

Kaituna/Maketū Freshwater Futures Community Group

Meeting Notes: Workshop 3 – Regional Values Framework and Freshwater Management Units

The Orchard, 20 MacLoughlin Drive, Te Puke
Monday 16 May 2016 commencing at 9.00am

Community Group Members present:

Barry Roderick (Interim Chair), Campbell Larking, Cor Verwey, Hendrik Metz, Jessica Dean, Julian Fitter, Manu Wihapi, Maria By de ley, Marc Fauvel, Maria Horne, Mary Dillon, Murray Linton, Nick Webb, Paula Thompson, Peter Ellery, Warren Webber.

Apologies:

Hohepa Maxwell, Ian Schultz, Jeff Fletcher, John Fenwick, Morgyn Bramley, Vivienne Robinson.

BOPRC Staff present:

Pim de Monchy (Relationship Manager), Kerry Gosling (Support Facilitator), Stephanie Macdonald (Facilitator), Nicola Green (Senior Planner – Water Policy), Joanne Watts (Policy Analyst – Water Policy), Raina Meha-Rangitauira (Māori Policy Advisor), Rochelle Carter (Environmental Scientist) and Lisa Baty (Scribe)

Others present:

Rani Dhaliwal (University of Waikato PhD student)

Related documents previously circulated:

1. Briefing note: Workshop 3: Value Sets and Freshwater Management Units
 2. Kaituna-Maketu Community Group Workshop 3 power point presentation
 3. Feedback sheet – Kaituna-Maketū Community Group
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1 Welcome and Updates

Barry welcomed the group. Manu opened the meeting with a karakia. Apologies were noted.

Stephanie outlined issues arising from the previous meeting which included:

- Sharing of notes with other groups and Te Maru o Kaituna
- Rotorua Lakes Council representation – Andy Bell
- Whakaue Marae Hui (721 Maketu Rd, Maketu) – 28 May 2016 regarding Rotorua Lakes

There was agreement from the community group that:

- Barry's position as Interim Chair should now be referred to as Chair.
- Rotorua Lakes Council officer attendance at the next community group meeting is welcomed noting proposed changes to Rotorua's wastewater treatment and disposal.
- It supported working closely with and sharing community group meeting notes with Te Maru o Kaituna.

Stephanie provided an overview of the purpose and outcomes for the day: confirmation from the community group of the draft regional values framework, mapping locations of values and freshwater management units (FMU's).

Stephanie provided an 'Outline of the Process' (slide 7), what we have done and what we need to do. Council has developed a draft regional values framework. This was created from the values put forward by members, alongside the values in the NPS. Once all three community groups have feed into the draft regional value framework will be taken to Council for approval. Paula confirmed the direction from Council is that freshwater policy is moving at a fast pace and there is no opportunity to slow this process down. The Ministry for the Environment is reviewing each regional council's progress towards implementing the NPSFM and has requested information in the form of a questionnaire. Minister Nick Smith has recently provided his thoughts regarding freshwater in an interview with Radio NZ. (link to interview in actions below).

Nicki explained:

- the work programme (presentation slides 6 and 13), where we are up to, and the community group's involvement.
- current project work underway (slide 8), including the values framework, FMU identification, current state gap filling and initial work towards attribute identification, issue definition, modelling, overarching policy direction, and methods for setting environmental flows and levels.
- National update – Next Steps for Freshwater consultation is now closed, allocation policy package yet to come.
- We are currently in Phase 2 (values and FMU identification). Phase 3 (start date to be confirmed by Council) is a major phase of work to establish objectives as well as limits and methods. It involves developing future scenarios, modelling and management options. This is a major phase of work. Anticipate 4 community group workshops on this (TBC).

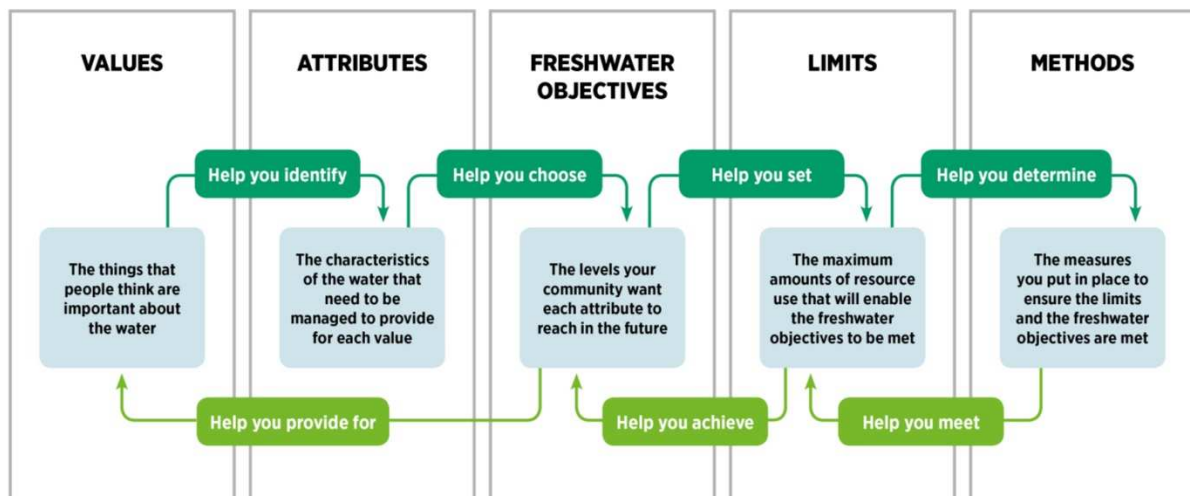


Figure 1: Implementing the NPSFM (presentation slide 13)

Key comments / questions:

- Is each "block / section" within each phase of the work programme (slide 6) a day's workshop? A: It is anticipated there will be 4 community group workshops in Phase 3.
- What about the health of shellfish which we don't know much about?
- The information provided about weed in the estuary was captured by an aerial view. Concern was raised that this is not an accurate way to measure weed.
- Concern was raised that more time is needed to review and consider the information that has been provided.
- Comment was made that we need to work on a 'bottom' of stream approach to set values for the upper region.
- One member shared with the group that Dairy NZ are supporting the National Objectives Framework but believe it could be more robust by including invertebrates such as

aquatic insects would give us a direct measure of ecosystem health that can be applied in all waterways. A: Macro invertebrate Community Index (MCI's) are currently measured by Council.

