WORKSHOP NOTES

SUBJECT	**Whaitua Te Whanganui-a-Tara workshop notes – Te Awa Kairangi and water quality issues**
WHEN	Monday 1 February 2021, 9.30am-5pm
WHERE	GWRC Council Chambers (100 Cuba St, Wellington)
ATTENDEES	Louise, Sam, Roger, Tui, Pete, Zoe (on Teams), Anya, Pat, Wayne (until 12pm), Sean (until 10am)
APOLOGIES	Kara, Jonny, Naomi, Quentin, Ros, Hikitia, Gabriel
PROJECT TEAM	Tim, Phill, James, Helen, Penny, Mike, Mark, Emily T., Emily O., Vanessa, Te Rangimārie, David, Glen, Richard, Angela, Megan Melodonis (GW Environmental Science), Steve Hutchison (Wellington Water)

Agreements in principle and actions

KEY

D = decision.

A = action.

PT = project team.

R = idea for drafting a recommendation.

Meeting opening

A: PT to circulate the updated version of the project Gantt chart. Committee members to email bullet point feedback to Roger, Tim and Phill on the version tabled during the workshop.

A: PT to organise time at an upcoming workshop to discuss the ongoing role of the Committee beyond the completion of the WIP for accountability and implementation, including options and examples from previous Whaitua Committees.

Te Awa Kairangi decision-making framework – Whakapapa

D: Add deforestation of the catchment and urbanisation with two cities developed on the floodplain to the whakapapa for Te Awa Kairangi.

Values and outcomes

D: Additions and changes to the values and outcomes:

- Include fish passage in all streams and rivers as a value
- Include the word ‘swimming’

- Use the word ‘animals’ instead of ‘pets’
- Include value about educating the next generation of kaitiaki and enabling kids to connect with nature
- Economic opportunities should specify appropriate type of water and efficient use
- Include the concept of sustainability
- Use the term ‘water wastage’ instead of ‘demand’
- Include value about estuaries and the harbour
- Include protection of aquifers from drilling and contaminants, recognising aquifers as a source of drinking water
- Address the source and treatment of stormwater contaminants before they reach waterways

R: Recommendation that additional mana whenua work is resourced after the completion of the WIP. Focus on a WIP that is set up for implementation and the detail can be added to it as a living document.

A: PT and Vanessa to put mana whenua outcomes in short, medium and long-term timeframes. Mana whenua attributes will be populated where possible but otherwise be placeholders for completion with mana whenua post-WIP. Can also use ‘best available’ attribute or closest proxy, e.g., MCI for ecosystem health and possibly mauri.

Current state

A: PT to organise a meeting with the Riverlink team to discuss treatment of stormwater, e.g., from bridges and carparks. PNRP requires this.

Target attribute states

A: Add attribute for toxic algae to target attribute state table. PT to investigate ways to measure.

A: PT to populate long term target attribute state in table with A or reference state.

Solutions and recommendations

R: Regarding no wastewater overflows, need further information to determine the investment required in the medium or long-term.

D: Issues to include flood protection activities specifically; start with principle of “does this river engineering work need to be done?”.

D: Solutions to include water prioritised for best use.

R: GW employs dedicated Communications and Engagement support to lead toxic algae engagement, education and awareness through a variety of innovative means, with communities of interest.

R: Farm plans and stock exclusion to be done across the whaitua. Include implications around monitoring and enforcement.

R: Investigation and identification of nutrient sources by 2024 and implementation of methods to reduce nutrients by 2030.

R: GW to prioritise providing the tools to enable citizen science, community catchment groups, data collection and reporting.

A: PT to check with officers from HCC and UHCC for their support of the recommendations in the Mayoral Taskforce report.

R: Fines for breaching a consent should be used in the same catchment where the offence occurred as in a restorative justice model.

D: Regarding habitat, include natives, groynes, wetlands, spaces for people to connect with the natural environment along the river.

D: Investigate sources of E.coli not related to wastewater, e.g., dog faeces.

D: Investigate sources of sediment from earthworks in urban areas, not only rural sources.

D: Next workshop to include a session on prioritisation criteria.

R: Short-term recommendation for councils to create WSD guides for developers.

R: TAs to employ advisors to enable and incentivise landowners to check their pipes.

