

**BEFORE THE WAIMAKARIRI DISTRICT COUNCIL
HEARINGS PANEL**

IN THE MATTER of the Resource Management Act
1991

AND

IN THE MATTER of a submission by Andrew
McAllister (submission 8)

SUMMARY STATEMENT OF EVIDENCE OF JAMES CAMERON MARS

Date: 12 July 2024

INTRODUCTION

1. My name is James Cameron Mars. I have previously provided a rebuttal statement of evidence (dated 12 July 2024) responding to Council Officers' reports on wastewater servicing matters at the Submitter's site at 1275, 1379, 1401 and 1401 Tram Road, Swannanoa. My rebuttal evidence sets out my qualifications and experience, and I confirm that these remain unchanged.
2. As per the Hearing Panel's instruction, I have prepared this summary statement of evidence to provide an overview of my position. This is drawn from my rebuttal statement.
3. I confirm that this summary statement of evidence has been prepared in accordance with the Code of Conduct for expert witnesses contained in the Environment Court of New Zealand Practice Note 2023.

SUMMARY OF POSITION

4. Swannanoa is located within the Mandeville Area Wastewater Scheme which is a Septic Tank Effluent Pumping (STEP) system. Mr Bacon (Council Network Planning Team Leader) has confirmed there is some spare capacity downstream of the Bradleys Road pump station for some additional connections, and that any such connection downstream of the pump station would need to be Low Pressure Sewer (LPS). Mr Bacon also noted that a "big chunk" of the existing capacity at Bradleys Road has been taken up by future connections which have been allowed for, to give effect to the LLRZ zoning, so there is some time dependant capacity available.
5. Mr Bacon considered that there are a number of options to service the plan change area, which I have summarised below.
 - a. Install additional STEP connections onto the existing STEP network and undertake any necessary network upgrades.
 - b. Installation of a new LPS via new dedicated reticulation. Council would confirm much flow can be accommodated in the downstream network.
 - c. Conversion of part (or all) of the existing network to LPS.
 - d. Council could accept additional connections now, in lieu of those future connections taking up the capacity in the future.
6. Mr Bacon felt that the simplest approach at this stage would be to install an independent LPS pipeline connecting downstream of the Bradleys Road pump station. I generally agree with Mr Bacon's options but also consider additional investigation is required for confirmation of any alternatives.
7. LPS pump stations have 24 to 48 hours of storage capacity, and the pumps can be fitted with Scada control which can limit the discharge period, so that pumping timeframes would occur during off peak periods and/or discharges from a development area can be staggered.

Development construction could be staged, dependant on the sewer capacity and ongoing upgrades to the network.

8. The Council engineers have stated that the current issues are largely due to high volumes of flood water and groundwater resurgence flowing into the septic tanks and that when major flood events occur, the network is overwhelmed for days. The Council does not consider additional storage would solve the capacity constraint.
9. I consider that large storage tanks to hold back subdivision flows for an extended duration during flood events is potentially a viable option but requires further investigation and more detailed information from Council.
10. The Council has suggested that a STEP network (in general) is problematic and is obsolete in comparison to LPS networks. I do not agree and consider that both systems are comparable. STEP networks should not result in inflow and infiltration (I&I) issues if installed correctly and should have the same level of water tightness as an LPS network. I consider that the possible reason the existing STEP network is subject to I&I issues is due to the use of poor components, poor installation and a lack of quality control during installation.
11. An additional reason for I&I, can be due to cross connections such as downpipes or other parts of the stormwater network being plumbed into the wastewater system.
12. It is my opinion that further investigation work should be undertaken by Council to determine what properties are causing the I&I. Potentially, retrofitting the existing infrastructure maybe an alternative and cost effective option.

CONCLUSION

13. I consider that there are interim options available to service the site, such as using future capacity that has been set aside for LLRZ subdivision, the use of LPS (and Scada control) and running a new dedicated rising main to a location downstream of the Bradleys Road pump station. I also consider that than an investigation into which properties are causing I&I should be carried out and retrofit options for the existing STEP systems should be reviewed.
14. Overall, I remain able to support the submission from a wastewater servicing perspective. I understand that there are capacity constraints within the Mandeville Area Wastewater Scheme, however, I consider there are viable options available to reduce the effects of I&I on the network and to allow future development to be serviced by the wastewater network.

Cameron Mars

12 July 2024