



# Waipaoa Catchment Planning Advisory Group – Hui 6

Date: 13 March 2024

Title of report: Target attribute states

Report no: **1**

Report authors: Lois Easton - Kereru Consultants, Sarah Thompson - Gisborne District Council

---

## Purpose of this report

At hui #5 Advisory Group members were asked to workshop priority (mitigation type) actions to help achieve the environmental outcomes that have been developed.

This report follows this guidance provided at hui #5. The report socialises some draft target attribute states relating to the quality of surface water in the Waipaoa catchment.

## Outcomes sought

Members of the Group have the opportunity to provide feedback on the draft target attribute states.

## Getting ready for the hui

Food for thought - think about the target attribute states and the questions posed ahead of the hui.

Remember, most environmental outcomes are not currently being met and for some it will take many years of sustained effort to meet them.

- Are the proposed target attribute states and interim targets both realistic but ambitious (achievable and challenging)?
- Are we correctly prioritising our earlier targets?
- Are the interim targets set up in a way that represents a bold yet feasible rate of progress?

## Definitions refresher

**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.

## Table of Contents

1 Introduction .....	4
2 Scene setting - the National Objectives Framework.....	4
3. Draft target attribute states and timeframes.....	4
4.Next steps.....	5
Appendix One: Draft target attribute states for surface waters .....	7

## 1 Introduction

At hui #5 in December 2023, we looked at the vision for the catchment, the freshwater management units (FMUs) within the catchments, and the values and environmental outcomes for each of those FMUs.

Together the vision, values and environmental outcomes drive what should be the target attribute state for the different freshwater attributes.

Generally, water quality across the catchment is not of a sufficient standard to meet the values and environmental outcomes and needs to be improved. At hui #5 we started looking at methods to improve water quality and what might be priorities.

All this information has been pulled together to inform the development of draft target attribute states and timeframes to achieve these – these are proposed in this report.

## 2 Scene setting- the National Objectives Framework

This work is part of the second stage of implementing the National Objectives Framework (NOF).

### Stage 1: Identifying aspirations and goals for freshwater

- Identifying freshwater values
- Defining FMUs
- Setting environmental outcomes
- Identifying a long-term vision

### Stage 2: Identifying how and when to achieve those goals

- Understanding attributes and baseline states
- Setting targets and timeframes
- Setting limits, methods and actions
- Monitoring



This is where we are

## 3. Draft target attribute states and timeframes

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.

Draft target attribute states for surface waterbodies (rivers and lakes) have been developed and are attached as Appendix One.

The following approach has been taken in drafting the proposed target attribute states:

- Where the water quality attribute is within the A or B band, the target is generally to maintain the current state.
- Where the water quality attribute is currently declining, and/or below the national bottom line and/or at a level where it is impacting on the values of the waterbody, the first five-year target is focussed on stabilising water quality and halting the declining trend. The second five-year target is 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.
- In the case of sediment, in catchments with very large landscape scale sediment discharges (e.g. Tarndale Slip, Mangatu Slip) and values are far below the NBL, it is recognised that significant improvement will only occur in 50–100-year timeframe.
- For some sites and attributes, the current state is not known, so the initial target is to establish this.

In summary, the draft target attribute states proposed require:

- **In the Waipaoa Hill Country FMU**
  - Halting of the degrading trend for nitrogen and ammonia over a five-year timeframe.
  - Focussed improvement in phosphate levels over a 10-year timeframe.
  - Significant improvements in E. coli levels over a 10–30-year timeframe.
  - Improvements in macroinvertebrate indicators over a 10–30-year timeframe.
  - Focussed improvements in sediment levels – recognising that these are possible in shorter timeframes in the more stable Wharekopae and Waikohu subcatchments.
  
