

# BRIEFING NOTE

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**To:** Pongakawa and Waitahanui Freshwater Futures Community Group

**From:** Freshwater Futures Team **Date:** 25 October 2016

**Subject:** **Workshop 4 - Community view of the water in Rivers and Streams**

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Welcome to Freshwater Futures Pongakawa and Waitahanui Community Group workshop 4.

Tēnā koe! Nau mai, nau mai, haere mai ki te Hui Tuatoru mo te Wai.

Date / Te Ra	<b>Wednesday 9 November 2016</b>
Time / Te Wa	<b>9am to 2.30pm</b>
Location / Te Waahi	<b>Pongakawa Hall, Old Coach Road, Pongakawa</b>

In this workshop, we want your thoughts on how well the values in rivers and streams in Pongakawa and Waitahanui are provided for (eg. as good as ever, worsening, lost, or getting better) and how you think they should be.

We are creating freshwater state objectives for the Freshwater Management Units (FMUs). At this stage we are focusing on the in-river values. Water use and future uses will be considered in workshop 5.

This Briefing Note has information and questions to think about before the workshop. It covers:

1. What we've done so far – a brief snap shot of values, current state and FMUs. We are building on this in workshop 4.
2. What we're focussing on in workshop 4 – how we will approach freshwater state objectives in FMUs.
3. What's coming up in workshop 5 – scenarios and understanding implications for future use.

Before the workshop, please think about and fill in the questions in Attachment 4. **Please bring this along with you.**

If you have any questions before the workshop, please contact:

- **Lisa Baty** – RSVPs and administration: [Lisa.Baty@boprc.govt.nz](mailto:Lisa.Baty@boprc.govt.nz) 0800 884 881 x 8352
- **Pim de Monchy** - Relationship Manager: [Pim.deMonchy@boprc.govt.nz](mailto:Pim.deMonchy@boprc.govt.nz) 0800 884 881 x 8518

We look forward to seeing you at the workshop.

# 1 What we have done so far – values, current state and freshwater management units

You have spent time:

- **identifying values** (Workshops 1 and 3)
- learning about **current state** (Workshop 2)
- discussing draft **FMUs** (Workshop 3)

Workshop notes are available online (<https://pwcg.boprc.govt.nz/> Username: *firstname.surname* password: *Pongakawa2015*).

Three draft surface water Freshwater Management Units (FMUs) were identified for the Pongakawa and Waitahanui Community Group area:

- **Mid-upper Pongakawa Waihi**
- **Lower Pongakawa-Waihi**
- **Waitahanui.**

**Attachment 1** includes a map of the FMUs, and **Attachment 2** provides a snap shot of current state and key values we have heard about within the Pongakawa and Waitahanui WMA FMUs.

## Are estuaries included in the FMUs?

Estuaries lie in the coastal marine area and are not included in freshwater management units. However, we will discuss your concerns and aspirations for the Waihi/Maketū Estuary in the workshop because we need to establish freshwater objectives at the bottom of the catchment that will support estuary values and objectives. **Attachment 3** is for your feedback about Waihi Estuary.

## What about groundwater (ie. aquifer) and wetlands?

We expect groundwater objectives will relate to sustaining the long term supply of the resource, supporting surface water objectives, and meeting the needs of water users (which we will cover more in workshop 5). Aquifers play a part when we consider sustaining the values in our rivers, lakes and estuaries.

Wetlands come in various scales and types. We are looking in to options for how to set objectives for wetlands, e.g. we may take a region wide approach based on wetland type or may set specific objectives for only certain wetlands. The team is currently working on this.

## 2 Workshop 4 – Creating freshwater state objectives

We are now working towards specific, measurable objectives for water quality and quantity in water bodies within each FMU in the Pongakawa and Waitahanui.

