Ūawa Catchment Working Group

Overview of the Action Plan and Target Requirements

15 October 2024

1. Setting Targets

Targets need to be set set for each water quality attribute (eg E.coli, suspended sediment). Where the Environmental Outcome is currently met the targets can just be the current state.

An example of a "current state" target is:

Ammonia levels in the Ūawa - Hikuwai Freshwater Management Unit will be maintained within the A band with median levels below 0.03 mg/L and 95th Percentile levels below 0.05mg/L.

Where the Environmental Outcome is not met, the target will be where that attribute needs to be to meet the Environmental Outcome – and over what timeframe it will be achieved. If a target is being achieved over a long time, there need to be interim targets at intervals of not more than 10 years.

An example of an improvement target is:

Deposited sediment levels in the Ūawa - Hikuwai Freshwater Freshwater Management Unit will be improved so that all sites meet bottom of the C band by 2035 (27% cover), the middle of the C band by 2045 (24% cover) and the bottom of the B band by 2051 (19% cover).

Even if an Environmental Outcome is being met, a target must be set for any attributes that fall below the National Bottom Line. The target needs to be, at a minimum, that the atribute meets the National Bottom Line.

2. Action Plan

The Action Plan sets out how we will meet the targets.

The Action Plan may describe both regulatory measures (new Rules to be included in the Tairāwhiti Resource Management Plan) and non-regulatory measures (actions the Council and Community will undertake).

Action Plans have to be reviewed every 5 years – to make sure that the action is being done, and that the trends for water quality are responding positively to the actions.

Under the NPS-FM, there is a requirement to produce an Action Plan in relation to specific water quality attributes. Action Plans are also part of the requirements where degrading trends have been identified.

Clause 3.15 of the NPS-FM sets out the requirements for Action Plans. It states that Action Plans may:
(1)...

a. *Be prepared for whole FMUs, parts of FMUs, or multiple FMUS;*
b. *Set out a phased approach to achieving environmental outcomes;*
c. *Be "prepared" by adding to, amending, or replacing an existing action plan.*

(2) *An action plan may describe both regulatory measures (such as proposals to amend regional policy statements and plans, and actions taken under the Biosecurity Act 1993 or other legislation) and non-regulatory measures (such as work plans and partnership arrangements with tangata whenua and community groups).*

(3) *If an action plan is prepared for the purpose of achieving a specific target attribute state or otherwise supporting the achievement of environmental outcomes it must:*

a. *identify the environmental outcome that the target attribute state is aimed at achieving; and*
b. *set out how the regional council will (or intends) to achieve the target attribute state.*

3. Action Plan Toolbox

To help us with thinking about what might go into the Action Plan an Action Plan Toolbox has been developed. This is attached at Appendix 1 an gives examples of the types of Actions that could be considered in the Ūawa Catchment Action Plan.

It is not an exhaustive list but more of a "starter for 10" based on the experience from other catchment plans. This Action Plan toolbox is very farming focussed and doesn't include actions that could be taken by the forestry industry or within the Tolaga Bay community around urban uses.

4. Next Steps

We are introducing the concept of Action Planning at this hui, and will discuss further what might be appropriate actions to achieve the environmental outcomes over the next few meetings.

Appendix 1: Action Plan Toolbox

Activity	Water Quality Attributes and outcomes it benefits	Costs/Benefits/Comment
1. Stock exclusion from riverbanks	**Attributes**: E.coli, sediment, nutrients. **Outcomes**: Ecosystem health, mahinga kai, swimming, animal drinking water (in terms of E.coli levels but only provided they have an alternative water source).	Mostly required to meet National Stock Exclusion Regulations on the Hikuwai Riverflats, elsewhere generally not mandated. • Dairy support must be excluded from any stream greater than 1m wide by 1 July 2025. • Beef cattle and deer must be excluded from any stream greater than 1m wide **on low slope land only** by 1 July 2025. • Breakfed beef cattle and deer must already be excluded from any stream with a 5m setback. • Dairy Cattle and Pigs must already be excluded from any stream with a 5m setback (Tairāwhiti Freshwater Plan requirements). Additional stock exclusion on the Ūawa catchment plan area could be most useful upstream of mahinga kai and swimming spots.
2. Stock exclusion from wetlands	**Attributes**: E.coli, sediment, nutrients. **Outcomes**: Ecosystem health, mahinga kai, threatened species.	Required to meet National Stock Exclusion Regulations. • Wetlands supporting a threatened species (this includes tuna so is probably many wetlands in the catchment) or low slope land must have stock exclusion by 1 July 2025.
3. Wider setbacks for stock exclusion and long grass	**Attributes:** E.coli, sediment, nutrients (particularly phosphorus). **Outcomes**: Ecosystem health, mahinga kai, trout fishing, swimming.	The NES requires a 3m setback – research suggests that depending on slope 5m (flat) to 10m (>7 degrees) is more effective – particularly if there is long grass through which runoff/stormwater flows – this catches the sediment and with it any E.coli and phosphorus attached to it.

