

# Tukituki Land Care

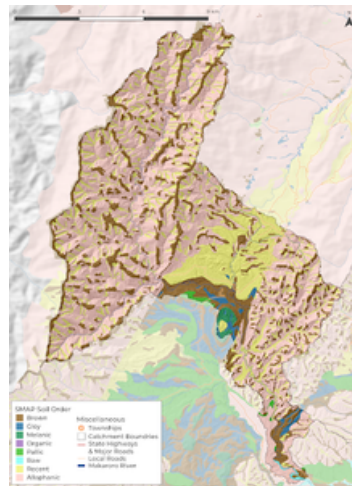
## Makaroro

### SUB-CATCHMENT PLAN: SUMMARY

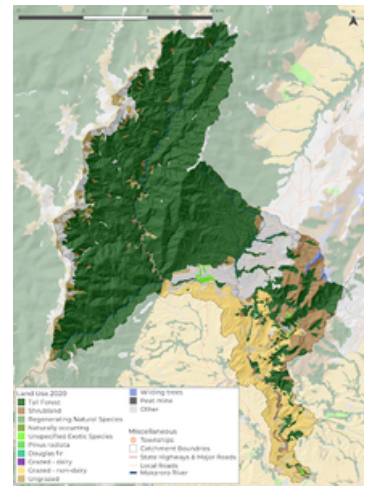
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The Makaroro River originates from the Ruahine Range, flowing southeast before joining the Waipawa River near Tikokino. The catchment is 12,197ha which is close to five percent of the wider Tukituki catchment.

Currently, no catchment group has been established.

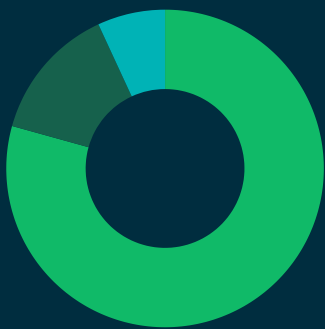


SMAP Soil Order - Makaroro



Land Use (LUCAS) - Makaroro

The Makaroro stands apart from many other Tukituki sub-catchments. It is one of the steepest and most heavily forested, with distinct soil characteristics and the highest proportion of indigenous forest in the region.



- Indigenous Forest
- Pasture
- Exotic Forest and Scrub

Land use in the Makaroro catchment differs from the wider Tukituki catchment. Indigenous forest covers 69 percent of the area, while pasture accounts for 12 percent. Less than six percent is covered by exotic forest or mānuka and kānuka scrub.

*"Tukituki Land Care (TLC) is tackling the big issues sub-catchment by sub-catchment, to piece together The Big Picture."*

**Richard Hilson**

Chair, Tukituki Land Care



SCAN FOR FULL REPORT



# MAKARORO CATCHMENT: CONTEXT

## WATER QUALITY

Water quality in the Makaroro sub-catchment is generally good compared to other areas within the Tukituki catchment, largely due to its headwater origins. Nutrient levels, including nitrogen and phosphorus, remain relatively low, and E. coli concentrations are within acceptable limits. However, sediment levels can fluctuate, particularly during periods of heavy rainfall, leading to reduced water clarity downstream.

The table below shows Makaroro catchment water quality indicators over a five-year rolling average. The standard represents water quality levels based on the Tukituki plan or national standards.

Water Quality Parameter	Makaroro	Standard
Nitrogen (DIN)	0.073 mg/ L	0.15
Phosphorus (DRP)	0.006mg/ L	0.004
Bacteria (E.coli)	12.5 (count)	260
Freshwater invertebrates (MCI)	121.42 (index)	120
Sediment (Turbidity)	3.4 mg/ L	4.1FNU (light)



FOR MORE INFORMATION HEAD TO [WWW.TUKITUKILANDCARE/MAKARORO](http://WWW.TUKITUKILANDCARE/MAKARORO)

## SUB-CATCHMENT ACTIONS

- Form a Makaroro catchment group, with support from TLC, to review The TLC Catchment Plan, share knowledge and coordinate actions.
- No community concerns or challenges were available but [TLC Toolbox](#)\* will be valuable as general guidance.
- Develop erosion management strategy. Consider poplar planting, oversowing with legumes, strategic fencing to retire or manage grazing, and native or exotic afforestation. Use [TLC's Surface Erosion Tool](#)\*, [TLC's On-Farm Action Planning Tool](#)\* and [TLC's Plant Selection Tool](#)\*.
- Connect with [local advisors](#)\* for tailored advice and potential funding opportunities.
- Commit to TLC's THR3E: three practical steps you can implement on your farm over the next three years.

\*[WWW.TUKITUKILANDCARE.ORG/TOOLBOX](http://WWW.TUKITUKILANDCARE.ORG/TOOLBOX)