

Marokopa River – Quarterly River Monitoring

Sample Collection Day: 18th November 2024

Water quality was Fair. *E. coli* and suspended sediment were elevated at all sites, while nutrients were slightly elevated at 75% of sites.

E. coli concentrations were high at all sites (between 280 and 1,200). Two sites fell above the recommended health limit for swimming (540). *E. coli* concentrations were lowest at 42-Kiritehere stream and highest at 40-Wairoa stream. **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 (< 0.10 mg/L) and highest at 40-Wairoa stream (0.53 mg/L).

Ammonia concentrations were low at all sites (≤ 0.03 mg/L). **Dissolved inorganic nitrogen (DIN)** concentrations were 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 three sites (≤ 0.009) and slightly elevated at 42-Kiritehere stream (0.011 mg/L). **Water clarity** was poor at all sites (≤ 0.73 m), relative to the national bottom line (1.34 m).

Marokopa River Date: 18-Nov-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	670	0.51	0.006	0.52	0.009	0.48	1.34
40-Wairoa Str	1,200	0.53	0.03	0.56	0.008	0.39	1.34
41-Puaroa Str (Marokopa Flats)	440	0.30	<0.005	0.30	0.006	0.73	1.34
42-Kiritehere Str	280	0.10	0.009	0.11	0.011	0.50	1.34

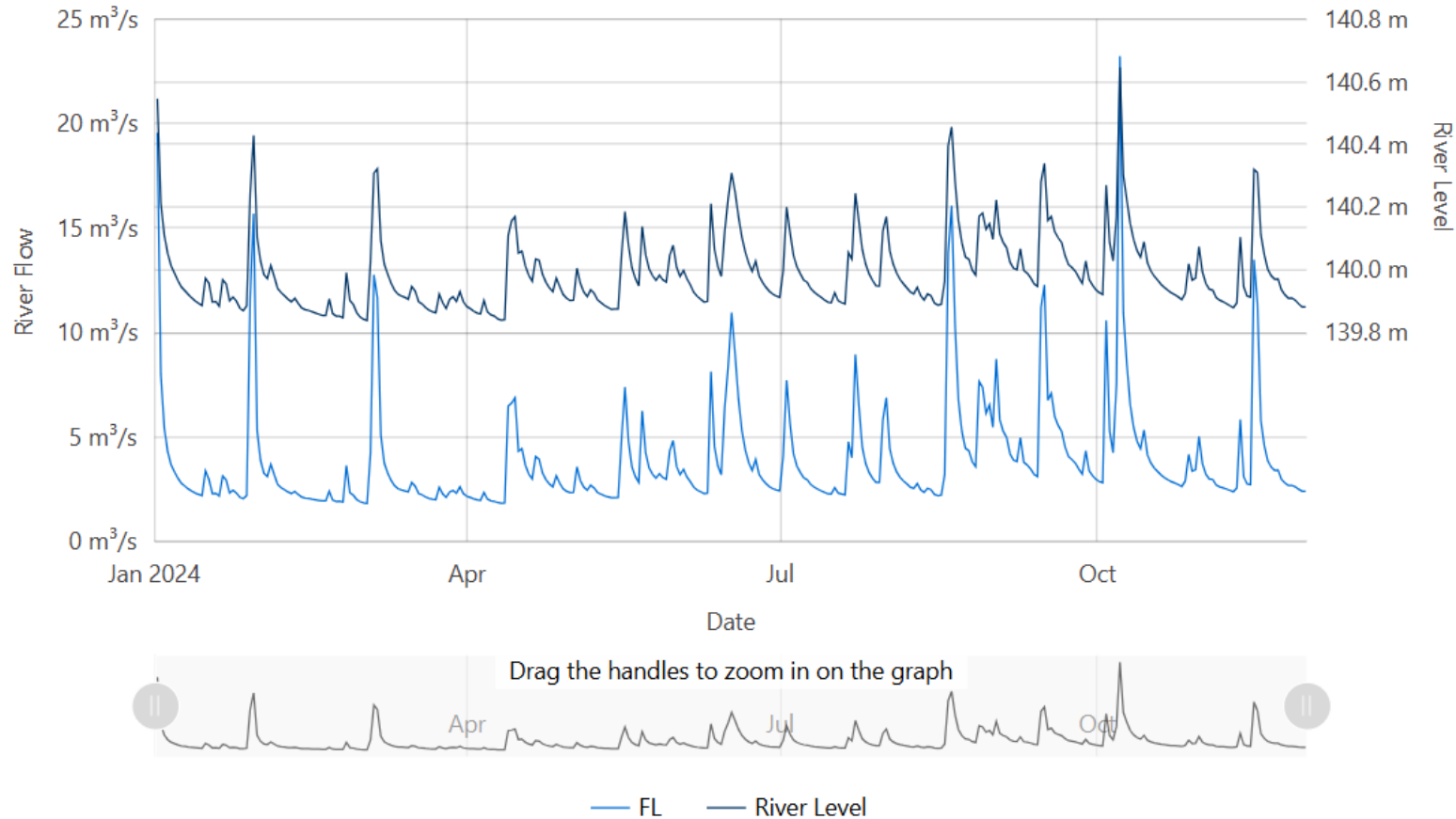
¹Water clarity has been converted from measured turbidity using the formular $\ln(\text{CLAR}) = 1.21 - 0.72 \ln(\text{TURB})$ (Franklin, Booker & Stoffels, 2020).