- Tangata whenua's involvement: one member of the group considered that cultural matters are not covered as they should be and that we need to take a lead on this area. Note that Council is running hui with tangata whenua, as well as community group workshops.

Actions:

- Council will check email addresses with community group members as some members did not receive the meeting agenda and attachments prior to the meeting.
- Council to send a link to the interview with Minister Nick Smith about freshwater on Radio NZ 'Nine to Noon' program Tues 3rd May 2016. This is the link: <http://www.radionz.co.nz/national/programmes/ninetonoon/audio/201799250/environment-minister-fronts-up-on-water>
- Council to continue to provide relevant national policy updates

2 Value Setting

Nicki referred to the briefing note which has the draft regional value set attached to it.

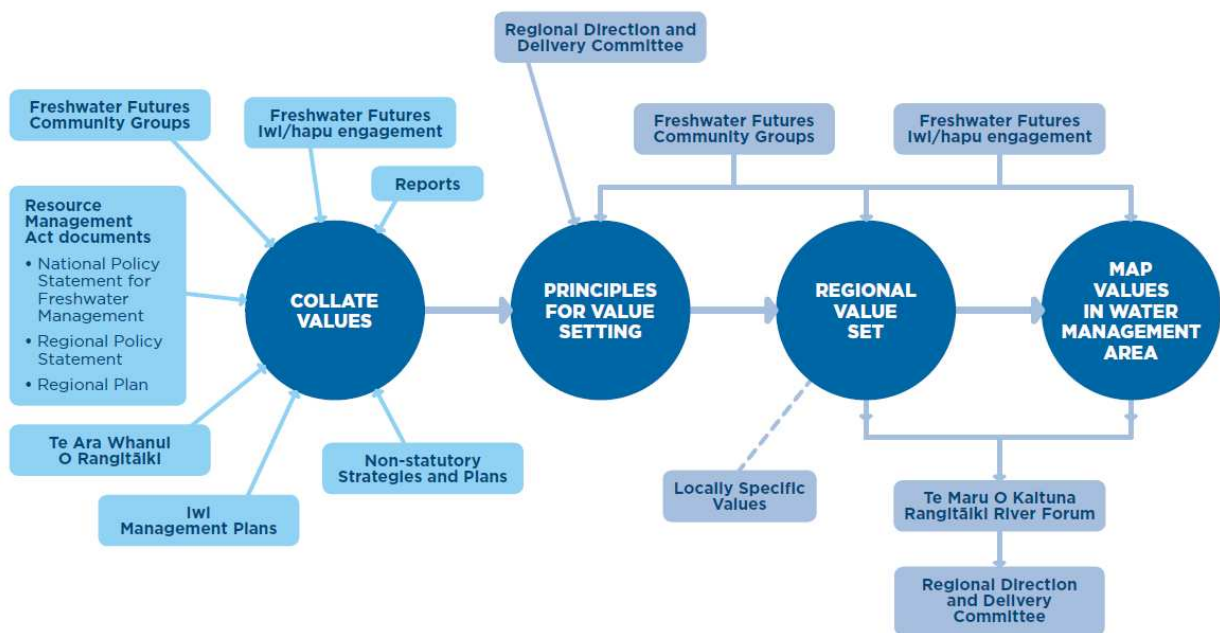


Figure 2: Regional freshwater value set development (presentation slide 15)

Draft regional freshwater value set

A comprehensive draft regional freshwater value set is needed in order to progress the next steps in the NPSFM implementation process. The draft regional freshwater value set was created from collation of values from multiple sources, applying principles for value setting agreed by Council. At this stage community group feedback is being sought.

Principles for values setting

Need to:

- be nationally consistent
- provide for some regional consistency
- be flexible enough to accommodate local differences
- demonstrate how values drawn from statutory documents are represented
- check values from statutory documents with the authors
- generally, aggregate common regional values

Figure 3: Principles for values setting (Presentations slide 14)

Staff will seek Council approval of the value set to progress with, but it will remain in draft for some time. There will be some flexibility to amend at later stages in the work programme process.

Identifying attributes

The next step is to identify measures for the values (called attributes). Nicki explained how the draft regional value set would apply in the WMA. The intention is that in each WMA and FMU Council will note the presence/absence of the value. Where there is something special or particular about the value that needs explaining, these can be included in schedules with descriptions. This will ensure important localised detail will not be lost by using a regional framework. Values, current state/trends and measures will then be used to start working on scenarios and preferred objectives.

Applying values in Kaituna/Maketū WMA

WMA/FMU	Ecosystem Health	Species and habitat	Human health for recreation – primary contact	Human health for recreation – secondary contact	Natural form and character	Amenity values	Mahinga kai – Kei are safe to harvest and eat	Mahinga kai – Me te or ate maui	Fishing	Water supply	Transport and tauponoa waka	Irrigation and food production	Animal drinking water	Commercial and industrial take, use, damming and diversion	Commercial and industrial assimilative capacity	Hydro-electric power generation	Flood protection and control	Urban stormwater drainage and assimilation	Mai Tani	Sites of Cultural significance	Cultural heritage connections	Kaitiakiāra	Customary resources	Influence on other freshwater bodies	Influence on coastal waters and environments	Influence on geothermal heat
K/M WMA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
FMU1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
FMU2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
FMU3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Figure 4: Applying values in Kaituna / Maketū WMA (presentation slide 17)

Key comments/questions:

- Fishing species and habitat – endangered indigenous fauna such as whitebait spawning sites. There is a scale of importance, habitats shouldn't have to be threatened to be of value.
- Values of a water body need to include their value for flood protection and control and also urban stormwater drainage.
- Cultural values, sites of significance, customary practice of food preparation need to be considered and connections recognised.
- What effect does the discharge of human wastewater have on cultural values?
- Is there a presence of heavy metals in shellfish in Maketū and how big of a concern is this? A: Heavy metals in shellfish are monitored. Levels are well under guideline levels for safe eating.
- Future urban growth within the catchment needs to be factored in.
- One member commented that there should be one set of rules for everyone – there needs to be equity in the delivery.
- Strong wording is required to cover; social values, vegetation and rock formation, mahinga kai.
- Is geothermal water included? A: 'Geothermal water' is defined in the RMA as naturally occurring water where the temperature exceeds 30 degrees. In the Tauranga Geothermal Region there are plumes of warm or hot water in places where water passes over hot rock layers deep underground.

