Whāingaroa / Raglan WWTP Discharge Consent Project

February 2025 – Community Meeting

Waikato District Council
Te Kaunihera aa Takiwaa o Waikato

Raglan Community Board

Watercare
An Auckland Council Organisation

Initial Technical Work Completed in the Gully

- Groundwater monitoring to date
- Soil samples and testing/saturation tests and initial permeability testing.
- Initial modeling:
  - hydraulic (how water flows through a system)
  - hydrogeology (how water moves underground)

Soil Types in the Gully

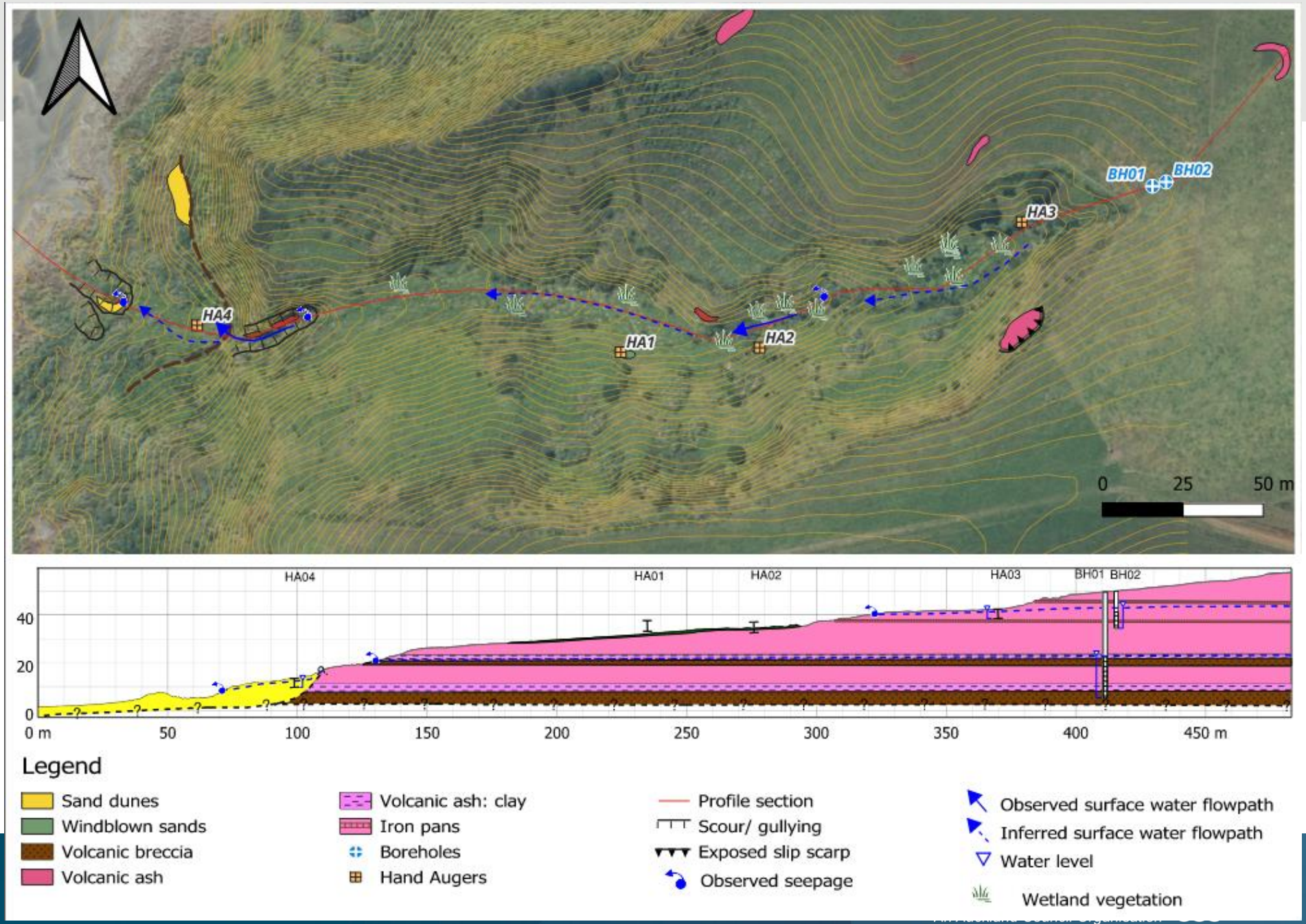
- The gully has layers of **volcanic ash deposits**, made up of materials from **silty clays to fine sands**.
- In the middle of the gully, **windblown sands** have settled on the valley slopes, adding to the mix of sediments.
- Near the shoreline, these deposits are overlain by dunes made of fine **sand mixed with silt**.

Gully Permeability

- The types of soils in the middle and upper parts of the gully don't let water soak in easily - low permeability.
- This was confirmed through tests in two hand-dug bores and site mapping, which showed wetland areas, seepage spots, and other signs of water staying on or near the surface for a long time.

Key Findings

- The proposed **discharge flow rates are low compared to surface stormwater runoff** in the gully.
- The valley appears stable with **little erosion risk** based on site observations. Scour and erosion are not considered a high risk.
- Because the gully has low-permeability soils, flows won't soak into the deeper subsurface that much and will mostly **stay at or near the surface**, adding to surface runoff.
- Risk that any portion of the discharged water that does infiltrate could resurface in the lower section of the gully.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HA1
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20
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200
250
300
350
400
450 m
Legend
Sand dunes
Windblown sands
Volcanic breccia
Volcanic ash
Volcanic ash: clay
Iron pans
Boreholes
Hand Augers
Profile section
Scour/ gullying
Exposed slip scarp
Observed seepage
Observed surface water flowpath
Inferred surface water flowpath
Water level
Wetland vegetation

Next Steps

- There is a risk that a flow path could form across the beach.
- To better understand how flows might impact the sand dunes, further testing is being done in the dune area.
- This includes drilling with hand augers, testing soil permeability, measuring infiltration rates, and analysing soil samples further.

Raglan WWTP Membrane Bioreactor