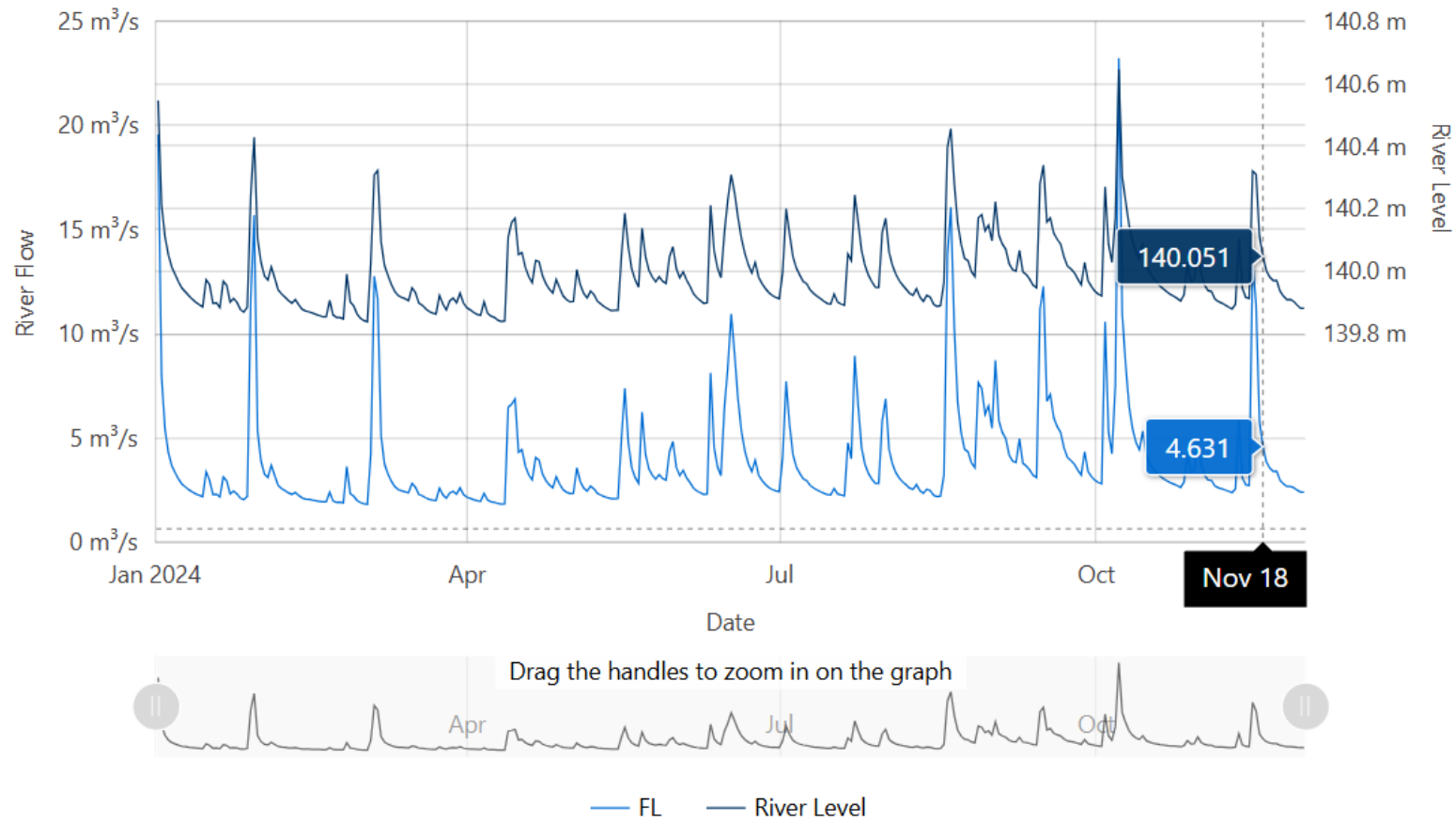
²Guideline values to assess ecological impacts of nitrogen on freshwater life. Attribute band limits are from the NPS-FM consultation draft (2019)

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 30th November 2024. River Level and Flow Rate on the day of sampling (18-November) are highlighted on the second chart.





Data source: Waikato Regional Council [envirohub website](https://www.waikatoregion.govt.nz/whareroa/whareroa-environmental-data) for environmental data.