### Tukituki Land Care

# SUB-CATCHMENT PLAN: SUMMARY

### HĀWEA AT A GLANCE

The Hāwea catchment is situated on the eastern border of the wider Tukituki catchment. Spanning 4,984ha, the catchment represents two percent of the wider Tukituki catchment.

The catchment is primarily composed of hill country farmland, including areas of very steep terrain.

Erosion and sedimentation continue to be significant challenges across the catchment. Aging poplar and willow plantings along waterways are also causing damage during floods.





70 percent of the catchment is in pasture, 26 percent in exotic forest and less than 3 percent covered by native vegetation.

"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





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## HĀWEA CATCHMENT: CONTEXT



### LANDSCAPE CONTEXT

The underlying geology consists predominantly of mudstone and claystone, making the landscape highly susceptible to erosion.

A desktop analysis indicates that most of the catchment is at risk of erosion, with certain areas in the northwest exhibiting significantly higher susceptibility compared to the rest of the catchment.

There is a significant amount of highly erodible land, with most of the catchment in the top 50 percent of erodible land in the Tukituki.



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### WATER QUALITY

A summary of key water quality indicators, based on a five-year rolling average, is provided below. While nitrogen and sediment levels are within acceptable thresholds, phosphorus levels exceed the standard, and freshwater invertebrate health is notably low. It must be acknowledged that water quality targets for the Hāwea catchment are currently measured within the Makara catchment.

Water Quality Parameter	Hawea	Standard
Nitrogen (DIN)	0.161 mg/ L	0.8
Phosphorus (DRP)	0.028 mg/ L	0.015
Bacteria (E.coli)	140 (count)	260
Freshwater invertebrates (MCI)	56 (index)	100
Sediment (Turbidity)	3.1 mg/ L	5.6 FNU (light)

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### AND CHALLENGES

### Tukituki Land Care

### **EROSION AND SEDIMENTATION**

Erosion and sedimentation continue to be significant challenges across the Hāwea catchment, with the aging poplar and willow plantings along waterways also causing problems.

These trees, planted in the 1960s and 1970s across approximately 14 ha on multiple properties, have become a persistent issue in the catchment.

Over time, lack of proper maintenance has weakened the "old man" poplars, making them prone to instability, which increases the risk of tree falls, flood debris, and safety hazards.

Despite these concerns, these trees still play an important role in erosion control, offering benefits such as soil stabilisation, sediment reduction, and potential timber uses.





### **OPPORTUNITIES**

Recognising the multifunctional value of poplars, members of the Hāwea catchment, with support from a TLC Demonstration Grant, are working to shift the perception of these trees from liabilities to assets. Through the project, they have shared knowledge on repurposing fallen and obstructive poplars, while also providing education on best practices for future planting, as well as the on-farm utilisation and processing of older trees. For more info head to www.tukitukilandcare.org/poplars.







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### HĀWEA CATCHMENT: SUMMARY AND ACTIONS



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### HĀWEA CATCHMENT: KEY ACTIONS

Check out the online TLC Farmer Toolbox www.tukitukilandcare.org/toolbox

- Get involved with the Hāwea Catchment Group, with support from TLC, to review The TLC Catchment Plan, share knowledge and coordinate actions.
- Develop erosion management strategy. Consider poplar planting, oversowing with legumes, strategic fencing to retire or manage grazing, and native or exotic afforestation. Use <u>TLC's Surface Erosion Tool</u>\*, <u>TLC's On-Farm Action</u> <u>Planning Tool</u>\* and <u>TLC's Plant Selection Tool</u>\*.
- Manage existing aging poplars eg. felling, pruning, spraying, or harvesting for timber.
- Connect with <u>local advisors</u>\* 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.

\* The TLC Toolbox and the full catchment report are now available on the TLC website www.tukitukilandcare.org