		In the Ūawa Context wider setbacks might be most useful where there is intensive grazing/break feeding.
4. Native planted riparian environment – or native/willow combination	**Attributes**: Temperature, sediment, periphyton, macroinvertebrates, fish habitat, dissolved oxygen. **Outcomes**: health, mahinga kai, trout fishing, threatened species.	The greatest benefits for ecosystem health and threatened species are gained where there is a mix of planting that increases the amount of shading over the water. This action is most effective for shading smaller streams. A wider planted area (10m vs 3m) will create better habitat for threatened species, as will incorporating a mix of species that includes tall trees (eg for roosting) and flowering/fruiting plants (for food). Where there is riverbank erosion on the mainstem Ūawa/Hikuwai/ Mangaheia and Maungahauini Rivers the greatest benefits might be gained from a combination of native planting and sterile willow poles. The willow roots grow an average 9m a year so are very effective at erosion reduction. Using native plants like carex, ghania and flax (the grass family) on the waters edge and then bigger species (manuka/kanuka/cabbage trees with spaced out big trees like totara and kahikatea) on the upper banks can be most effective. In this scenario, the willows might act as fodder for stock (cut leaves) for a while, and then be removed (cut and poisoned) once the native plants are well established and holding the banks. If the willows are left however they will have a positive benefit in terms of shading the river in summer.
5. Maximum synthetic Fertiliser Use Limits	**Attributes**: Nitrate, Ammonia, Phosphate, Periphyton. **Outcomes**: Ecosystem health, trout fishing.	Currently in place under the NES for Nitrogen Fertiliser (synthetic nitrogen cap of 190kg/ha/year). As nutrient levels are low in the Ūawa Catchment Plan area further nutrient restrictions may not be necessary.

6. Maximum overall nutrient application – Overseer budgets	**Attributes**: Nutrients – particularly nitrogen. **Outcomes**: Ecosystem health, trout fishing.	Currently in place in Bay of Plenty and Hawkes Bay. A common view is that using Overseer to set nitrogen limits may not be the best approach, but requiring an Overseer budget as part of farm planning could be useful – particularly to help understand if there are high leaching rates of nitrate in some locations.
7. Less soluble Phosphate fertiliser	**Attributes**: Nutrients – phosphorus, periphyton.	Use of less soluble rock -phosphate based fertiliser releases soluble P at a slower rate than superphospahe and should lead to reduced P losses from pasture.
8. Farm Environment Plans	**Attributes**: Most **Outcomes**: Most	Farm Environment Plans are already required for some farmers (Freshwater Plan), they are a valuable tool to help landowners identify and prioritise actions to improve water quality. They are also likely to become mandatory for all farms eventually – though this government is reviewing the national scheme. The Beef and Lamb Drystock Farm Good Practice Menu has a great list of farm scale changes that can improve water quality – with a guide to the scale of benefit and the costs.
9. Hapū/whanau monitoring, including on farm monitoring by landowners	**Attributes**: easiest for Turbidity, temperature (sediment), macroinvertebrates, Phormidium and periphyton. Possible for E.coli, fish and flow. **Outcomes**: Ecosystem health, threatened species, mahinga kai, recreational values.	Regular hapū/whanau/community monitoring can be a great way of "filling in the gaps" about where problems are and if things are improving as well as just generally improving the understanding of what's going on. The council will probably not be able to have more State of the Environment monitoring sites in the catchment – but the community could monitor some of the tributary streams and track their progress over time. This Action would need some Council support (eg Schmack Kits, water quality monitoring probe, training and a place to collect and store