R: Long-term recommendation to improve natural features of Te Awa Kairangi, including the natural catchment drainage rate, the flood response of the river and slow down the flow of water.

A: PT to inquire if Committee members are able to attend Council workshops in February and invite Committee members accordingly.

Draft WIP

A: PT to provide an outline of WIP contents with as much as possible populated based on current agreements.

Discussion

Meeting opening

Sam opened the workshop with a karakia.

Project timeline:

- The PT shared a draft version of the project timeline, which shows key dates, activities and dependencies. PT to circulate the updated version of the project Gantt chart. Committee members to email bullet point feedback to Roger, Tim and Phill on the version tabled during the workshop.
- Committee wants to see how the component parts will come together in the WIP. This is important for being able to identify gaps and discuss priorities and trade offs. PT to prepare a draft WIP structure before the next workshop on 24 February.

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A: PT to organise time at an upcoming workshop to discuss the ongoing role of the Committee beyond the completion of the WIP for accountability and implementation, including options and examples from previous Whaitua Committees.

Intro to Te Awa Kairangi water quality and ecology:

- Mark shared a Google Earth flyover of the Te Awa Kairangi main stem from the Te Marua lakes to the harbour. It's a large catchment with four major headwater tributaries in indigenous forest – Pakuratahi, Mangaroa, Akatarawa and Whakatikei.
- Important to recognise the impacts from wider catchment land uses. Land cover in the rural catchments is a mix of sheep and beef farms, exotic forest, lifestyle blocks, two dairy farms. 40% of the total nitrogen load in Te Awa Kairangi comes from Mangaroa and Pakuratahi.
- Akatarawa and Whakatikei are mostly indigenous forest with some plantation forestry.
- Upper Hutt and Hutt city are the main sources of toxicants, faecal contaminants and nutrients.

Te Awa Kairangi decision-making framework – Whakapapa

- Draws on Morrie's cultural values report and work from Te Kāhui Taiao.
- Need to clarify whether the 1855 earthquake is the main reason that Te Awa Kairangi is no longer navigable by waka or if settlers and development also had a contributing impact.
- Add mention of the aquifer and possibly springs.

D: Add deforestation of the catchment and urbanisation with two cities developed on the floodplain to the whakapapa for Te Awa Kairangi.

D: Add context for the Waiwhetu Stream, which is at the base of the catchment and is among the streams with the worst water quality in NZ.

Values and outcomes

<u>Community values and outcomes:</u>

- Water used for economic opportunities should draw from treated grey water or stormwater rather than from the river. The appropriate type of water should be allocated for the appropriate use and used effectively. The concept of sustainability is missing, water should not be wasted.
- Caution to not overemphasise pets in the river corridor as they can be destructive and polluting. Refer to animals not pets.
- Emphasise swimming value.
- Need to enable kids to have an everyday connection to nature and their local streams. Relationships to awa are embodied, play-based, physical and everyday interactions.
- The vibrancy and importance of the river has an affects peoples' desire to live in Hutt City or Upper Hutt.
- Beyond leaving more room for the river to flow naturally, we need to consider water sensitive design and how we live with the natural environment in an urban setting.
- Some concern about creating more room for the river to flow when there are 170,000 people living in the Hutt Valley with stopbanks to protect them from flooding.
- Within the boundaries of the stopbanks, there is more that can be done to restore or create wetlands. Golf courses also provide more buffer for flooding.
- If the river had a voice, it would want more room to flow. Te Mana o te Wai requires us put the river first. Over a long time frame, the river might look different than it does currently.
- Opportunity for developments to increase set backs from rivers and streams.

<u>Mana whenua values and outcomes:</u>

- Small streams to be mapped and named on FMU maps, as an easy and important way to elevate their mana.

- The meaning of mātāpuna includes the headwater basin that has springs and streams. It refers to the place and not just the waterbody. They tend to be highly forested areas.
- Four wheel drive activities likely not appropriate for mātāpuna areas. The environmental outcomes can include the rights of mana whenua as kaitiaki and their involvement in decision-making to exercise rāhui for 4WD. What are the current barriers to exercising rāhui now?
- MfE expecting to produce a toolkit of attributes as part of the freshwater package by the end of April. Te Pae Kaitiaki to support thinking about attributes for customary use.
- Not all mana whenua work will be completed for the WIP but it should enable kaitaiki management in the ongoing work to be done. TKT will contribute as much information as they currently have and are able to develop.