- **In the Arai Te Uru FMU**
  - Halting of the degrading trend for all nutrient attributes over a 5-year timeframe.
  - Significant improvements in sediment and E. coli levels over a 10 – 30-year timeframe.
  - Improvements in macroinvertebrate indicators over a 10–30-year timeframe
  
- **In the Turanga Flats FMU**
  - Halting of the degrading trend for all nutrient attributes over a 5-year timeframe.
  - An 18% reduction in nitrate levels in the Taruheru River over a 30-year timeframe – however, this may not be practicable (modelling work to confirm).
  - A 10% reduction in phosphate levels in the Waipaoa and Taruheru rivers over a 30-year timeframe – however, this may not be practicable (modelling work to confirm).
  - Meeting the NBL for phosphate in the Whakaahu River over a 30-year timeframe.
  - Meeting the NBL for dissolved oxygen in the Whakaahu Stream over a 10-year timeframe.
  - A 10% improvement in suspended sediment levels in the Waipaoa River over a 30-year timeframe.
  - An improvement in suspended sediment levels in the Taruheru River so that it meets the NBL within 10 years and the Upper C band within 30 years.
  - Improvement in deposited sediment levels at all river sites – with the Waipaoa River meeting the NBL within 30 years and a 50% improvement in the Taruheru River and Whakaahu Stream over that timeframe.
  - Improvement in E.coli levels so that the Waipaoa River reaches the D Band and the Whakaahu Stream and Taruheru River reach the C Band within 30 years.
  - A 50% improvement in macroinvertebrate levels within 30 years but recognising it may not be practicable to reach the NBL in this timeframe.
  
- **In the Gisborne Urban FMU**
  - Halting the degrading trend for phosphate over a 5-year timeframe and seeking to turn this into an improving trend, but recognising it is not practicable to meet the NBL even within a 30-year timeframe.
  - A significant improvement in suspended fine sediment but recognising it is not practicable to meet the NBL even within a 30-year timeframe.
  - A significant improvement in E.coli but recognising it is not practicable to meet the NBL even within a 30-year timeframe.

## 4. Next steps

Once we've established the target attribute states, we'll need to consider what is required i.e. what action steps we need to take, to reach these states. This is likely to be a combination of rules and other methods outlined in an Action Plan.

For the next few meetings, we'll take a break from talking about water quality, and focus on water quantity instead. Then we'll come back to the Action Plan later in the year.

Appendix One: Draft target attribute states for surface waters

**Waipaoa Catchment Plan: Draft water quality target attribute states – surface waterbodies**

Key to colours: **Green** = A Band, **Yellow** = B Band, **Orange** = C Band, **Red** = D Band and/or below national bottom line

Waipaoa Hill Country FMU						
Attribute	Values Supported by this attribute	Current state	Short Term Target (5 years)	Medium Term Target (10 years)	Long Term Target (15-30 years)	Longer Term Target (50-100 years)
<b>Nutrients</b>						
Ammonia	Ecosystem health Mahinga kai Fishing Threatened species	<i>Waingaromia at Terrace Station</i>	Stabilise levels - halt degrading trend	Maintain current state – no degrading trend		
		<i>Mangatu River at Omapere Station</i>	Stabilise levels - halt degrading trend	Maintain current state – no degrading trend		
		<i>Waikohu River at Mahaki Station</i>	Stabilise levels - halt degrading trend	Maintain current state – no degrading trend		
		<i>Wharekopae River at Rangimoe</i>	Stabilise levels - halt degrading trend	Maintain current state – no degrading trend		
		<i>Waihirere Str at Domain</i>	Stabilise levels - halt degrading trend	Maintain current state – no degrading trend		
		<i>Lake Repongare</i>	Establish current state	TBC once current state understood		
Nitrate	Ecosystem health Mahinga kai	<i>Waingaromia at Terrace Station</i>	Maintain current state – no degrading trend			

	Fishing Animal drinking water Drinking water supply	Mangatu River at Omapere Station	Stabilise levels - halt degrading trend	Maintain current state – no degrading trend	
		Waikohu River at Mahaki Station	Stabilise levels - halt degrading trend	Maintain current state – no degrading trend	
		Wharekopae River at Rangimoe	Stabilise levels - halt degrading trend	Maintain current state – no degrading trend	
		Waihirere Str at Domain	Maintain current state – no degrading trend		
Total Nitrogen (Trophic State)		Lake Repongare	Establish current state	TBC once current state understood	
Phosphate (DRP)	Ecosystem health Mahinga kai Fishing Threatened species	Waingaromia at Terrace Station	Stabilise levels - halt degrading trend	Maintain current state – no degrading trend	
		Mangatu River at Omapere Station	Maintain current state – no degrading trend		
		Waikohu River at Mahaki Station	Stabilise levels - halt degrading trend	Maintain current state – no degrading trend	
		Wharekopae River at Rangimoe	Stabilise levels - halt degrading trend	Improving trend	Get to national bottom line
		Waihirere Str at Domain	Stabilise levels - halt degrading trend	Improving trend	Get to National Bottom Line
Total Phosphorus (Trophic State)		Lake Repongare	Establish current state	TBC once current state understood	
<b>Physical Attributes</b>					