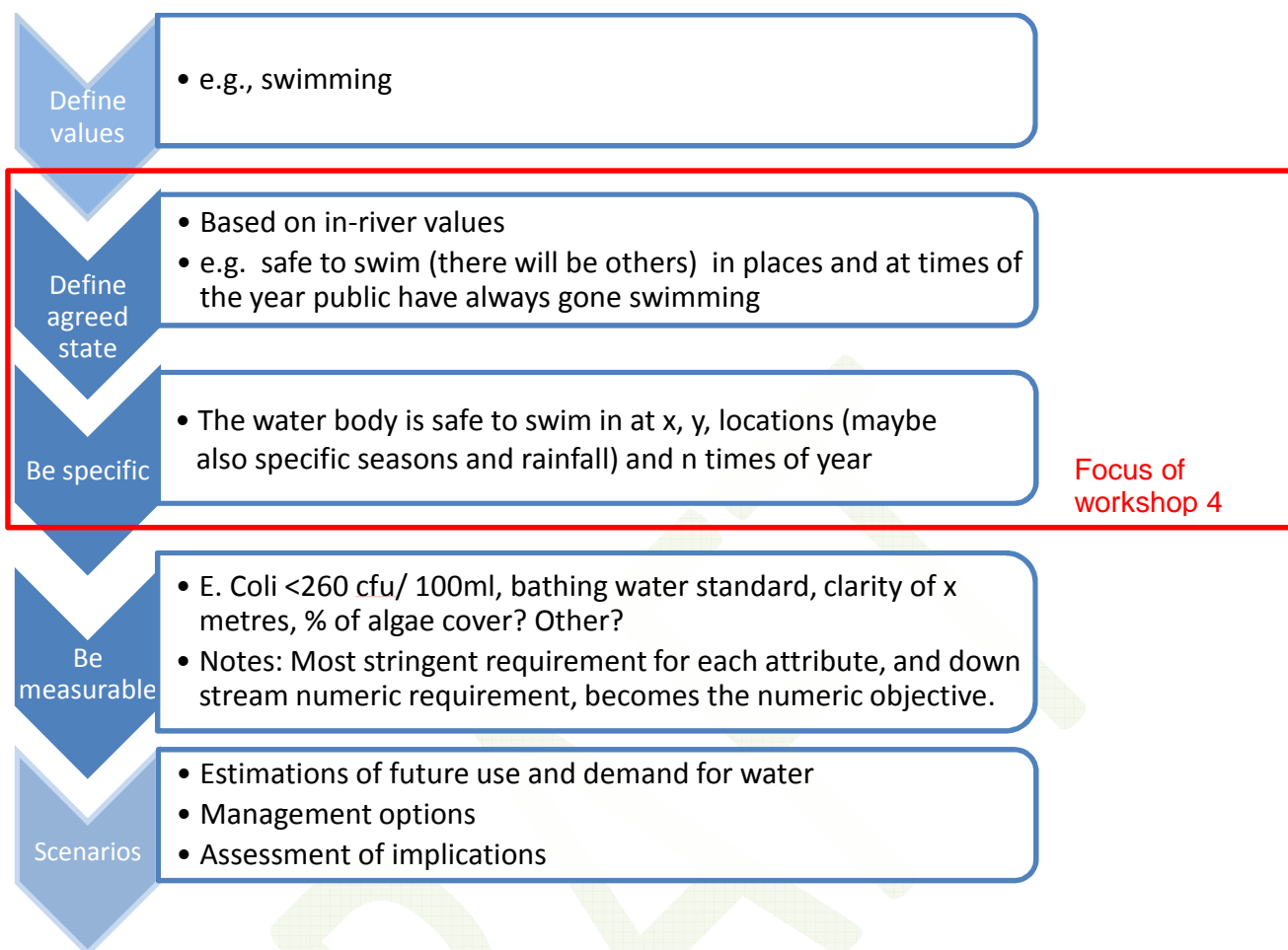
A simplified example is shown in the flowchart on the next page.

In this workshop, we would like to work with you on defining the expected states that support those in-river values.

### What is a freshwater objective?

A freshwater objective describes the environmental state required for the identified values for fresh water to be appropriately provided for. In this process, freshwater objectives are set at an FMU scale. Where practicable they must be numeric but can also be written or narrative.

