

## Marokopa River – Quarterly River Monitoring August

Sample Collection Day: 15<sup>th</sup> December 2025

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

**E. coli** concentrations were low in three out of four sites ( $\leq 180$  cells per 100 mL), falling well within health guidelines for swimming (540 cells per 100 mL). Concentrations were elevated in Wairoa stream (970 cells per 100 mL). No sites met guidelines for livestock drinking water ( $< 100$  cells per 100 mL)<sup>1</sup>.

**Nitrogen: Nitrate** concentrations were very low across all sites ( $\leq 0.22$  mg/L), falling well below the ecological toxicity threshold (2.4 mg/L). **Ammonia** concentrations were very low across all sites ( $< 0.01$  mg/L). **Dissolved inorganic nitrogen (DIN)** was also very low across all sites ( $\leq 0.22$  mg/L), fall well below the ecological impact threshold (0.5 mg/L).

**Phosphorus: Dissolved reactive phosphorus (DRP)** concentrations were very low in three sites ( $< 0.004$  mg/L).

**Suspended sediment/Water Clarity** was **Excellent** in Mangaohuinga stream (2.19 m) and **Poor** across all other sites ( $\leq 1.12$  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-Dec-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) <sup>2</sup>	Dissolved Reactive Phosphorus (mg/L)	Water Clarity (m) <sup>1</sup>	National Bottom Line
39-Mangaohuinga Str	130	0.09	<0.01	0.09	<0.004	2.19	1.34
40-Wairoa Str	970	0.22	<0.01	0.22	<0.004	0.70	1.34
41-Puaroa Str (Marokopa Flats)	110	0.12	<0.01	0.12	<0.004	1.12	1.34
42-Kiritehere Str	180	<0.002	<0.01	<0.01	<0.004	0.98	1.34

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

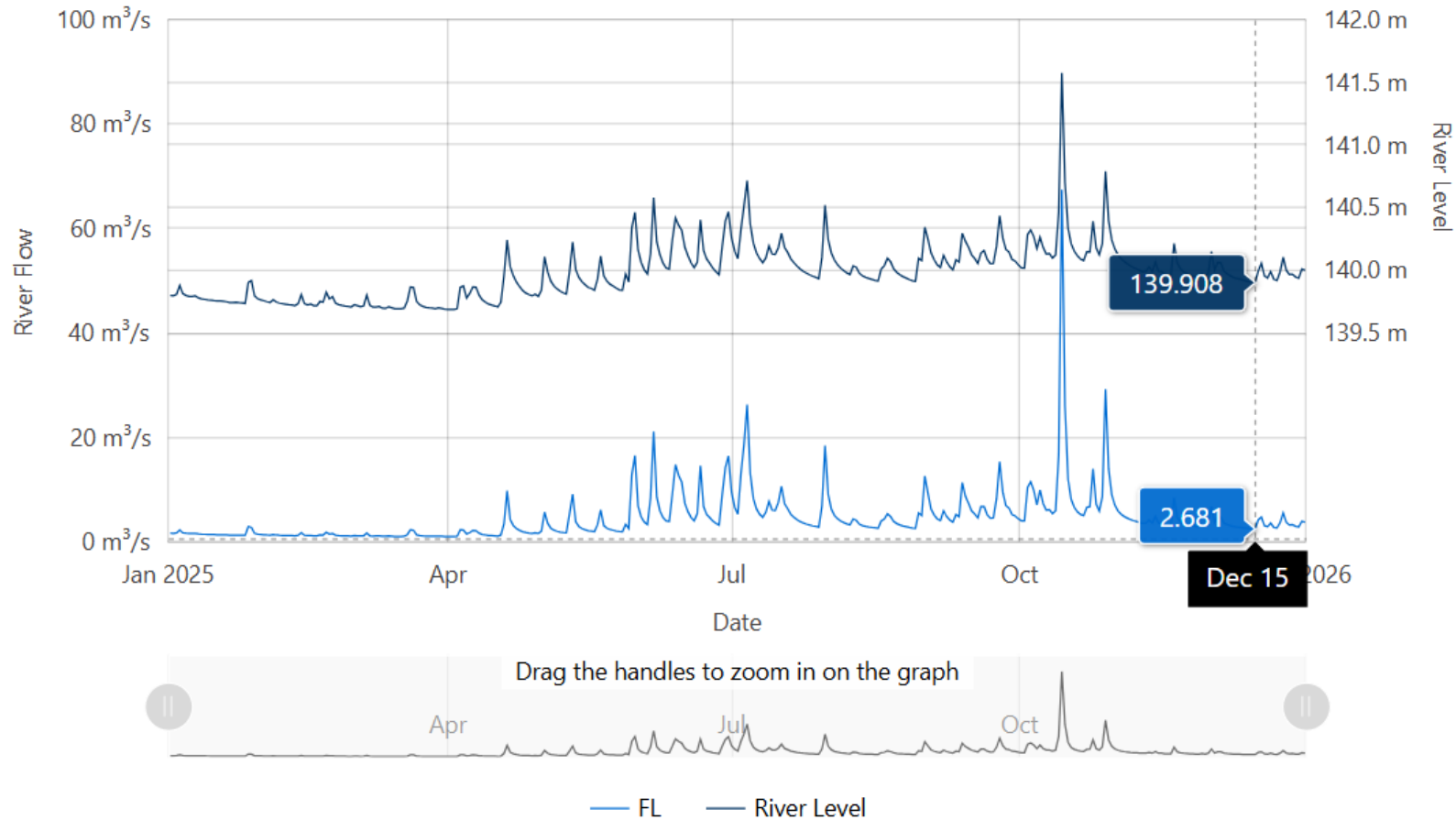
<sup>1</sup>Water clarity has been converted from measured turbidity using the formular  $\ln(\text{CLAR}) = 1.21 - 0.72 \ln(\text{TURB})$  (Franklin, Booker & Stoffels, 2020).

<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 31<sup>st</sup> December 2025. River Level and Flow Rate on the day of sampling (15-December) are highlighted.



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

Prepared by Freshwater Ecologist Merrin Whatley (PhD)