Marokopa River – Quarterly River Monitoring

Sample Collection Day: 13th May 2024

Water quality was Good, except for dissolved reactive phosphorus and water clarity, which were impacted across several sites.

E. coli concentrations were very low at all sites (≤ 130), 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 (< 0.03 mg/L) and highest at 39-Mangaohuinga stream (0.43 mg/L). **Ammonia** concentrations were low at all sites (≤ 0.02 mg/L). **Dissolved inorganic nitrogen** was low at all sites. **Dissolved reactive phosphorus** concentrations were low at 3 sites (≤ 0.007) and slightly elevated at 39-Mangaohuinga stream (0.011 mg/L). **Water clarity** was excellent at 39-Mangaohuinga stream and 42-Kiritehere stream (≥ 1.79 m) but was poor at 40-Wairoa stream and 41-Puaroa stream (≤ 1.24 m), relative to the national bottom line (1.34 m).

Marokopa River Date: 13-May-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	70	0.43	<0.005	0.43	0.011	1.79	1.34
40-Wairoa Str	130	0.42	0.02	0.44	0.006	1.10	1.34
41-Puaroa Str (Marokopa Flats)	21	0.24	<0.005	0.24	0.007	1.24	1.34
42-Kiritehere Str	32	0.03	<0.005	0.03	0.006	2.11	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	Human Contact
B		
C		
D		
E	Human Contact only	

Prepared by Freshwater Ecologist Merrin Whatley (PhD)