We will then come back to you in workshop 5 with measures, estimates of future water use, and will start to talk about implications.



**Flowchart:** A simplified example of how we working towards specific, measurable objectives for the water in river

## 2.1 Questions for Community Group members

We would like to hear from you on where water bodies are currently supporting values that depend on water quality and flow, where they are not, and what you expect. Is the water (quality and flow/level) meeting your expectations? If it is not, what are the problems and how would you expect it to be?

Workshop 4 will focus on *fresh water flows into the estuary, swimming /primary contact, significant indigenous species and habitat, ecosystem health, mahinga kai, fishing, natural form and character, wai tapu and tauranga waka.*

In workshop 5 we will start to look into freshwater values related to taking, using and discharging to fresh water.

**Please think about and fill in the questions in Attachment 4.**

### What about suggestions made about “how” water should be managed?

Community group and tangata whenua have suggested or shared many practical ideas or principles about *how* fresh water could be managed. These ideas are valuable. They are recorded and will be used to help with the “how” discussions at later workshops.

We'll present these on the wall at workshop 4 - please add to these during the workshop.

## 2.2 National direction

There are national and regional objectives that we need to give effect to as we set freshwater state objectives in FMUs. In summary, we must:

- *At least maintain* freshwater quality and mauri, i.e., we cannot set an objective that allows decline.
- *Improve* freshwater quality where needed to meet identified required use and protection values. We have been identifying these uses and values with you, so that we can seek improvement where needed.
- *Safeguard* life-supporting capacity, ecosystems and indigenous species.
- *Safeguard* the health of people and communities, *at least* for secondary contact.
- *Protect significant values* of wetlands and outstanding freshwater bodies<sup>1</sup>.

## 3 What's coming up in Workshop 5?

In workshop 5, we will look at implications of draft freshwater objectives for water uses (e.g. water supply, irrigation, wastewater and stormwater discharges, flood management).

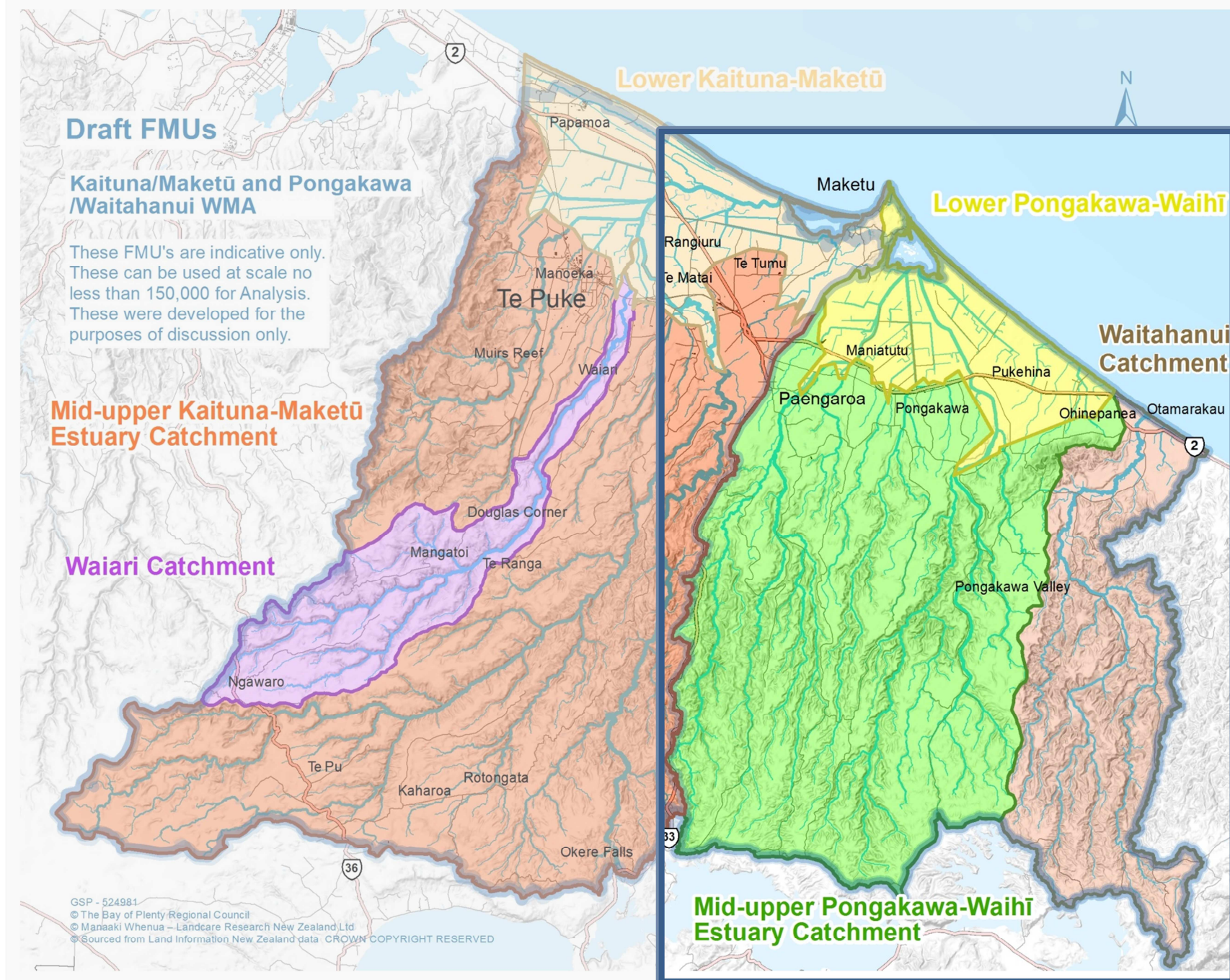
After workshop 4 the team will need time (est. 6 months) to:

1. Build surface water and groundwater models to help us predict changes in water quality and quantity.
2. Develop some credible futures to feed in to the model – likely changes in population, land use and land use practices, industry and water demand and discharges. We will ask for some more input from the Group about this at workshop 4.
3. Work up attributes and numeric objectives to reflect narrative objectives.
4. Work out the best way to present modelling information.

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<sup>1</sup> For more detail, refer to the *National Policy Statement for Freshwater Management 2014*, Objectives A1, A2 and B1-B4; and the *Bay of Plenty Regional Policy Statement* Objectives 27 and 30

# Attachment 1: Draft Freshwater Management Units for Kaituna and Maketū and Pongakawa and Waitahanui



# Attachment 2: Draft Freshwater Management Units

## Draft FMU: Mid-upper Pongakawa-Waihi Catchment

Water bodies in this draft FMU include: Mangatoetoe Stream, Oeuteheuheu Stream, Puanene and Wharere Streams (near Pongakawa) and Pongakawa Stream (near Pongakawa Valley)

Water quality and quantity in this FMU affects water quality and quantity in downstream FMU.

### Current state science summary

Current National Objective Framework attribute state bands and trends in **Pongakawa Stream at forest site:**

#### River ecosystem health

Periphyton Trophic state	-	no data
Nitrate Toxicity	<b>B</b>	deteriorating
Ammonia Toxicity	<b>A</b>	steady
Dissolved oxygen	-	no suitable data, likely to be A-B band

#### River human health for swimming

*E. coli* **A** steady

#### River human health for wading/boating

*E. coli* **A** steady

Other measures in multiple locations:

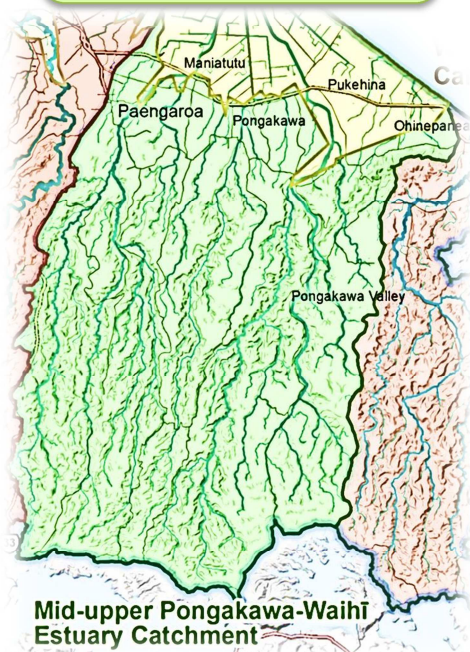
**Stream ecosystem health** - invertebrates  
There were **wide ranges** in stream health. Streams draining catchments dominated by agriculture were in **Excellent, Good or Fair** ecological health.

**Fish health** – numbers and species composition  
**Excellent or Good** condition at most sites.

**Poor** condition at a few sites.

**Longfin eels** and **redfin bully** were the most commonly collected fish.

More about **attribute state bands** can be found in page 24 to 32 of NPSFM in your folder. No statistics currently available for those shown as “-”



### Freshwater values identified in this draft FMU

#### Values dependent on water quality/quantity in rivers

- Ecosystem health
- Secondary contact (eg wading)
- Significant species and habitat
- Natural Form and character
- Swimming (?)
- Fishing
- Mahinga kai
- Rawa Tuturu (?)
- Wai tapu (?)
- Transport or Tauranga waka
- Game birds habitat
- Moana sensitive receiving end (?)

#### Other values and uses to be discussed at Workshop 5

- Municipal water
- Animal drinking
- Irrigation and cultivation
- Hydro-electricity generation (?)
- Commercial and industrial use
- Supporting other water bodies
- Flood control (?)
- Urban stormwater
- Wastewater

## Draft FMU: Lower Pongakawa-Waihi Catchment

Water bodies in this draft FMU includes: Kaikokopu Canal, Wharere Canal, Pongakawa Canal and Pukehina Canal

### Current state science summary

Current National Objective Framework attribute state bands and trends in **Pongakawa Stream at SH2 and Old Coach Road** are:

#### River ecosystem health

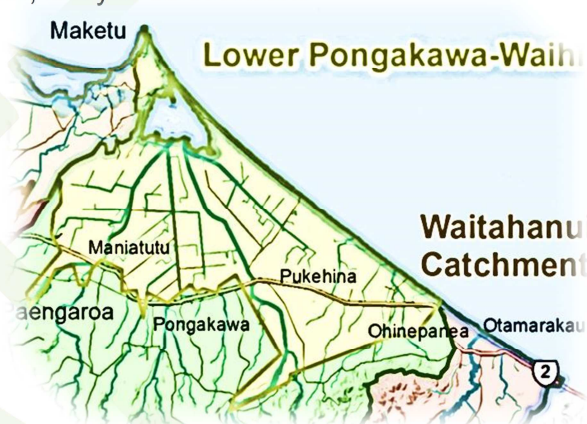
Periphyton Trophic state	-	no data
Nitrate Toxicity	<b>B</b>	deteriorating
Ammonia Toxicity	<b>A</b>	steady
Dissolved oxygen	-	no suitable data, likely to be A-B band

#### River human health for swimming

*E. coli* **B** steady

#### River human health for wading/boating

*E. coli* **A** steady



#### Other measures in multiple locations

##### Stream ecosystem health

*invertebrates*

**Poor** ecosystem health in most streams.

**Fish health**– numbers and species composition

Of the few streams where fish have been surveyed, most had fish communities were in **moderate** condition. The most common fish were **longfin** and **shortfin eels**, and **Inanga**. No streams were found in excellent condition.

### Freshwater values identified in this draft FMU

#### Values *in* rivers/streams dependent on water quality and quantity in rivers

Ecosystem health  
Significant species and habitat  
Secondary contact (eg wading)  
Natural Form and character  
Swimming  
Fishing  
Mahinga kai  
Rawa Tuturu  
Wai tapu  
Transport or Tauranga waka  
Game birds habitat  
Moana sensitive receiving end.

