

# Pongakawa and Waitahanui Freshwater Futures Community Group

## Meeting Notes: Workshop 5 - Draft in-river state / Use Values / Modelling

Pongakawa Hall, Old Coach Road, Pongakawa

Friday 26 May 2017 commencing at 9.00am

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**Members present:** Andre Hickson (Chair), Bev Nairn, Colin McCarthy, Darryl Jensen, Dennis Walker, BOPRC Councillor Jane Nees, John Garwood, John Cameron, John Meikle, Julian Fitter, WBOP Councillor Kevin Marsh, Melv Anderson, Mike Maassen, Paul Van der Berg

**Apologies:** Bernie Hermann, Geoff Rice, Grant Rowe, Roku Mihinui, Te Awhi Manahi and Wilma Foster

**BOPRC Staff present:** Pim de Monchy (Relationship Manager), Kerry Gosling (Facilitator), Janie Stephenson (Support Facilitator), Nicola Green (Senior Planner – Water Policy), Andrew Millar (Senior Planner – Water Policy), Santiago Bermeo (Senior Planner – Water Policy), Clarke Koopu (Māori Policy Advisor), Rochelle Carter (Environmental Scientist), Raoul Fernandes (Science Team Leader – Water Quantity), Richard Lyons (Land Management Officer), Katrina Knill (Communications Partner) and Lisa Baty (Planning Coordination Officer – Water Programme)

**Guest speaker:** Nic Conland (Catchment modelling consultant)

**Observer:** Rani Dhaliwal (University of Waikato PhD student)

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### Related documents previously circulated:

1. Workshop Paper – Freshwater Futures Workshop 5 Overview
2. Workshop Paper – Desired In-River State - Have we got it right?
3. Workshop Paper – Issues in Kaituna-Pongakawa-Waitahanui Water Management Area
4. Workshop Paper – Extractive Use Values
5. Information Sheet – Integrated Catchment Modelling of the Kaituna-Pongakawa-Waitahanui and Rangitāiki Water Management Areas
6. Information Sheet – Groundwater Model for Kaituna-Pongakawa-Waitahanui Water Management Area

## 1 Welcome / Updates / Focus of the Day

Clarke Koopu opened with a karakia.

Pim de Monchy welcomed everyone to the workshop and introduced staff members new to the group:

- Santiago Bermeo – Senior Planner, Water Policy
- Katrina Knill – Communications Partner.

### 1.1 Agenda, Purpose and Updates

Administration:

- All agree with their names being publicly shared on BOPRC website.

Work Programme:

- Briefly recapped what we have covered in workshops to date and the work programme. Noted that Council has extended Phase 3 by 12 months to June 2018, approved the approach to objective setting and confirmed the engagement process. Following the initial hui, invitations have been sent to iwi to facilitate further engagement and seek their input. Meetings with industry groups that have an interest in water are being held.
- Focus today: approve desired in-river statements; understand in-river values and look at out-of-river use values; agree on key freshwater quality and quantity issues and risks; discuss modelling and scenarios; and check the land use map.

#### Post Cyclones Update:

- Flooded areas included: the Kaituna River and peatlands, Te Puke and Kaikokopu Canal at SH2.
- Te Puke had 803mm of rain in March and April compared to 300mm average for the same period.

#### National Updates:

- Resource Management Act (RMA) changes.
- Clean Water Consultation.

#### Regional Updates:

- [Proposed change to Regional Policy Statement \(Change 3; Rangitāiki\)](#).
- [Proposed Plan Change 9](#): Region-Wide Water Quantity.
- [Proposed Plan Change 10](#): Lake Rotorua nutrient management; hearings have finished and the decision is pending.
- [Kaituna, te taonga tuku iho](#): expected to be publically notified for submissions on 27 May 2017, consultation period closes on 24 July 2017.

