

## WAIMAKARIRI DISTRICT COUNCIL

### MEMO

**FILE NO AND TRIM NO:** DDS-14-05-12.02 / 241218225249

**DATE:** 18 December 2024

**MEMO TO:** Proposed District Plan Hearing Panel

**FROM:** Mark Buckley

**SUBJECT:** Final Reply Prosser Development Area

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### **Introduction**

1. This memo response to those matters raised in the supplemental evidence of Mr Allan in the right of reply report dated 13 December 2024. I acknowledge the email discussion between Mr Allan and myself.
2. Mr Allan has made reference to the use of narrative to accompany the rules. Because the narrative text has no legal standing, Mr Wilson and I have recommended to minimise the use of narrative text, replacing narrative text with the policy and rules for each particular development.

### **Servicing**

3. I acknowledge that Mr Allan in his response did provide some information to amended the ODP to show the water and wastewater lines.
4. I note that there are still some key fundamental servicing issues that need to be addressed.

### **Wastewater**

5. I understand that there is general disagreement between technical experts regarding whether there is sufficient capacity within the existing wastewater network for the proposed development area, or any new development areas.
6. I would like to point the Hearing Panel to the statement on 'Capacity in the System' as part of the Wastewater Expert Conferencing<sup>1</sup> which states that the system has sufficient capacity for those development areas proposed by the Council in the PDP (i.e. upzoning of Mandeville 4b area to LLRZ), however it does not meet the level of service when there is a storm event greater than 20% AEP. The JWS states<sup>2</sup>:

*Based on calculations by Council engineers, there is no unallocated design capacity in the current Mandeville WW system to support additional rezoning sought by the 12C submitters in the long-term. The current wastewater (WW) system has been designed, sized and constructed to service the existing and proposed zoning identified by the PDP.*

7. Mr Allan in his response states that SUB-S12<sup>3</sup> addresses the wastewater issue. However, as there is no, capacity in the network. The developer would need to construct their own reticulation network, pump station and rising main through to the Rangiora WWTP, however, this has not been proposed.

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<sup>1</sup> Joint Witness Statement – Stream 12c/12D Wastewater Expert Conferencing, 4 September 2024.

<sup>2</sup> Statement from Council Engineers

<sup>3</sup> Para [11]

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8. This leaves SUB-S12(2) and provision of onsite wastewater disposal for the development. Any on-site system would require a resource consent from the district (EI-R45) and regional council (Rule 5.8), and would be inconsistent with RPS Policy 6.3.9(3) requiring *“all subdivision and development to be located so that it can be economically provided with a reticulated sewer and water supply integrated with a publicly owned system”*
9. There is an assumption<sup>4</sup> that any development would be able to have sufficient on-site storage<sup>5</sup> in the event of Bradley Road pump station being overwhelmed. With respect to capacity in the Bradleys Road pump station the JWS states:  
*However, it does not meet a 1 in 50-year level of service. Storm events greater than 1 in 5 years have resulted in the system becoming overloaded for extended periods. Residents have reported to Council they have not had wastewater service for an extended period of time. The raw flow data from the Bradley’s Road pump station shows in late July/early August 2022 the system was operating at or near capacity for approximately two weeks.*

While Mr Sookdev in his statement in the JWS noted that there was 7 hours of pumping capacity in the Bradley Road pump station, this was not supported by the other engineers in the JWS.

10. The JWS did note the following statements as a potential solution for any subsequent development of the area:

*If all 12C sites within the Mandeville area are allowed to be rezoned, this will increase the financial viability for a new main and spread the expenditure amongst developers making any such scheme more realistic. Developers will also partially start replacing the existing reticulation as they will be required to run new pressure reticulation from their respective subdivision areas, which can be upsized to cater for additional loading should the current STEP networks be replaced by LPS. However, without re-zoning, Mandeville will continue with its current wastewater issues, with no plans for remediation or upgrades, and little incentive for future developers to become involved.*

*The trigger would be the first area applying for resource consent. The project would be dealt with through a combination of the Development Contribution policy, schedules and private developer agreements.*

11. From a servicing perspective there is no issue with water supply for the proposed development. Wastewater servicing of the development could be achieved through the provision of a sewer trunk main to the Rangiora WWTP, Council has not budgeted for a new sewer trunk main in the LTP.

## **Groundwater Resurgence**

12. Groundwater resurgence is a major issue within the Swannanoa, Mandeville and Ohoka area<sup>6</sup>. Mr Allan in his statement noted that DEV-MNE-R3 requires a detailed groundwater study to determine the extent of groundwater resurgence. Any investigation would need to consider the frequency of different sized resurgence events (Appendix E from s42A Hearing Stream 12C LLRZ Rezoning Requests officer report).

