WORKSHOP NOTES

SUBJECT	**Whaitua Te Whanganui-a-Tara workshop notes – Te Awa Kairangi and water quantity issues**
WHEN	Thursday 17 December 2020, 9.30am-5pm
WHERE	Wellington Tenths Trust, Petone
ATTENDEES	Kara, Sam, Ros (from 10.15), Jonny, Quentin, Pat, Pete, Tui, Louise, Zoe, Roger (from 10.45)
APOLOGIES	Sean, Gabriel, Hikitia, Naomi, Wayne, Anya
PROJECT TEAM	Emily O, Phill, Kat, Glen, Brent, James, John, Penny, Matt, Mike T., Mike G., Angela, Geoff, David, Emily T., Helen, Onur

Agreements in principle and actions

KEY

D = decision

A = action

PT = project team

R = idea for drafting a recommendation

Meeting opening

A: Committee members to meet with Wayne to update on Committee discussions and discuss topics of particular importance to Upper Hutt. *Update: agreed to defer to 2021.*

TKT Mana whenua environmental outcomes and approach to water quality improvement

D: Support for the principles outlined by Sam and Mike G to maintain water quality at the top of catchments and increase the proportion of each waterbody in this state, noting that this approach won't apply in catchments where headwaters are modified e.g., Belmont.

Values for Te Awa Kairangi

D: Structure values commensurate with te Mana o te Wai hierarchy in NPS-FM – to the water first, then human health, then other uses.

D: Edits to the values & outcomes drafted by Ros:

- Include a value around pets and pet health & safety
- Include recreational/immersion values for small streams
- Replace geography with 'identity' in natural character/form

- Prioritise native species in aquatic and terrestrial environments
- Refer to controlling toxic algae in environmental outcomes
- Replace 'safe' with 'healthy'
- Edit: "The river, tributaries, riparian margins and wetlands provide a thriving environment for endemic fish, insects and aquatic plants" – include.
- Shift 'economic opportunities' from the third value to sit lower commensurate with te Mana o te Wai hierarchy.
- Rephrase value 7 – build off 'room for the river'. Needs input from mana whenua.

A: PT to make agreed changes to the values to send to Ros.

Water quantity environmental outcomes

R: Additional outcomes:

- The right kind of water is used for the right kind of purpose e.g., we want to shift to not using drinking water to flush toilets.
- People need to be self-sufficient in water use.
- We have a low leak network and not waste water.

A: PT to update outcomes relating to water abstraction and use based on agreements above. Iterative process for Committee determining outcomes and management actions.

Water quantity – Overall approach and limits

D: Agreement with paradigm shift for a 100 year view of how we manage water quantity.

R: Agreement for GWRC and Wellington Water WIP recommendation to develop a more refined and flexible allocation framework in the future.

R: Agreement with principle from small group meeting for no increased abstraction at low flows.

Water quantity – Working through issues paper

R: Agreed need strong WIP recommendations on demand management but need more information to decide on recommendations on metering, tanks etc. Emily Thompson to draft paper on Kāpiti District Council approach.

R: Agreed WIP recommendation for investigation into flow and abstraction regime needed to achieve benefits in ecosystem health and cultural values.

R: Agreement that water tanks are appropriate for outdoor use and greywater (less likely for drinking water due to treatment cost); also stormwater attenuation. Some assessment needed of which purpose for tanks yields most benefit across areas.

R: Require rainwater tanks to be installed in all new developments.

R: Consider Sustainability Trust model to providing advice and support to homeowners to be more water sensitive.

R: Make it easier for people to get water meters if they want to voluntarily get one.

R: Agreed WIP recommendation that discussions are had with community about urban water recycling including utilising collected stormwater and/or treated wastewater.

R: Agreed WIP recommendation that long term water supply strategies include the 100 year vision and kawa.

A: Project team will make the changes agreed to the issues summary and load onto SharePoint for Committee members to make comments on.

Planning for 2021

A: Emily to send around meeting invite for first Committee meeting of the year either 18/19/20 January 2021.

Discussion

Meeting opening

Kara opened the workshop with a karakia.

