

## Summary Statement of Clinton James Cantrell (PPC85 - Wastewater)

- 1.1 My name is Clinton James Cantrell. I am the Director of Sustainable Community Outcomes Consulting Ltd, and I am engaged as a wastewater expert on behalf of Kaipara District Council (KDC) in relation to Private Plan Change 85 (PPC85).
- 1.2 I prepared a statement of evidence dated 1 December 2025 and a statement of rebuttal evidence dated 9 February 2026. This summary highlights the key conclusions from both statements and the matters that remain in dispute.
- 1.3 In my primary evidence, I assessed the capacity of the Mangawhai Community Wastewater Scheme (MCWWS) to service the development enabled by PPC85. The MCWWS comprises three core components: the conveyance network, the treatment plant, and the treated effluent disposal system. Each of these components has capacity constraints.
- 1.4 At present, the binding constraint is effluent disposal. The Brown Farm disposal site is effectively at capacity. The Mangawhai Golf Course (MGC) subsurface irrigation system, now consented, together with associated treatment plant upgrades, provides a pathway to increase system capacity. With Stage 1 and Stage 2 of the MGC system implemented, and with the planned treatment plant upgrades, there is reasonable confidence that total system capacity can reach approximately 6,500 equivalent residential connections.
- 1.5 However, existing and already enabled growth in Mangawhai is projected to require capacity for approximately 7,230 connections. In practical terms, this means that the capacity up to 6,500 connections is already effectively committed to development that is zoned or approved. PPC85 would require capacity beyond that level.
- 1.6 Upgrades to key pump stations and rising mains are also required to service already approved growth. These upgrades are technically achievable but require funding and implementation. Expansion of the treatment plant beyond 6,500 connections would become increasingly complex and costly due to site constraints and the footprint of planned works. However, there is a reasonably high level of confidence it can be delivered, subject to funding being available.
- 1.7 In my rebuttal evidence, I responded to the Applicant's experts who consider that further effluent disposal options are available and can be addressed in time. The core disagreement between us concerns the level of confidence that can

properly be placed on delivering an additional disposal solution beyond the Brown Farm and MGC systems.

- 1.8 In my opinion, reliance on a future additional disposal option is speculative. No detailed feasibility investigations, design work, land identification, or funding commitments exist for any option beyond 6,500 connections.
- 1.9 The realistic options are either a long sea outfall or a new large-scale land disposal site. Both options involve significant technical, consenting, cultural, funding and cost uncertainty. A sea outfall would face marine construction risks, consenting challenges, cultural considerations and substantial capital cost. A new land-based system would require identification and acquisition of a large suitable site (the size would be dictated by ultimate growth beyond 6,500 connections to be serviced by this additional land-based system, as well as the size of an effluent storage dam that can be fitted to this site), extensive infrastructure, and full consenting processes, with similarly high cost and uncertainty.
- 1.10 I also addressed the suggestion of a third-pipe reuse system for non-potable residential supply. While technically feasible, such a system introduces long-term operational complexity, cross-connection risk, public health considerations and regulatory uncertainty. It does not represent a simple or low-risk pathway to materially increase disposal capacity.
- 1.11 In summary, there is reasonable confidence that the MCWWS can be expanded to approximately 6,500 connections through works that are consented, planned or reasonably anticipated. Beyond that level, further expansion requires identification, design, consenting and funding of an entirely new effluent disposal solution. At this stage, that pathway is highly uncertain
- 1.12 Overall, in my opinion, the ability to deliver an additional effluent disposal option in Mangawhai that is required to service more than 6,500 connections is highly speculative, and cannot be relied on.