Summary:

- *General acceptance of the principles and range of values represented.*
- *More time was requested to allow members to provide detailed comments on their feedback sheets.*
- *Flexibility was requested to be able to amend the value set as we progress – don't want to fix now until we fully understand implications.*
- *Community Group members were invited to provide feedback any specific comments following the workshop.*

Actions:

- Feedback sheets have been handed out and members requested to complete their answers over the day and hand back in. The feedback will be summarised and used to inform the process. Council to email out feedback sheet.
- Community Group members to provide written comments if they wish within a few weeks of being sent the feedback sheets. Note that 10 responses were received and are summarised in the Appendix to these notes.
- Council to provide a copy of these Community Group workshop notes to Te Maru o Kaituna.

3 Values Mapping

Nicki explained: Some current or potential future values and uses exist throughout freshwater bodies. Some only apply to specific area/parts of water bodies. Some values can be mapped by Council as we know where they are (e.g. commercial / industrial discharges, irrigation etc). Others we know less about and are seeking community group input.

Stephanie introduced the values mapping exercise. The group were asked to map seven values based on their local knowledge. Values may inform how we define FMUs and will inform how we set objectives for FMUs. This is a first mapping

of values, not the only input. No prioritisation or weighting is occurring yet.

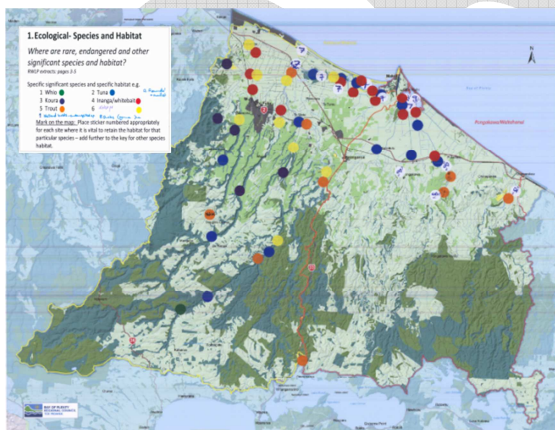
Values mapping

Values to be mapped:

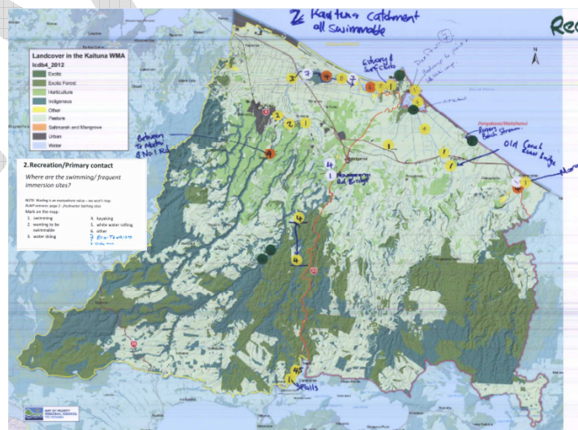
1. Ecological – species habitat (see schedule and update)
2. Recreation/Primary contact (frequent immersion - swimming – see list of monitored swimming spots)
3. Natural character and form & Amenity values
4. Mahinga kai (other than fish)
5. Fishing (see schedule of habitat for trout)
6. Transport and Tauranga Waka
7. Rawa tuturu/Customary resources

Figure 5: Values considered in community group values mapping exercise (presentation slide 22)

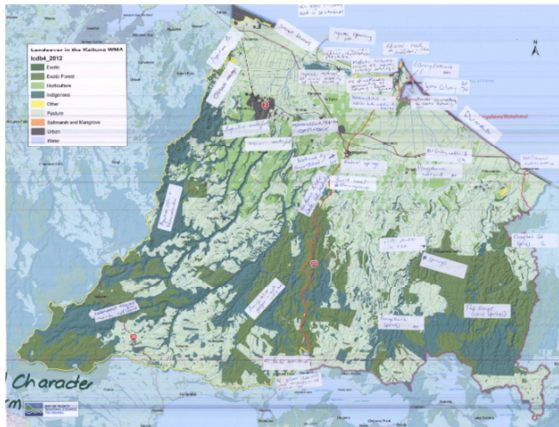
The group then worked their way around the seven values maps marking sites of value that they are aware of, as shown below.



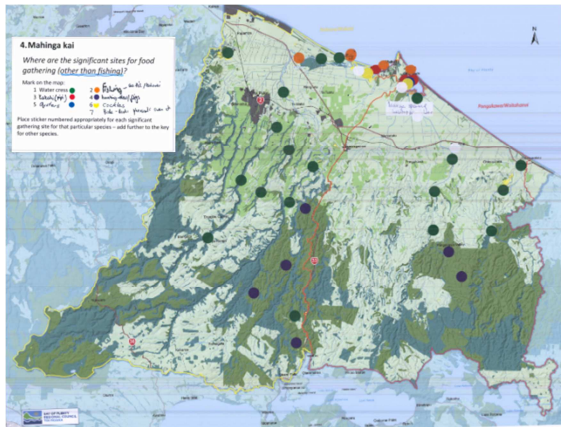
Map 1 – Ecological values – species habitat