Kara announced that he will be stepping down as a co-chair but staying on as a Committee member due to constraints on his time. Thanks to Kara for his leadership over the past two years and welcome to Sam as the new co-chair who will carry on in the role through to the end of the process.

Discussion about following up with Committee members who are apologies for this workshop, which covers key decision-making areas on water quantity and allocation issues.

A: Committee members to meet with Wayne to update on Committee discussions and discuss topics of particular importance to Upper Hutt. *Update: Agreed to defer to 2021.*

TKT Mana whenua environmental outcomes and approach to water quality improvement

- Mike G shared a handout from a recent engagement event with Te Pae Kaitiaki, which provided an opportunity to review the environmental outcomes Vanessa has been working on with kaumatua, hunters and gatherers.
- Vanessa has been bringing together themes in the NRP with korero from Te Kāhui Taiao and Te Pae Kaitiaki. It will be a living document as we develop understanding of the mana of a waterbody.
- Te Mana o te Wai brings the obligation to protect the health and mauri of water as a living entity.
- Start with monitoring in matapuna (headwaters) that are in pristine condition and largely uncomtaminated by human impacts, to better understand the natural system and baselines, e.g., some streams may have naturally higher levels of phosphorous.
- If the headwaters have good water quality, is it the best use of limited resources to measure it? It's important for framing targets and aspiration for 100 year vision. The majority of resources should go toward healing water along its journey.
- Headwaters still need protection from development and pests.
- Suggestion to use a colour system for grades of water quality, e.g., pounamu as A+ state.
- Track down to coast and receiving environment, which are popular areas for mahinga kai.
- Track transitions in state down through the catchment to understand where tributaries or activities change the nature of the stream, and to help determine where to focus efforts.
- We shouldn't assume all headwaters are untouched and in a few there are urban headwaters
- Need more sites that are regularly monitored for better decision-making in the future.
- Small streams are disporportionately important habitat that need more protection.

- Springs and aquifers are concealed places and special to mana whenua.
- Looking toward mana whenua constructs as a model for community change.
- The story of bad water quality creates a cycle of disengagement with the community. Need to tell them there is something beautiful and worth protecting. Help the community consider – what is the mana of this waterbody?
- Some people are swimming and collecting mahinga kai even when it is unsafe to do so. Important to help communicate what is really going on.
- Having respect for water means that you use it wisely, protect it, and don't waste it.
- The community may not know what Te Mana o te Wai means but they may still have connection to water, expressed in a different way.
- Te Mana o te Wai and the spiritual element of water includes the emotional memory attached to a waterbody. If 2-3 generations have lost their connection, how can we help refoster it? There may be a negative mauri or association with water currently.
- When meeting with farmers, they will share their past, present and future relation to water in a practical, relational way.
- Take the public on a journey that includes the mauri of the whole valley, include stream and river banks, forest and the snow in the mountains for a holistic view of water.
- Community values to sit alongside mana whenua values. There will be overlap between them but it would be a disservice to both to weave them together. Management actions and outcomes should be the same and align with both sets of values.
- Going in direction of more local ownership and connection between communities and streams.

D: Support for the principles outlined by Sam and Mike G to maintain water quality at the top of catchments and increase the proportion of each waterbody in this state, noting that this approach won't apply in catchments where headwaters are modified e.g., Belmont.

Values for Te Awa Kairangi

- River needs to provide for the things that live in the water, and a way to drink and clean ourselves.
- The river has inherent value beyond what it provides for human use.
- The community and mana whenua values cover the compulsory values in the NPS-FM and could replace them.
- The values listed in the PNRP and Environmental Strategy Action Plan draw from community surveys. Need to rationalise them for the WIP.
- There has been consultation on values for all rivers and streams in the whaitua. Look through new lens to add to existing values.
- Many values will be applicable across catchments but some may be unique. Values help connect communities with local streams. Need values in plain language that the community can engage with easily.
- Change geography to the identity of the place, Te Awa Kairangi defines the Hutt Valley and people are living in the flood plain. Holistic view from source to sea and everthing the river supports, people are part of the ecosystem.
- Include riparian margins, with willows replaced by natives over time.
- Vision for improvement and expectation that things can be better.
- Importance of how the river looks, sounds and smells.
- Fishing not included as its own value but grouped with recreation, along with kayaking and swimming.