## 1.2 Questions / Comments

#### Questions and Comments on Cyclones:

- **Q:** When do you change estimates of rainfall frequency? **A:** The approach has been changed from a return period, e.g. 1 in 100 years to % Annual Exceedance Probability (AEP). The calculation of AEPs is re-worked from time to time when significant new climate data has been added.
- **Q:** Does it change the approach to stormwater consents? **Comment:** It affects the way stormwater is managed. **A:** BOPRC has purchased National Institute of Water and Atmospheric Research (NIWA) climate change scenario information, which will be used in catchment modelling.
- **Comments:**
  - It not unusual, this is the time we get cyclones.
  - At Kaikokopu the Drainage Society has a bank made of bails that is probably too expensive for it to maintain properly.
  - Kaikokopu is a drainage scheme not a flood scheme.
  - Water backing up during high tides causes an increase in sediment deposition, so the timing of sediment dredging is important.
  - The Rangitāiki has a similar problem; too expensive to do the maintenance.
  - Most of the rivers are located in native forest and farm land; that is where sediment comes from rather than exotic forest. During flood events there is ephemeral flow in exotic forest.
  - Changes in land management affect storm water run-off peaks flows.
  - We have pumice soils, so there are large peak flows during rainfall events.
- **Q:** What effect do storm water peak flows have on groundwater? **A:** It depends on the soils. There can be an increase in groundwater recharge. When soils are saturated there will be surface water run-off.

- **Q:** Does BOPRC check where high sediment loads in water comes from? **A:** Yes. samples are taken to determine which rivers have high sediment loads. Work is undertaken with relevant land owners to create sediment detention ponds if possible.
- **Q:** Are there records of datum points of sediment levels? **A:** Yes. Modelling can help to improve understanding of sediment deposition. It can be difficult to monitor at high flows, but do so in key locations.
- **Q:** Does Council enforce management of sediment run-off like waste discharges? **A:** There is compliance monitoring of consent conditions. High flows events may exceed thresholds set in consent conditions. In setting consent conditions there is a balance between managing risk and a large scale event (they are more difficult to manage and are less likely to occur).

#### **Questions and Comments on National Updates:**

- **Q:** How will Iwi Participation Agreements (IPA) / Te Mana Whakahono a Rohe (TMWaR) affect the process? **A:** That depends if the agreements are similar or different to existing arrangements.
- **Q:** How are small rivers affected by proposed stock exclusion regulations? **A:** On rolling and steep land the proposed stock exclusion regulations only apply for waterways that are over 1 metre wide. There is a summary in Table 1, page 29 of [Central Government's Clean Water consultation document](#).
- **Comments from Cr Nees:**
  - There is a lot of work going on in councils regarding the central government suitability for swimming targets. Central government have a technical advisory group to advise it on allocation policy. We need to keep going and are moving as fast as possible. If there is a National Party government post-election 2017 expect changes to water allocation and charging for water. It is not known what they will be, but there is rising concern in the community regarding allocation and charging for water.
- **Q:** Where will the \$100M Freshwater Improvement Fund go? **A:** BOPRC have made funding applications for the Kaituna re-diversion and improvements around estuaries project. The initial \$25M funding round is over-subscribed across the country.

#### **Questions and Comments Regional Updates:**

- **Q:** Do community groups have input to the Kaituna, te taonga tuku iho - proposed Kaituna River document? **A:** After notification anyone can make a submission. A copy can be made available to community group members who wish to receive it. A copy will be mailed to all residents in the Kaituna catchment. The consultation period closes on 24 July.

## **2 Progress to Date**

A brief summary of previous workshop topics and progress (including values, Freshwater Management Units, and acceptability of current state) was given as a reminder and to illustrate where we are up to in the process. See briefing notes and slides. The process of developing objectives was outlined.

## **3 Desired In-River State**

Draft desired in-river state statements were collated by BOPRC staff directly from community group member feedback worksheets and notes taken at Workshop 4. These were presented for community group feedback to make sure staff had interpreted what had been said in Workshop 4 correctly.

The 'Gradients of Agreement' tool was introduced as a decision making tool to help the group to agree on the in-river state statements. Members were asked to consider all of the statements

for one Freshwater Management Unit and to state where they sat on the 'Gradients of Agreement' scale outlined below:

1= whole hearted support

2= agreement with minor point of contention

3= support with reservations

4= abstain

5= more discussion needed

6= don't like but will support

7= serious disagreement

8= veto

Discussion then focussed on reasons for high/low scores and how these could be further refined by changes to wording of the draft desired in-river state statements. Once agreement/near agreement appeared to be reached and limited further progress could be made, scoring was repeated. Changes to each of the in-river state statements and scoring results are summarised below. Note that these are the community group's preferred in-river states at this point in the process and there will be opportunity to revisit them. Use values will be considered before setting freshwater objectives. BOPRC also notes it needs to accommodate input from iwi engagement and work through RMA tests and other considerations.