#### Other values and uses to be discussed at Workshop 5

Municipal water (?)  
Animal drinking  
Irrigation and cultivation  
Hydro-electricity generation (?)  
Commercial and industrial use  
Supporting other water bodies (?)  
Flood control  
Urban stormwater  
Wastewater

## Draft FMU: Waitahanui Catchment

Water bodies in this FMU includes: Waitahanui Stream (Ōtamarākau), Whakahaupapa Stream (between Pikowai and Campbell Roads), Pungarehu Stream (in the forest) and Morepara Stream (near Lake Rotomā)

### Current state science summary

Current National Objectives Framework attribute state bands and trends in Waitahanui Stream at Ōtamarākau:

#### River ecosystem health

Periphyton Trophic state	-	no data
Nitrate Toxicity	<b>A</b>	deteriorating
Ammonia Toxicity	<b>A</b>	steady
Dissolved oxygen	-	no suitable data, likely to be A-B band

#### River human health for swimming

*E. coli*      **below acceptable**      Steady

#### River human health for wading/boating

*E. coli*                      **A**      Steady

Other measures in multiple locations:

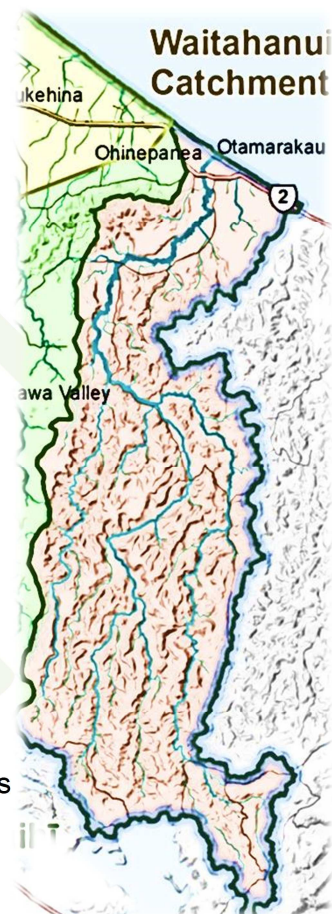
#### **Stream ecosystem health** - invertebrates

Streams draining plantation forests were in either **excellent** or **good** ecosystem health.

#### **Fish health** – numbers and species composition

Fish communities in this area were in a **wide range** of condition. Streams draining native bush or plantation forests were mostly in **Excellent** or **Good** condition, while streams draining agricultural areas were mostly in **Poor**, **Fair** or **Moderate** condition.

**Longfin eels** were widespread here, as well as **redfin bullies** and **shortfin eels**. **Koaro** were recently found in a stream draining plantation forests.



### Freshwater values identified in this draft FMU

Values <i>in</i> rivers/streams dependent on water quality and quantity in rivers	Other values and uses to be discussed at workshop 5
Ecosystem health	Municipal water
Secondary contact (eg wading)	Animal drinking
Significant species and habitat	Irrigation and cultivation
Natural Form and character	Flood control (?)
Swimming	Hydro-electricity generation (?)
Fishing	Commercial and industrial use
Mahinga kai	Supporting other water bodies (?)
Rawa Tūturū	Urban stormwater (?)
Wai tapu (?)	Wastewater
Transport or Tauranga waka (?)	Kaitiaki/relationships - heritage and connection.
Game birds habitat	
Moana sensitive receiving end.	



## Attachment 3: Waihi Estuary – receiving freshwater inputs

### Current state science summary

Measures relevant to **Waihi Estuary** conditions:

#### Estuary ecosystem health

Productivity (Chlorophyll-a) No stats in upper estuary Good in lower estuary  
 Sediment extent Poor/very poor in upper estuary; Good/very good in lower estuary  
 Algal cover Poor/very poor in upper estuary; Average/good but deteriorating in lower  
 Seagrass extent Poor, and diminishing




#### Estuary kaimoana

Cockles/tuangi extent Poor/very poor in upper estuary; Average/good in lower estuary  
 Faecal contamination risk Unacceptable