- Native and endemic fish species should be its own value. Conflict between trout fishing and native fish values. Where native fish are under threat, they should be prioritised over trout.
- Places in NZ that have been manged for trout often have better outcomes for water quality as well.
- Recommendation for more rubbish bins along Te Awa Kairangi to encourage dog owners to dispose of dog poo.
- Mana whenua specify sites of significance in PNRP schedules, some are more important than others but prioritising them is limiting and ignores relationships. It calls for an integrated approach. Consider in the PNRP how Te Mana o te Wai can be applied for the values of small streams.
- Recommendation about how to address conflicting values to support decision-making. The hierarchy in Te Mana o te Wai puts the health of the water and natural ecosystem first. Sequencing to align with Te Mana o te Wai.
- Change wording from 'river safety' to 'healthy', re. toxic algae.
- Rephrase 'protecting lives and properties from flooding' to 'living with natural environment'. Recommendation to prevent houses being developed in flood prone areas and take geomorphology into account in spatial planning. Need managed retreat as with sea level rise. Develop on the ideas of having 'room for the river' and 'living with the nature of the river'.
- Within constraints of stopbanks and channelisation, there are still opportunities to create wetlands to naturalise the system. Include wetlands in waterbodies associated with river.
- Include outcome to increase setbacks and give more space for the river to address flooding concerns.
- PT to follow up with guidance on how values will be used in the PNRP.

D: Structure values commensurate with te Mana o te Wai hierarchy in NPS-FM – to the water first, then human health, then other uses.

D: Edits to the values & outcomes drafted by Ros:

- Include a value around pets and pet health & safety
- Include recreational/immersion values for small streams
- Replace geography with 'identity' in natural character/form
- Prioritise native species in aquatic and terrestrial environments
- Refer to controlling toxic algae in environmental outcomes
- Replace 'safe' with 'healthy'
- Edit: "The river, tributaries, riparian margins and wetlands provide a thriving environment for endemic fish, insects and aquatic plants" – include.
- Shift 'economic opportunities' from the third value to sit lower commensurate with te Mana o te Wai hierarchy.
- Rephrase value 7 – build off 'room for the river'. Needs input from mana whenua.

A: PT to make agreed changes to the values to send to Ros.

Water quantity environmental outcomes

- Need to include an outcome about the right kind of water for the right kind of use, e.g., not using drinking water to flush toilets.
- The amount of water needed for drinking supply supply is relatively smaller than for sanitation and other uses. The costs treatment are also comparatively small compared to the

costs of the pipe network. We need to break the cycle of taking more than we need and there are increasing consequences with climate change. Emphasis on wasting as little water as possible and living within the limits of the system.
- Of the ~160 million litres of drinking water treated and used per day, ~155 million litres end up at wastewater treatment plants and is eventually treated and discharged to the coastal environment.
- In Kāpiti, they have had a now long-running programme for water use reduction. It is mandatory for new builds to have a water tank connected to outdoor taps for watering gardens.

Request for paper on water metering in Kāpiti, including the regulations in place and impacts. *Update: Paper now provided in Sharepoint.*

R: Additional outcomes:

- The right kind of water is used for the right kind of purpose e.g., we want to shift to not using drinking water to flush toilets.
- People need to be self-sufficient in water use.
- We have a low leak network *and* not wastewater.

A: PT to update outcomes relating to water abstraction and use based on agreements above. Iterative process for Committee determining outcomes and management actions.

R: Agreed need strong WIP recommendations on demand management but need more information to decide on recommendations on metering, tanks etc. Emily Thompson to draft paper on Kāpiti District Council approach.

