



# UPPER TUKITUKI CORRIDOR SUB-CATCHMENT PLAN DRAFT

TLC The Big Picture: Tackling the big issues sub-catchment by sub-catchment



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## TUKITUKI CATCHMENT: THE BIG PICTURE

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### 1. Introduction to The Big Picture

#### 1.1. Purpose of The Big Picture

In 2024 Tukituki Land Care (TLC) launched The Big Picture, a six-month project designed to create independent, science-based catchment plans for the 17 sub-catchments of the Tukituki River in Central Hawke's Bay. The initiative identified each sub-catchment's unique environmental challenges and developed practical, cost-effective solutions to address them. As TLC Chair Richard Hilson explained, "We tackled the big issues sub-catchment by sub-catchment, to piece together the bigger picture."

The project employed a comprehensive research approach that combined field investigations, insights from local farmers, and an in-depth analysis of existing studies and data on the Tukituki catchment. Environmental planning consultancy, Environment, Innovation and Strategy Ltd (EIS), led by Matt Highway, undertook this work.

This project reflects TLC's dedication to improving environmental health and farm productivity, paving the way for a sustainable future for the Tukituki community.





## 1.2. Freshwater status of the Tukituki catchment

### *Summary of State of the Environment reporting*

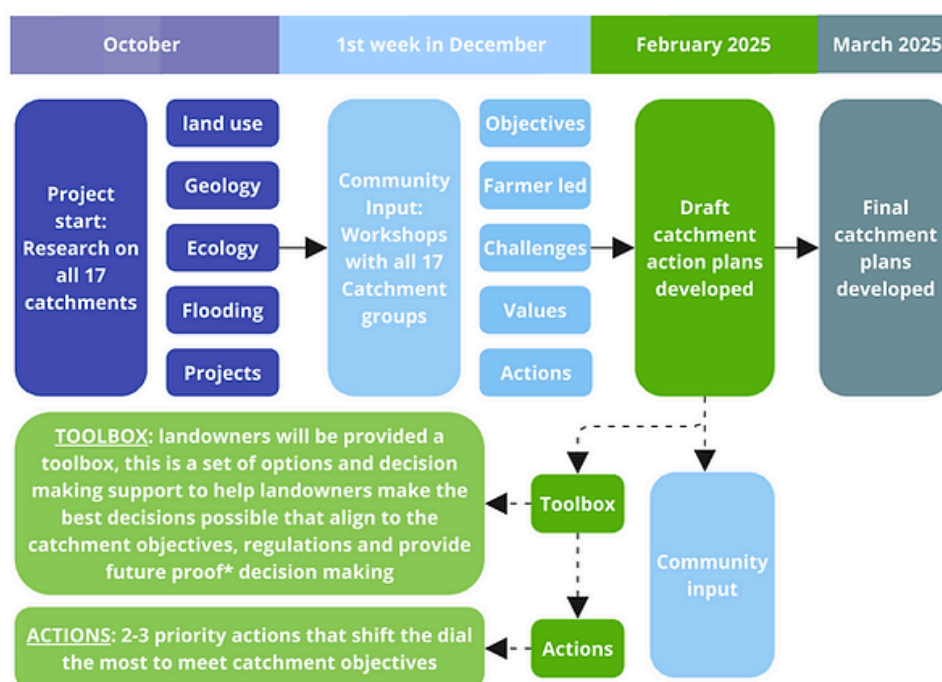
The Tukituki catchment faces water quality, land use, and climate challenges. The catchment, dominated by sheep and beef farming, has experienced significant modifications, leaving only about 10% of its land covered in indigenous vegetation. Water scarcity is a persistent issue, with decreasing river flows over the past three decades, exacerbated by droughts and climate change. Groundwater levels in the Ruataniwha Plains are under strict management to prevent further decline, but interannual variability and climate change pose ongoing risks.

