Whāingaroa / Raglan WWTP Discharge Consent Project

June 2025 – Community Meeting

Waikato District Council
Te Kaunihera aa Takiwaa o Waikato

Raglan Community Board

Watercare
An Auckland Council Organisation

WWTP Update

- The MBR WWTP has now started treating full flow this week. Permeate is discharged to the head of the oxidation ponds.
- The buildup of MBR biology is ongoing, improving the permeate.
- The oxidation ponds with the reduced loading, are also visibly improving.
- Initial results returned indicate an improvement when compared to the latest compliance sampling.

- The 6,000 m^3/day Raglan WWTP MABR/MBR Upgrade has commenced key equipment testing.
- Water cycling of the process equipment is underway.
- The electrical and software testing is well underway.
- Once the plant commissioning is complete, preparations will be made for turning into service. Performance testing will follow.

Water Quality Testing and Public Health Risk Assessment

- The ‘new water’ produced from the MABR plant will meet the Australian Unrestricted Reuse Standard – Class A. There are currently no equivalent New Zealand standards; however, Australia is recognised as a world leader in this area.
- The new water will contain no pathogens, making it safe for immediate contact – such as spraying on parks or golf courses.
- It poses no risk to shellfish gathering or contact recreation, and its quality will be better than that of a typical stream.

- Emerging contaminant testing was done in 2020.
- The old WWTP treated to a much lower quality than the MABR, however testing found the treated WW to be significantly below any toxicity levels. The new MABR will remove more EC than the old system.
- Important to note that the plant only takes residential wastewater.
- Watercare will carryout further EC testing once the plant is fully running – this is called verification sampling.

Cawthron report on Emerging Organic Contaminants 2020

5. CONCLUSIONS

Concentrations of EOCs measured in the treated effluent of the Raglan WWTP are considerably lower than those recognised to represent a risk to freshwater and marine organisms. Furthermore, effluent will be subject to dispersion and dilution upon discharge to the environment, which will further reduce the concentrations of the detected EOCs and their potential risks. The EOCs entering the receiving environment will be subjected to loss and removal through a range of microbial and chemical degradation processes, and potential adsorption to sediment particles.

Therefore, taking into account the current state of knowledge regarding the toxicity of measured EOCs towards organisms within freshwater and marine environments, we conclude that the EOCs measured in the treated effluent of the Raglan WWTP do not pose an immediate risk to aquatic organisms in the receiving environment.

There is currently limited information on the characterisation of the impacts of EOCs in combination with other stressors like reduced dissolved oxygen, metals and nutrients on organisms in the receiving environment. Therefore, it is important to keep abreast of the latest research assessing the potential risks of EOCs so that effective mitigation actions can be implemented to manage them as required.

Ecology and Planting Plan

- Overall low ecological value in the gully, but with a significant restoration potential. The scheme will improve the ecology of the gully.
- Biological transformation of residual nutrients/toxins - phytoremediations.

Figure 1. Proposed wetland planting zones and area of terrestrial planting for the Raglan WWTP treated wastewater discharge receiving envrionment.

