

1 September 2021

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Dear Jamie,

Rotokauri North Plan Change - Water and Wastewater Review (Revision 2 technical report from BBO)

This letter summarises my review of the following 'Revision 2' documents related to the Private Plan Change 7: Rotokauri North:

- Memorandum from BBO to Jamie Sirl (HCC) titled 'Sub-catchment ICMP – Water and Wastewater System Report' and dated 3 August 2021. Referred to as 'the Memo' in this letter.
- Rotokauri North Sub-catchment ICMP - Water and Wastewater System Report, BBO, 30 July 2021. Referred to as 'the Report' in this letter.

I note that a meeting was held on 27 July 2021 between representatives of BBO and Hamilton City Council to discuss wastewater servicing. I did not attend the meeting but have sought feedback from HCC in regard to the outcomes of the meeting which are relevant to my review.

Water

I have no further comments on the water servicing concept. The internal servicing concept is reasonable and should be subject to ongoing design and consultation with HCC, which should be documented in a rule provision.

A rule provision in the plan change should document the required strategic water mains that are to be extended into the development.

Wastewater

The following comments apply to replies from BBO in the Memo. The Report has been updated to align with the memorandum.

Comment A – Southern wastewater connection

HCC and BBO have agreed that the southern wastewater connection may be utilised as a temporary solution. The northern connection shall be the permanent connection location for the Rotokauri North sub-catchment area. The exact nature and timing of the permanent diversion to the northern connection is to be determined.

Comment B – Pipeline sizes and gradients

Clarification has been provided in regard to planned pipeline sizes and gradients. No further comment is required from BBO in this regard.

It should be noted that all sizes and gradients, particularly in regard to upsizing for future resilience, should be subject to further discussions with HCC throughout the future design process. The Memo and Report acknowledge this in a number of sections.

It is my opinion that plan change rule provisions related to wastewater should not state sizes or other design output parameters. There is not yet enough certainty around the final solution to state exacting outputs, even though the concept as presented is reasonable.

Comment C – Servicing the wider Rotokauri North area

It has been acknowledged that upstream areas of the Rotokauri North sub-catchment (outside of the proposed development area) can be serviced by the two planned pump stations. No further comment is required from BBO in this regard.

Comment D – Pump station layout and efficiency

BBO has acknowledged that HCC will be consulted throughout the design process, especially with regard to the pump stations. Options will be discussed with HCC Council through throughout future design stages. No further comment is required from BBO in this regard.

Plan change rule provisions

The following should be noted when developing rule provisions related to wastewater and water:

- a. A rule provision in the plan change should document the required strategic water mains that are to be extended into the development. The rule provision should state size requirements for key water pipelines as per the HCC Water Masterplan.
- b. Wastewater rule provisions specifying sizes or other design aspects such as final layouts and locations is not recommended. The concept design is not resolved sufficiently for such detail to be adhered to if presented as a rule provision. Notwithstanding, the concept as presented is reasonable and the Report should not need such details removed provided the Report is not to be binding for those aspects.
- c. A rule provision(s) should be included to state that HCC shall be consulted throughout future design stages. Suggested wording (subject to final review) is as follows.

“Detailed assessment and design of servicing requirements shall be carried out for the first stage of development for approval by HCC prior to development. The assessment shall identify the strategic infrastructure required to service the initial development area inclusive of capacity allowances to service other parts of the Rotokauri North sub-catchment area. The assessment shall yield an efficient network design by, but not limited to, minimising the need for pump stations as far as practical and maximising the use of gravity sewers.

All permanent wastewater infrastructure required to service the development shall be constructed to the final size required to service future upstream areas identified in the assessment. Downstream infrastructure required to convey development discharges to the Far Western Interceptor shall also be constructed to the final size. Interim infrastructure at a reduced scale will not accepted unless specifically approved by HCC.”

- d. The wastewater connection should be addressed in a rule provision including but not limited to the following:
 - The southern connection may be used as a temporary connection for the Rotokauri North sub-catchment.
 - The northern connection shall be the permanent connection location for the Rotokauri North sub-catchment.
 - The timing and/or triggers related to the transfer of the temporary connection to the north will need to be developed and included.

No wording is suggested for this rule provision because the triggers are not solely related to engineering. Input from others is required for this rule provision because aspects of land access and the timing of adjacent development will affect the wording.

Yours faithfully



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