Water quality is a major concern due to high levels of nitrogen, phosphorus, and sediment. The highest nitrogen concentrations in the region occur in streams draining the Ruataniwha Plains, and some areas exceed nitrogen targets by two to four times. Phosphorus and fine sediment issues, linked to erosion, contribute to poor water clarity and degraded aquatic habitats. Toxic algae, particularly *Phormidium* cyanobacteria, can proliferate in the river during low summer flows, posing a risk to both human and animal health. Despite these issues, the Tukituki River remains generally swimmable, except after heavy rainfall when contaminant levels rise.

## 1.3. Approach: creating priority actions in the Tukituki

The Big Picture project adopted a highly collaborative approach involving detailed catchment research, GIS mapping, and farmer engagement. Workshops were conducted with local farmers in each sub-catchment to better understand group dynamics, gather community values, and identify key issues and opportunities. Feedback from the workshops, survey results, and field investigations have been used to shape tailored catchment plans aligning with the local communities' specific landscape context and aspirations.

As part of the implementation phase, TLC introduced "THR3E"—three actionable steps designed for farmers in each sub-catchment to implement over three years. The TLC Farmer Toolbox was also launched, providing practical resources to help landowners make informed decisions and maximise the impact of their efforts. Additionally, monitoring strategies are to be implemented, and demonstration sites will be identified to help showcase best practices, ensuring that the plans remain relevant and actionable.



## 2. Tukituki's Overall Big Picture

### 2.1. Summary of sub-catchment challenges and priorities

The Big Picture project team has worked with farmers to identify challenges and opportunities in each of the 17 sub-catchments. While each sub-catchment has an individual plan, it is the Big Picture of the people, the land and the water within the Tukituki that we are trying to collectively support. The approach is reminiscent of a jigsaw puzzle where many pieces fit together and form something greater than themselves as an individual piece. Figure 1 below shows how the Tukituki sub-catchments fit together as a big picture, showing the sub-catchments that are aligned in similar top priorities. Note that the image only shows the proposed highest recommended priority area for each catchment, and all catchments will have multiple outcomes they are seeking.

