

17 Mangawara catchment

Use these insights to develop a farm environment plan that reduces impacts on fresh water and protects what matters in your catchment. For more details or support, call 0800 800 401 or visit waikatoregion.govt.nz/farm-environment-planning.

Prioritise these actions in your farm plan to improve water quality:

- Stabilise erosion-prone land through planting.
- Manage or retire erosion prone land.
- Manage livestock and run off around **critical source areas**.
- Stabilise stream banks and gullies through planting.
- Manage timing and amount of fertiliser inputs.

 **Actions to include in a farm environment plan**

 **Farm menus**

The Mangawara catchment covers a large area, from the Hangawera hills and Pukemokemoke Bush, to the meandering Mangawara Stream, Whitikahu wetland and lowlands to the west. The catchment provides recreational opportunities and supports community wellbeing. It is made up of small rural communities closely connected to the land, with farming playing an important role. Land use, flood control and pest fish such as koi carp disrupt natural processes, making care of our waterways critical.

The Mangawara catchment and surrounding environments hold deep cultural and spiritual significance for Waikato-Tainui, the primary iwi for this region. Waikato-Tainui regards its coastal areas, rivers, lakes and streams as living ancestors whose mauri (life force) and mana (authority) must be actively protected and restored. Hapū and marae act as kaitiaki (guardians) at a local level to preserve and sustain the water bodies and taonga (treasured) species for future generations.

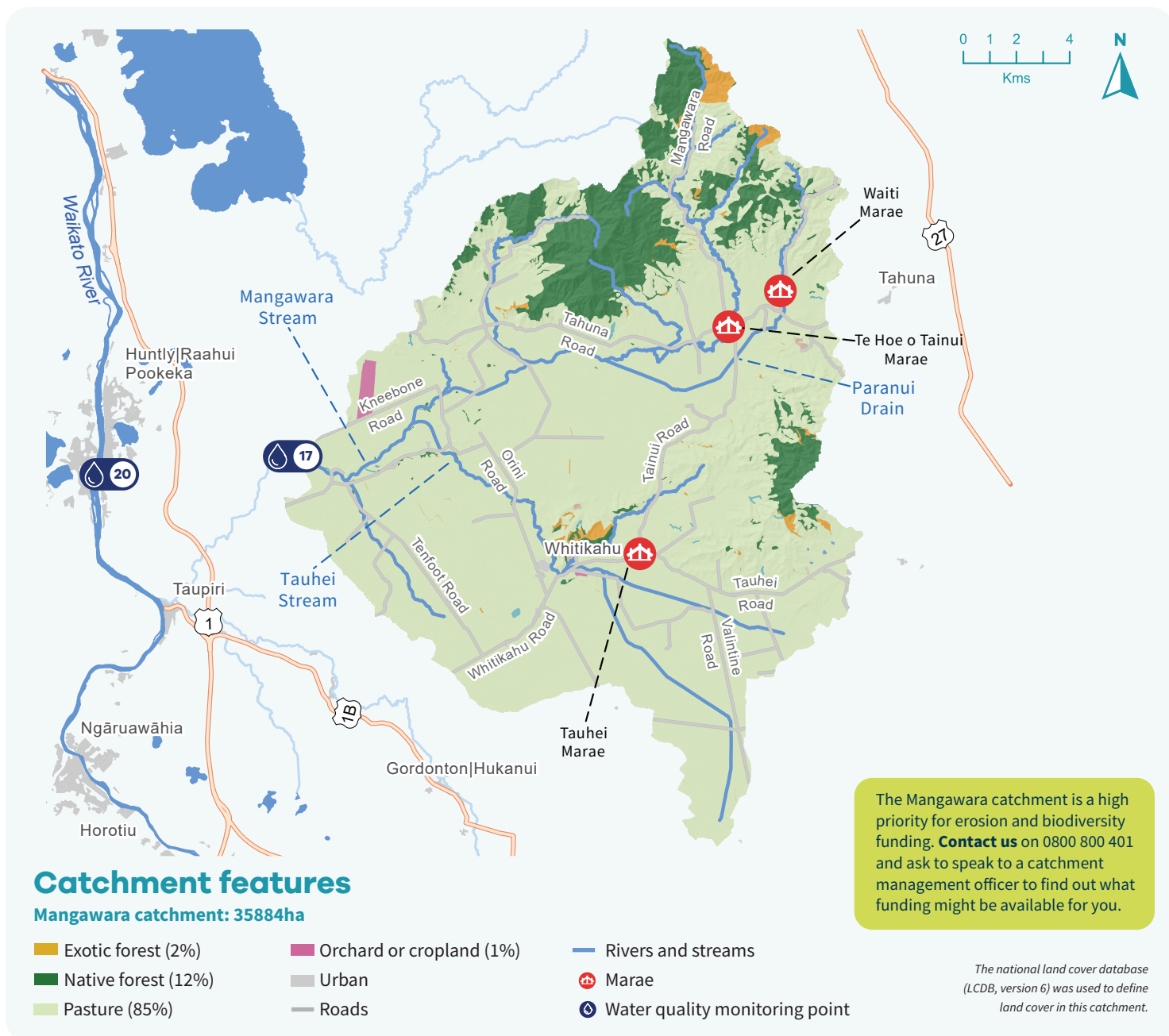
Taonga (treasured) species found in the Mangawara catchment