Water quantity – Overall approach and limits

- Small group discussed no increased abstraction at times of low flow or extending when there are low flows, and greater protection for small streams. Considered implications of what a higher minimum flow would mean at Kaitoke.
- Discussion about paradigm shift over 100 years, including population growth and increased pressure on supply. The water supply network, community and rainfall are closely linked.
- It is difficult to make big changes over short time frames but possible to consider opportunities that are better for the community and environment over the long term. Cost becomes a barrier and a reason not to do anything, but more is possible over time.
- E.g., in 100 years, do we still want to use water to transport waste? How to make meaningful changes over decades, years and months. The barrier is not technology but requires social change.
- Mana whenua accept that wastewater can be reused as grey water but not for drinking purposes.
- Service delivery reform could lead to amalgamation of water providers to combine expertise and may make it easier to get alignment across regions.
- Government policy not currently considering a paradigm shift in conservation but looking at replacing pipes with pipes.
- There is a disconnect where people assume that there is plenty of water because there is a lot of rain but don't understand why there are water restrictions in summer. Need to apply principles of reuse, reduce, recycle to water. People with water tanks will value their use of water.

D: Agreement with paradigm shift for a 100 year view of how we manage water quantity.

R: Agreement for GWRC and Wellington Water WIP recommendation to develop a more refined and flexible allocation framework in the future.

R: Agreement with principle from small group meeting for no increased abstraction at times of low flows.

Water quantity – Working through issues paper

Minimum flow:

- Core allocation sets out the amount of water consented for different users to take. Supplementary allocation is the progressive sharing of water between users and the environment for flows higher than the minimum, e.g., 50% for the river, 50% additional allocation.
- Issues paper includes allocation options within current regulatory system and options to consider for long term aspirations.
- Consider a flexible water allocation regime as a long term outcome where it's possible to take more water when there's more in the river and less water when there's less in the river to match natural cycles. It would require a restructure of how water is supplied. Committee could propose movement toward a better framework.
- Important to address demand management in short term to allow more time for technological developments. For example, a new storage dam may not be needed in 10 years if the cost of desalination dropped. Additional storage and reducing demand may both be needed.
- Discussion about building a storage dam to save water for the river during lower flows. It would be difficult to justify building a storage dam for purpose other than drinking supply, and hard to ask the public to conserve water at the same time as paying for more storage.
- Small group discussed principle of no further abstraction and removing any available headroom, meaning that new consent applications to take water wouldn't be granted but existing users wouldn't be affected.
- Agreement to provide protection for small streams in addition to the big rivers and mainstems. The current policy doesn't make the distinction between big rivers and small streams for allocation.
- The advice from the expert panel was that lowering the minimum flow, i.e., taking more water from the river, would have detrimental effects on ecosystem health. The Committee ruled out this option.
- Considered the implications of raising the minimum flow at Kaitoke. It is difficult to determine how much the flow would need to be increased in order to make a noticeable change in the state due to the complexity of ecosystem response to flow change. Due to the channelized and otherwise modified nature of the lower Te Awa Kairangi, and relative insensitivity of flows to changes occurring in the headwaters, leaving more water in at Kaitoke won't necessarily yield widespread improvements for ecosystem health or fish species.
- Regardless of whether more water would make a tangible difference, more abstraction means more stress.
- What is the cost/consequence of increasing minimum the flow? It would be hard to quantify the benefit but could have a major effect on the water supply system in the event of a drought. The biggest barrier would be the risk of running out of water for supply from

storage and groundwater limits. There would need to be strong justification to increase the flow.

- If we put the river first and leave more water for the river, it would require demand to match the amount of water we take.
- Minimum flows should be reviewed in 5-10 years to account for technology developments.
- Current minimum flow is 600L/s but it is difficult to understand what an additional 200L/s would look like if it was increased to 800L/s, and if this would clearly benefit the river's aquatic health.
- Support for no further abstraction and removing headroom, which would need to be reviewed as part of Wellington Water's global consent in the plan change process. Prioritise conservation and efficiency as much as possible.
- Small group discussed modifying permitted takes rule since few people are using their take and it would help prevent risk of water being taken in the future. Discussion to be continued in another workshop.