### 3.1 Overarching Statements/Comments

Desired in-river state statement reached by Community Group in Workshop 5	Notes/comments
	Simplify wording and keep wording consistent.
<p>OS1: Mahinga Kai species identified by the community group in these FMUs include: Tuna/eel, kōura/freshwater crayfish, inanga/whitebait, watercress, duck, and in estuaries pipi, flounder, oyster, kahawai, snapper and mullet.</p> <p>Significant indigenous species identified by the community group in these FMUs include: Tuna/eel, Rongoā/medicinal plants, cockabully, and kokopu.</p>	<p>Don't list species in desired in-river state statements but list in overarching statement.</p> <p>Note: List of species will be updated in response to ecological survey information and mapping.</p>
<p>OS2: Some values such as swimming, mahinga kai that is safe to eat, customary rituals and ceremonial activities may not be met:</p> <ul style="list-style-type: none"> <li>• immediately after heavy rainfall events</li> <li>• below a discharge point without reasonable mixing.</li> </ul>	Different opinions on retaining “ other than immediately below a discharge point ...” ‘After reasonable mixing’ could be added. Leave in ‘after heavy rain’.
OS3: Water quality is maintained or improved	

### 3.2 Middle – Upper Pongakawa

Preferred in-river state statement collated by BOPRC staff	Desired in-river state statement reached by Community Group in Workshop 5	Notes/comments
1. The water will continue to be good for swimming as it is now.	1. The water quality will be suitable for swimming.	Suitability of water quality for swimming will be maintained or improved. Attributes in addition to E.coli could be algae and colour.
2. The water will support healthy ecosystems and neutral or improving trends. In particular, further degradation from siltation/sedimentation, debris, summer slime rafts and nitrification will be prevented.	2. Water quality and quantity will protect and enhance ecosystem health.	‘Neutral or improving trend’ was interpreted to mean ‘maintain or improve’ rather than maintain a declining trend. There was a discussion about what ‘slime rafts’. They were considered areas of thick floating algae.

3. Water quality and flow will continue to provide for indigenous species, support fish habitat, mahinga kai (tuna, whitebait, watercress), fishing (fly fishing) and rongoā species, reduce decline in koura numbers and increase suitable riparian habitat.	3. Water quality and quantity will continue to provide for significant indigenous species, valued introduced species, and mahinga kai that is safe to eat.	'Flow' is the same thing as 'quantity'. 'Ecosystem health' and 'indigenous species' represent different values but the same attributes apply to them. Number 2 and 3 could be simplified. There was potential to combine them provided the different values are recognised.
4. The water will remain free from slime rafts where they are absent now.	4. [Combined with 2].	Combine number 2 and 4. Simplify the language.
5. The water flow and quality will not damage the cave drawing sites by the Pongakawa Stream.	5. [Delete].	Too specific. Damage unlikely unless there was a dam.

### 3.3 Lower Pongakawa

Preferred in-river state statement collated by BOPRC staff	Desired in-river state statement reached by Community Group in Workshop 5	Notes/comments
1. The water will be swimmable at all swimming spots during November to March, other than immediately below a discharge point or after heavy rain or during summer low flows.	1. The water quality will be suitable for swimming.	The dates and reference to swimming spots should be removed. Different opinions on retaining " other than immediately below a discharge point ..." 'After reasonable mixing' could be added. Leave in 'after heavy rain'.
2. The water will support healthy ecosystems and a steady neutral trend.	2. Water quality and quantity will protect and enhance ecosystem health.	Delete 'neutral'; trends can't be neutral. Add steady or improving.
3. The water will continue to provide good habitats for eels and ducks, inanga, watercress, cockabullies, kokopu, and suitable for kahawai, mullet and flounder. In particular, siltation and sediment in the water will be managed and reduced to improve aquatic habitat and invertebrate conditions.	3. Water quality and quantity will continue to provide good habitat for significant indigenous species, valued introduced species, and mahinga kai that is safe to eat. In particular, siltation and sediment in the water will be managed and reduced to improve aquatic habitat and invertebrate conditions.	The reference to water relates to quality/flow and quantity. Replace list of species with 'significant indigenous species' and 'valued species'.