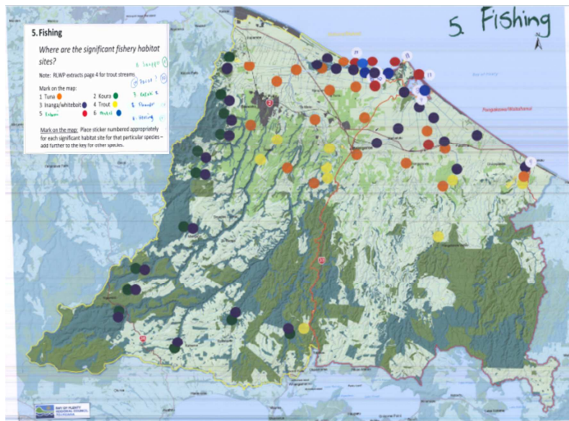
Map 2 - Recreational / Primary contact values



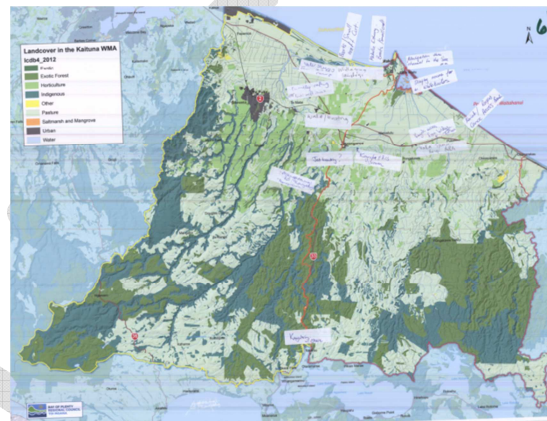
Map 3 – Natural character, form & amenity values



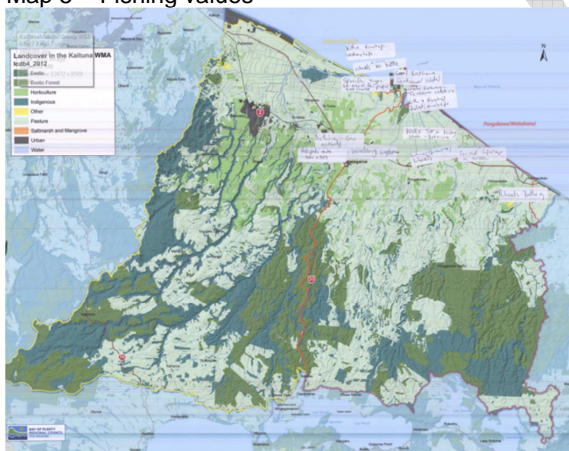
Map 4 - Mahinga kai values (other than fishing)



Map 5 – Fishing values



Map 6 – Transport and Tauranga waka values



Map 7 Rawa tuturu / customary resource values

Key comments / questions:

- Gaps are evident in culture and heritage – settlement and historical.
- The estuary struggles to support life at all times – there are environmental conditions that influence this.
- Problems with linking Mauri and health together.
- A measure is through a physical wellbeing – visual / number of fish and bird / community involvement.
- Shellfish are the best indicators for the state of water quality
- Sacred waters – to remain unmodified.
- A culturally significant site should be sign posted or have a story board.

Pim confirmed Council relies on a number of different sources such as, BOPRC scientist information, Fish and Game, NIWA, MFE and information provided here from Community Groups to gain a big picture overview.

Nicki noted that some questions being raised do not relate specifically to value identification but that they will be noted (e.g. who uses what water, and how water quality and quantity should be managed) so that we can fit them into and respond to them in later steps within the process.

Actions:

- Council to provide the website reference to the NIWA report of mapped Kaituna fishes to to the group. Website reference: <https://www.niwa.co.nz/our-services/online-services/freshwater-fish-database>
- Council to include in the next agenda a one page list of acronyms for easy reference.

4 Freshwater Management Units

FMU definition: a water body, multiple water bodies or any part of a water body determined by Council as the appropriate scale for setting objectives and limits and for freshwater accounting and management purposes.

Principles for identifying FMU's agreed by Council (presentation slides 30 and 31)

- Include the water body and its catchment
- Reflect significant spatial differences that affect how we should manage freshwater
 - biophysical (e.g. geology, slope) affects natural water quality and quantity, and capacity for use
 - values/uses and objectives
 - land use (in some cases)
 - permanent modifications also being considered
- Regional consistency, with some local flexibility
 - justified, transparent method
- Manageable spatial scale and number of FMU's
 - aggregate where possible
 - specificity vs planning/implementation complexity
 - clarity and certainty of boundaries
- Different FMU frameworks for surface water, groundwater, wetlands and lakes
- Flexibility during plan development

Biophysical Layers

Staff outlined that a biophysical layer has been developed which classifies water bodies according to geology and slope because these factors are key determinants of natural water quality, water body characteristics, and response to some contaminants.

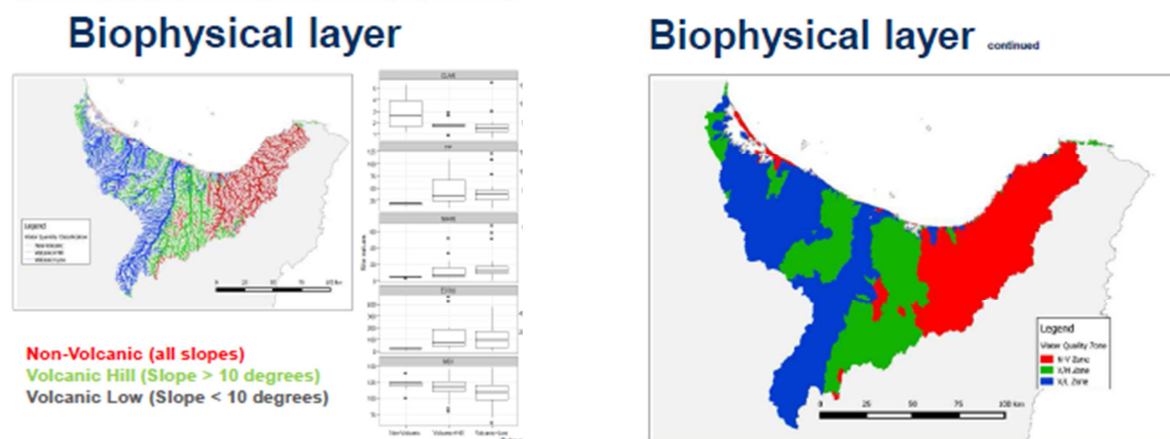


Figure 6: Biophysical layers: River classifications (left), river classifications and their catchment (3rd order streams) (presentation slides 32 and 33)

Other Layers

Staff explained the other layers that may be important when identifying FMUs outlined in presentation slide 34.