Consider your farm's location in the catchment

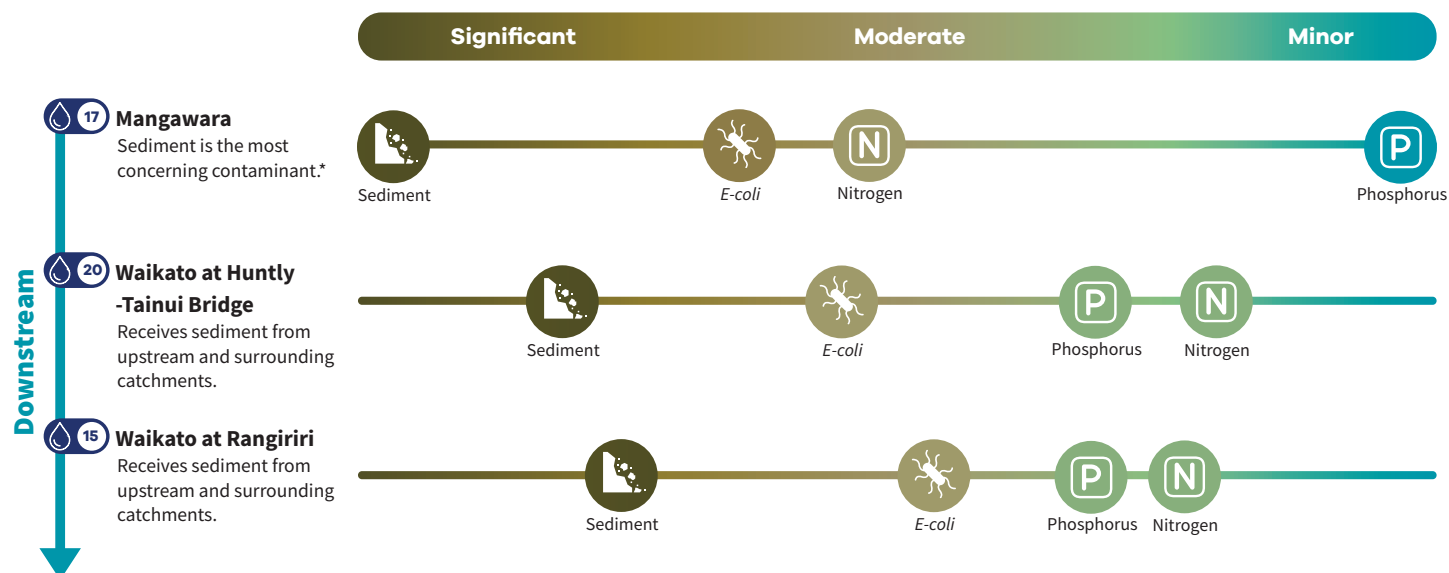
The table shows how landform and soil characteristics shape primary risks and contaminant losses specific to the Mangawara catchment.

Landform	Main soils + properties	Primary risks	Primary contaminant loss
Flat to undulating land (0-7 degrees) 18% of catchment	Organic: Very poorly drained peat.	Drainage contributes to ongoing peat subsidence including land level lowering. Pugging when wet and unstable substrate.	<i>E. coli</i> Phosphorus
	Gley: Poorly drained clay.	Soil compaction and pugging when wet.	<i>E. coli</i> Sediment
Rolling land (8-20 degrees) 17% of catchment	Granular: Moderately well drained clay over loam.	Summer dryness. Nitrogen leaching.	<i>E. coli</i> Nitrogen
	Ultic: Poorly drained, silt over clay.	Soil compaction and pugging when wet. Moderate sheet or rill erosion when cultivated.	Sediment Phosphorus
Steep land (>20 degrees) 65% of catchment	Recent: Moderately well drained loam over clay.	Can be shallow, prone to drying out. Moderate to severe potential for slip erosion.	Sediment Phosphorus
	Brown: Well drained clay.	Shallow, prone to drying out. Moderate to severe potential for slip, gully erosion.	
	Ultic: Imperfectly drained, silt over clay.	Soil compaction and pugging when wet. Moderate to severe potential for slip erosion.	



Water quality improvement for the four contaminants

This diagram shows the level of collective effort needed to positively impact water quality in the Mangawara catchment and further downstream. Focus on best practices within your farm and catchment, while keeping your downstream neighbours in mind.



*Sediment is the most concerning contaminant. Iron dissolved in water draining from peatland gives the Mangawara Stream a distinctive orange colour. This colour is natural and the result of iron present in alluvial material being dissolved by the acid peat water and then oxidised to form the orange rust-coloured water.