		data) but is also really empowering in terms of people getting to understand what's going on in their local environment.
10. Wetland restoration – small wetlands	**Attributes**: Sediment, nutrients, Also flow. **Outcomes**: Ecosystem health, threatened species, mahinga kai, natural form and character.	Wetlands are very effective at filtering contaminants and are often described as the kidneys of freshwater systems. Small wetlands can be very effective at improving on water quality at a local scale. They are also important food locations and habitat for tuna and threatened species. In terms of flow, wetlands are good for holding and slowly releasing water and can have positive benefits both in reducing floods, and mitigating droughts. The Ūawa and Hikuwai Rivers in particular are within what was once a very wetland rich environment – the "high flow loops" would all have been wetlands. Non water quality benefits: great for biodiversity, and good option for carbon sequestration.
11. "Critical source area" stock exclusion	**Attributes**: Sediment, nutrients, E.coli. **Outcomes**: Ecosystem health, mahinga kai, trout fishing, swimming, animal drinking water.	"Critical sources" are key areas where the contamination of water quality is maximised due to their drainage role. They are often the hollow areas where stock like to hang out and their contribution to negative water quality impacts is massive compared to other parts of a farm. Critical sources are often able to be grazed at some times of the year when rainfall is low.
12. Identification and retirement of at risk soils from intensive land uses	**Attributes**: Sediment, nutrients, E.coli. **Outcomes**: Ecosystem health, mahinga kai, threatened species, swimming.	At risk soils have high leaching rates or promote surface runoff. Avoiding intensification in these areas could reduce contaminants entering water.

13. Constructed wetlands and sediment traps	**Attributes**: Sediment, nutrients, E.coli. **Outcomes**: Ecosystem health, mahinga kai, threatened species, swimming.	Constructed wetlands can be designed to treat particular nutrients and reduce E.coli levels and sediment traps will reduce sediment runoff.
14. Treatment of runoff from point sources – eg tracks, races, yards	**Attributes**: Sediment, nutrients, E.coli. **Outcomes**: Ecosystem health, mahinga kai, trout fishing, swimming, animal drinking water.	Treatment might be chanelling the water into long grass – or something more sophisticated depending on the scale of the point source.
15. Limiting conversions to more intensive land uses (eg dairy support, breakfeeding, dairy farms) eg through maximum stocking rates	**Attributes**: Sediment, nutrients, E.coli. **Outcomes**: Ecosystem health, mahinga kai, trout fishing, swimming, animal drinking water.	Are "interim" measures in place in the NES -Freshwater Regulations limiting conversions to more intensive land uses. There is a pretty direct correlation between stocking rates and water quality – it just is much harder to mitigate the impacts of lots of animals. For example some Councils use a threshold of 15 stock units/hectare for requiring additional mitigations or resource consent requirements.
16. Maximum stocking rates for existing land uses	**Attributes**: Sediment, nutrients, E.coli. **Outcomes**: Ecosystem health, mahinga kai, threatened species, swimming.	Generally intensive farming is defined as more than 15 stock units/ha (about 3 cattle) –breakfed areas will be stocked at hundreds of stock units per hectare. The volume of urine and faeces produced, as exposed areas of soil is massive. Rainfall will result in leaching nitrogen (and possibly phosphorus in these soils) to groundwater as well as direct runoff to surface waterways.
17. Stockwater reticulation	**Attributes**: sediment, nutrients, E.coli. **Outcomes**: Ecosystem health, mahinga kai, trout fishing,	Stock access surface waterbodies to drink. Stockwater reticulation by itself generally has a fairly low impact on water quality (as cattle and deer in particular like being in wet areas) but is often needed to facilitate stock exclusion from waterbodies.