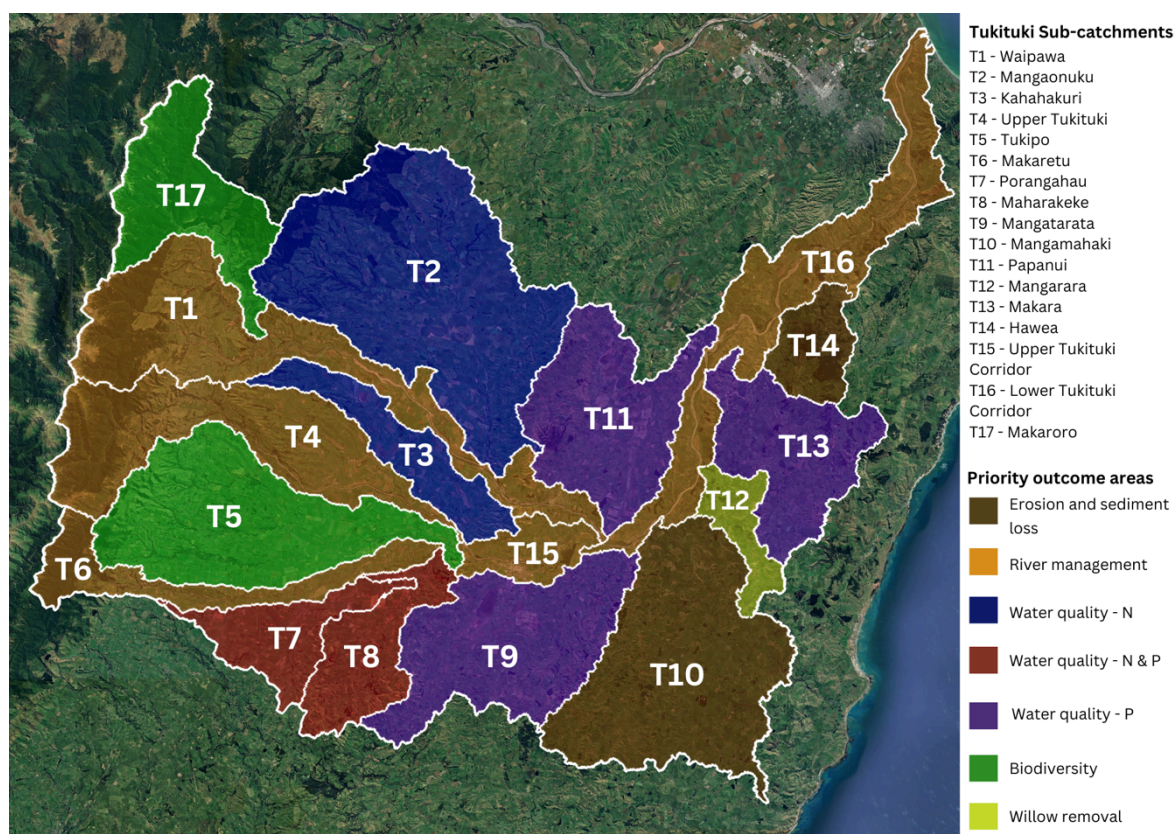


Figure 1 – Sub-catchment map for the Tukituki catchment. Coloured areas highlight the recommended priorities for each sub-catchment.

## 2.2. Outcome areas most sought by farmers (from workshops)

During workshops, farmers were asked to vote on a selection of outcome areas. Below are the top five outcomes:

- Support landowners with the knowledge to make informed decisions to improve the environment
- Improve the flood resilience of the catchment, including upstream and downstream to reduce effects on community in adverse weather events
- Protect and enhance the economic viability of the area
- Protect and enhance the quality, ecology, mauri of waterways and wetlands
- Represent farmers interests in future regional government setting of rules and regulations

# UPPER TUKITUKI CORRIDOR SUB-CATCHMENT: CONTEXT AND CHALLENGES

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## 3. Sub-Catchment Context

### 3.1. Background

The Upper Tukituki Corridor sub-catchment spans 4,251ha, with the township of Waipukurau at its heart. This sub-catchment includes many farms larger than 20ha, alongside a mix of lifestyle properties and urban infrastructure, and Māori land trusts creating a diverse and dynamic sub-catchment.



Figure 2 - Location of the Upper Tukituki Corridor sub-catchment in the wider Tukituki catchment.