<u>Water efficiency and rain water tanks:</u>

- The need to conserve water will become more pressing with climate change.
- Water tanks could make communities more resilient in the event of earthquakes, sea level rise and loss of aquifer. If your water supply is limited to what's in the tank, you are more likely to value it.
- A decentralised network is more resilient but we currently have a reticulated system because it is cheaper and safer for human health.
- It is difficult to retrofit existing house with rainwater tanks but could be done over time. More information on rainwater tanks for greywater and stormwater attenuation in paper on water efficiency.
- By 2030, we will need an alternative option – either less demand on network or a bigger network, i.e., more storage. Current water storage would last 3 weeks in Wellington if water was cut off at minimum flow. Auckland has much larger storage to cover dry periods.
- In the last 10 years, there have been 5 sprinkler bans, which is a demand reduction of 8%.
- If the public is restricted from watering gardens, the same should apply to golf courses, and it does. People are frustrated when they perceive that commercial or industrial users not facing restrictions when residents are. Rainwater could be used for gardens or treated wastewater to irrigate golf courses.
- First step is watering garden in morning and evening only, next step is a sprinkler ban and only using a can or hose, the third step is using greywater from the bath and the final step is an emergency.
- Decisions won't be made until Te Kāhui Taiao has had the opportunity to discuss water quantity issues. Mana whenua are against water bottling because if they were allocated water, they would give it back to the river.
- Current regime grants allocation consents on first in, first served basis. Water bottling not the best use of water.
- Domestic use in Wellington is 220 liters per person per day, excluding leaks, whereas the average in Auckland is 150 liters.
- Residential use makes up 60% of the water supply and presents fertile ground for making change.

- Rainwater tanks for drinking water don't pay themselves off within their life cycle. New builds should require rain tanks. For most existing houses, it is difficult to retrofit due to cost and space.
- In Kāpiti, many houses had a rainwater tank before they became part of the reticulated network, which means that a liner or pump for outdoor use and toiled flushing were all that was needed. The council offered an interest free loan scheme, which 20% of properties used.
- Recommendation to have a property assessment to make it more water sensitive, similar to the Sustainability Trust model for energy efficiency. An expert could visit your house and present options that could be added to rates or with an interest free loan.
- When a property is subdivided, it could be an opportunity to retrofit with a rain tank.
- Potential for stormwater to be directed to treatment and storage for non-potable reuse.
- Consider international examples of stormwater and wastewater reuse.

<u>Water metering:</u>

- In order to figure out where leaks are located and to fix the network, water metering is fundamental to conservation.
- Upper Hutt community not in favour of water metering at household scale, but street or neighbourhood metering may be more palatable, many are wary of privatisation.
- Water metering does not imply that users will be charged for water use. In Kāpiti, users pay 50% based on volumetric use and 50% through their rates, and there have been more savings than expected.
- The Mayoral Taskforce report concluded that metering is only cost effective when using volumentric charging but the cost of fixing leaks is unaffordable for councils.
- It should be possible to have voluntary metering on property if desired.
- Need further consideration of metering options and technologies available, including examples from Kāpiti.
- Recommendation for GW and Wellington Water to revise strategies to incorporate Committee's vision and principles for allocation framework.
- Project team to update water allocation options document for Committee to add comments in SharePoint.

R: Agreed need strong WIP recommendations on demand management but need more information to decide on recommendations on metering, tanks etc. Emily Thompson to draft paper on Kāpiti District Council approach.

R: Agreed WIP recommendation for investigation into flow and abstraction regime needed to achieve benefits in ecosystem health and cultural values.

R: Agreement that water tanks are appropriate for outdoor use and greywater (less likely for drinking water due to treatment cost); also stormwater attenuation. Some assessment needed of which purpose for tanks yields most benefit across areas.

R: Require rainwater tanks to be installed in all new developments.

R: Consider Sustainability Trust model to providing advice and support to homeowners to be more water sensitive.

R: Make it easier for people to get water meters if they want to voluntarily get one.

R: Agreed WIP recommendation that discussions are had with community about urban water recycling including utilising collected stormwater and/or treated wastewater.

R: Agreed WIP recommendation that long term water supply strategies include the 100 year vision and kawa.

A: Project team will make the changes agreed to the issues summary and load onto SharePoint for Committee members to make comments on.

Planning for 2021

A: Emily to send around meeting invite for first Committee meeting of the year either 18/19/20 January 2021.