Attribute	Values Supported by this attribute	Current state	Short Term Target (5 years)	Medium Term Target (10 years)	Long Term Target (15-30 years)	Longer Term Target (50-100 years)
Dissolved oxygen	Mahinga kai Ecosystem health Fishing Threatened Species Mauri	Waingaromia at Terrace Station	Maintain current state – no increasing trend			
		Wharekopae River at Rangimoe	Maintain current state – no increasing trend			
Lake Bottom/Mid Hypolimnic Dissolved Oxygen	Mahinga kai Ecosystem health Fishing Threatened Species Mauri	<i>Lake Repongare</i>	Establish current state	TBC once current state understood		
Suspended fine sediment (Visual Clarity)	Ecosystem health Human contact - swimming Threatened species Mahinga kai Natural form and character Drinking water supply Fishing Irrigation and food production Aquifer recharge Flood protection and resilience	Waingaromia at Terrace Station	Improving trend			National Bottom Line
		Mangatu River at Omapere Station	Improving trend			National Bottom Line
		Waikohu River at Mahaki Station	Improving trend	National Bottom Line	Upper C Band	
		Wharekopae River at Rangimoe	Improving trend	National Bottom Line	Upper C Band	
		Waihirere Str at Domain	Maintain current state – no increasing trend			

	Flood control and land management Water storage Mauri				
Deposited fine sediment	Ecosystem health Human contact – swimming Threatened species Mahinga kai Natural Form and character Fishing Mauri Transport and Tauranga waka Water storage Flood control and land management Flood protection and resilience	Waingaromia at Terrace Station	Improving trend	B Band	
		Mangatu River at Omapere Station	Maintain current state – no increasing trend		
		Waikohu River at Mahaki Station	Maintain current state – no increasing trend		
		Wharekopae River at Rangimoe	Maintain current state – no increasing trend	National bottom line	B Band
		Waihirere Str at Domain	Improving trend	B Band	

Physical Habitat Assessment		Sites still being determined	Improvements generally required	TBC		
Temperature		Sites still being determined	Current state being established	TBC		
<b>Biological Attributes</b>						
Attribute	Values Supported by this attribute	Current state	Short Term Target (5 years)	Medium Term Target (10 years)	Long Term Target (15-30 years)	Longer Term Target (50-100 years)
E.coli	Human contact - swimming Mahinga kai Drinking water supply Animal drinking water Irrigation and food production Mauri Transport and tauranga waka	Waingaromia at Terrace Station	Continue improving trend	Median 130 cfu/100mL Improving trend 95th Percentile	C Band	
		Mangatu River at Omapere Station	Continue improving trend	Median 130 cfu/100mL Improving trend 95th Percentile	C Band	
		Waikohu River at Mahaki Station	Continue improving trend	Median 130 cfu/100mL Improving trend 95th Percentile	C Band	
		Wharekopae River at Rangimoe	Continue improving trend	Median 130 cfu/100mL Improving trend 95th Percentile	C Band	
		Waihirere Str at Domain	Improving trend	Median 130 cfu/100mL Improving trend 95th Percentile	C Band	

		Rere Falls	Improving trend – median and 95th Percentile	C Band	Reach national bottom line for swimming
		Rere Rockslide	Improving trend	C Band	Reach national bottom line for swimming
Periphyton	Ecosystem health Mahinga kai Natural Form and Character Fishing Mauri Drinking water supply Animal drinking water	Waingaromia at Terrace Station	Maintain current state – no increasing trend		
		Mangatu River at Omapere Station	Maintain current state – no increasing trend		
		Waikohu River at Mahaki Station	Maintain current state – no increasing trend		
		Wharekopae River at Rangimoe	Maintain current state – no increasing trend		
		Waihirere Str at Domain	Maintain current state – no increasing trend		
Fish	Ecosystem health Mahinga kai Fishing Threatened species Mauri	Waingaromia at Terrace Station	Establish current state	TBC once current state understood	
		Mangatu River at Omapere Station	Establish current state	TBC once current state understood	
		Waikohu River at Mahaki Station	Establish current state	TBC once current state understood	
		Wharekopae River at Rangimoe	Establish current state	TBC once current state understood	
		Waihirere Str at Domain	Establish current state	TBC once current state understood	
Macroinvertebrates	Ecosystem health Mahinga kai Fishing Threatened species	Waingaromia at Terrace Station	Improving trend		National bottom line MCI/QMCI
		Mangatu River at Omapere Station	Improving trend		B Band