### 3.2. Sub-Catchment Context

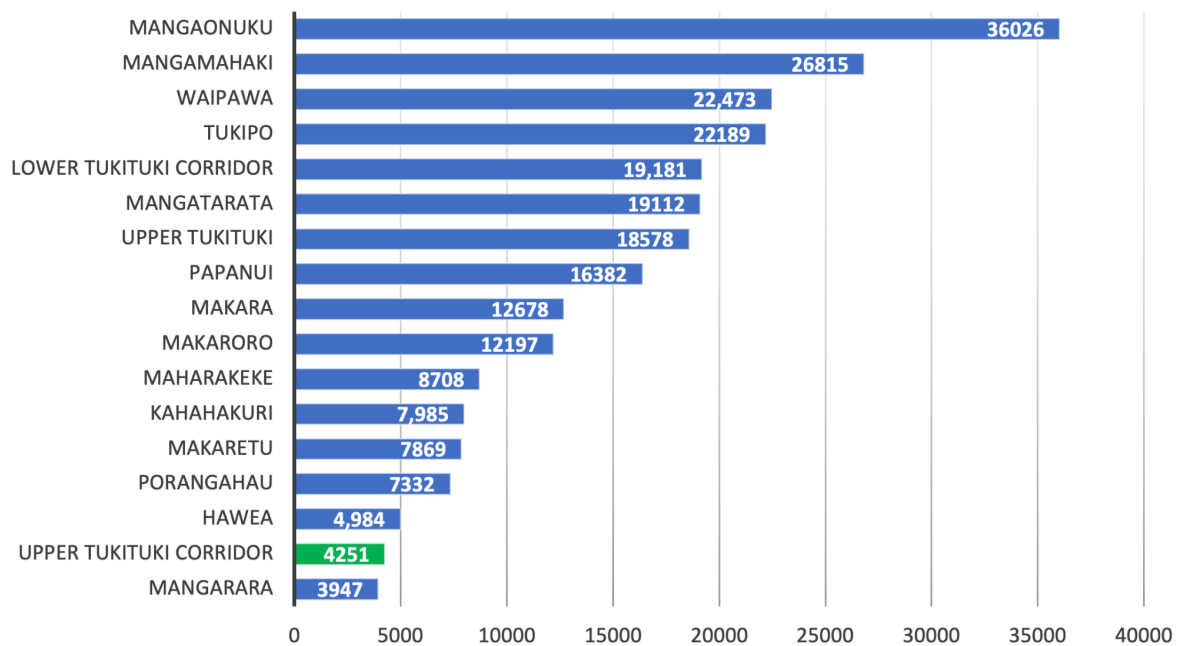


Figure 3: Tukituki sub-catchment areas in hectares.

The Upper Tukituki Corridor is 4251ha in size which amounts to 1.7% of the wider Tukituki catchment. The Upper Tukituki Corridor is the second smallest sized sub-catchment of the Tukituki, which is 250,000ha in total (figure 3).

81% is in pasture, 9% is in exotic forest and 5% is in urban (figure 4).

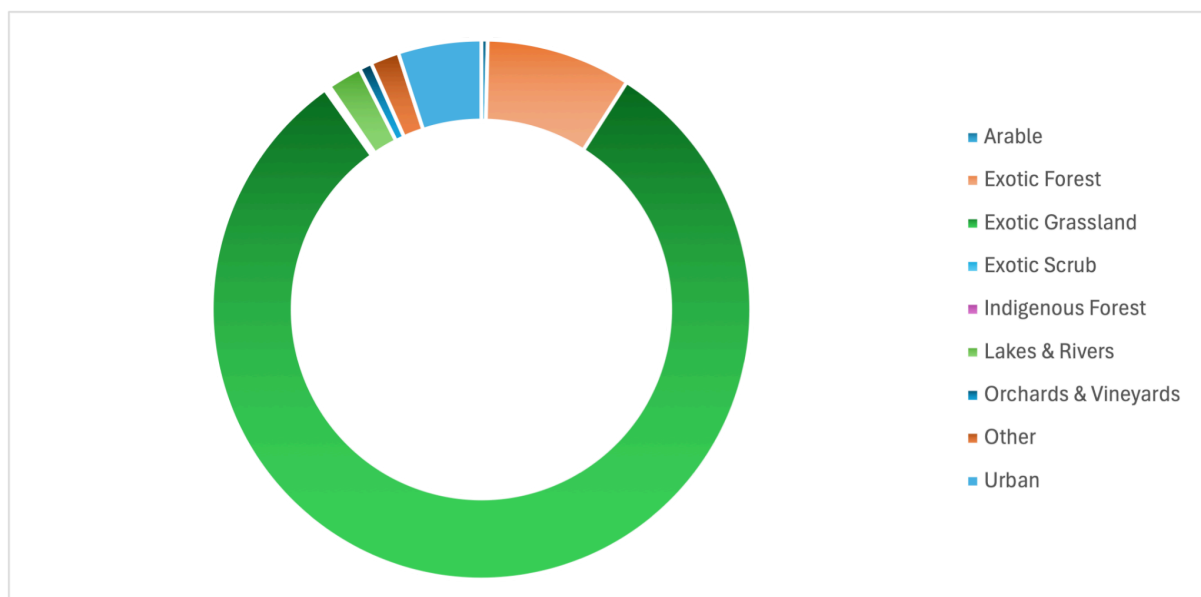


Figure 4: Land use in the Upper Tukituki Corridor sub-catchment.



### 3.3. Sub-Catchment Challenges and Key Focus Areas

At the Upper Tukituki Corridor sub-catchment workshop in December 2024, several challenges and opportunities were highlighted for the sub-catchment. Notably, there is currently no formal catchment group, limiting stakeholder collaboration. Just one person from one of the farming enterprises attended the workshop. Because a town centralises the sub-catchment and has numerous landowners, maybe with different priorities, the individual pointed out the difficulty of operating at a sub-catchment size for this sub-catchment.

