

## Marokopa River – Quarterly River Monitoring August

Sample Collection Day: 7<sup>th</sup> August 2025

Water quality was **Fair** in all four sites – Mangaohuinga stream (Site 39), Wairoa stream (Site 40), Puaroa stream (Site 41) and Kiritehere Stream (Site 42).

**E. coli** concentrations were very low across all sites ( $\leq 120$  cells per 100 mL), falling well within health guidelines for swimming (540 cells per 100 mL). Three sites also met guidelines for livestock drinking water ( $< 100$  cells per 100 mL)<sup>1</sup>.

**Nitrogen: Nitrate** concentrations were low in Kiritehere stream and Puaroa stream ( $\leq 0.31$  mg/L) and moderate in Mangaohuinga stream and Wairoa stream (0.71 & 0.77 mg/L). All sites fell well below the ecological toxicity threshold (2.4 mg/L). **Ammonia** concentrations were low across all sites ( $\leq 0.06$  mg/L).

**Dissolved inorganic nitrogen (DIN)** was very low in Kiritehere stream (0.12 mg/L), low in Puaroa stream (0.31 mg/L) and slightly elevated in Mangaohuinga stream and Wairoa stream (0.71 & 0.83 mg/L), exceeding the ecological impact threshold (0.5 mg/L).

**Phosphorus: Dissolved reactive phosphorus (DRP)** concentrations were low in three sites (0.009 mg/L) and slightly elevated in Kiritehere stream (0.011 mg/L), which can contribute to problematic aquatic plant and algae growth.

**Suspended sediment/Water Clarity** was **Poor** across all sites ( $\leq 0.53$  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: 7-Aug-24 Lab: Analytica	Ecosystem Health						
	Human Contact  E. coli/100 ml	Water Quality				Sediment	
		Nitrates Toxicity (mg N/L)	Ammonia Toxicity (mg N/L)	Dissolved Inorganic Nitrogen (mg N/L) <sup>2</sup>	Dissolved Reactive Phosphorus (mg/L)	Water Clarity (m) <sup>1</sup>	National Bottom Line
39-Mangaohuinga Str	120	0.71	<0.005	0.71	0.009	0.87	1.34
40-Wairoa Str	46	0.77	0.06	0.83	0.009	0.53	1.34
41-Puaroa Str (Marokopa Flats)	35	0.31	<0.005	0.31	0.007	0.76	1.34
42-Kiritehere Str	70	0.12	<0.005	0.12	0.011	0.79	1.34

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

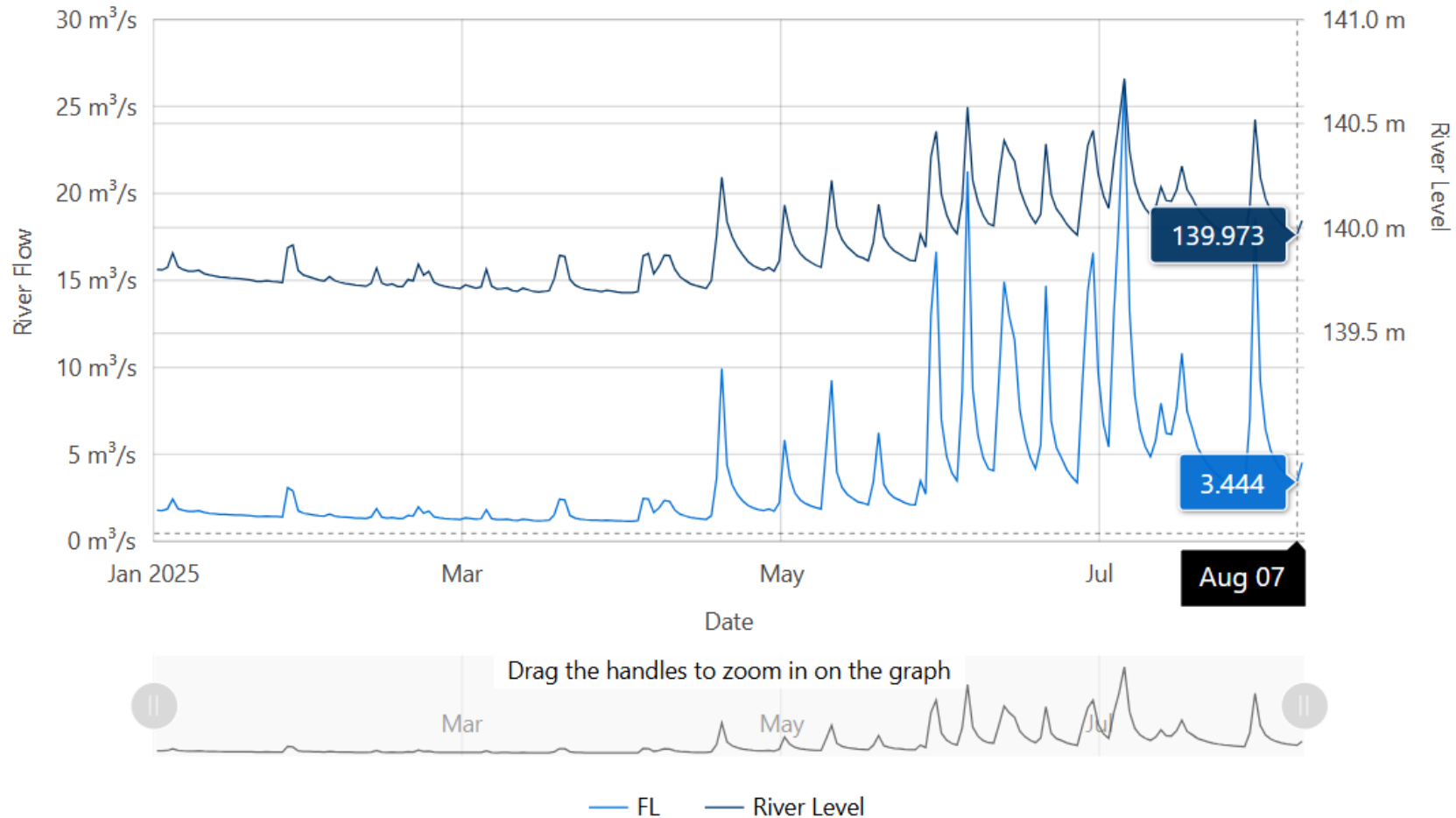
<sup>1</sup>Water clarity has been converted from measured turbidity using the formular  $\ln(\text{CLAR}) = 1.21 - 0.72 \ln(\text{TURB})$  (Franklin, Booker & Stoffels, 2020).

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

<sup>1</sup> Drinking water for livestock should contain  $< 100$  cfu/100 mL (median value) of E. coli. Livestock Drinking Water Guidelines (2023), Australian & New Zealand Guidelines for Fresh & Marine Water Quality.

## River Level and Flow Rate – Marokopa River, Waterfall

The below chart presents continuous data collected by the Waikato Regional Council for Marokopa River between 1<sup>st</sup> January and 8<sup>th</sup> August 2025. River Level and Flow Rate on the day of sampling (7-August) are highlighted.



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

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