Pim presented a recent exercise carried out by the multidisciplinary staff project team working through these layers and questions. Staff's working draft FMUs were discussed along with the thinking behind them.

Members then split into 4 smaller groups and spent time working through the layers and suggesting changes and other considerations on laminated maps provided.

Other layers

- Certain land uses
 - e.g., "natural state" catchments, urban areas, other?
- Receiving environments
 - e.g., estuaries, wetlands
- Permanent modification
 - e.g., dams, heavily modified channels/drainage?
- Social and cultural
 - e.g., rohe, community
- Locally specific values
 - see values maps
- Connections with groundwater
- Other?

Figure 7: Factors (other than biophysical) to consider when setting FMUs (presentation slide 34).

Key comments and questions made prior to the exercise:

- How many FMUs for this catchment? A: proposed 6 for the whole water management area & 3 within the Kaituna / Maketū part of the water management area.
- What about control or a land use map?
- Concerns around the timing- is the community group ready and able to complete this exercise?
- What is the alternative if we don't agree to what is being described today?
- Is the *outcome* a rule?
- Are the boundaries fixed?
- Is there priority protection?
- If BOPRC technical experts have done this exercise, why are we being asked to?
A: Staff have provided a first cut but need valuable local input from the community group.



Figure 8: Multidisciplinary staff's working draft FMU's

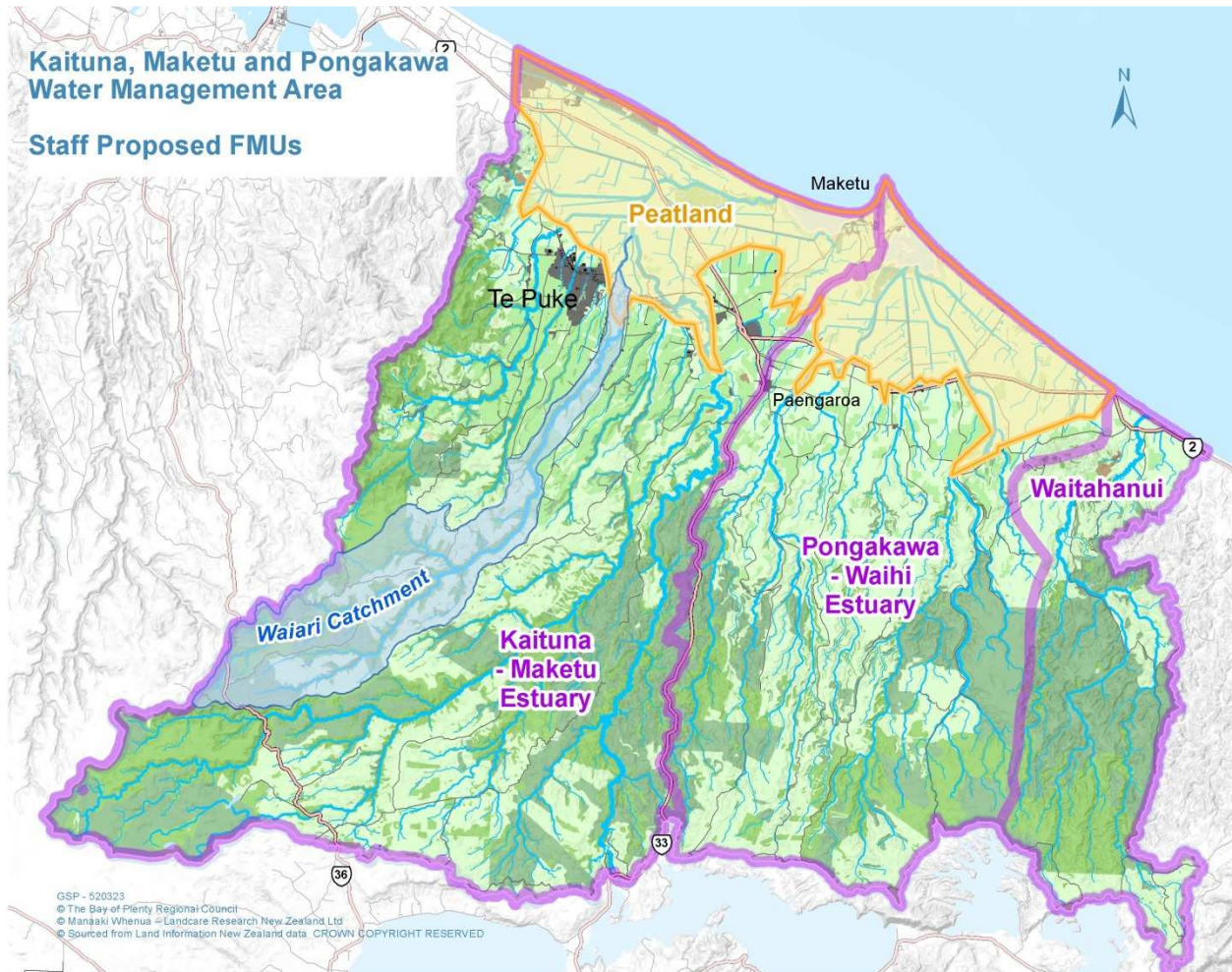


Figure 9: Multidisciplinary staff's working draft FMU's as presented to the Regional Direction and Delivery Committee meeting – 23 June 2016

The break out groups shared their feedback and thoughts, identifying where they would establish an FMU and their reasons why, as identified on the laminated maps provided



5 Summary

The feedback form will be emailed out to the group to complete for you to complete following reflection from the day.

The next phase and timeframe was discussed and it has been suggested that a more social gathering take place to ensure we continue to build relationships. Details will be sent closer to the time.

Comments were made about the delay of our timeframe and the council elections. Nicki confirmed staff are working behind the scenes and will provide updates when possible.

The next workshop will not be held for a number of months until the Council approves the 3rd phase of the programme to start.

