

# MEMORANDUM

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**To:** Kaituna Rivers Scheme Advisory Group

**From:** Jackson Efford

**Date:** 17 February 2021

**Principal Advisor Land and Water**

**File Ref:**

**Subject: Overview and update on Focus Catchments programme in the Kaituna Catchment Control Scheme**

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This purpose of this report is to provide advisory group members a brief overview and update on the Council's land management team Focus Catchment work to-date in the Kaituna Catchment Control Scheme.

## Introduction

The Focus Catchments Programme was recently developed in response to Council's Long Term Plan KPI to improve swimmability in our rivers, and to better align land management work programmes with central government's emerging Essential Freshwater policy framework (including the National Policy Statement for Freshwater Management or NPS-FM).

Eleven Focus Catchments have been selected across the region based on known water quality issues. In the Kaituna Catchment Control Scheme area these are:

1. Rotorua lakes (note that the Rotorua Lakes Catchment area is managed through the Rotorua Lakes Programme and is not discussed further in this report).
2. Ford Road/Waitepuia
3. Kopuaroa

Appendix 1 shows the location of all the focus catchments for high priority Land Management work and a table summary of the main issues/objectives.

Action plans for progressing water quality improvement in each of the catchments are being developed. These internal documents will include a summary of catchment land use, geophysical attributes, water quality, historical information, and a set of actions/goals and timeframes to improve water quality using non-regulatory means.

This work will complement the wider Council project to give effect to the National Policy Statement for Freshwater Management 2020 (NPS-FM) through changes to the Regional Natural Resources Plan, expected to be notified by July 2024.

Higher level grant rates are now available to incentivise priority action in focus catchments, including for riparian fencing, planting, detainment bunds, constructed wetlands, drain enhancements, farm plans, modelling nutrient management, and facilitating new catchment groups.

Landowners achieving voluntary progress ahead of Council's NPS-FM changes to the Regional Natural Resources Plan is one incentive to participation. Rules might ultimately take over from the incentives-based land management approach, where water quality objectives cannot be achieved voluntarily. The Focus Catchments work is supporting rural communities to be prepared to meet the regulatory changes likely to arrive.

For more information on the focus catchments including regular updates and new content being developed check Council's website at [www.boprc.govt.nz/focuscatchments](http://www.boprc.govt.nz/focuscatchments).

Information on the Councils Essential Freshwater Policy implementation can be found at [www.boprc.govt.nz/essential-freshwater](http://www.boprc.govt.nz/essential-freshwater). As part of implementation, online surveys will be launched about values and vision setting, information will be presented on water quality and ecological health, and freshwater management issues will be explained. The online newsletter Freshwater Flash will also provide updates [www.boprc.govt.nz/newsletters](http://www.boprc.govt.nz/newsletters).

## **Focus Catchment Progress highlights**

The following sections provide key highlights on the progress made within the Focus Catchments to-date in the Kaituna Catchment Control Scheme, including monitoring, science investigation, partnerships, and on-the-ground land management action underway.

### **Waitepuia/Ford Road Focus Catchment**

In the Waitepuia/Ford Road tributaries of the Kaituna River and connected Maketū Estuary, managed lowland drainage schemes with intensive dairy land uses dominate, although kiwifruit also continues to expand on the elevated ground. With most water quality attributes severely elevated and requiring large reductions (38-60%), lowland drainage scheme areas may be the greatest challenge for improved water quality.

A research project has commenced on the Te Arawa Lakes Trust Group owned dairy farm in the lower Waitepuia catchment, in collaboration with Te Kura o Maketu, Maketu Ongatoro Wetlands Society, WBoPDC, BOPRC and Dairy NZ. The goal is to restore the mauri, biodiversity and water quality on the farm block for future generations, and findings will likely support engagement and intervention uptake with others in nearby drainage scheme areas.

The Council has commenced an intensive monitoring programme to determine the effectiveness of upgrading farm drains to the DairyNZ guideline best practice standard on the Te Arawa property, including greater fence set-backs on both sides, native planting on one side to shade water and reduce temperatures (allowing for

the drain to still be cleaned), and a re-battering of drain bank sides to a 1:1 profile, which concentrates low flows in summer to prevent weeds and increase drainage capacity in winter. With this treatment being applied to some drains only and others left in their current state, fish, invertebrates, and water quality will be monitored to determine the effectiveness of such mitigation, which could then be rolled out to the remainder of the farm and surrounding catchment depending on success. The Te Arawa farm alone features over 4 km of managed waterways, with drains being a direct source of agricultural contamination around the estuary.

Carefully designed 'constructed treatment wetlands' are another evolving tool being trialed to treat farm/drainage discharge before it reaches sensitive areas. Planning is underway for a proposed new constructed wetland also on the Te Arawa farm, which restores over 2ha of marginal farmland alongside the existing Whakapoukorero Wetland restoration project, and treats farm run-off before reaching the estuary. In support of NIWAs new constructed wetland guidelines, we hope to contribute to national data on the performance reduction estimates for contaminants moving through constructed wetlands, which can be achieved through continuous water quality monitoring at the inflows and outflows of the wetland to measure effectiveness. Elsewhere in the catchment we have developed targeted communication material offering the range of land management services to the community. We expect momentum to build as the effectiveness of local mitigations is confirmed through monitoring.