Additional topics of potential concern included:

- Gravel extraction and accumulation in the river, particularly regarding the infrastructure. Although it was mentioned that this might not be a priority for others in the sub-catchment.
- Water quality, provided that the water entering the sub-catchment comes from at least three sub-catchments further up the Tukituki catchment. This prompted questions about how the area is currently falling short of the HBRC targets, who is accountable, and whether there is anything that individuals within the sub-catchment can do to improve this.

The workshop concluded about whether operating at a sub-catchment scale in this specific area is appropriate and whether the required levels of community engagement would be achievable.

### 3.4. River Management Context

The Tukituki River, a dynamic braided river system has changed significantly over time (Figure 5 left), typically narrowing with more infrastructure and attempts to control the river through willows and engineering. The Tukituki River is managed through a combination of formal river control schemes, consent for gravel management and improvised, short term efforts. In context, the majority of the river management, measured through gravel extraction, occurs outside of the Tukituki River (Figure 5, right).

As a whole river, current management practices have led to inconsistencies in flood control, sediment management, and invasive species control, with some areas receiving structured support while others lacking any formal intervention. As a result, landowners face significant challenges in being part of the conversation around managing flooding, erosion, and river health.

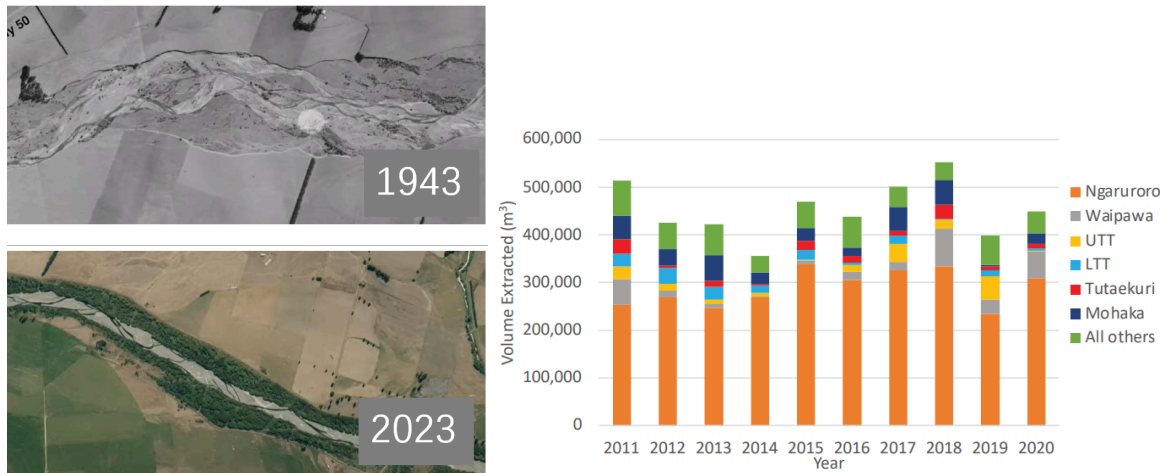


Figure 5 – Left: there are marked differences in the Tukituki River over the last 70 years. Right: The context of gravel extraction in Hawke's Bay.

Workshops held in December 2024 with sub-catchment groups in the Tukituki revealed widespread dissatisfaction with HBRC's communication and long-term planning for river management. Participants consistently rated HBRC's engagement and transparency poorly, yet expressed a strong willingness to collaborate on improving river health and resilience.

Key issues identified include ineffective gravel management, which increases flood risk due to shifting riverbed elevations; the encroachment of invasive plant species, which disrupts natural river processes and impacts biodiversity; and uneven levels of service across sub-catchments, creating disparities in river management outcomes.

Additionally, HBRC's current approach appears to lack and Integrated Catchment Management (ICM), without a strong connection between flood mitigation efforts and essential pest and erosion control measures.

Farmers and landowners have also indicated a need for greater communication and involvement in river management decision-making, reinforcing the opportunity for a more collaborative governance model.