4. The water will support mahinga kai (eels, flounder, whitebait, ducks) that is safe to eat from rivers all year round.	4. [Combined with 3]	Combined with 3. Eels and duck should be singular.
5. The water will continue to be suitable for wai tapu such as full emersion baptising.	5. Water quality and quantity will be suitable for customary rituals and ceremonial activities.	Could this be combined with number 1 if it included wai tapu? That would be subject to iwi consultation.
6. The water will support good ecological health and high invertebrate diversity in wetlands.	6. [Combined with 3]	Combined with 3.
7. The rivers will have no oily layers that deter people from swimming in it.	7. [Combined with 1]	Combined with 1. Remove 'deter'. Question the need for reference to 'oily layers'. They may be caused by tannins from peat deposits.
8. The water flow, depth, level of sediment and water quality will continue to support tauranga waka.	8. Water quantity and quality are managed to enable navigation and tauranga waka.	It should say 'navigation' and retain 'tauranga waka'.

### 3.4 Waihi Estuary receiving environment

These preferences for the estuary are noted particularly because freshwater objectives must support estuary values. However, only freshwater quality and quantity objectives will be set in the plan change.

Preferred in-river state statement collated by BOPRC staff	Desired in-river state statement reached by Community Group in Workshop 5	Notes/comments
1. The water will be swimmable in the lower estuary (at the mouth) as well as upper estuary from November to June.	1. The water quality will be suitable for swimming.	Studies show only a small proportion of E.coli contamination comes from septic tank discharge. Remove the dates.
2. The water will support ecosystem health.	2. Water quality and quantity will support healthy ecosystems.	Support.
3. The water will continue to support pipi, flounder, oyster, kahawai, snapper and mullet, and safe eating and pleasant (less to no green algae) mahinga kai activities.	3. Water quality and quantity will continue to provide for mahinga kai that is safe to eat. 3.1 There will be a reduction in green algae.	Take out 'pleasant'. Separate phrase saying a reduction in algae in the estuary.
4. The water flow and sediments level will	4. Water quantity and quality are managed to	Change '... sediments level will maintain ...' to

<p>maintain a navigable channel depth through control and reducing sediment, reducing sea water intrusion, while acknowledging that the channel changes all the time.</p>	<p>enable navigation/tauranga waka of the channel.</p>	<p>‘enable’. ‘Control’ means natural processes rather mechanical processes in the context of managing effects in the freshwater environment on the marine environment. Reducing sediment is not an objective it is a policy option of how to achieve the channel navigation objective. Take out ‘seawater intrusion’. The saline wedge is influenced by sea level rise and freshwater quantity. Implication on out of stream use values need to be considered later.</p>
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### 3.5 Waitahanui

<b>Preferred in-river state statement collated by BOPRC staff</b>	<b>Desired in-river state statement reached by Community Group in Workshop 5</b>	<b>Notes/comments</b>
<p>1. The water will continue to be clean and clear with an attractive pumice bottom in the Waitahanui for swimming.</p>	<p>1. The water quality will be suitable for swimming.</p>	<p>Remove wording ‘attractive pumice bottom’.</p>
<p>2. The water in Waitahanui will continue to be suitable for, and provide good ecosystem health for watercress, whitebait, trout and kahawai habitats as it has been for the last 40 years. There will be no further decline in species diversity, size and presence and continue to be attractive and provide for Oystercatchers.</p>	<p>2. Water quality and quantity will protect and enhance ecosystem health, species diversity, significant indigenous species, valued species, and mahinga kai that is safe to eat.</p>	<p>Remove the reference to ‘40 years’. Add ‘improved species diversity’. The species can be listed elsewhere. Change plural to singular.</p>
<p>3. The water flow and sediment level continues to provide for vessel passage as it has for the last 59 years.</p>	<p>3. Water level and quality are managed to enable navigation/tauranga waka of the channel.</p>	<p>Remove the reference to ‘59 years’. Replace ‘vessel passage’ with ‘navigation’. One member expressed concern about dredging the channel.</p>



	No. of members who selected this score							
	Middle-Upper Pongakawa draft FMU		Waitahanui draft FMU		Lower Pongakawa draft FMU		Waihi Estuary	
Score	Initial wording	Final wording	Initial wording	Final wording	Initial wording	Final wording	Initial wording	Final wording
1= whole hearted support	6	7	7	8		3	2	5
2= agreement with minor point of contention	4	5	4	4	2	3	5	5
3= support with reservations	2	2			7	8	3	3
4= abstain								
5= more discussion needed	2		2	1 (Navigation)	5		3	
6= don't like but will support								
7= serious disagreement								
8= veto								
Note: For Waitahanui draft FMU and Waihi Estuary one score was not recorded.								

