



WATER QUALITY SITES, RESULTS AND WHAT IT TELLS US

TODAYS PURPOSE

- Where are the current test sites and how often are they tested?;
- What are the current results from water testing in our catchment telling us?;
- Would Horizons recommend we do more testing in our catchment and if yes where?;
- Is there clear evidence that stream fencing has improved water quality?

FRESHWATER MANAGEMENT UNIT



Legend

- State of the Environment Water Quality
- Recreational Water Quality
- River
- Place Name



CURRENT MONITORING LOCATIONS

ASSESSMENT AGAINST NOF

NOF bands for SoE parameters within the Kai Iwi WMZ

Site	Ammoniacal-N (Max)	Ammoniacal-N (Median)	Nitrate-N (95th Percentile)	Nitrate-N (Median)	DRP (95th Percentile)	DRP (Median)	Clarity (Suspended fine sediment)	E. coli (>260)	E. coli (>540)	E. coli (95th Percentile)	E. coli (Median)	E. coli Swimmability
Kai Iwi Stream at Handley Road	B	A	A	A	B	C	D	D	D	D	D	D

■ A ■ B ■ C ■ D ■ E



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ASSESSMENT AGAINST NOF

Monitoring site	Ammoniacal I-N (Median)	Ammoniacal I-N (Max)	Nitrate-N (Median)	Nitrate-N (95th)	<i>E. coli</i> (>260)	<i>E. coli</i> (>540)	<i>E. coli</i> (Median)	<i>E. coli</i> (95th)	<i>E. coli</i> (combined)
Mōwhānau Stream at Footbridge	A	B	A	A	E	E	D	D	D

■ A ■ B ■ C ■ D ■ E



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TRENDS

Site	Ammoniacal Nitrogen	Nitrate	SIN	DRP	DO Sat	Clarity	<i>E. coli</i>	<i>E. coli</i> (>260)	<i>E. coli</i> (>540)
Mōwhānau Stream at Footbridge	Extremely likely	As likely as not	Unlikely	As likely as not	Not Analysed	Not Analysed	As likely as not	As likely as not	As likely as not

■ Exceptionally unlikely
 ■ Extremely unlikely
 ■ Very unlikely
 ■ Unlikely
 ■ As likely as not
 ■ Likely
 ■ Very likely
 ■ Extremely likely
 ■ Virtually certain
 ■ Not Analysed



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OTOTOKA STREAM AT BEACH ROAD

E. coli sampling graph

View as graph

View as donut



12% Suitable for swimming

21% Caution advised

67% Unsuitable for swimming

Summary from 95 samples



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KAI IWI AT ARCHERS' BRIDGE

E. coli sampling graph

View as graph

View as donut



16% Suitable for swimming

37% Caution advised

47% Unsuitable for swimming

Summary from **116** samples



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MOWHANAU STREAM AT FOOTBRIDGE

E. coli sampling graph

View as graph

View as donut



19% Suitable for swimming

39% Caution advised

43% Unsuitable for swimming

Summary from **145** samples



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Indicator	Condition	
	Kai Iwi	Mōwhānau
Mud content	Poor	Good
Depth of sediment oxygenation	Poor	Very good
Total nitrogen	Moderate	Very good
Total organic carbon	Moderate	Very good
Trace elements	Very good	Very good
Dissolved oxygen	Very good	Very good
Phytoplankton	Very good	Moderate
Mud extent	Poor	Very good
Macroalgae	Very good	Very good
Salt marsh extent	Moderate	Poor
200 m terrestrial margin	Poor	Poor
Sedimentation rate	Poor	Poor

ESTUARY HEALTH



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Legend

- State of the Environment Water Quality
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- Place Name