Barry finished the meeting by suggesting a media release be generated to promote the work we are doing. Pim sought and gained approval to use pictures of members that are taken at meetings; these could be used within the release.

Action

Council staff to prepare a media release on the work the community group have achieved.

6 Closing

Meeting ended: 2.20pm

Next meeting: TBC

10 written feedback sheets were received from members. A combined feedback sheet is attached as Appendix 1 to this workshop note.

Appendix 1: Kaituna Community Group (16 May 2016) - COMBINED Feedback Sheets – Regional Values Framework, Attributes, FMU Feedback
 10 feedback sheets received

Regional Values Framework Feedback		Grouping Agree/ Disagree	Combined comments
Te Hauora o te Wai / The Health and Mauri of Water	<ul style="list-style-type: none"> - Ecosystem health - Species and habitat 	Agree x 5 Agree in part x 2 Agree but with stronger wording Disagree with grouping and titles. More values required where are the iwi Māori values framework*	Is the management of macro invertebrate a high enough standard? Outstanding/high value is the aim. High Swimmable in whole river. Lower kaituna, areas contaminated. Recognised and provided for. Must be also about correction function of an ecosystem and correct species.
Te Hauora o te Tangata / The Health and Mauri of the People	<ul style="list-style-type: none"> - Human health for recreation <ul style="list-style-type: none"> - Occasional immersion / Secondary contact - Frequent immersion / Primary contact 	Agree x 5 Agree in part Disagree*	Where ever possible should be swimmable. Top to bottom of rivers. Moderate to low risk on human health The larger the water course the higher the standard of water quality, also dependent on use. Group consensus favours this (Frequent immersion / Primary contact) option.
Te Hauora o te Taiao / The Health and Mauri of the Environment	<ul style="list-style-type: none"> - Natural form and character - Amenity values 	Agree x 6 Disagree*	Does it include native vegetation? Needs to help natives formation rock. Rocks for native fish to hide or shelter The form, function and aesthetics of a waterway is important as is access to engage with it.
Mahinga kai / Food gathering, Places of food	<ul style="list-style-type: none"> - Mahinga kai / kai is safe to harvest and eat 	Agree x 5 Disagree*	Trout – low priority The estuary struggles to support life at all times as influenced by environmental conditions.

Regional Values Framework Feedback		Grouping Agree/ Disagree	Combined comments
	<ul style="list-style-type: none"> - Mahinga kai / the mauri of the place is intact - Fishing 		<p>Trout introduced but now a kai resource. Native fish given priority. Need to increase and enhance fish habitat. Trout – priority change. Tuna, whitebait are priority. Watercress – specific area of flowing water, away from effluent and discharges.</p> <p>There are levels of safety. Safe to eat must be of a form closer to pristine than acceptable.</p> <p>The Kaimoana especially the shellfish at Maketu must be safe to eat.</p>
Wai Māori / Municipal and domestic water supply	<ul style="list-style-type: none"> - Water supply 	<p>Agree x 4</p> <p>Agree in part</p> <p>Disagree*</p>	<p>The usage of water should not be taken for granted. Principles and systems must endeavour to reduce and improve usage.</p> <p>Higher values in water supply catchments or groundwater used for water supply.</p> <p>Municipal supply may be available for kiwifruit irrigation</p> <p>Needs to split water supply into municipal (Council provided) and domestic (landowner supplied). Needs additional work. Should treated municipal supply be available for kiwifruit irrigation? Should commercial / industrial uses pay more for their use over and above urban household supplies?</p> <p>How are the urban growth areas of Smartgrowth dealt with?</p>
He ara haere / Navigation	<ul style="list-style-type: none"> - Transport and Tauranga waka 	<p>Agree x 3</p> <p>Disagree*</p>	
Mahi mara / Cultivation	<ul style="list-style-type: none"> - Irrigation and food production - Animal drinking water 	<p>Agree x 3</p> <p>Disagree*</p>	<p>Irrigation and food production -Waste reduction, reused, recycled and targeted.</p> <p>Animal drinking water - Metered.</p>

Regional Values Framework Feedback		Grouping Agree/ Disagree	Combined comments
Au putea /Economic or commercial development	<ul style="list-style-type: none"> - Commercial and industrial use - Commercial and industrial take/use/damming and diversion - Assimilative capacity – discharges - Hydro-electric power generation 	<p>Agree x 3</p> <p>Disagree*</p>	<p>The commercial use of water must use the principles of reuse, recycle and restore.</p> <p>Metered intakes and discharges. It is the industries responsibility to resolve issues caused by that industry.</p> <p>How do we measure efficiency of use? Links into the social values also.</p>
Floodwater and urban stormwater conveyance	<ul style="list-style-type: none"> - Flood protection and control - Urban stormwater drainage and assimilation 	<p>Agree x 3</p> <p>Need to add 'development'</p> <p>Disagree*</p>	<p>Improved floodable areas to reduce out flow into waterways. 100 year events are predictable.</p> <p>Must have ponding areas for heavy metals to settle.</p>
Wai Tapu / Sacred Waters	<ul style="list-style-type: none"> - Wai Tapu – places where rituals and ceremonies are performed 	<p>Agree x 3</p> <p>Disagree*</p>	<p>Sacred waters is best to remain unmodified</p> <p>Rituals took place especially where warriors went to war. This practice carried on through WWI and WWII soldiers.</p> <p>Rely on Iwi comments.</p>
Kōrero tuturu / Sites/ areas of cultural and historical significance	<ul style="list-style-type: none"> - Sites of cultural significance 	<p>Agree x 3</p> <p>Disagree*</p>	<p>Cultural significant sites should be sign posted or have a story board</p> <p>Need to be mapped</p> <p>Rely on Iwi comments.</p>
Kaitiakitanga / Historical relationships	<ul style="list-style-type: none"> - Cultural heritage and connection - Kaitiakitanga 	<p>Agree x 2</p> <p>Disagree*</p>	<p>Mud for piu piu. Geothermal activity for bathing and cooking.</p> <p>Rely on Iwi comments.</p>