	Mauri	Waikohu River at Mahaki Station	Improving trend	B Band
		Wharekopae River at Rangimoe	Improving trend	B Band
		Waihirere Str at Domain	Improving trend	B Band
		Waikohu Rv at Oliver	Improving trend	B Band
		Parihihonou Str at SH2 Overbridge	Improving trend	B band
		Waikohu River at No3 Br	Improving trend	National bottom line MCI/QMCI
		Kurunui Str at Holdsworth Br SH2	Improving trend	National bottom line MCI/QMCI
		Waihuka River at No3 Br	Improving trend	B band
		Waihuka at No2 Br	Improving trend	B band
		Mangatu Trib	Improving trend	B band
		Waipaoa at Armstrong Rd	Improving trend	B band
		Waikohu Trib at Whakarau Rd	Improving trend	National bottom line MCI/QMCI
		Mangaoai Str at Mangaoai Rd	Improving trend	National bottom line MCI/QMCI
		Wharekopae above falls	Improving trend	National bottom line MCI/QMCI
Cyanobacteria (Planktonic)	Ecosystem health Mahinga kai	Lake Repongare	Establish current state	TBC once current state understood
Submerged Plants (Natives)	Fishing Threatened species	Lake Repongare	Establish current state	TBC once current state understood

Submerged Plants (Invasive Species)	Mauri Human contact - swimming	Lake Repongare	Establish current state	TBC once current state understood
-------------------------------------	--------------------------------	----------------	-------------------------	-----------------------------------

Te Arai Te Uru FMU					
Attribute	Values supported by this attribute	Current state	Short Term Target (5 years)	Medium Term Target (10 years)	Long Term Target (15-30 years)
<b>Nutrients</b>					
Ammonia	Ecosystem health Mahinga kai Fishing Threatened species	Te Arai at Pykes Weir	Stabilise levels - halt degrading trend	Improving trend	
Nitrate	Ecosystem health Mahinga kai Fishing Animal drinking water Drinking water supply	Te Arai at Pykes Weir	Stabilise levels - halt degrading trend	Improving trend	
Phosphate (DRP)	Ecosystem health Mahinga kai Fishing Threatened species	Te Arai at Pykes Weir	Stabilise levels - halt degrading trend	Improving trend	
<b>Physical Attributes</b>					
Attribute	Values supported by this attribute	Current state	Short Term Target (5 years)	Medium Term Target (10 years)	Long Term Target (15-30 years)
Dissolved oxygen	Mahinga kai Ecosystem health	Te Arai at Pykes Weir	Establish current state	TBC once current state understood however aim should be to be in the A Band	

	Fishing Threatened Species Mauri				
Suspended fine sediment (Visual Clarity)	Ecosystem health Human contact - swimming Threatened species Mahinga kai Natural form and character Drinking water supply Fishing Irrigation and food production Aquifer recharge Flood protection and resilience Flood control and land management Water storage Mauri	Te Arai at Pykes Weir	Improving trend	National Bottom Line	B Band
Deposited fine sediment	Ecosystem health Human contact – swimming Threatened species Mahinga kai Natural Form and character Fishing	Te Arai at Pykes Weir	Improving trend	National Bottom Line	Upper C Band