# UPPER TUKITUKI CORRIDOR SUB-CATCHMENT: OPTIONS ACTIONS AND RECOMMENDATIONS

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## 4. Summary of Challenges, Impacts and Priority Actions

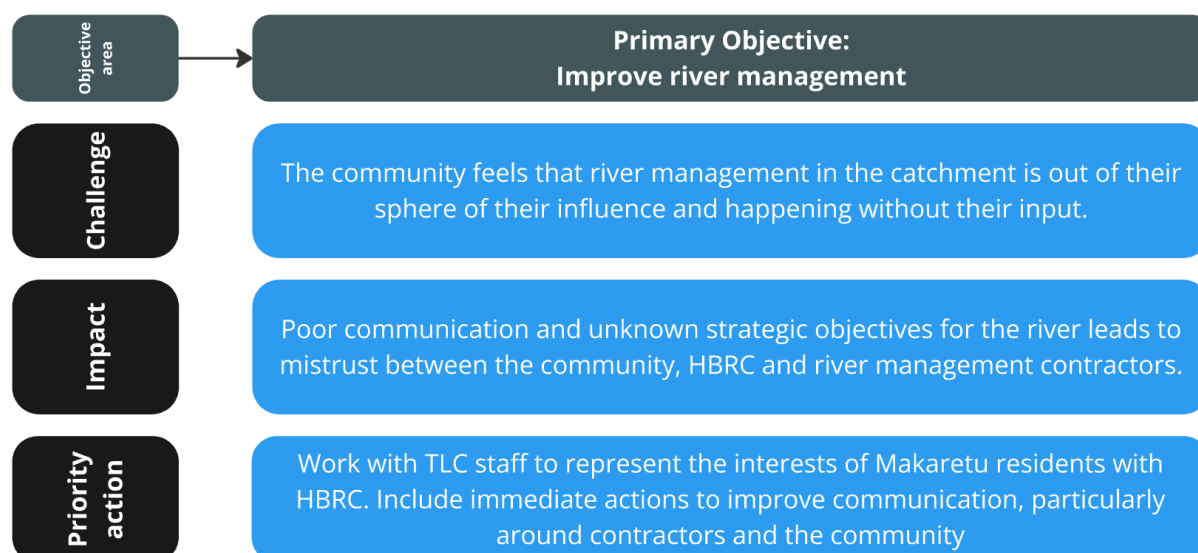


Figure 6 – Summary of the challenges, impacts and recommended priority actions for the Upper Tukituki Corridor, framed against the two major objective areas.

## 5. Improve River Management

### 5.1. Discussion document for HBRC and TLC

Feedback from the Tukituki catchment community is clear - the way the Tukituki River is managed is due for change. Short workshops with sub-catchments in the Tukituki catchment have identified that there are challenges with the administration and implementation of river management in the catchment. Problems around flooding, gravel build-up, and invasive weeds, are occurring and are impacting landowners in different ways.

Some areas get regular management, while others see little to no river management action. Many farmers have expressed frustration with the lack of communication and long-term planning from the Hawke's Bay Regional Council (HBRC), but there's also a strong willingness to work together on solutions.

A discussion paper prepared by The Big Picture project provides options to improve the current situation, including better communication, more involvement from the local community, and an integrated plan that looks at river health, flood control, and pest management as a whole. This document encourages Tukituki Land Care (TLC) to lead the engagement with HBRC on behalf of the community, working to ensure that landowners

have a stronger voice in decision-making and that river management is more consistent and effective across the catchment.

It is planned that over the coming months, discussions will focus on practical solutions, such as improving flood resilience, supporting community-led maintenance, and helping HBRC provide clearer updates on what's happening with the river. You can expect to see efforts from TLC to change how decisions are made and how farmers can get involved.

There will also be efforts to secure funding to make real improvements in managing gravel, weeds, and erosion. If you have concerns about river management on your property or want to be part of shaping a better system, now is the time to be involved.

The goal is to develop a river management plan that works for everyone, improving flood protection, river health, and communication between landowners and HBRC.

## **5.2. Estimated Implementation Costs**

For this sub-catchment, estimating implementation costs is not possible at this early stage. The majority of the next steps include communication and agreements with HBRC prior to planning and implementation.

Having said that, resources from TLC will be best placed to work directly with HBRC to implement change. This may include support from TLC Catchment Coordinators, time and energy from farmers and may require expertise support, which could come in the form of ICM or planning expertise.