Groundwater Risk Assessment

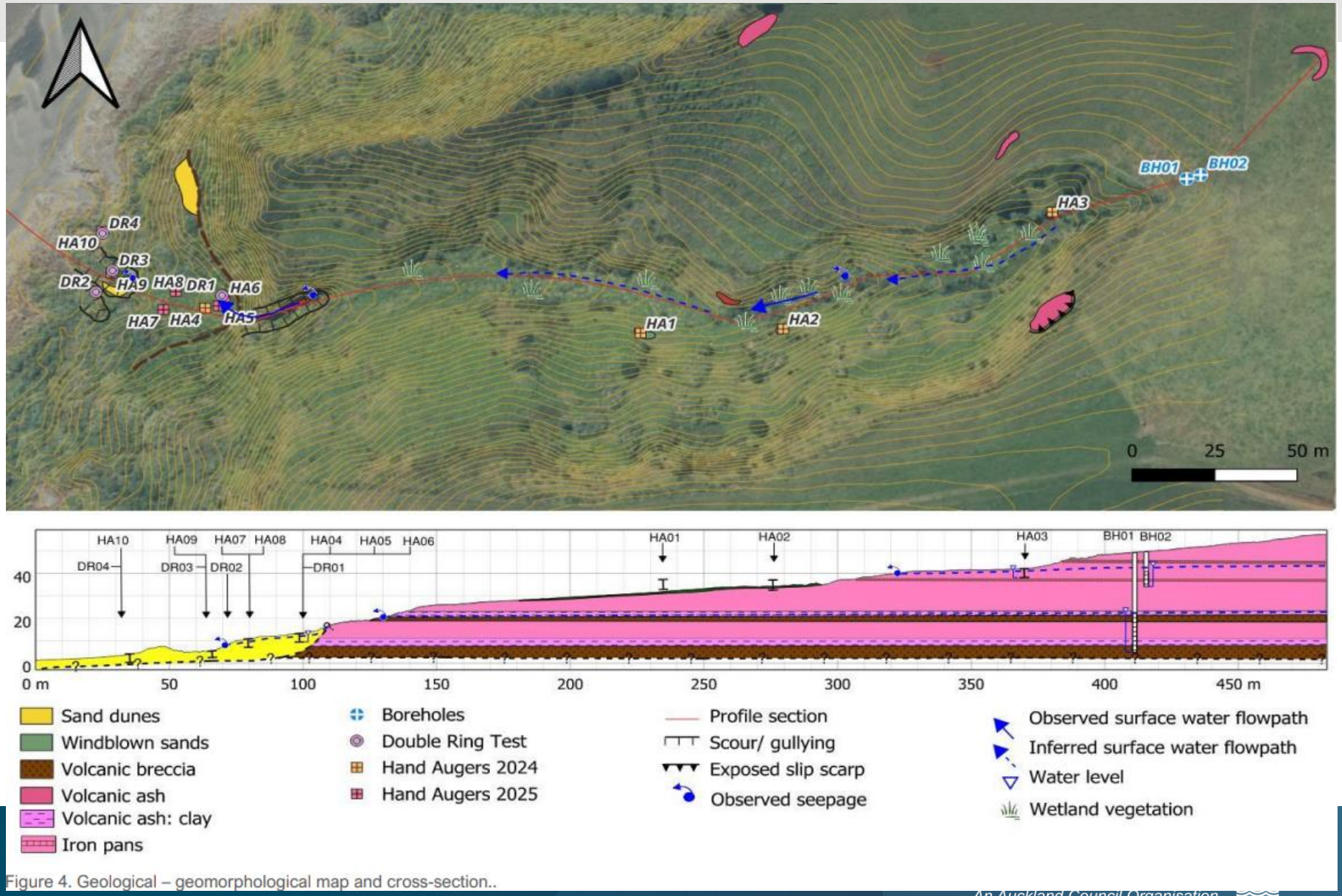

Figure 4. Geological – geomorphological map and cross-section..

- We now understand enough about how the new water will behave across the beach.
- Dynamic coastal processes and systems at play.
- Any scour is caused naturally from stormwater runoff.

High-level condition scenario:

Heavy rain/storms	Dry periods and no saturated groundwater table (big high tides for example)	High groundwater table/saturated sand (high tides or lag from rain fall)
New water discharge insignificant to naturally occurring storm water flows onto the beach which happen currently.	New water is expected to fully be absorbed into the dunes/sand.	An OLFP may occur onto the beach. This is expected to be shown as 'wet patch/shadowing in the sand' or a 'trickle' across the beach.

Next Steps

- Cultural Impact Assessment can now be started.
- Consent application is being drafted now. Conditions to be drafted and engaged on.
- Technical reports loaded onto the project website page.
- Drop-in sessions to loop back to the wider community on technical findings. (Logistically not practical to combine with the plant opening).
- Ongoing engagement with WRC and Wainui Reserve Working Group.