This work is complemented by the extensive Kaituna wetland work underway such as the Te Pourepo o Kaituna project and the recently completed Kaituna re-diversion project.

### **Kopuaroa Focus Catchment**

With its headwaters in the Pāpāmoa Hills Regional Park and Ōtawa Scenic Reserve, the Kopuaroa catchment features a diverse range of land uses feeding into the Kaituna River near Pāpāmoa. The lower catchment is within a drainage scheme area with pumping infrastructure, and is intensively farmed with dairy and maize cropping. The remainder of the catchment features mixed dry stock, horticulture and lifestyle properties. Most water quality attributes have been recorded as high, and require significant reductions to achieve a moderately healthy ecological state in the Maketū Estuary.

Our work with the intensively farmed lowland properties will focus on implementing best practice drain management upgrades, addressing critical source areas on farm, and investigating opportunities for constructed treatment wetlands to mitigate drainage water quality, before it enters the Kaituna River.

We have also offered professional farm planning and nutrient management services to manage farm systems within environmentally safe limits, and expect uptake of these services to increase significantly as engagement for the NPS-FM builds. Some tributaries of this catchment still feature unfenced waterways and biodiversity areas, with agreements currently in negotiation to permanently exclude livestock from these areas. The Summerhill farm property in the upper catchment has also considerably expanded its environmental programme with Council support, including planting of 5,000 native plants around critical source areas and becoming

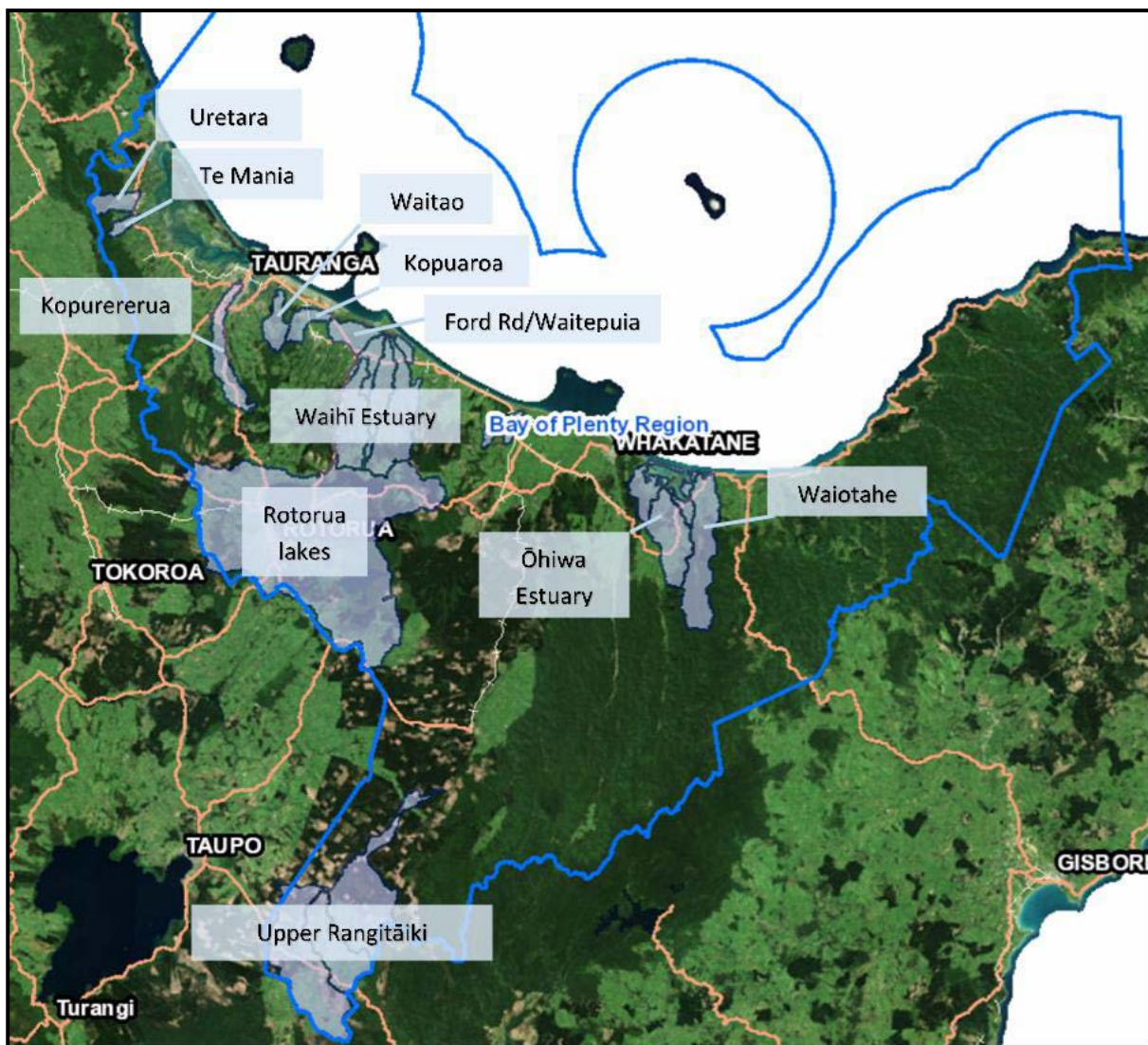
a showcase drystock farm for the area.