#### Estuary human health for swimming

Faecal contamination risk Average

### Your thoughts, experience and observations?

In your view, are these values provided for in Waihi Estuary?	<input type="radio"/>  <input type="radio"/>  <input type="radio"/>  <input type="radio"/> ? <input type="radio"/> X	No, the current estuary conditions means this value is at risk, worsening or lost Yes, the condition is mostly okay for this value BUT I wish more could be done Yes, Waihi Estuary is valued for this reason, and the condition is acceptable. I don't have an opinion about this value or this area / I don't know. I'm not aware this value applies to this area.
Tell us more about what, where, when and why		
Swimming and other recreation involving immersion		
Mahinga kai • safe to eat & harvest • kei te ora te mauri		
Ecosystem health		
Significant indigenous species and habitat		
Fishing		
Natural form and character		
Waahi tapu or site of cultural significance		
Transport and tauranga waka		

## Attachment 4: Questions about rivers and streams in FMUs

<p><b>In your view, are these values provided for in rivers and streams in each FMU?</b></p>		<p><b>Your thoughts, experience and observations?</b></p> <p><input type="radio"/> No, the current conditions means this value is at risk, worsening or lost</p> <p><input type="radio"/> Yes, the condition is mostly okay for this value BUT I wish more could be done</p> <p><input type="radio"/> Yes, rivers/streams in this area is/are valued for this reason, and the condition is acceptable.</p> <p>? I don't have an opinion about this value or this area /I don't know.</p> <p><input checked="" type="radio"/> I'm not aware this value applies to this area.</p>	
		<p><b>Tell us more about where, what, when and why</b></p>	
<p>Swimming and other recreation involving immersion</p>	<p>Mid-upper Pongakawa-Waihi</p>		
	<p>Lower Pongakawa-Waihi</p>		
	<p>Waitahanui</p>		
<p>Mahinga kai</p> <ul style="list-style-type: none"> <li>• safe to eat &amp; harvest</li> <li>• kei te ora te mauri</li> </ul>	<p>Mid-upper Pongakawa-Waihi</p>		
	<p>Lower Pongakawa-Waihi</p>		
	<p>Waitahanui</p>		
<p>Ecosystem health</p>	<p>Mid-upper Pongakawa-Waihi</p>		
	<p>Lower Pongakawa-Waihi</p>		
	<p>Waitahanui</p>		
<p>Significant indigenous species and habitat</p>	<p>Mid-upper Pongakawa-Waihi</p>		
	<p>Lower Pongakawa-Waihi</p>		
	<p>Waitahanui</p>		
<p>Fishing</p>	<p>Mid-upper Pongakawa-Waihi</p>		
	<p>Lower Pongakawa-Waihi</p>		
	<p>Waitahanui</p>		

<p><b>In your view, are these values provided for in rivers and streams in each FMU?</b></p>		<p><b>Your thoughts, experience and observations?</b></p> <p>☹ No, the current conditions means this value is at risk, worsening or lost</p> <p>○ Yes, the condition is mostly okay for this value BUT I wish more could be done</p> <p>😊 Yes, rivers or streams in this area is/are valued for this reason, and the condition is acceptable.</p> <p>? I don't have an opinion about this value or this area / I don't know.</p> <p>X I'm not aware this value applies to this area.</p>	
<p>Natural form and character</p>	<p>Mid-upper Pongakawa-Waihi</p>		
	<p>Lower Pongakawa-Waihi</p>		
	<p>Waitahanui</p>		
<p>Wai tapu and/or site of cultural significance</p>	<p>Mid-upper Pongakawa-Waihi</p>		
	<p>Lower Pongakawa-Waihi</p>		
	<p>Waitahanui</p>		
<p>Transport and tauranga waka</p>	<p>Mid-upper Pongakawa-Waihi</p>		
	<p>Lower Pongakawa-Waihi</p>		
	<p>Waitahanui</p>		

Are there any rivers and streams in the FMUs that are very special and need particular attention?  
And why?