## 4 Additional Attributes

A brief summary of the BOPRC additional (to the NPSFM) science attributes (things we can measure) work was discussed. The preliminary attributes are presented in Appendix 1 of the *Workshop Paper – Desired In-River State - Have we got it right?* They are subject to expert review before being finalised.

## 5 Resource Management Issues

It was noted that the *Workshop Paper – Issues in Kaituna-Pongakawa-Waitahanui Water Management Area* provided a summary. Values of estuaries have degraded. Currently nitrate levels are acceptable but are increasing. Demand for water is increasing and some water bodies are currently fully allocated. Indigenous fish have been impacted by various activities.

### 5.1 Questions / Comments

- **Q:** What is the lag time for groundwater to get to the coast? **A:** The time for water to flow through the groundwater system varies. Based on the current information shallow groundwater could take up to 10 years and deeper groundwater up to 50 years. Therefore, there can be a considerable lag time for nitrates in groundwater to move through the system.
- **Q:** What is the level of compliance with the requirement to provide records of water use? **A:** Resource consent compliance information is available in the [BOPRC 2015/2016 Regulatory Compliance Report](#).

### Further information on water metering requirements [not discussed at the workshop]

Across the whole region 76% of meters required are confirmed to be installed. This is to 42% of the total number of consents to take fresh water. Table 1 below shows the percentage of consents by draft Freshwater Management Unit in the WMA that require a water meter. Meters are required under either the national regulations<sup>1</sup>, or current consent conditions. Table 1 also shows the percentage of consents that have been confirmed to have a meter installed. Both percentages are expressed as a proportion of the total number of consents. The difference between the two is due to:

- the meter requirement being waived as no water is abstracted, (e.g. an existing consent is not currently exercised / no pump or irrigation equipment / no bore)
- compliance monitoring has yet to be undertaken / recorded
- non-compliance.

**Table 1: Requirement to have a water meter under national regulations and consent conditions**

	Surface water		Groundwater		Overall total	
	Required	Installed	Required	Installed	Required	Installed
Kaituna - lowland	73%	47%	79%	42%	77%	44%
Kaituna - middle and upper	64%	41%	57%	46%	59%	44%
Pongakawa-Waihi - lowland	100%	90%	64%	55%	81%	71%
Pongakawa-Waihi - middle and upper	86%	73%	71%	64%	75%	66%
Waiari Water Supply	56%	44%	67%	67%	58%	50%
Waitahanui	100%	87%	75%	25%	95%	74%
<b>Total by WMA</b>	<b>77%</b>	<b>59%</b>	<b>66%</b>	<b>53%</b>	<b>70%</b>	<b>55%</b>

Proposed Plan Change 9 recently introduced policies that require consented water takes to have a water meter and provide records of water use. It also introduced rules that in some circumstances require permitted activities for taking water to have a water meter and provide

<sup>1</sup> [Resource Management \(Measurement and Reporting of Water Takes\) Regulations 2010](#) require all consented takes greater than 5 litres per second (or equivalent) to have a water meter from 10 November 2016.

records of water use. The Proposed Plan Change 9 meter requirement applies to new consents applications. It cannot be applied to the existing consented takes that don't already require meters under the national regulations, until the consent expires and an application for a replacement consent is decided. Therefore, some existing consents are not currently required to have a meter or provide records of water use.

Water use data management compliance is discussed on page 22 of the BOPRC 2015/2016 Regulatory Compliance report. Here it is stated: *Although the uptake of digital logging and/or telemetry is increasing, the majority of water use records are submitted manually in hardcopy. Furthermore, a significant number of consent holders do not submit water use data within the required timeframe. Over 70 fines were issued for the late submission of data in 2015/2016<sup>4</sup>, which is up from 58 in the previous year.*

The BOPRC [Assessment of water availability and estimates of current allocation levels October 2016](#) report, shows allocation (as of October 2016) relative to the interim allocation limits in Proposed Plan Change 9.

## 6 Use values

Consented water takes and discharges were presented in maps and bar graphs, along with a high level summary of economic value and employment of land and water-dependent industries in the catchment. It was noted this is an initial analysis that will be further refined. Refer to the *Workshop Paper – Extractive Use Values* for details.

