor Road Typical Section**

- a. The proposed Distributor Road needs to be re-labelled "*Normal Neighbourhood Connector Road (Sandy Road)*" as per the previously submitted "draft Access Network Plan and Potential Bus Route" for Mod 4 of the Concept Plan.
- b. The submitted section shows one 1.2m footpath. A "Normal Neighbourhood Connector Road (Sandy Road)" requires one 1.2m footpath and one 2.5m shared cycleway / footpath either side of the street. Plans should be amended accordingly.
- c. Council advise that it is not a desirable outcome to have the water supply main located within the Central Median of Sandy Road, as proposed. However, it is considered a better outcome than locating the water supply main under a trafficable pavement or footpath. The proponent is requested to clarify whether this infrastructure is intended to become Council's asset or NWS', depending upon the location of the proposed bulk meter if WIC Act infrastructure is approved.
- d. It appears that insufficient horizontal clearance is provided between the proposed Recycled Water and the street light.
- e. It is considered that insufficient horizontal separation is proposed between the Recycled Water main and the Pressure Sewer Main. WSA07-2007 Pressure Sewer Code requires 1000mm separation. Plans should be amended accordingly.
- f. The Pressure Sewer Main needs to be a minimum 300mm below the Recycled Water main.
- g. Council requires a minimum 3.0m wide easement if the main is to become a Council asset. The main should also be located centrally within the easement.
- h. Council questions whether the proposed 2.0m wide PSU Easement is wide enough. Has provision for a control box/power meter been considered within the easement? Further detail / clarification is required in this regard.

### **4. Global comments to all proposed Typical Sections**

- a. Subsoil drainage
  - i. The subsoil drain is shown behind the kerb and only on one side. The subsoil drain is required on both sides of the road pavement and under the kerb, as per TSC SD.001 & SD.012. Sections are to be amended accordingly.
- b. Street Trees
  - i. All street trees must plantings must meet at least the minimum requirements specified in TSC Standard Drawing 701 Tree and Shrub

Planting details and be in accordance with approved Landscape Guidelines for the development. This is particularly relevant to the space between footpath and Kerb where street trees may be planted.

- ii. Council's position is that street trees must be in turf (with mulch around the tree), with no garden beds, planter boxes or similar around the tree. There may be very rare exceptions to this in key high profile areas, subject to Council approval. Plans to be amended accordingly.

## **5. Service Corridor For WWTP Sections**

- a. Detailed Typical Cross Sections (similar to that provided for non WWTP serviced roads) are required for all road profiles proposed to contain WWTP services (i.e. the 40m Road Reserve Cobaki Parkway, the 22.4m Road Reserve "Normal Neighbourhood Connector Road (Sandy Road)" and the 18.5m (Road 4) Road Reserve "Low Volume Neighbourhood Connector Road". These sections must also detail all other applicable infrastructure for that section (i.e. kerb, subsoil drainage, gas, stormwater, street trees, street lights, footpaths, electricity, easements, etc). All horizontal and vertical offsets are to comply with the applicable WSA requirements.
- b. The placement of dual mains one directly above another, albeit for the same purpose, is considered to be poor practice and is contrary to the recommendations of the various WSA Codes:
  - i. WSA 03-2011 Table 5.5 specifies separation of 300mm potable water mains to be 600mm horizontal clearance.
  - ii. WSA 03-2011 Table 5.5 specifies separation of 300mm non-potable water mains to be 600mm horizontal clearance.
  - iii. WSA 07-2007 Table 3.1 specifies minimum 600mm clearance to other sewers but does not specifically mention pressure sewers.
- c. There appears to be a discrepancy between the sizes of Mains pipes in the Service Corridor diagram in Figure 5.9.2 to the pipe sizes that are shown on the Drawing 1014 (provided to Council separately – see attached).
  - i. Dwg 1014 shows 2 x 450 DW Trunk Mains whereas the Section shows 2 x 300 Drinking Water mains.
  - ii. Dwg 1014 shows 2 x 450 RW Trunk Mains whereas the Section shows 2 x 300 Recycled Water mains.
  - iii. Dwg 1014 shows a DN225 Water Supply Main whereas the Section shows a 375 Drinking Water Supply Main.

For further information regarding this matter please contact Colleen Forbes on (02) 6670 2596.

Yours faithfully

**Lindsay McGavin**

Manager Development Assessment and Compliance