



The Wastewater Specialists

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██████████
Matatā Wastewater Project Manager
Whakātane District Council
Private Bag 1002
Whakatāne 3158

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Matatā Wastewater – Implications of Status Quo

Dear ██████████

Following our discussions with Toi Te Ora Public Health (Toi Te Ora) and Bay of Plenty Regional Council (BoPRC), and discussions within the Matatā project team, I am pleased to provide a summary of the implications of maintaining the status quo. i.e. if a reticulated wastewater scheme for Matatā was not implemented, what would be the likely impact on Matatā?

Background

Each of the ~260 dwellings in the township of Matatā is currently serviced by an individual septic tank and effluent disposal field. Whakatāne District Council (WDC), BoPRC, and Toi Te Ora have long recognised that the current level of service is unacceptable due to contamination of the environment and public health concerns resulting from poorly performing on-site wastewater systems. WDC has been working to implement a centralised wastewater scheme for Matatā for more than 20 years.

An intensive environmental monitoring programme commenced in November 2021, and is ongoing. This monitoring of surface water, groundwater, and groundwater seeps has identified that:

- › Human faecal material is often present in the Awatarariki Stream, Waimea Stream, and Waitepuru Stream downstream of Matatā, as well as in the unnamed drain beside 53 Arawa Street, as identified through faecal source tracking (FST).
- › Concentrations of ammonia and dissolved reactive phosphorous (DRP), which are key contaminants present in human wastewater, and nitrate, which derives from the breakdown of ammonia, increase significantly in surface waters downstream of Matatā, particularly in the Waimea Stream. In addition, ammonia and DRP concentrations in the unnamed drain beside 53 Arawa Street are consistently elevated.
- › Shallow groundwater seeps to the surface in the vicinity of the Matatā Hotel and Fire Station, and at 57 Arawa Street, with this groundwater containing high ammonia concentrations.

This intensive environmental monitoring programme has, therefore, confirmed that the septic tanks and effluent disposal fields in Matatā are causing significant pollution, and pose an unacceptable risk to public health.

With Ngāti Awa, Ngāti Rangitihi, and Tūwharetoa ki Kawerau, WDC formed a co-design group, Te Niaotanga ō Mataatua ō Te Arawa, to identify an appropriate long-term wastewater solution for Matatā. Te Niaotanga ō Mataatua ō Te Arawa has identified the following preferred solution:

- › A pressurised reticulation system using septic tank effluent pumping (STEP) for pre-treatment.
- › A high level of treatment through a centralised wastewater treatment plant (WwTP) based on activated sludge technology.
- › Slow-rate irrigation of treated effluent to land.

Based on cost estimates of the preferred solution, WDC has allocated \$37.75 million for the Matatā wastewater project in the draft Long-Term Plan 2024-34. This is a significant financial burden on a small local authority, and may result in opposition to the scheme from some Stakeholders.

“Do Nothing” Option

If WDC does not implement a centralised wastewater scheme for Matatā, there would be consequences of this “Do Nothing” option. From discussions with Toi Te Ora and BoPRC, the likely consequences are:

- › BoPRC would re-zone Matatā from a “Confirmed Reticulation Zone” to a “Maintenance Zone” under their On-Site Effluent Treatment (OSET) Plan or proposed Regional Natural Resources Plan, which would place greater maintenance and inspection requirements on homeowners.
- › Increased maintenance and inspections of septic tanks and disposal fields is unlikely to resolve the widespread contamination that is occurring, in which case septic tanks would need to be replaced with aerated systems designed to AS/NZS 1547:2012.
- › AS/NZS 1547:2012 requires large irrigation fields located away from watercourses. Many sections in Matatā would not be able to meet these requirements.
- › Therefore, it would not be possible to upgrade many of the existing septic tanks and disposal fields to aerated wastewater systems, with new irrigation fields, to satisfy AS/NZS 1547:2012 and, therefore, Rule 12 of BoPRC’s OSET Plan.
- › Dwellings with substandard septic tanks and effluent disposal fields could be deemed insanitary under the Building Act, and/or would not meet the nuisance provisions of the Health Act, so would be deemed uninhabitable.

Social Cost of “Do Nothing” Option

A comprehensive review of all existing septic tanks and effluent disposal fields would need to be undertaken to confirm the exact number of existing dwellings in Matatā that would be deemed uninhabitable due to insanitary conditions.

A desktop exercise has been undertaken to identify sections that are located in close proximity (<15m) to watercourses, and/or are unlikely to have sufficient area (>300m²) for a new irrigation field to meet AS/NZS 1547:2012. This desktop investigation identified 95 developed sections in Matatā which are unlikely to meet the AS/NZS 1547:2012 requirements for a new aerated wastewater system and irrigation field.

The current median property value in Matatā is \$675,000.¹ Based on this median property value and 95 developed sections, the value of dwellings which are unlikely to be able to upgrade existing septic tanks and disposal fields to aerated wastewater systems with new irrigation fields under the “Do Nothing” option is estimated to be \$64 million. Installing a new aerated wastewater system and irrigation field on each of the other 165 sections would cost an additional \$4 million,² bringing the total social cost of the “Do Nothing” option to \$68 million.

In addition, the absence of a centralised wastewater reticulation scheme effectively places a moratorium on development within the established Matatā township. This is due to the challenge of designing and installing on-site effluent systems to satisfy the requirements of BoPRC’s OSET Plan and AS/NZS 1547:2012 on relatively small sections located in a sensitive environment.

If you require further information, don’t hesitate to contact me.

Yours sincerely,



Wastewater Process Scientist

¹ Median of 209 OneRoof estimates of property values in Matatā, as at 27th March 2024. OneRoof was not able to provide estimates for a further 15 properties due to insufficient information.

² Based on a per dwelling cost of \$25,000 to supply and install a new aerated wastewater system and irrigation field designed to meet the requirements of the BoPRC OSET Plan and AS/NZS 1547:2012.