	Mauri Transport and Tauranga waka Water storage Flood control and land management Flood protection and resilience				
Physical Habitat Assessment		Sites still being determined	Improvements generally required	TBC	
Temperature		Sites still being determined	Current state being established	TBC	
<b>Biological Attributes</b>					
Attribute	Values supported by this attribute	Current state	Short Term Target (5 years)	Medium Term Target (10 years)	Long Term Target (15- 30 years)
E.coli	Human contact - swimming Mahinga kai Drinking water supply Animal drinking water Irrigation and food production Mauri Transport and tauranga waka	Te Arai at Pykes Weir	Continue improving trend	National Bottom Line	Upper C Band
Periphyton	Ecosystem health Mahinga kai	Te Arai at Pykes Weir	Maintain current state – no degrading trend		

	Natural Form and Character Fishing Mauri Drinking water supply Animal drinking water				
Fish	Ecosystem health Mahinga kai Fishing Threatened species Mauri	Te Arai at Pykes Weir	Establish current state	TBC once current state understood	
Macroinvertebrates	Ecosystem health Mahinga kai Fishing Threatened species Mauri	Te Arai at Pykes Weir	Stabilise levels - halt degrading trend	National Bottom Line	Upper C Band
		Te Arai Trib at Waugh Rd	Stabilise levels - halt degrading trend	National Bottom Line	Upper C Band
		Te Arai Trib at Waingake Rd	Improving trend	National Bottom Line	Upper C Band
		Te Arai Rv at Waingake	Stabilise levels - halt degrading trend	National Bottom Line	Upper C Band
		Te Arai River Bush Intake Above Weir (Reference Site)	Maintain current state		

Gisborne Urban FMU					
Attribute	Values Supported by this attribute	Current state	Short Term Target (5 years)	Medium Term Target (10 years)	Long Term Target (15-30 years)
<b>Nutrients</b>					
Ammonia	Ecosystem health Mahinga kai Fishing Threatened species	Taruheru River at Lytton Rd Bridge	Halt degrading trend (this is linked to upstream horticulture activity)	Upper C Band	B Band
		Taruheru River at Wi Pere Pipe	Maintain current state – no degrading trend		
		Waikanae Stream at Stanley Rd Bridge	Continue improving trend	Upper C Band	B Band
		Sisterson Drain Site 1 at Wetland Inflow Point	Improving trend	Upper C Band	B Band
		Awapuni Site 6 U/S Of Rayonier at Fenceline	Improving trend	Upper C Band	B Band
Nitrate	Ecosystem health Mahinga kai Fishing Animal drinking water Drinking water supply	Taruheru River at Lytton Rd Bridge	Improving trend		Upper B Band
		Taruheru River at Wi Pere Pipe	Improving trend		Upper B Band
		Waikanae Stream at Stanley Rd Bridge	Improving trend		
		Sisterson Drain Site 1 at Wetland Inflow Point	Improving trend		Upper B Band

		Awapuni Site 6 U/S Of Rayonier at Fenceline	Improving trend		
Phosphate (DRP)	Ecosystem health Mahinga kai Fishing Threatened species	Taruheru River at Lytton Rd Bridge	Stabilise levels - halt degrading trend	Improving trend	% improvement (will not reach National Bottom Line)
		Taruheru River at Wi Pere Pipe	Stabilise levels - halt degrading trend	Improving trend	% improvement (will not reach National Bottom Line)
		Waikanae Stream at Stanley Rd Bridge	Stabilise levels - halt degrading trend	Improving trend	% improvement (will not reach National Bottom Line)
		Sisterson Drain Site 1 at Wetland Inflow Point	Stabilise levels - halt degrading trend	Improving trend	% improvement (will not reach National Bottom Line)
		Awapuni Site 6 U/S Of Rayonier at Fenceline	Stabilise levels - halt degrading trend	Improving trend	% improvement (will not reach National Bottom Line)
<b>Physical Attributes</b>					
Attribute	Values supported by this attribute	Current state	Short Term Target (5 years)	Medium Term Target (10 years)	Long Term Target (15- 30 years)
Dissolved oxygen	Mahinga kai Ecosystem health Fishing Threatened Species Mauri	Waikanae Stream at Stanley Rd Bridge	Establish current state	TBC once current state understood	
		Awapuni Site 6 U/S Of Rayonier at Fenceline	Establish current state	TBC once current state understood	
	Ecosystem health	Taruheru River at Lytton Rd Bridge	Improving trend	10% improvement	50% improvement

