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File: 30011224 Water Wastewater Update.docx
Our ref: 30011224

30 July 2012

Huntlee Pty Ltd
PO Box 199
Branxton NSW 2335

Attention: Ian Wilks

Dear Ian,

RE: Water and Wastewater Servicing Update

Please find below an update of the status of water and wastewater servicing for the Huntlee Development. As you would be aware, extensive engagement with Hunter Water has been undertaken to date with regard to provision of water and wastewater services to the Huntlee Development. Developer-funded servicing strategies were approved by Hunter Water in 2009. These strategies were prepared for Stage 1 (~2,400 Equivalent Tenements), with a high-level approach taken for the remaining stages.

Given the time which has elapsed since the approval of the strategy, Huntlee Holdings has been liaising with Hunter Water to ensure that previous advice is still current, and that sufficient capacity will be available for Huntlee as the development is constructed.

Hunter Water has requested that an addendum be prepared to the original approved servicing strategies, outlining the changes in the new Stage 1 development area, and advice in relation to trunk capacity availability.

The new Stage 1 area is broadly the same as the Stage 1 area for which the original strategies were prepared. The Town Centre area considered has extended further to the west and due to land matters a portion of land has been excluded from the current Stage 1 boundary, but it is planned that this land will be included in later stages of the development. An additional area adjacent to the existing North Rothbury township has been included in the new Stage 1 boundary to compensate for the lots which have been deferred to a later stage. The Stage 1 area also includes a large lot residential area on Wine Country Drive.

Hunter Water has indicated that trunk water and wastewater capacity for the development can be made available via a combination of developer-funded and Hunter Water-funded works. Hunter Water's most recent correspondence regarding trunk servicing for the site is included as Appendix 1.

A summary of the proposed water and wastewater servicing approach for the proposed Huntlee development is outlined below.

1 POTABLE WATER

1.1 Regional Infrastructure

The proposed Huntlee site is located at the extremity of the existing Maitland North Rothbury water supply system. Water is supplied to the existing township of Branxton via trunk water mains along the New England Highway from Harpers Hill Reservoir. North Rothbury is serviced from the North Rothbury Reservoir, with a small portion of the town serviced off the North Rothbury Water Pumping Station (WPS).

The demands identified for the Huntlee development exceed any existing infrastructure capabilities in the vicinity of the site.

Hunter Water have completed forward infrastructure planning for the Maitland North Rothbury water network with a planning horizon of 20 years, Huntlee is included in this planning.

Ultimately, Hunter Water has a capital works program to cater for growth in the Maitland to Branxton area upgrading existing water pipes and water pump stations in six stages. This upgrade will be progressively undertaken to release capacity to the area, ultimately providing for an additional 6,000 ET at Branxton.

It is pertinent to note that current Hunter Water Corporation water infrastructure planning for Branxton only extends to approximately 6,000 ET connected to the proposed upgraded New England Highway water supply trunk system. However, the current Huntlee concept plan will see an ultimate water demand for Huntlee of 9,100 ET.

It is understood that Hunter Water is considering establishing a strategic link between the Maitland North Rothbury water supply system and the Cessnock water supply system. This will provide a greater flexibility and a higher level of security of supply within the area in the long term. Therefore, the potential connection point for the final stage of the proposed development may be in the Cessnock system via Pokolbin. As such, boundary conditions beyond 6,000 ET (Stage 6 of upgrade works) have not yet been provided to SMEC by Hunter Water, as they will change if this connection proceeds. Hunter Water have indicated that they will work with the developer to provide adequate trunk capacity to supply potable water to Huntlee as the development is constructed, via a combination of developer-funded and Hunter Water-funded works.

1.2 Internal Infrastructure

Due to the difference in elevation across the site, two pressure zones will be required to meet Hunter Water requirements. A reservoir is proposed to service the high-level zone, and will be sited on the ridge line adjacent to the proposed Persoonia Park. The lower zone will be directly fed from the New England Highway connection. For Stage 1, there will be a single connection to the New England Highway and emergency storage will be supplied by the proposed Huntlee reservoir. In later stages, additional connection points will be brought across from the New England Highway, providing security of supply to the low-level zone. Security of supply for the high level zone will still be provided from the reservoir. Additionally, a small high-level tank is required for the Old North Road rural residential lots (approximately 80 lots), as they are too high to be serviced by the proposed Huntlee reservoir.

2 WASTEWATER

2.1 Regional Infrastructure

The nearest reticulated wastewater system to the Huntlee Development Area is located at Branxton. There is no reticulated wastewater infrastructure south of the Main Northern Railway, with the township of North Rothbury and Hanwood currently not sewered. It is understood that there are no plans in place to sewer these areas in the short term. Hunter Water have nominated Branxton Wastewater Treatment Works as the wastewater connection point for the Huntlee development.

Stage 3 of the Branxton WWTW upgrade works have been completed by Hunter Water and increases plant capacity to 13,000 Equivalent Persons (EP). Further upgrades beyond 13,000 EP will be required to meet the ultimate projected development within the WWTW catchment. The staging and timing of these upgrades will be determined based on the observed rate of development within the catchment. Hunter Water have indicated that this provides sufficient lead time to ensure that wastewater treatment capacity is not a constraint to development at Huntlee.

