3.4 Freshwater objectives and as inclusion as standards within the plan

Aquatic ecosystem health and life supporting capacity ~~mahinga kai~~ objectives

Table 3.4 Rivers and Streams

	River Class	Biological		Water quality									Flows			habitat		
		fish	macrophytes	Periphyton	Invertebrates	Temp	pH	DO	Nutrients		Water clarity	Toxicants	Minimum	Core allocation	Hydrological variability	Sediment cover	Natural Character	
				≤ mg/m² chlorophyll a	Macroinvertbrate community index ≥	°C		% saturation	Dissolved inorganic nitorgen ≤ mg/L	Dissolved reactive phosphorus ≤ mg/L	≥ m (flows under 50th %ile	NO_3N smg/L / NH_3N	% natural MALF	% natural MALF	narrative	≤ % visual cover fine sediment	Narrative	Natural Character Index
1	Steep, hard sedimentary	Indigenous Fish communities are resilient and their structure composition and diversity are balanced	Indigenous Macrophytes communities are resilient and their structure composition and diversity are balanced	50 S 50	120 SM 130	19 SM19 TS 11	S 8 – 8.5 SM 6.1 – 8.2	90 SM 90	0.1 SM 0.1	0.007 SM 0.007	10	CH 2.4/3.5 SM 1/1.5 A 20 / CH 99% A mg/l USEPA 2009	MALF	0	*natural flow characteristics including the natural pattern and range of water level fluctuations and hydrodynamic processes of rivers, lakes and natural wetlands and coastal habitats is provided for to safeguard aquatic habitat diversity and quality, to ensure the natural connectivity between habitats, and to enable fish to complete their lifestages unimpeded including migration, breeding, spawning, juvvenile and adult life stages and feeding requirements.*	10 SM 10	*river form (including pool, run, riffle, and riparian margins) and function (including hydrological regime and fluvial processes) is suitable to support fish through their life phases and protect, and where degraded restore, ecosystem health*	0.9
2	Mid gradient, coastal and hard sedimentary			120 SM 50	105 SM 130	20 SM 19 TS 11	6.4 – 8.9 SM 6.7 – 8.6	80 SM 80	0.4 Sm 0.2	0.012 SM 0.010	6		80	20		20 SM 10 TS 10		0.8
3	Mid gradient, soft sedimentary			120 SM 50	105 SM 130	21 SM 19 TS 11	6.8 – 8.7 SM 7.1 – 8.4	70 SM 80	0.4 SM 0.2	0.012 SM 0.010	3		70	20		-		0.8
4	Lowland, large, draining ranges			120 SM 50	110 SM 130	19 SM 19 TS 11	5.8 – 8.5 SM 6.1 – 8.2	80 SM 80	0.3 SM 0.2	0.010 SM 0.010	6		90	30		20 SM 10 TS 10		0.8
5	Lowland, large, draining plains and			120 SM 50	100 SM 120	22 SM 19 TS 11	5.8 – 8.7 SM	70 SM 80	0.6 SM 0.2	0.019 SM 0.010	3		80	30		30 SM 20 TS 10		0.7

	eastern Wairarapa						6.1 – 8.4											
6	Lowland small			120 SM 50	100 SM 120	21 SM 19 TS 11	5.8 – 7.8 SM 6.1 – 7.5	70 SM 80	0.6 SM 0.2	0.019 SM 0.010	3			70	20		30 SM 20 TS 10		0.7

SM Rivers or streams with high macroinvetebrate community health, ientified in colum 2 of schedule F1 (rivers/lakes)
TS Trout spawning rivers during winter periods from 1 May through to 1 October
A Acute
CH Chronic
Other toxicants not identified in table 3.4 should not exceed the trigger A values identified in the ANZECC (2000) guidelines for the level of protection of 95% or for SM rivers 99% species protection.

Periphyton % cover shall not exceed 30%

Cyanobacteria cover shall not exceed 20%

Relief sought - Note the numerical values are given as a guide only and may be amended either up or down as more data is analysed against the values.