### 6.1 Questions / Comments

- **Q:** The data presented does not appear to be entirely accurate. Is feedback being sought from industry? **A:** The information is based on 2012/13 input-output tables from Statistics NZ. It is the most recent data available that allows comparison of economic value and employment impacts between different industries in the WMA. Individual industries have more recent and accurate data. But data from different industries is not necessarily comparable. Horticulture is underestimated because it assumes equal distribution of horticulture across the region. In reality kiwifruit is concentrated in this WMA. BOPRC is currently refining these estimates by separating kiwifruit from the overall horticulture figures. Information is being sought from industry. [[The Economic Contribution of Kiwifruit Industry Expansion to the Bay of Plenty, Northland and New Zealand Economies](#) report has been received from Zespri].
- **Comments:**
  - Surprised that the Pongakawa water take allocations are greater than the Kaituna.

## 7 Catchment Modelling

An overview of the catchment modelling being developed to support the process was provided. The modelling focusses on water quality. Refer to the Information Sheet – Integrated Catchment Modelling of the Kaituna-Pongakawa-Waitahanui and Rangitāiki Water Management Areas

A key input into catchment modelling is land use. A land use map developed for this purpose was presented. Feedback on the accuracy of the land use map is requested through the following [website link](#).

### 7.1 Questions / Comments

- **Q:** How do you determine how far away groundwater comes from? **A:** Rainfall climate data is balanced with surface water flow data and groundwater level data. If the water balance from the model does not match observed data there could be a source of water from further away.
- **Q:** Can you look at physical constituents. **A:** Yes information on groundwater chemistry can be used.

- **Comment:** In this area groundwater fed springs contribute to river flows. **A:** Yes. The model has been designed to recognise river base flow in river comes from springs.
- **Q:** What is the source of groundwater spring flow? **A:** There is some information to suggest there is a contribution from lakes. Work has been undertaken to locate springs and sample them to determine the age and chemistry of the water.
- **Q:** Can the land use be changed in the model? **A:** Yes
- **Q:** What information is used for stocking rates? **A:** Information from AgriBase. This information is also checked with community and industry. Some industries are prepared to comment on information presented to them, but not provide specific information.
- **Q:** Can contaminant discharges from horticultural activity be considered? **A:** Yes information on nutrient leaching discharge rates is being collected.
- **Q:** Would encouraging the forestry industry to rotate harvesting be an advantage? **A:** Yes.

## 8 Groundwater Modelling

An overview of the groundwater model being undertaken was provided. Once matched to observed data the model can be used to assess the response of the aquifer to groundwater management scenarios. Refer to the Information Sheet – Groundwater Model for Kaituna-Pongakawa-Waitahanui Water Management Area.

Information on Bay of Plenty groundwater systems and geology is available on the [‘Earth Beneath Our Feet’ website](#).

### 8.1 Questions / Comments

- **Q:** Are there separate aquifers or do they cover the whole catchment area? In the past advice was that there were areas that are over-allocated. Is that the case? **A:** The physical geologic boundaries of the aquifers extend beyond the area of the WMA. Prior assessment of the groundwater resource was based on the area of smaller surface water catchments. These catchment areas are used as the basis for groundwater management allocation zones. The allocation within some of these management zones is greater than the volume determined to available within the particular zone.
- **Q:** Shallow groundwater has different water quality. Is it from a different aquifer? **A:** Yes 3-dimensionally there are different aquifer layers that have different water quality.
- **A:** How well is the groundwater model calibrated? **A:** It is quite good.
- **Comments from Cr Nees:** The councillors have allowed more time for this process to ensure the data/science is the best we can get it within a reasonable timeframe.

## 9 What’s next

A brief introduction was given about upcoming work on scenarios and management options. Refer to briefing note and slides. Broad scenarios include; naturalised, current state, credible development and mitigation.

## 10 Summary

Statements of desired in-river states were generally agreed by the group. Initial information on extractive use values was presented. Catchment modelling is ongoing work. There will be further consideration of scenarios at the next workshop with a possible interim conversation with members before then.

### 10.1 Questions / Comments

- **Q:** When will management options be discussed? **A:** After the future development scenarios are developed mitigation option can be applied. Information on management options can be collated before then.
- **Q:** Can we consider options before setting limits? **A:** Yes.
- **Q:** Can community group members provide feedback to / from the wide community? **A:** BOPRC's Freshwater Flash newsletter is a source of information. We don't have contact details on the webpage.  
The community group indicated they are happy for their contact details to be published.
- **Comment:** The process is working to deliver the required outcomes.

The group agreed that the meeting notes could be made publically available. It was noted that they are not a binding position.

Workshop ended at 2.27pm with a karakia.