Regional Values Framework Feedback		Grouping Agree/ Disagree	Combined comments
Rawa tuturu / Customary resources	- Rawa Tuturu I Kei tera te mauri (the mauri of the place is intact)	Agree x 2 Disagree*	Sacred waters is best to remain unmodified Rituals took place especially where warriors went to war. This practice carried on through WWI and WWII soldiers. Mud for piu piu and geothermal activity for bathing and cooking. Rely on Iwi comments.
Influence on other freshwater bodies	- Base flow - Water quality	Agree x 2 Disagree*	Control of lower grade tributary drains to reduce effect on larger bodies. The cold oxygenated spring streams need extra protection.
Moana / Influence on sensitive coastal waters and receiving environments	-	Agree x 1 Agree with principles Disagree*	Improving quality as water ways head to the sea. Constant adjust to improvement in principles and science Shellfish are the best indicators for the state of water Maketū estuary. Balance of fresh water and sea water. Kaimoana is at its healthiest. Has to have clean water from Kaituna River first. Maketu estuary must receive water that is bathable and from which the Kaimoana can be harvested.
Influences on geothermal heat	-	Agree with comments Disagree*	Maintain geothermal within agreed parameters of function and use.

* Feedback was received by one member stating 'Disagree with grouping and titles. More values required where are the iwi Māori values framework' for each of the values. The member did not however attend the community group workshop.

Attributes Feedback	Combined feedback <ul style="list-style-type: none"> • <i>How would you know these values are provided for?</i> • <i>What would it look and feel like?</i> 	Combined feedback <ul style="list-style-type: none"> • <i>How would you measure this?</i>
Te Hauora o te Wai / The Health and Mauri of Water	<p>Species biodiversity. Species productivity The guiding principle for other standards to form off. Something truly to be proud of. A national shift in acceptance. Water is respected. Water is recognised as essential for life. Water / people / environment are all interrelated. What do Māori think. These (the health and mauri of water, of people and of the environment) are linked and more than 5 mins interrelated.</p>	<p>Determine the size of whitebait Run.[DOC] Measure productivity of estuary shellfish[MPI] .Average size of rainbow trout.[ERFGC] Number of juvenile mallard ducks branded by Eastern Region Fish & Game. Improving form & function. Science, degree of legislative pursuance, compliance and prosecution. Improving ratios. Feedback from the community. MCI / QMCI Referred – measured by physical well-being, visual , monitoring, counts of fish, birds, interviews with ? of community. Questions for primarily kaumatua</p>
Te Hauora o te Tangata / The Health and Mauri of the People	<p>This requires a white paper on social organisations and primary health initiatives. The quality of the water itself will indirectly indicate the health & mauri of the people. Water / people / environment are all interrelated. What do Māori think. These (the health and mauri of water, of people and of the environment) are linked and more than 5 mins interrelated.</p>	<p>Clean water and environment requires a shift in conscience, starting at government level. Feedback from the community.</p>

Attributes Feedback	Combined feedback <ul style="list-style-type: none"> • <i>How would you know these values are provided for?</i> • <i>What would it look and feel like?</i> 	Combined feedback <ul style="list-style-type: none"> • <i>How would you measure this?</i>
Te Hauora o te Taiao / The Health and Mauri of the Environment	<p>A holistic improvement in quantity and quality of managed reserves, national parks to inner city street berms.</p> <p>Biodiversity. Absence of pollution. Healthy people = healthy environment / mauri / water</p> <p>Water / people / environment are all interrelated. What do Māori think.</p> <p>These (the health and mauri of water, of people and of the environment) are linked and more than 5 mins interrelated.</p>	<p>Quantitative and qualitative study, all the sciences and peer driven anecdotal / statistical review.</p>
Mahinga kai / Food gathering, Places of food	<p>Productivity & health of shellfish in Maketu Estuary.</p> <p>Number of eels in Kaituna catchment.</p> <p>Food sources are present in an excess sufficiency and harvestable abundance.</p> <p>Availability / access/ extent of harvesting sustainable</p> <p>Water / people / environment are all interrelated. What do Māori think.</p> <p>Whitebait – balanced enviro – lots of food, oxygen, water flow balance between fresh/ sea water.</p>	<p>Determine the size of shellfish beds . [MPI] , Bacteria and viral loads in shellfish, Percentage of adult long fin and short fin eels being harvested.[MPI]</p> <p>More than you can eat and thriving nursery fields.</p> <p>Surveys / feedback. Quality of food</p> <p>Increase in varieties, return of fish species.</p>
Wai Māori / Municipal and domestic water supply	<p>Clarity and safeness to drink water.</p> <p>Access to clean potable water is available to everyone.</p> <p>Sustainable use</p> <p>Water is available without compromising ecosystem health.</p> <p>Clean fresh water – limited chemicals.</p>	<p>Faecal coliform levels in water supply water.[Regional Council]</p> <p>Good civic policy /infrastructure /accountability.</p>
He ara haere / Navigation	<p>No loss of existing navigation, maintained and improved.</p> <p>Safe / minimal impact on others eg noise</p> <p>Low Kaituna.</p>	<p>No loss of existing navigation, where feasible or appropriate some improvement.</p> <p>Monitoring / surveys. Feedback</p>

Attributes Feedback	Combined feedback <ul style="list-style-type: none"> • <i>How would you know these values are provided for?</i> • <i>What would it look and feel like?</i> 	Combined feedback <ul style="list-style-type: none"> • <i>How would you measure this?</i>
Mahi mara / Cultivation	Large topic – White Paper Adequate water for needs Water for irrigation – encourage growth of	Reuse/recycle/restore. BOPRC
Au putea /Economic or commercial development	Look beyond traditional and work towards a time of water shortage now while it possible and cheaper. Object to water being sold overseas. Greater investigate of commercial resources consents.	NEED EXTRA SECTION: URBAN WASTE WATER .Due to the Public health risks & cultural sensitivity of discharging human waste into freshwater this needs its own section. Reduction in uptake and discharge. Economic.
Floodwater and urban stormwater conveyance	Storm water is discharged through wetlands. Provision of flood expansion zones sloped water ways hold points. No raw human sewage release Discharge to wetlands. Proper treatment. Be specific to what the wetland is required for. Right plants, right landscaping.	Measurement of levels of heavy metals by Regional Council. Stop using the 100 year model and understand it will happen, Auckland traffic was predicted in the 50's. BOPRC
Wai Tapu / Sacred Waters	Rely on Iwi input. Identified, given by law/legal status and process Unmodified, peaceful, undisturbed environment / mana? Identified by Māori and protected Tangata whenua Protected and identified Refer cultural values	Studies and reviews The general feel of the place Cultural report that satisfies Māori expectations Consult tangata whenua Iwi satisfaction Good to have historical/guardianship cultural values always put the environment wellbeing first. RMA Part 2.