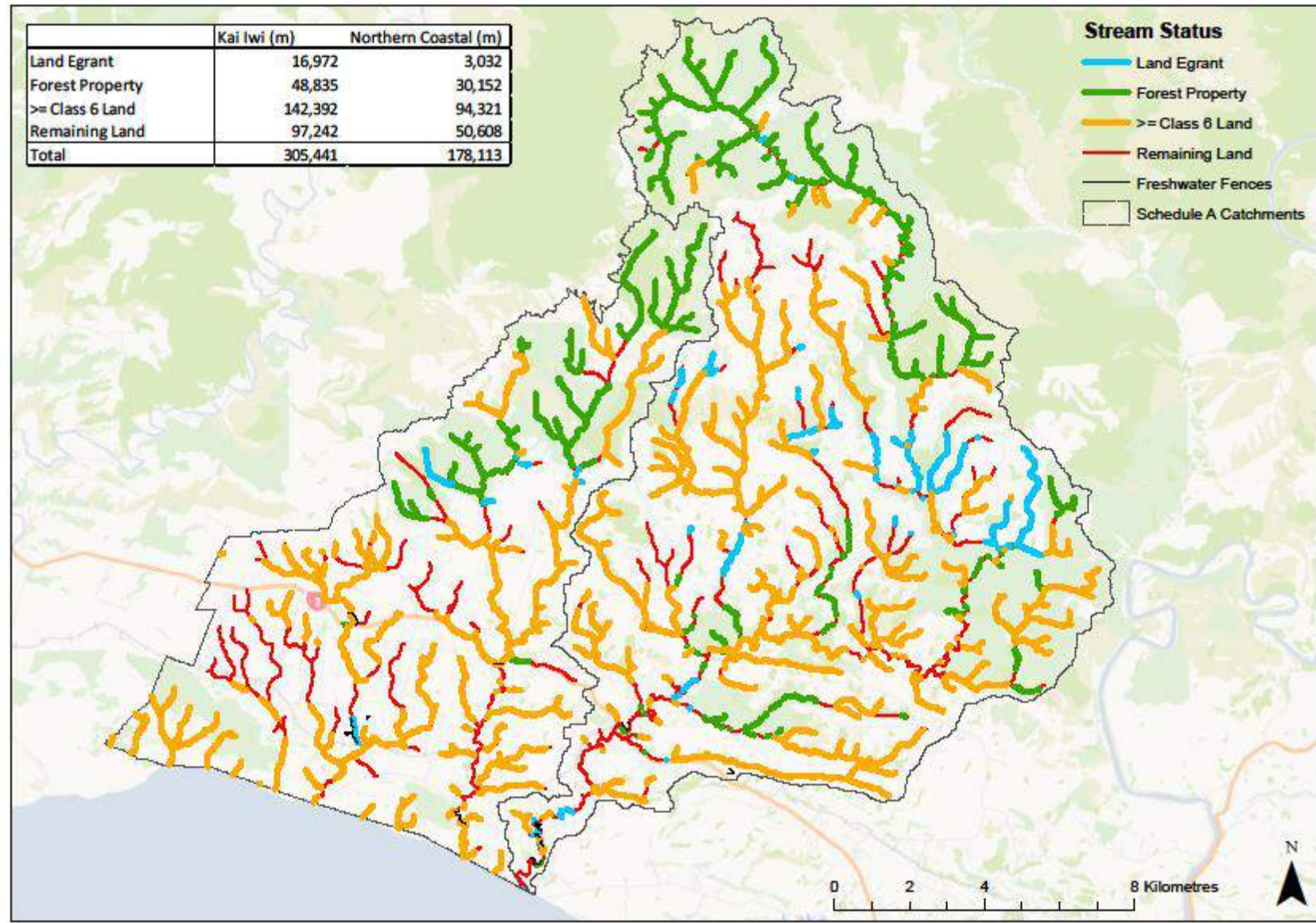
MORE MONITORING?

IS THERE CLEAR EVIDENCE THAT STREAM FENCING HAS IMPROVED WATER QUALITY?

