

Marokopa River – Quarterly River Monitoring

Sample Collection Day: 22nd August 2024

Water quality was Fair. Dissolved inorganic nitrogen was slightly elevated at two sites and water clarity was low at all sites.

E. coli concentrations were low at all sites (≤ 240), falling well within the recommended health limits for swimming (540). **Nitrate** concentrations were low at all sites, falling well below ecological toxicity levels (2.4 mg/L). Nitrate concentrations were lowest at 42-Kiritehere Stream (< 0.12 mg/L) and highest at 39-Mangaohuinga stream (0.65 mg/L) and 40-Wairoa stream (0.66 mg/L). **Ammonia** concentrations were low at all sites (≤ 0.01 mg/L). **Dissolved inorganic nitrogen (DIN)** was slightly elevated at two sites, 39-Mangaohuinga stream and 40-Wairoa stream. DIN concentrations greater than 0.5 mg/L can cause ecological impacts like excessive growth of algae and aquatic plants, and loss of sensitive species. **Dissolved reactive phosphorus** concentrations were low at all sites (≤ 0.007). **Water clarity** was poor at all sites (≤ 0.83 m), relative to the national bottom line (1.34 m).

Marokopa River Date: 22-Aug-24 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	240	0.65	<0.005	0.65	0.006	0.46	1.34
40-Wairoa Str	170	0.66	0.006	0.66	0.004	0.48	1.34
41-Puaroa Str (Marokopa Flats)	120	0.37	0.01	0.38	0.004	0.83	1.34
42-Kiritehere Str	62	0.12	<0.005	0.12	0.007	0.74	1.34

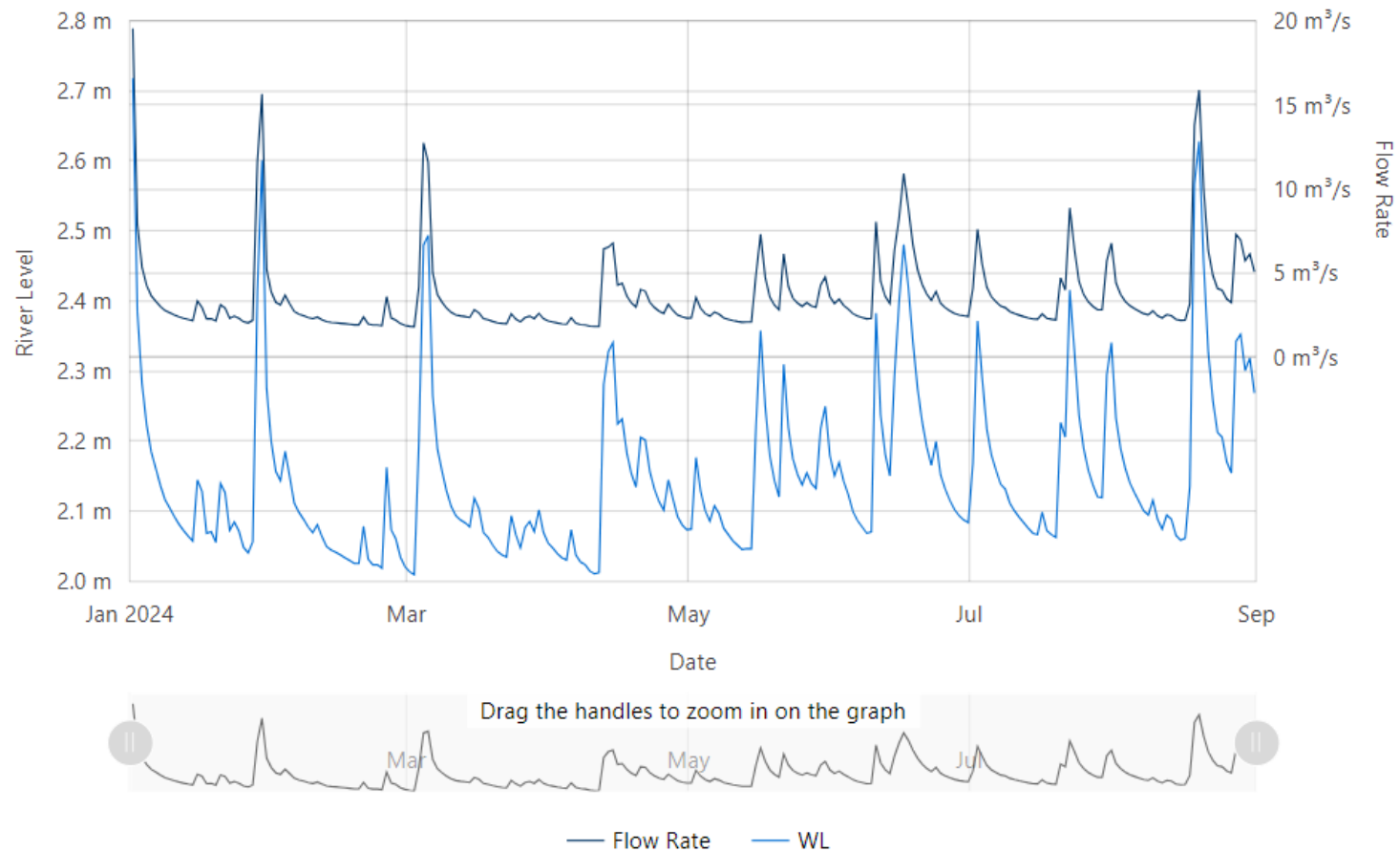
¹Water clarity has been converted from measured turbidity using the formula $\ln(\text{CLAR}) = 1.21 - 0.72 \ln(\text{TURB})$ (Franklin, Booker & Stoffels, 2020).