2.2 Internal Infrastructure

The internal sewer system is proposed to be developed on a sub-catchment basis, with each sub-catchment draining to a wastewater pumping station (WWPS). At this stage, 11 WWPS sites have been identified, each located at the low point of the particular catchment.

Investigation was undertaken into the use of low pressure sewer in the southern large lot areas. It was found economically preferable to service the majority of the lots with conventional gravity sewerage, with pump stations and rising mains. A small portion of land at the very southern extent, which grades away from the remainder of the Huntlee site will need low pressure sewer, as the number of lots are too small for a conventional wastewater pump station.

3 RECYCLED WATER

Huntlee is investigating the use of recycled water at the Huntlee site and is progressing discussions with Hunter Water. Generally the use of dual reticulated recycled water is technically feasible and has the potential to become a viable water-saving measure for this development, thereby reducing overall potable water demands.

If recycled water is supplied to the site, the source of recycled water will be from the Branxton WWTW. An upgrade of this WWTW was undertaken by Hunter Water, and included a membrane bioreactor (MBR) which allows the treatment of wastewater effluent for distribution to The Vintage Golf Club at Rothbury. Supply to The Vintage will be via a dedicated pumping station and trunk main. Currently, effluent discharging to Branxton WWTW will be fully utilised by The Vintage and other existing customers. Additional WWTW upgrades would be required to supply recycled water for dual reticulation.

Huntlee is progressing discussions regarding the provision of recycled water with Hunter Water.

Yours sincerely,

 30/7/12

Matthew Rose
Manager Water Infrastructure, Hunter Region

ATTACHMENT 1



Hunter Water Corporation
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Customer Enquiries 1300 657 657
enquiries@hunterwater.com.au

PO Box 5171
HRMC NSW 2310
36 Honeysuckle Drive
NEWCASTLE NSW 2300

22 June 2012

Ref:2007-1222

SMEC
PO Box 1346
NEWCASTLE NSW 2300

Att: Kate Beard

Dear Kate

RE: Provision of Water and Sewerage Services to Huntlee New Town

The purpose of this letter is to confirm the status of the provision of water and sewerage facilities to the Huntlee New Town development (Huntlee).

Hunter Water has been liaising with the developer, the LWP Property Group (LWP) and its consultants for over five years regarding the provision of water and sewerage facilities to Huntlee. LWP has prepared detailed water and sewer strategies for the site which were approved by Hunter Water in 2009.

Hunter Water has recently viewed the latest development proposal for Huntlee and understands that the overall yield is generally the same, although there is a revised rollout and staging for the development. Whilst the latest development proposal is broadly in line with the approved strategies, Hunter Water has requested that LWP revise the strategies to reflect these changes.

Overall, Huntlee can be serviced by a combination of developer-funded and Hunter Water-funded works. Hunter Water has a staged regional water supply upgrade program to increase the available system capacity in the Branxton area. The program identifies the progressive construction of works to increase capacity in four stages. Stages 1 and 2 are complete; with Stage 3 works (including the construction of a new reservoir at Windella and a new water pumping station at Lochinvar) are currently under way. The Stage 4 works (which include a new watermain from Lochinvar to Harpers Hill, a new reservoir at Harpers Hill and a new watermain from Harpers Hill to Greta) are currently scheduled for completion in 2017-18.

Water

Hunter Water's growth projection for the catchment includes an estimate of around 350 Equivalent Tenements (of actual customer demand on the system) from Huntlee prior to the Stage 4 regional upgrades. Whilst Hunter Water's ability to service development in the interim is dependent on actual growth over time, if growth is higher (or lower) than predicted, there are options available to cater for this; largely through optimising the timing/staging of developer works. Hunter Water will confirm the optimal strategy for servicing Huntlee at the time a revised developer servicing strategy is submitted for review.

Wastewater

There is currently around 900 Equivalent Tenements spare capacity at Branxton Wastewater Treatment Works (WWTW). Branxton WWTW was upgraded in 2010 to a Membrane Bioreactor plant where membrane capacity is staged over time to match flows. To realise the additional plant capacity beyond 900ET, extra membrane cells and associated infrastructure need to be installed. Based on previous growth projections which excluded Huntlee, Hunter Water currently has the membrane upgrade work scheduled for the 2017-21 price path. However, this work can be brought forward (either through developer funding or Hunter Water funding) to cater for Huntlee or other growth in the catchment that exceeds Hunter Water's current forecast.

Hunter Water confirms that it has no objection to the Huntlee development provided that water and sewerage facilities are provided by the developer, in accordance with approved servicing strategies. Should you require further clarification or assistance please do not hesitate to contact me on 4979 9545.

Yours Sincerely

A handwritten signature in dark ink, appearing to read 'M. Withers', is written over a faint, light-colored rectangular stamp or watermark.

MALCOLM WITHERS

Senior Developer Services Engineer