*A recent study into coastal groundwater flooding frequency in the Waimakariri District (Jacobs, 2022) noted that the indicative annual recurrence interval for rainfall events leading to groundwater resurgence ranged from 8.5 to 18 years for the June 2014 event and from 4 to 12 years for the July 2022 event.<sup>7</sup>*

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<sup>4</sup> Para [x] and [xi] Mr Allan’s statement

<sup>5</sup> Each dwelling would need in excess of 10m<sup>3</sup> of storage capacity for the 2-week period.

<sup>6</sup> JWS – Stream 12c/12D Stormwater Expert Conferencing

<sup>7</sup> Jacobs, 2023. Mandeville San Dona Groundwater Assessment (Appendix E)

13. Mr Allan has proposed a rule (DEV-MNE-R3) to address the issue around having to undertake a groundwater resurgence investigation and aligns with NH-P1. Given the significant of the issue a discretionary or non-complying status would be more appropriate should the investigation not be completed, as it aligns better with NH-P4 requiring demonstrated proof of risk.

14. It should be noted that in the JWS Council Engineers were cautious around any development within areas subject to groundwater resurgence (below).

*CR, JA<sup>8</sup>, NK<sup>9</sup> are of the view that while there are steps that can be taken to reduce the risk of groundwater resurgence causing effects either on-site or downstream, there is still some residual risk associated with development in areas that are susceptible to groundwater resurgence. Groundwater resurgence can be unpredictable and is not well understood, both in terms of where the resurgence may occur, and at what flowrate. It is also hard to predict how changes to a site may change groundwater resurgence both within and around the site. This carries some risk of negative effects to downstream and adjacent properties even if/when the design approaches suggested are followed.*



Figure 1 Groundwater resurgence evident at Mandeville North East Development Area

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<sup>8</sup> CR and JA are Council Engineers

<sup>9</sup> Nick Keenan represents Ohoka Community Board

## Cumulative Stormwater Effects

15. The Stormwater JWS noted that there was no modelling of cumulative stormwater effects associated with any development of the area (below).

*“Experts have interpreted the two questions as related to groundwater resurgence only. However, consideration was also given to how the cumulative effects of stormwater runoff could be assessed and managed. The cumulative effects of the proposed developments have not been assessed or modelled from a stormwater perspective. Modelling the cumulative effects is a lengthy, complex and expensive exercise which has not been undertaken. At plan change stage developers typically do not undertake an assessment of cumulative effects as the other land areas are outside of their control.”*

16. The issue around off-site stormwater effects could in part be addressed inline with the new approach being considered by myself below.

*Introduce a requirement to manage the stormwater runoff for the site so run-off is lower than pre-development, as opposed to Council’s current requirement to achieve hydraulic neutrality, to ensure effects are less than minor. For example, Auckland Council and Hawkes Bay require new development to manage stormwater flows to 80% of pre-development levels; this is intended to ensure each development is not contributing additional flows post-development.*

I proposed to amend rule DEV-MNE-R3 to implement the statement above.

DEV-MNE-R3 Groundwater Resurgence	
<p>Activity Status: PER</p> <p>Where:</p> <ol style="list-style-type: none"> <li>1. a detailed groundwater study and resurgence assessment has been undertaken identifying:               <ol style="list-style-type: none"> <li>a. any potential resurgence locations;</li> <li>b. groundwater and infiltration management approaches used to ensure groundwater resurgence is appropriately managed on site without contributing to new or increased groundwater resurgence issues off-site; and</li> <li>c. building platforms that avoid areas susceptible to groundwater resurgence;</li> </ol> </li> <li>2. building platforms have been identified on a subdivision plan to avoid any areas of known groundwater resurgence (in accordance with 1(c) above); and</li> <li>3. a stormwater infrastructure assessment has been undertaken outlining how stormwater has been designed to maintain its primary stormwater function during sustained periods of groundwater flow and has been sized to accommodate groundwater resurgence flows concurrent with flood flows.</li> </ol>	<p>Activity status when not achieved: <span style="color: red;">RDIS</span></p>

4. stormwater discharges from the development should be no more than 80% of pre-development stormwater levels.

## Recommendation

17. Even though there may be a solution to address wastewater servicing of the proposed development, this is not something that Council has budgeted for.
18. Groundwater resurgence at the site is a potential issue. Council has ongoing issues with groundwater resurgence and are undertaking works to address the present risk to existing properties.
19. The proposed development would still contribute towards traffic effects associated with Tram Road and the State Highway interchange. I am still of the opinion that the rezoning of the proposed development would not contribute towards a well-functioning urban environment.