Mowhanau Catchment Stream Fencing
Funded by Horizons Regional Council



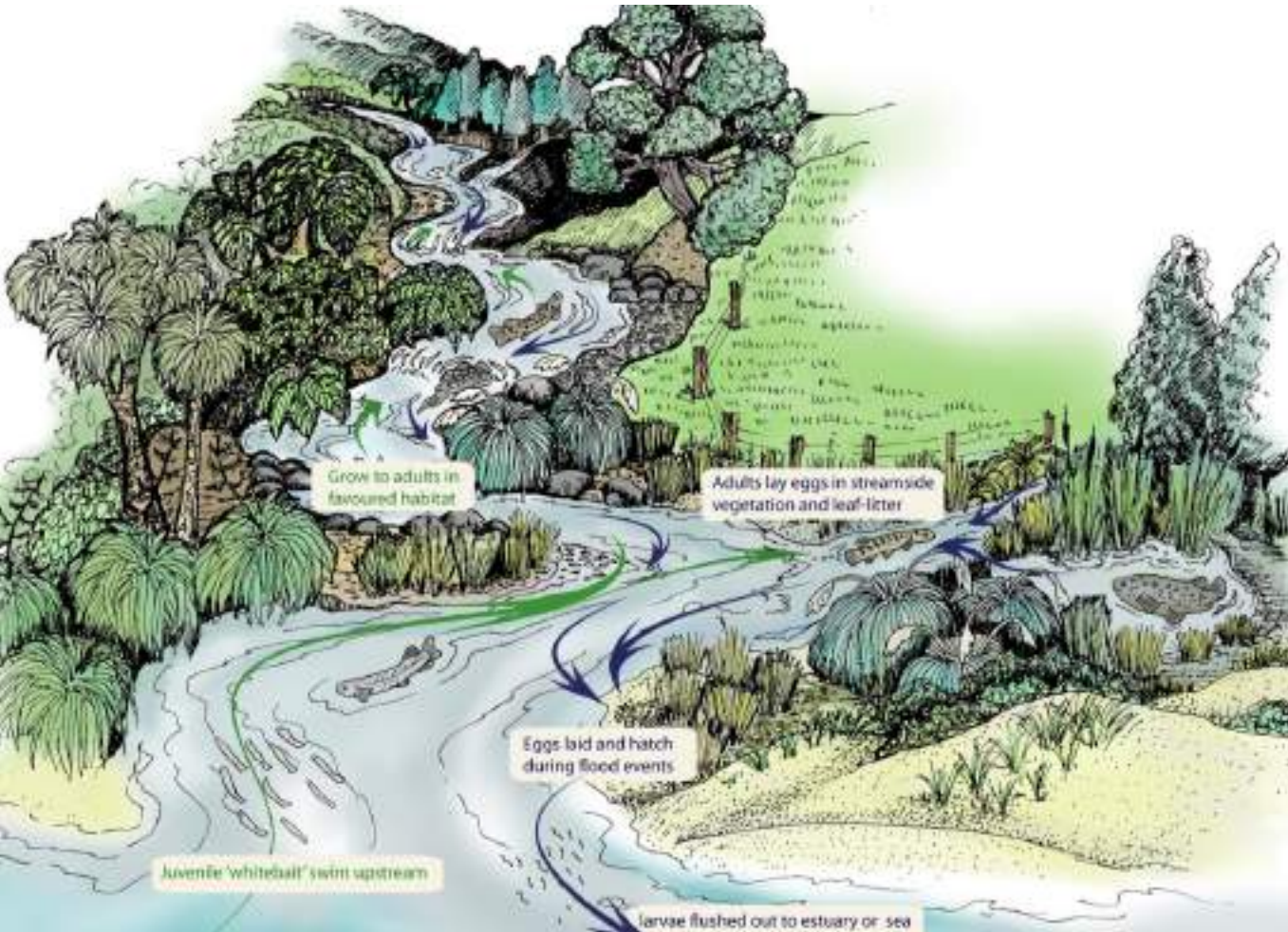
Yes - but not in this FMU – as a result of scale.



OTHER MEASURES OF WATER AND HABITAT QUALITY



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REGIONAL COUNCIL



For more information visit www.horizons.govt.nz
or freephone Horizons on **0508 800 800**