Attributes Feedback	Combined feedback <ul style="list-style-type: none"> • <i>How would you know these values are provided for?</i> • <i>What would it look and feel like?</i> 	Combined feedback <ul style="list-style-type: none"> • <i>How would you measure this?</i>
Kōrero tuturu/ Sites/ areas of cultural and historical significance	Rely on Iwi input. Dialogue and documentation Sites identified and protected in District Plans / Hapu and Iwi Management Plans Identified by Māori Tangata whenua Protected and identified Refer cultural values	More dialogue and Documentation No. of protected sites in District Plans Cultural report that satisfies Māori expectations Consult tangata whenua Iwi satisfaction Good to have historical/guardianship cultural values always put the environment wellbeing first. RMA Part 2.
Kaitiakitanga / Historical relationships	Rely on Iwi input. Dialogue and documentation Sites identified in Hapu and Iwi Management Plans and Treaty Settlements Identified by Māori Tangata whenua Refer cultural values	More dialogue and Documentation Meets Māori expectations Consult tangata whenua Iwi satisfaction Good to have historical/guardianship cultural values always put the environment wellbeing first. RMA Part 2.
Rawa tuturu / Customary resources	Rely on Iwi input. Dialogue and documentation Resources identified in Hapu and Iwi Management Plans and Treaty Settlements Identified by Māori Measure and consult. Ensure water quality Refer cultural values	More dialogue and documentation Meets Māori expectations Science and feedback Iwi satisfaction Good to have historical/guardianship cultural values always put the environment wellbeing first. RMA Part 2.

Attributes Feedback	Combined feedback <ul style="list-style-type: none"> • <i>How would you know these values are provided for?</i> • <i>What would it look and feel like?</i> 	Combined feedback <ul style="list-style-type: none"> • <i>How would you measure this?</i>
Influence on other freshwater bodies	Water into Maketu Estuary should be safe for swimming and gathering Kaimoana. Improving quality exponentially as water travels down to the sea. No adverse impact on water quality of downstream water bodies BOPRC monitoring. High estuary health All measures, clarity O2, P, N, sediments	Measurement of faecal coliforms in Maketu Estuary by Regional Council. Monitoring and education No adverse impact on water quality of downstream water bodies As the catchments are integrated within themselves, perhaps a state of environment report that measures a range of catchment standards that are heading towards 'A' attributes Science consult & measure Monitoring whole water body – up and below and should stay same or be enhanced.
Moana / Influence on sensitive coastal waters and receiving environments	Estuary and receiving environment have minimal or nil negative affect of upstream issues. Monitoring by BOPRC. Correct species in abundance Monitoring whole water body – up and below and should stay same or be enhanced.	Using existing methods and measures of environmental health incorporating new and improve components as available Measuring the health of the Maketū Estuary is an indicator of catchment sustainability Consulting Monitoring whole water body – up and below and should stay same or be enhanced.
Influences on geothermal heat	Existing uses are maintained new users as capacity is available Monitoring and consenting of geothermal water use Current levels maintained	Using an 80% or lowest perceivable values, Metering. No adverse impact on quantity and heat of the resource. Takes need to be consented so that the geothermal resource is maintained. BOPRC monitoring

Freshwater Management Unit (FMU) Feedback	
<p>Any other information layers that should be considered?</p>	<p>Catchments, soil types, usage , subterranean aquifers , end point of catchment , urban , rural</p> <p>As said we need as simple plan as possible but taking in the variances. The plan you have developed seems functional. A zonal approach would fit within this : The Upper catchment, volcanic and salt/peat. The 3 distinct Catchments from different sources through highland to lowland and release points. With special areas with special conditions in the zone the Hostechers frogs in the waterways at the old quarry, Te Puke etc. Control on land usage within these zones to be conducive to improving the land rather than to its detriment.</p> <p>Aquifers The aquifer needs mention.</p> <p>I feel that as we work with this it will clarify itself as we all get a handle on the large and small aspect of the plan.</p>
<p>Any other information layers that should be considered?</p>	<p>Matauranga maori and science combine traditional knowledge. Where are the iwi maori values framework? Why are iwi maori values frame work not recognised? In the absence of the implications for iwi maori and matauranga maori the FMU is narrow exclusive. The FMU should note these absences considerations as set out by Tapuika.</p>

Overall comments

Regional Values Framework

Are there more values you think should be added? More values required. Where are the iwi maori values frame work.
Disagree with grouping and titles. More values required where are the iwi Māori values framework.

Attributes

How would you know that a value is being provided for – what might you be seeing if that value is strong? Where are the iwi maori values frame work.
How would you measure this? Matauranga maori and science combine traditional knowledge.

General Comment

When economic consideration overrides the correct thing to do, economics are usually the loser. The Auckland traffic system as a point in fact. When the first decisions were made the cost were low and availability of land were better, rail was used. Now the resources are non-existent and cost high.
This is a failure of vision, a country where you can camp by the rivers and use the water, swim , eat what you found or caught was not that long ago, and should not be deemed as impossible either physically or financially. Imposing more stringent requirements on Urban and Rural will affect those that are already in the balance but others will take their place and land usage will change as it has for centuries. We have to change our way of thinking, a paradigm shift, from forcing the world to comply with us, to a more sustainable approach of nature dictating what we do. The higher the standards the better the end product. The bigger the vision the better the world.

We need to focus on being the best country we can. It's our only point of difference.

“Create your future from your future, not your past.” — Werner Erhard