Suspended fine sediment (Visual Clarity)	Human contact - swimming Threatened species Mahinga kai Natural form and character Drinking water supply Fishing Irrigation and food production Aquifer recharge Flood protection and resilience Flood control and land management Water storage Mauri	Taruheru River at Wi Pere Pipe	Improving trend (this depends largely on what happens in the Waimatā River)		
		Waikanae Stream at Stanley Rd Bridge	Improving trend	10% improvement	50% improvement
		Sisterson Drain Site 1 at Wetland Inflow Point	Improving trend	10% improvement	50% improvement
		Awapuni Site 6 U/S Of Rayonier at Fenceline	Improving trend	10% improvement	50% improvement
Physical Habitat Assessment		Sites still being determined	Improvements generally required	TBC	
Temperature		Sites still being determined	Current state being established	TBC	
<b>Biological Attributes</b>					
Attribute	Values supported by this attribute	Current state	Short Term Target (5 years)	Medium Term Target (10 years)	Long Term Target (15-30 years)
E.coli	Human contact - swimming Mahinga kai	Taruheru River at Lytton Rd Bridge	Improving trend	10% improvement	50% improvement
		Taruheru River at Wi Pere Pipe	Improving trend	10% improvement	50% improvement

	Drinking water supply Animal drinking water Irrigation and food production Mauri Transport and tauranga waka	Waikanae Stream at Stanley Rd Bridge	Improving trend	10% improvement	50% improvement
		Sisterson Drain Site 1 at Wetland Inflow Point	Improving trend	10% improvement	50% improvement
		Awapuni Site 6 U/S Of Rayonier at Fenceline	Improving trend	10% improvement	50% improvement
Fish	Ecosystem health Mahinga kai Fishing Threatened species Mauri	Taruheru River at Lytton Rd Bridge	Establish current state	TBC once current state understood	
		Taruheru River at Wi Pere Pipe	Establish current state	TBC once current state understood	
		Waikanae Stream at Stanley Rd Bridge	Establish current state	TBC once current state understood	
		Sisterson Drain Site 1 at Wetland Inflow Point	Establish current state	TBC once current state understood	
		Awapuni Site 6 U/S Of Rayonier at Fenceline	Establish current state	TBC once current state understood	
Dissolved Copper		Taruheru River at Lytton Rd Bridge	Median at less than Detection level		
		Taruheru River at Wi Pere Pipe	Median at less than Detection level		
		Waikanae Stream at Stanley Rd Bridge	Median at less than Detection level		

Dissolved Zinc		Taruheru River at Lytton Rd Bridge	Median at less than Detection level	
		Taruheru River at Wi Pere Pipe	Median at Detection level or less	
		Waikanae Stream at Stanley Rd Bridge	Improving trend	10% improvement
		Sisterson Drain Site 1 at Wetland Inflow Point	Improving trend	10% improvement

Turanga Flats FMU					
Attribute	Values Supported by this attribute	Current state	Short Term Target (5 years)	Medium Term Target (10 years)	Long Term Target (15-30 years)
<b>Nutrients</b>					
Ammonia	Ecosystem health Mahinga kai Fishing Threatened species	Waipaoa River at Kanakanaia	Stabilise levels - halt degrading trend	Maintain current state – no degrading trend	
		Waipaoa River at Matawhero	Stabilise levels - halt degrading trend	Maintain current state – no degrading trend	
		Whakaahu Stream at Bruntons Road	Stabilise levels - halt degrading trend	Maintain current state – no degrading trend	
		Taruheru River at Tuckers Road	Stabilise levels - halt degrading trend	Improving trend	B Band
Nitrate	Ecosystem health Mahinga kai Fishing	Waipaoa River at Kanakanaia	Maintain current state – no degrading trend		
		Waipaoa River at Matawhero	Stabilise levels - halt degrading trend	Maintain current state – no degrading trend	

