

In The Matter of the Resource Management Act 1991 (“the Act”) And

In The Matter Selwyn District Plan Review Rezoning Requests
DPR-0243 R Howard & J Marshall

OFFICER COMMENTS of HUGH BLAKE-MANSON

Introduction

1. My name is **HUGH MAXWELL BLAKE-MANSON**. My qualifications are BE (Natural Resources) and I have Diplomas in Asset Management, Assessor (Drinking Water Networks) and Water Treatment (Operator). I am a Chartered Engineer. These qualifications allow me to practice, design, manage and audit any of the three waters; water, wastewater and stormwater. I am also completing a Masters in Freshwater Management at University of Canterbury.
2. I am an Infrastructure Advisor at Waugh Infrastructure Management Limited (Waugh), a position I have held for 20 months. I was previously employed by City Care Ltd as their Three Waters Contract Manager (2012-2021) and prior to that, Selwyn District Councils Asset Manager Utilities (2004-2012) covering water, wastewater, stormwater, land drainage and waterrace services for the Council (the Council).
3. I support the Council as an infrastructure advisor specialising in strategic, tactical and operational matters across the services identified.
4. I am authorised to present these comments on the Councils behalf.
5. I confirm that the matters on which I express my opinion are within my field of expertise.

Scope of Review

6. My comments relate to the impact the re-zoning of land in West Melton may have on Council’s drinking water supply, wastewater system and stormwater network, resulting from submissions from two parties.
7. These comments refer to one of the parties - R Howard & J Marshall (H&M).
8. H&M have noted that this land is to be developed to a general residential density being 12 lots

per hectare or 120 lots in total. For the purpose of this review I have considered that a total of 120 lots in total could be created, with associated demands on the public utility networks.

9. I have read the Infrastructure Report provided by e2Environmental Ltd for DRP-0243 – H&M dated 5th August 2022.
10. I have referred to the infrastructure evidence provided by Mr S. Bishop for Plan Change PC74 (PC 74) where relevant to the townships water and wastewater networks and stormwater system, associated bulk conveyance and treatment infrastructure.

West Melton - Water

11. The Greater West Melton water supply provides water to a standard suitable for drinking to the communities of West Melton, Edendale and Johnson Road and surrounding rural residential connections. Council requires that all connections to this supply have a water meter and backflow protection.
12. Groundwater is sourced from five bores under four consents. Groundwater is piped under pressure between the communities, with bacteriological treatment being ultra violet light (UV) and cartridge filtration (West Melton) occurring before being made available to consumers in those communities. As a precautionary measure, chlorine can be added when required via constructed systems.
13. No chemical treatment is required, however blending of water from the Edendale and West Melton currently occurs given there is a higher concentration of nitrate-nitrogen in the Edendale bore. This is within the New Zealand Drinking Water Standards acceptable value. Blending occurs as a precautionary measure in line with Councils registered drinking water supplier duty of care responsibilities.
14. Mr Bishop has noted in his evidence that:
 - The West Melton Scheme was designed as a domestic supply and complies with the New Zealand Fire Fighting Code of Practice (FFCOP) (refer s22,23); and that Council requires all new subdivisions to be designed in accordance with Selwyn District Councils “Engineering Code of Practice” which requires that FFCOP servicing is provided (refer s24).
 - Hydraulic models have been used to plan future water infrastructure requirements for a

number of water supplies including West Melton (refer s 16).

- Councils 2021-2031 Long Term Plan (LTP) includes network upgrade budgets for specific areas to address capacity constraints - refer s18 and Appendix 1 “Existing West Melton Water Supply – Scheme Layout”, and “West Melton Water Supply – Planned Upgrades”.

15. Currently the physical water supply infrastructure (those assets which abstract, treat, store and pump water) have capacity to meet existing demands and part of planned / proposed future growth requirements. Upgrades are required to accommodate additional growth.
16. It should be noted that development contributions would be payable for development identified for DPR 243 should the rezoning proceed.

Conclusion – Water supply

17. I consider that additional capacity within the network to fully service this plan change is not currently available, though Council will address this following upgrades via its LTP process.
18. It is noted that development contributions are payable for any additional lot developed.

West Melton - Wastewater

19. West Melton is serviced by a reticulated wastewater network which is pumped to and treated at the Pines Wastewater Treatment Plant (WWTP) in Rolleston.
20. Mr Bishop has identified that there is sufficient capacity in the bulk conveyance wastewater main to Rolleston (refer s29). He has also noted that the Rolleston Pines WwTP (refer s36-38), has planned upgrades underway or programmed.
21. H&M have identified two options for wastewater conveyance to Councils network. Any proposal should ensure minimisation of odour generation and risk of overflows to the environment.
22. The servicing options proposed by H&M should be assessed at the time of subdivision and engineering approval.
23. It should be noted that development contributions would be payable for development identified for DPR 243 should the rezoning proceed.

Conclusion - Wastewater

24. There is a viable means to treat and dispose of wastewater from this this proposed plan change

area. Details of any specific upgrades required can be addressed more specifically through the subdivision consent and engineering approval process.

25. It is noted that development contributions are payable for any additional lot developed.

West Melton - Stormwater

26. The soils beneath West Melton are typically free draining river borne sandy gravels, and the groundwater level has a typical depth 23.7m below the surface.
27. The PC77 submitter proposes that stormwater treatment and disposal would be provided for within the developments. I confirm that this is appropriate.

Conclusion - Stormwater

28. The submitter proposes that stormwater treatment and disposal would be provided for within the development. I confirm that this is appropriate.

Hugh Blake-Manson

6 December 2022