



## Ūawa Catchment Working Group

### State of Environment – Baseline Attribute States and Target Attribute States

18 September 2024

#### 1. Introduction

The first part of developing a catchment plan under the NPSFM is identifying the vision, values and environmental outcomes for the catchment. Once these are established then we can consider how well the catchment water quality and quantity meet those environmental outcomes – and what action might need to be taken to either maintain the values, or to improve the situation where environmental outcomes are not being met.

#### 2. State of Environment

At Hui 1 a summary report was provided that outlines the state of environment as understood by the Council, based on its water monitoring programme.

This compares the water quality to the National Objectives Framework of the government. Under this framework, sites can be rated as A, B, C, D or E band. There is a National Bottom Line that sites must meet, or action taken by the Council to improve water quality.

Key takeouts from that report are that for the period 2017- 2022:

- **Aquatic ecosystem health** across all monitored sites is poor and fall below national bottom lines.
- **Periphyton** (algae) levels are below the national bottom line at the Mangaheia River monitoring site.
- **Nutrient** levels are generally good – with long term improving trends.
- **Dissolved oxygen** levels are poor at monitored sites – this is probably because of the lack of shading and low water levels.
- **E.coli** levels are variable. Ūawa River is only safe for swimming 81% of the time, and the Mangahauini River and Anaura Bay Lagoon North is safe for swimming only 48% of the time and Waiotu Stream at Tokomaru Bay is only safe for swimming 41% of the time. Anaura Bay Lagoon South is safe for swimming 98% of the time. Alongside this the Hikuwai and Mangaheia Rivers have poor (C Band) E.coli levels and the Mangaheia River is getting worse.
- **Suspended sediment** levels are generally fine – but deposited fine sediment is below the national bottom line at all 5 sites that are monitored.

### 3. Baseline Attribute States

The NPSFM requires that water quality is not allowed to degrade from the Baseline Attribute State. This is set as being the water quality for each attribute, as of September 2017. The Baseline Attribute States for each of attributes required in the NPSFM is still being calculated, so at this stage we are working on the assumption that it is similar to the State of Environment analysis discussed above. When the analysis is complete we will update the group if there are any differences to be aware of.

### 4. Target Attribute States

A key component of the Catchment Plan is the identification of target attribute states and the timeframes to achieve them. For many parts of the catchment, current water quality does not support the values or environmental outcomes sought. However, improving water quality is not a fast or easy process. The target attribute states set need to take the catchment towards those environmental outcomes and the NPS-FM directs that these need to be both realistic but also ambitious.

The following approach is proposed in drafting the proposed target attribute states:

- Where the water quality attribute is within the A or B band, the target should generally be to maintain the current state. This recognises that that water quality attribute is not likely to be a major contributor to not achieving environmental outcomes.
- Where the water quality attribute is currently degrading, and/or below the national bottom line and/or at a level where it is impacting on the values of the waterbody, targets should be set.
- It needs to be recognised that water quality problems are difficult and slow to address. Targets need to be ambitious but realistic.
- For degrading attributes it is proposed that the first five-year target would focus on stabilising water quality and halting the declining trend. The second five-year target would be to reverse the degrading trend and the longer-term target (15-30 years) is to reach the national bottom line (NBL) or the next band.
- Depending on how bad things are, for attributes below the national bottom line or where values are not being met, interim targets could be to improve within a band, with longer term (15-30 year) targets to meet national bottom lines or the next band.

The implications of this approach are summarised in the table below:

Site	Attribute	Target Attribute State Proposed
Hikuwai Bridge at Willowflat	Deposited Sediment	Aim to meet National Bottom Line within 20 years
	Macroinvertebrates	Aim to meet National Bottom Line within 20 years
	Dissolved oxygen	Move to top of C band within 10 years

	E.coli	Reach levels that are safe for boating during summer within 10 years and safe for swimming within 20 years
Mangaheia River at Paroa Road Bridge	Deposited Sediment	Aim to meet National Bottom Line within 20 years
	Macroinvertebrates	Aim to meet National Bottom Line within 20 years
	Dissolved oxygen	Move to top of C band within 10 yearsd
	E.coli	Halt degrading trend within 5 years. Reach levels that are safe for boating during summer within 10 years and safe for swimming within 20 years
	Periphyton	Aim to meet National Bottom Line within 10 years
Makokomuka Stream at Waiapu Road	Deposited Sediment	Aim to meet National Bottom Line within 20 years
Hikuwai River at No. 4 Bridge	Macroinvertebrates	Aim to meet National Bottom Line within 20 years
Waiau River at Tauwhareparae	Macroinvertebrates	Aim to meet National Bottom Line within 10 years
Mangakino Stream at Mangatokerau Road	Deposited Sediment	Aim to meet National Bottom Line within 20 years
	Macroinvertebrates	Aim to meet National Bottom Line within 20 years
Kaitawa Stream at Wharf Road	Deposited Sediment	Aim to meet National Bottom Line within 20 years
	Macroinvertebrates	Aim to meet National Bottom Line within 20 years

**Questions:**

Do you agree with the proposed approach to setting targets?

What should change? Are there some things which should be prioritised?

## Key Definitions Used in this Report

**Attribute:** A measurable indicator of water quality

- chemical e.g. nitrate levels (mg/L)
- biological e.g. Macroinvertebrate index (MCI)
- Physical e.g. visual clarity (metres)

**Baseline Attribute State:** What an attribute was like on 7 September 2017 – but for some attributes the date is when we notified the operative Waipaoa Catchment Plan - August 2015. Measured at specified monitoring sites.

**Target Attribute State:** What we want that attribute to be like to achieve the environmental outcomes.

**Interim Targets:** 10-year milestones on the path to the Target Attribute State.