R: Recommendation that additional mana whenua work is resourced after the completion of the WIP. Focus on a WIP that is set up for implementation and the detail can be added to it as a living document.

D: Additions and changes to the values and outcomes:

- Include fish passage in all streams and rivers as a value
- Include the word 'swimming'
- Use the word 'animals' instead of 'pets'
- Include value about enabling the next generation of kaitiaki and children to connect with nature
- Economic opportunities should specify appropriate type of water and efficient use
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- Use the term 'water wastage' instead of 'demand reduction'
- Include value about estuaries and the harbour
- Include protection of aquifers from drilling and contaminants, recognising aquifers as a source of drinking water
- Address the source and treatment of stormwater contaminants before they reach waterways

A: PT and Vanessa to put mana whenua outcomes in short, medium and long-term timeframes. Mana whenua attributes will populated where possible but otherwise be placeholders for completion with mana whenua post-WIP. Can also use 'best available' attribute or closest proxy, e.g., MCI for ecosystem health and possibly mauri.

Flood Protection

Sharyn Westlake, Tracy Berghan and Francie Morrow from GW Flood Protection joined the workshop over lunch to answer questions related to river management on Te Awa Kairangi.

- What are the biggest challenges, opportunities and risks to address related to flood protection in this whaitua? The Flood Management memo has a more detailed response with background information on the issues and areas to look at.
- The Waiwhetu floodplain management plan will be reviewed next to incorporate community views and values.
- Riverlink is currently the main project. There is a shovel ready project starting to do rock groyne and revegetation work in erosion-prone areas. Looking at engagement and partnership with mana whenua on this project.

- Flood Protection has a 30 year global consent with flexibility built in to accommodate changes in the work programme due to changes in the national direction (e.g., NPS-FM and TMOTW). There is a 3 and 10 year review period to consider if works need to be undertaken and why.
- Fish passage is a new approach and the code will need to be adapted to manage for this priority.
- Mana whenua need to be included in the decision-making re. river management. Te Rōpū Kaitiaki has been suggested by iwi as a forum to come together to discuss how to manage consents.
- Opportunity for Whaitua Committee to address how stormwater that goes through stopbanks is treated. Riverlink has new requirements for how stormwater from bridges and carparks is treated.
- Treating stormwater through wetlands is a challenge because they need to be maintained and cleaned properly. Possible to treat stormwater through a pond or swales, there are design options.

A: PT to organise a meeting with the Riverlink team to discuss treatment of stormwater off of bridges and carparks.

Current state

- Te Awa Kairangi flyover continued. Surface water is the main source of the municipal supply, and in addition, groundwater is taken from the Waiwhetu aquifer.
- There is a groundwater upwelling near the Silverstream bridge where nitrogen concentrations increase. Nitrogen typically comes from parks and gardens where fertilisers are used, however, the nitrogen level in Te Awa Kairangi is not very high. It is in the A grade and equivalent to the reference state in most aquifer systems.
- The Silverstream weir is a partial fish barrier at certain times of the year. Spat ropes were installed to help poor fish climbers such as inanga but they have broken off. There would be greater gains through a natural replacement. Discussion about whether it could be shifted to the bridge but this would require pumping to account for gravity.
- The weir is a significant wastewater overflow site, and on average, there are 6 overflows per year in heavy rainfall, which accounts for about 60% of the total volume of discharge in the whaitua. It serves an important function to transport wastewater and it is up to the community and politicians to decide if it's a priority to remove it.
- Infrastructure along Te Awa Kairangi, such as State Highway 2, are a source of metals and hydrocarbons. Need to work on addressing these contaminants.
- There are popular swimming spots along the river that have 1 million recreational users each year, used for dog walking, swimming, kayaking, trout fishing, etc. The primary contact site is in D grade, which impacts on the public.
- The coastal expert panel report looks at macroalgae and sedimentation in the estuary. The macroalgae has high cover but low biomass at the river mouth, but most areas have been altered from their natural state and it is difficult for the algae to attach when water is flushing at a higher rate. Sedimentation occurring in localised areas, which reduces oxygen and is not a good habitat.

