Marokopa River – Quarterly River Monitoring May

Sample Collection Day: 15th May 2025

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

E. coli concentrations were very low in Kiritehere stream and Puaroa stream (≤ 81 cells per 100 mL) and slightly elevated in Mangaohuinga stream (370 cells per 100 mL) and Wairoa stream (360 cells per 100 mL). All sites fell within health guidelines for swimming (540 cells per 100 mL) and Kritehere stream and Puaroa stream met guidelines for livestock drinking water (< 100 cells per 100 mL).

Nitrogen: Nitrate concentrations were low in Kiritehere stream and Puaroa stream (≤ 0.26 mg/L) and moderate in Mangaohuinga stream and Wairoa stream (0.52 – 0.54 mg/L). All sites fell well below the ecological toxicity threshold (2.4 mg/L). **Ammonia** concentrations were low across all sites (≤ 0.03 mg/L). **Dissolved inorganic nitrogen (DIN)** was very low in Kiritehere stream (0.09 mg/L), low in Puaroa stream (0.27 mg/L) and slightly elevated in Mangaohuinga stream and Wairoa stream (0.52 – 0.54 mg/L), exceeding the ecological impact threshold (0.5 mg/L).

Phosphorus: Dissolved reactive phosphorus (DRP) concentrations were low in Puaroa stream (0.008 mg/L) and slightly elevated in the other three sites (0.011 - 0.015 mg/L), which can contribute to problematic aquatic plant and algae growth.

Suspended sediment/Water Clarity: Water clarity was *Excellent* in Kiritehere stream (2.20 m), *Fair* in Puaroa stream (1.39 m) and *Poor* in Mangaohuinga stream (1.07 m) and Wairoa stream (0.70 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: 15-May-25 Lab: Analytica	Human Contact	Ecosystem Health					
		Water Quality					
						Sediment	
	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)	Water Clarity (m)[1]	National Bottom Line
39-Mangaohuinga Str	370	0.51	0.010	0.52	0.015	1.07	1.34
40-Wairoa Str	360	0.51	0.030	0.54	0.011	0.70	1.34
41-Puaroa Str (Marokopa Flats)	81	0.26	0.007	0.27	0.008	1.39	1.34
42-Kiritehere Str	72	0.08	0.006	0.09	0.012	2.20	1.34

[1]Water clarity has been converted from measured turbidity using the formular ln(CLAR) = 1.21 – 0.72 ln(TURB) (Franklin, Booker & Stoffels, 2020).

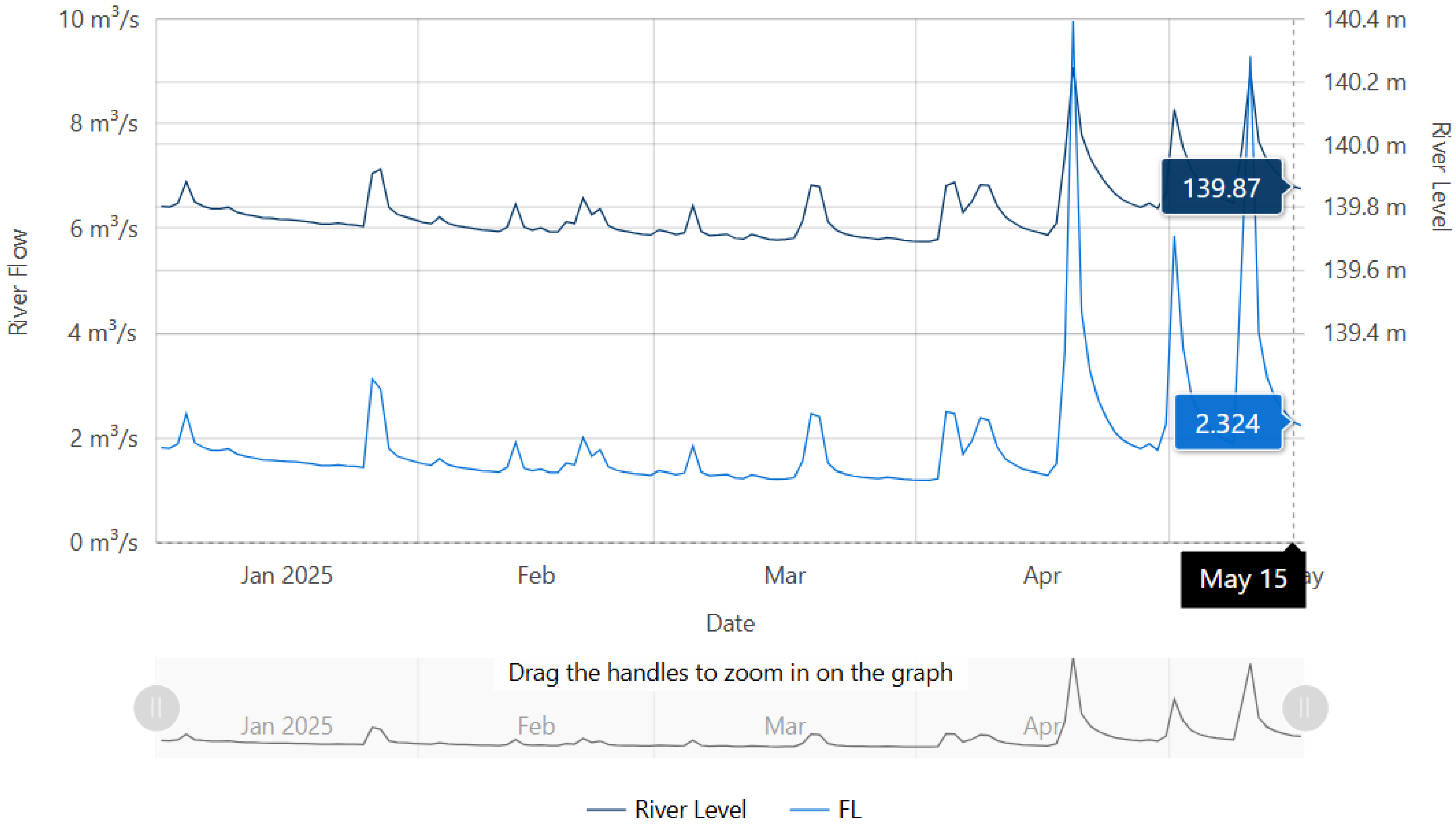
[2]Guideline values to assess ecological impacts of nitrogen on freshwater life. Attribute band limits are from the NPS-FM consultation draft (2019)

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

Prepared by Freshwater Ecologist Merrin Whatley (PhD)

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 16th May 2025. River Level and Flow Rate on the day of sampling (15-May) are highlighted.



Data source: Waikato Regional Council envirohub website for environmental data.

Prepared by Freshwater Ecologist Merrin Whatley (PhD)