**Conclusion**

Land management will continue with the evolution of its Focus Catchments approach to address serious water quality issues in the Region, with a commitment to the on-the-ground incentivised voluntary action in priority locations, and leverage of new co-funding support, and expanded partnerships with our communities.

Ultimately, the Focus Catchment Programme becomes a key link between voluntary land management action and the Council’s requirements to deliver the NPS-FM.

**Appendix 1:** Location of Focus Catchments across the region and main water quality issues/objectives.



Area	Greater Catchment	Focus Catchment Name	Focus Catchment Main Issues/ Interim Objectives
Tauranga Moana	Tauranga Harbour	Uretara	The Uretara stream bathing site is graded a 'D' for the <i>E. coli</i> attribute in the NPS-FM, and is therefore deemed 'un-swimmable'. Swimmability is the key objective, but alongside best-practice land management work, further scientific investigations are required to address actual health risks associated with the identified 'avian' <i>E. coli</i> source.
	Tauranga Harbour	Te Mania	Environmental issues in the Te Mania catchment are elevated sediment (suspended solids), ammoniacal nitrogen and <i>E. coli</i> bacteria, with objectives to halt and reverse these increasing trends and associated impacts on Tauranga Harbour.
	Tauranga Harbour	Kopurererua	Kopurererua at McCord Ave is graded a 'D' for the <i>E. coli</i> attribute in the NPS-FM, and is therefore deemed 'un-swimmable'. Waikareo Estuary (receiving environment) also has increasing catchment derived sedimentation. Objectives target improving swimmability and reducing sediment loss from the catchment through land management initiatives.
	Tauranga Harbour	Waitao	Kaiate Falls is the worst performing bathing site monitored by Bay of Plenty Regional Council. The site is graded an 'E' for the <i>E. coli</i> attribute in the NPS-FM, and is therefore deemed 'un-swimmable'. The objective is to address swimmability through land management/stock exclusion action upstream of the falls, and target sediment loss throughout the catchment given its wider impacts on Rangataua Estuary.
Kaituna/Pongakawa	Kaituna	Kopuaroa	As a tributary of the Kaituna River and therefore Maketū Estuary, contaminant reduction of 63%, 38% and 60% for nitrogen, phosphorus and <i>E. coli</i> are recommended for the estuary to be in a moderately health state. Kopuaroa exhibits elevated <i>E. coli</i> , ammoniacal-nitrogen and sediment, with objectives to halt and reverse these increasing trends.
	Kaituna	Ford Road/Waitepuia	As a tributary of the Maketū Estuary, contaminant reduction of 63%, 38% and 60% for nitrogen, phosphorus and <i>E. coli</i> are recommended for the estuary to be in a moderately health state. The catchment exhibits elevated <i>E. coli</i> , nitrogen, sediment and low dissolved oxygen, with objectives to halt and reverse these increasing trends.
	Pongakawa	Waihi Estuary Catchments	Waihi Estuary requires contaminant reduction of 66%, 30% and 50% for nitrogen, phosphorus and <i>E. coli</i> to be in a moderately healthy ecological state. Shellfish safety in the estuary is highly variable and addressing this will be an important objective.
Eastern Catchments	Tarawera	Awakaponga Stream	This Focus Catchment work will commence in 2021/22. Issues are likely to be similar to the Kopuaroa catchment,
	Rangitaiki	Upper Rangitāiki/Otamatea	Upper Rangitāiki catchment objectives are to halt and reverse the increasing nitrate trend and address nitrate toxicity concerns. Water clarity and sediment are also requiring attention. Specific 'quantified' objectives will be developed through the wider Rangitāiki WMA plan change process underway (i.e. NPS-FM implementation).
	Ohiwa	Ōhiwa Harbour Catchments	Addressing ongoing sedimentation into Ōhiwa harbour is the main objective, though nitrogen trends have also increased in the Nukuhou tributary of the harbour and require further investigation. Shellfish bacterial contamination issues also occur.
	Waiōtahe	Waiotahe	The Waiotahe Estuary sampling site breaches shellfish consumption guidelines due to the presence of faecal coliforms, with shellfish being 'unsuitable' for consumption and therefore the primary objective is to resolve this. Nitrate and <i>E. coli</i> levels are also elevated throughout the catchment, with agriculture the dominant source.