Target attribute states

- Monitoring sites at Te Marua, Manor Park and Boulcott show the changes of impacts along the mainstem.

- Te Marua has a poor grade for primary contact due to faecal contamination from sheep and beef farms and lifestyle blocks. The guideline for primary contact is strict – it failed once in 30 years and was enough to put it in a poor grade.
- Primary contact is the attribute for swimming, whereas E.coli is for the health of the stream.
- Need data in wet and dry weather to be visible in reporting as it effects prioritisation and mitigations. Start with dry weather primary contact as an interim goal.
- Challenge to find an appropriate measure for toxic algae, the attribute could be based on the impact on human health. Needs to be fit for purpose rather than an ABCD grade.
- Important to have a way to report progress on toxic algae to the community. Perceived by the public as the biggest water quality concern for Te Awa Kairangi. The frequency of algal blooms is something we can influence and reduce.
- Need a recommendation for no wastewater overflows under a kawa-based approach, but need to determine the timeframe and consider cost.
- The modelling table shows the expert panel assessments for current state, BAU, improved and WSD scenarios.
- Need to consider sediment caused by forestry and the impact on mud content in the harbour.
- Potential to see more improvement in shorter timeframe in subtidal areas such as the basin and estuary. It is a challenge to see change in areas where contaminants have settled but there is more opportunity in estuaries that are flushed more regularly.
- Consider alignment between NPS-FM and NES for Plantation Forestry. Additional changes will come through Taumata Arowai and the Water Services Bill.
- Table with monitoring sites should include te mātāpuna to recognise where the water quality is good, rather than starting in the estuary where it is in a poor state. This would send a more positive message to the public about how we can restore, maintain and protect our water and enable communities to engage.
- GW to consider attribute or survey method for tracking people's connection to awa. If people are afraid of contact now, their social sense of risk, how will when know when that has shifted for the better. Get creative.

D: Add attribute for toxic algae to target attribute state table. PT to investigate ways to measure.

R: No wastewater overflows, need further information to determine the investment required in the medium or long-term.

A: PT to populate long term target attribute state in table with A or reference state.

Solutions and recommendations

<u>Wastewater and stormwater:</u>

- Pretreatment of stormwater before it enters waterways would help improve water quality over time.
- Need publicity and education about options for fixing pipes and water conservation to support landowners.
- The challenge with greywater systems is that they have upfront costs to install even if they have pay off over a lifetime. Important to make clear in WIP so Councils accept this.
- Silverstream weir is a designed overflow. It was built based on the standards and capacity for the population at the time but is a prime example of the legacy issues of councils not

sufficiently investing in upgrades to the network. No overflow of effluent into freshwater should be acceptable.

Forestry:

- Need to take regulatory responsibility for compliance and permitted activities related to plantation forestry. There's a risk involved in using sprays in the 5-7 year harvest cycle.
- Small group on forestry discussed increasing resourcing for compliance and support for best practice, especially for GW owned plantation forestry.
- Need engagement with contractors. Small contractors may have a bigger impact whereas bigger contractors may be required to uphold higher industry standards.
- Seeing muddy water and sediment is a highly ranked issue for the public, second to toxic algae. Water clarity is key for people to feel safe entering and interacting with the water.
- Other impacts of forestry include logs being left behind that can scour out small streams.
- Forestry management will be handled through the NES for Plantation Forestry.
- Consider whether current policy settings, farm plans and recommendations in rural catchments are sufficient for addressing sediment and streambank erosion in Te Awa Kairangi.

Flood protection:

- Consider improvements to habitat and naturalness within existing stopbanks and flood protection works.
- Review HCC and UHCC district plans to ensure setbacks for construction are sufficient.
- Mana whenua have not been previously consulted on GW global consent for flood protection and do not support the current practices that have significant adverse effects on the river environment and habitat. Address the need for a cultural shift through outcomes over short, medium and long-term timeframes. Need to bring ideas for soft engineering and replacing willows with natives into the conversation.
- Important to work with engineers and contractors to support better practices for river management. This needs to happen through codes of practice review to address innovation and take into account wider values. Need to encourage groups withing GW to work together better.