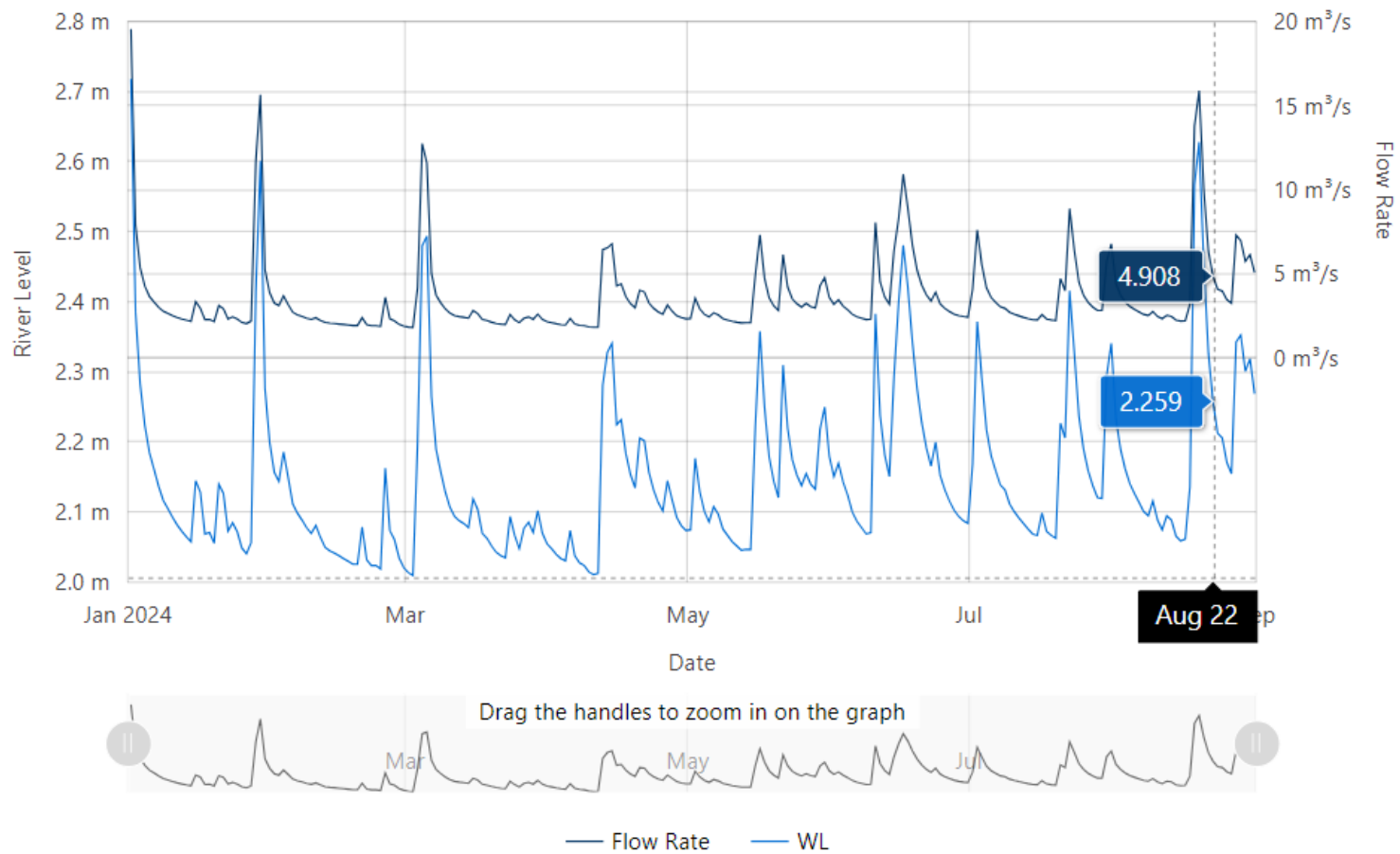
²Guideline values to assess ecological impacts of nitrogen on freshwater life. Attribute band limits are from the NPS-FM consultation draft (2019)

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

River Level and Flow Rate – Marokopa River, Waterfall

The below charts present continuous data collected by the Waikato Regional Council for Marokopa River between 1st January and 31st August 2024. River Level and Flow Rate on the day of sampling (22-August) are highlighted on the second chart.





Data source: Waikato Regional Council [envirohub website](https://www.waikato.govt.nz/environment/monitoring-and-reporting/monitoring-and-reporting-data/) for environmental data.