	Animal drinking water Drinking water supply	Whakaahu Stream at Bruntons Road	Maintain current state – no degrading trend			
		Taruheru River at Tuckers Road	Stabilise levels - halt degrading trend	Improving trend	B Band	
Phosphate (DRP)	Ecosystem health Mahinga kai Fishing Threatened species	Waipaoa River at Kanakanaia	Stabilise levels - halt degrading trend	Improving trend	10% improvement	
		Waipaoa River at Matawhero	Stabilise levels - halt degrading trend	Improving trend	10% improvement	
		Whakaahu Stream at Bruntons Road	Stabilise levels - halt degrading trend	Improving trend	National Bottom Line	
		Taruheru River at Tuckers Road	Stabilise levels - halt degrading trend	Improving trend	10% improvement	
<b>Physical Attributes</b>						
Attribute	Values Supported by this attribute	Current state	Short Term Target (5 years)	Medium Term Target (10 years)	Long Term Target (15-30 years)	
Dissolved oxygen	Mahinga kai Ecosystem health Fishing Threatened Species Mauri	Whakaahu Stream at Bruntons Road	Improving trend	National Bottom Line	Mid C Band	
		Waipaoa River at Kanakanaia	establish current state	TBC once current state understood		
		Taruheru River at Tuckers Road	establish current state	TBC once current state understood		
Suspended fine sediment (Visual Clarity)	Ecosystem health Human contact - swimming Threatened species	Waipaoa River at Kanakanaia	Improving trend			10% improvement
		Waipaoa River at Matawhero	Improving trend			10% improvement

	Mahinga kai Natural form and character	Whakaahu Stream at Bruntons Road	Improving trend		Upper C Band
	Drinking water supply Fishing Irrigation and food production Aquifer recharge Flood protection and resilience Flood control and land management Water storage Mauri	Taruheru River at Tuckers Road	Improving trend	National Bottom Line	Upper C Band
Deposited fine sediment	Ecosystem health Human contact – swimming	Waipaoa River at Kanakanaia	Improving trend		National Bottom Line
	Threatened species Mahinga kai	Waipaoa River at Matawhero Bridge	Improving trend		National Bottom Line
	Natural Form and character Fishing	Whakaahu Stream at Bruntons Road	Improving trend	10% improvement	50% improvement
	Mauri Transport and Tauranga waka Water storage Flood control and land management	Taruheru River at Tuckers Road	Improving trend	10% % improvement	50% improvement

	Flood protection and resilience				
Physical Habitat Assessment		Sites still being determined	Improvements generally required	TBC	
Temperature		Sites still being determined	Current state being established	TBC	
<b>Biological Attributes</b>					
Attribute	Values Supported by this attribute	Current state	Short Term Target (5 years)	Medium Term Target (10 years)	Long Term Target (15-30 years)
E.coli	Human contact - swimming	Waipaoa River at Kanakanaia	Improving trend	20% improvement	D Band
	Mahinga kai	Waipaoa River at Matawhero	Improving trend	20% improvement	D Band
	Drinking water supply	Whakaahu Stream at Bruntons Road	Continue improving trend		C Band
	Animal drinking water	Taruheru River at Tuckers Road	Improving trend	50% improvement	C Band
Periphyton	Irrigation and food production				
	Mauri				
	Transport and tauranga waka				
Periphyton	Ecosystem health	Waipaoa River at Kanakanaia	Maintain current state – no degrading trend		
	Mahinga kai	Waipaoa River at Matawhero	Maintain current state – no degrading trend		
	Natural Form and Character	Whakaahu Stream at Bruntons Road	Improving Trend	Middle C Band	Upper C Band
	Fishing				
	Mauri				
	Drinking water supply				

	Animal drinking water				
Fish	Ecosystem health Mahinga kai Fishing Threatened species Mauri	Waipaoa River at Kanakanaia	Establish current state	TBC once current state understood	
		Waipaoa River at Matawhero	Establish current state	TBC once current state understood	
		Whakaahu Stream at Bruntons Road	Establish current state	TBC once current state understood	
		Taruheru River at Tuckers Road	Establish current state	TBC once current state understood	
Macroinvertebrates	Ecosystem health Mahinga kai Fishing Threatened species Mauri	Waipaoa River at Kanakanaia	Improving trend	10% improvement	50% improvement
		Waipaoa River at Matawhero	Improving trend	10% improvement	50% improvement
		Whakaahu Stream at Bruntons Road	Improving trend	10% improvement	50% improvement
		Taruheru River at Tuckers Road	Improving trend	10% improvement	50% improvement
		Waipaoa Trib at Lavenham-Humphrey	Improving trend	10% improvement	50% improvement
		Waipaoa Trib at Pipiwakao Road	Improving trend	10% improvement	50% improvement