Toxic algae:

- Public perception is a key issue, need to reach more widely than dog owners.
- Need for different communications approach to the strategy for addressing the issue of toxic algae.
- Need for new or better reporting in approach e.g. like Auckland safe-swim, which incorporates toxic algae. GW to develop a measure for reporting toxic algae that is linked to health risk.
- Need an education campaign for best practice for using fertiliser, starting with greenspaces owned by councils making nutrient management plans. A reduction could result in fewer algal bloom events. Driven by a maintain and improve kaupapa.
- Roving crews fixing pipes could address use of fertilisers at the same time.
- Need further investigation of nutrient sources, some could be from rural land use. There is a significant increase at the site of groundwater upwelling.
- Potential to see effects of mitigation within 2-3 years, which could be a good news story.

Community ownership:

- Modelling data is used where monitoring data is not feasible due to resourcing. Need to enable more citizen science, GW staff to focus on training people on how to collect data or targeted investigations around where people are taking actions. This should be part of GW's report on progress.
- Ideally we would monitor all tributaries at the confluence with Te Awa Kairangi.
- When GW trialled a monitoring group in Upper Hutt, they got the same data results as the GW scientists. Training is important to obtain high quality data.
- Predator Free Wellington is an example of a local, enabled community that has ownership and is taking action.
- Devolving responsibility would also solve the problem of community connection.
- Need to increase resourcing for scientists to train community members.
- Another barrier is the capacity and capability of mana whenua, councils need to work together with DOC on contracts with mana whenua in a centralised way so their resources aren't overstretched.
- Create a mana whenua governance platform that communicates with councils and orients them around common issues.
- A similar strategic approach is needed for community catchment groups. They are currently ad hoc and siloed but would be more effective if they joined up together. Kaiwharawhara is leading because it has had more investment but more consistent support and funding from Councils is needed.
- Need to remove barriers for individuals who want to create a wetland on their property but are required to spend time and money on a resource consent.
- GW needs the right structures in place to enable effective implementation.
- Data needs to be readily accessible online. There is a challenge with communicating data in a way that the public can understand.

Economic costs:

- Wellington Water can only do as much as they are funded to do. Need to give councils and Wellington Water a roadmap of priorities and where to start, especially for fixing wastewater pipes.
- Idea of restorative justice – where there has been a breach in compliance, there should be accountability and compensation back to the catchment where the incident occurred.
- Long term recommendation to add natural features to the river and slow down the flow of water.
- Economic costs to be considered in whether recommendation to fix wastewater overflows falls under the medium or long term. There is public appetite to fix the wastewater pipes due to media coverage. Need to see cost to ratepayers. What is the maintenance baseline currently?
- Long term goals need interim milestones to be achieved.
- Seattle gives incentives for the amount of water sensitive design features on a property, e.g., hard surfaces vs. green space soakage. This has had the added benefit of reducing paving costs.
- Would be desirable to be able to report costs similarly to the Climate Change Commission's report. Link. WIP could be structured similarly, i.e., advice/recommendations first then evidence.

- There should be something similar to The Sustainability Trust to help landowners check their pipes and provide advice and rebates for people who want to be proactive and do the right thing.

D: Issues to include flood protection activities specifically; start with principle of "does this river engineering work need to be done?".

D: Solutions to include water prioritised for best use.

R: GW employs dedicated Communications and Engagement support to lead toxic algae engagement, education and awareness through a variety of innovative means, with communities of interest.

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Draft WIP

- Draft WIP to include the overall structure to see how the parts fit together.
- Narrative can be added later, but it should include information we have on current state, outcomes, strategies, target state, etc.
- There could be two parts to the WIP – one that includes the advice to council and another with a more detailed evidence base.
- The document should have a hierarchy that addresses the most important issues first.
- The recommendations should be included at the front of the WIP, then a deep dive into subject areas.
- Upcoming workshops with councils to test agreements in principle on issues that are relevant to each council.

- Any Committee members are welcome to offer something to open and close each workshop.

A: PT to inquire if Committee members are able to attend Council workshops in February and invite Committee members accordingly.

A: PT to provide an outline of WIP contents with as much as possible populated based on current agreements.

Mike closed the meeting with a karakia.