

Marokopa River – Quarterly River Monitoring March

Sample Collection Day: 3rd March 2025

Water quality was **Excellent** in Puaroa stream (Site 41), **Good** in Kiritehere Stream (Site 42) and **Fair** in Mangaohuinga stream (Site 39) and Wairoa stream (Site 40).

E. coli concentrations were elevated in Mangaohuinga stream (610 cells per 100 mL) exceeding recommended health guidelines for swimming (540 cells per 100 mL). *E. coli* was slightly elevated in Wairoa stream (290 cells per 100 mL) and Kiritehere stream (460 cells per 100 mL). *E. coli* was low in Puaroa stream (190 cells per 100 mL).

Nitrogen: Nitrate concentrations were low across all sites, falling well below ecological toxicity threshold (2.4 mg/L). Kiritehere stream had the lowest nitrate concentration (< 0.002 mg/L) and Wairoa stream had the highest concentration (0.12 mg/L). **Ammonia** concentrations were low across all sites (≤ 0.01 mg/L). **Dissolved inorganic nitrogen (DIN)** was very low across all sites (≤ 0.13 mg/L), falling well below the ecological impact threshold (0.5 mg/L).

Phosphorus: Dissolved reactive phosphorus (DRP) concentrations were low in three sites (≤ 0.009 mg/L). Mangaohuinga stream had an extremely high DRP concentration (0.030 mg/L), indicating a potential direct source upstream of the sample location.

Suspended sediment/Water Clarity: Water clarity was excellent in Mangaohuinga stream (2.78 m) and Puaroa stream (2.11 m), good in Kiritehere stream (1.73 m) and poor in Wairoa stream (1.05 m), relative to the national bottom line (1.34 m).

The results in the table below have been graded according to the National Policy Statement for Freshwater Management (NPS-FM, 2020).

Marokopa River Date: 3-Mar-25 Lab: Analytica	Human Contact		Ecosystem Health				
	E. coli/100 ml	Nitrates Toxicity (mg N/L)	Ammonia Toxicity (mg N/L)	Dissolved Inorganic Nitrogen (mg N/L) ²	Dissolved Reactive Phosphorus (mg/L)	Sediment	
						Water Clarity (m) ¹	National Bottom Line
39-Mangaohuinga Str	610	0.02	<0.005	0.02	0.030	2.78	1.34
40-Wairoa Str	290	0.12	0.01	0.13	0.009	1.05	1.34
41-Puaroa Str (Marokopa Flats)	190	0.08	0.007	0.09	0.006	2.11	1.34
42-Kiritehere Str	460	<0.002	0.006	<0.002	0.009	1.73	1.34

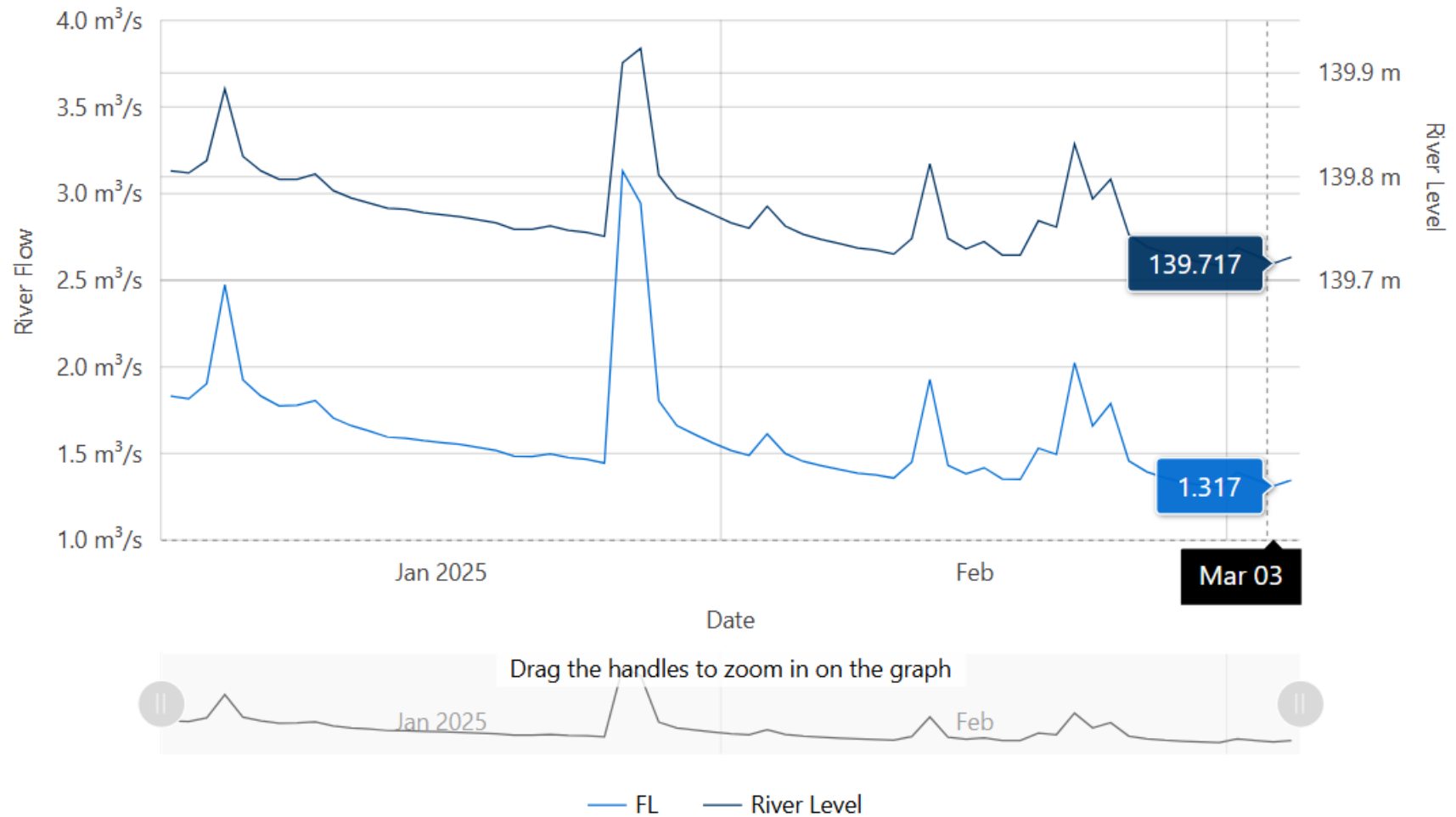
¹Water clarity has been converted from measured turbidity using the formula $\ln(\text{CLAR}) = 1.21 - 0.72 \ln(\text{TURB})$ (Franklin, Booker & Stoffels, 2020).

²Guideline values to assess ecological impacts of nitrogen on freshwater life. Attribute band limits are from the NPS-FM consultation draft (2019)

Attribute Band		
A	Ecosystem Health	Human Contact
B		
C		
D		
E	Human Contact only	

River Level and Flow Rate – Marokopa River, Waterfall

The below chart presents continuous data collected by the Waikato Regional Council for Marokopa River between 1st January and 4th March 2025. River Level and Flow Rate on the day of sampling (3 March) are highlighted.



Data source: Waikato Regional Council [envirohub website](#) for environmental data.

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