	swimming, animal drinking water, farming and production.	Because of the very high E.coli levels at the monitored sites stock water reticulation from springs or streams with stock exclusion will have animal health benefits.
18. Wider setbacks for high intensity landuses	**Attributes**: Sediment, nutrients, E.coli. **Outcomes**: Ecosystem health, mahinga kai, threatened species, swimming.	Current setback requirements (Freshwater Plan) are 10m from ALL waterbodies for Intensive Farming. Wider setbacks provide greater benefits in terms of being able to filter sediment (if left in long grass) or provide habitat (if planted in natives).
19. Space planted poplars/sterile willows for erosion management	**Attributes**: sediment. **Outcomes**: ecosystem health, mahinga kai, trout fishing, farming and production.	A great way to support keeping soil on the land, not in the river. Are positive farm production benefits from: • Protection of stock from heat stress (animals under heat stress don't put on as much weight) . • Secondary feed (poplar and willow can be cut to feed stock). • Food for bees/secondary income source.
20. Culverts, drift decks and bridges over streams replacing fords/unformed crossings for stock and vehicles	**Attributes**: sediment, E.coli. **Outcomes**: ecosystem health, mahinga kai, trout fishing, farming and production.	Avoids streambed disturbance which remobilises sediment/E.coli as well as reduces riverbank erosion sediment sources and direct deposition of poo by animals crossing. Farming benefits in terms of all weather access. Waimatā Catchment Group is wanting to run some trials around use of wooden drift decks for wide stream crossings where a culvert isn't a good option and a bridge is too expensive. Probably aren't any viable options for formed crossings for some types of streams with highly mobile beds.
21. Retirement of unproductive farm land to natives	**Attributes**: Sediment, E.coli, nutrients. **Outcomes**: ecosystem health, mahinga kai, trout fishing,	Carbon credits are also able to be gained. Also get biodiversity/habitat benefits. Preferred Option for Overlay 3B land.

	threatened species, farming and production.	
22. Retirement of inappropriate forestry land to native regeneration	**Attributes**: sediment, E.coli, nutrients, macroinvertebrates, fish. **Outcomes**: ecosystem health, mahinga kai, swimming, threatened species.	Also get biodiversity/habitat benefits. Will require active management and pest control.
23. Best practice breakfeeding	**Attributes**: sediment, E.coli. **Outcomes**: ecosystem health, mahinga kai, trout fishing, farming and production.	Reduces losses of sediment, E.coli and nutrients. Beef and Lamb have great guidance on this. Farming and production benefits are gained from reducing stress on animals.
24. Field days and workshops to discuss/highlight best practice	**Attributes**: Most **Outcomes**: Most	Keep to helping farmers get to grips with how to implement best practice, do good farm plans and generally see how things work. A good way to bring the more skeptical on board as well.
25. Changes to stocking rates, sheep to cattle ratios, age of stock	**Attributes**: sediment, nutrients. **Outcomes**: ecosystem health, mahinga kai, trout fishing.	Depending on scale of change will have a small or moderate impact.
26. Resource Consent Review	**Attributes**: variable depending on type of consent **Outcomes**: variable	There are a large number of forestry resource consents in the catchment so this would require a prioritisation process. It would require the Council to initiate a formal review and reassess the consent conditions in light of the current knowledge about water quality.
27. Improvement in on site wastewater disposal systems	**Attributes**: E.coli, nutrients. **Outcomes**: ecosystem health, mahinga kai, threatened species swimming.	Most of the on site wastewater/septic tank systems in Ruatorea are old, and some have no records supplied of inspection and cleaning. Older/poorly maintained systems can act as point source discharges.

		Options to address this could range from an inspection and remedial and remedial plan for each system, financial assistance with minor repairs (eg lids and mushrooms, damage in the tank), subsidies for replacement of failed systems or additional Rules in the catchment plan requiring mandatory upgrades.
28. Detailed water quality investigations of problem areas and attributes.	**Attributes**: variable depending on type of consent. **Outcomes**: variable	Faecal source tracking studies is an example of a detailed attribute studies. They may identify the need for further work.
29. More predator control	**Attributes**: N/A **Outcomes**: ecosystem health, threatened species.	Riverine species have been declining due to predator pressure. Predator control projects could help bring their numbers back up. Raukumara Pae Maunga could be expanded to include other lands.
30. Weed control	**Attributes**: macroinvertebrates, fish, dissolved oxygen. **Outcomes**: ecosystem health, threatened species, natural form and character.	The habitat can be degraded by weeds that don't provide the same food sources for native wildlife or the same habitat and shading environment as natives.
31. Goat and deer control	**Attributes**: E.coli. **Outcomes**: ecosystem health, threatened species, mahinga kai, swimming.	Deer and goat poo may be a significant source of E.coli. deer and goats also deplete the ground cover and mid- tier of native forests – increasing erosion and sedimentation.