

WHAITUA KĀPITI COMMITTEE

The Whaitua Kāpiti Committee was convened for its eleventh meeting at 9.30 A.M on 01 November 2023, at Kotare Room, Ramaroa Centre, Whareroa.

Committee members present:

Mana Whenua Whare

Dr. Mahina-a-rangi Baker (*Taurite*) – Ātiawa ki Whakarongotai Charitable Trust

Dr. Aroha Spinks – Ngā Hapū o Ōtaki

Caleb Royal – Ngā Hapū o Ōtaki

Naomi Solomon – Ngāti Toa Rangatira

Sharlene Maoate-Davis – Ātiawa ki Whakarongotai Charitable Trust

Shane Parata – Ngāti Toa Rangatira

Kāwanatanga House

Jenny Rowan (*Taurite*) – Kāpiti Coast community representative

Jocelyn Prvanov – Kāpiti Coast District Councillor

Kerry Walker – Kāpiti Coast community representative

Pātaka Moore – Kāpiti Coast community representative

Penny Gaylor – Greater Wellington Regional Councillor

Committee member apologies:

Monique Leith, Kāpiti Coast community representative

Facilitator:

Dr. Kathie Irwin, Greater Wellington Regional Council Contractor (Kathie Irwin & Associates),
Tangata Whenua Whare

Additional attendees:

Mana Whenua whare

Claire Gibb – Mana Whenua Whare Co-ordinator, Ātiawa ki Whakarongotai Charitable Trust

Torrey McDonnell - Planner, GWRC Contractor (Incite)

Aaria Dobson-Waitere

Dr. Russell Death - Professor of Freshwater Ecology

Kāwanatanga House

Michele Frank – Catchment Manager Kāpiti, Catchment, GWRC

Phill Barker – Senior Policy Advisor, Environmental Policy, GWRC

Ames Donovan (*Minutes*) – Senior Catchment Advisor Kāpiti, GWRC

Nicola Patrick – Director Catchment, GWRC

Rachel Pawson – Senior Policy Advisor, GWRC

Chloë Nannestad – Policy Advisor, GWRC

Rita O'Brien – Stormwater & Coastal Engineer, Kāpiti Coast District Council

9:00am – Gather at venue, tea and coffee.

9:30 am – Start

Karakia, Mihi and Welcome

ITEM 1: WORK PROGRAMME DISCUSSION

DECISION - to allow time for Dr Russell to prepare, the Committee AGREED that 08 November hui be cancelled and a new hui date, 13 December, added.

- Mana Whenua Whare: Need clarity on where the WIP, Section 32 and the input/engagement with Russell's model, will get to by this date. Clarity sought before the Committee dissolves on what's the exit point for the Committee.
- Mana Whenua Whare: We are working with funding that was provided up until the financial year 2023 and we don't have clarity about the nature of our input following the Committee end.

DECISION - to focus on and review draft WIPs, S32 and other docs prior to decisions hui and caucused.

REQUEST – for the Committee to be provided target dates for the documents so planning can occur, and time set aside to review documents.

ACTION - Set-up a meeting with GW senior staff and co-ordinators (Nicola, Michele, Claire, Phill), Taurite and Kathie re: next steps following December completion of this phase of work. Kathie to coordinate a date and time.

ACTION - Confirm Agendas for 06 and 13 December as early as possible. This clarifies which outcomes will be sought to conclude the mahi for 2023.

ACTION - Communicate target dates for forthcoming documentation (WIP, S32 etc) as soon as possible to Committee to allow for reviews and caucusing.

ITEM 2: CURRENT STATE OF FRESHWATER DRIVERS – KNOWLEDGE OF BOTH WHARE

a) Mana Whenua Whare – Presentation on understanding of the current state of freshwater across the whaitua and the key drivers these are connected to (Mahina-a-rangi) - Appendix 1

- The state of water quality in the rohe of Te Ātiawa. Kaitiaki monitoring isn't new but utilising cultural health monitoring in Resource Management has been evolving through council funding for kaitiaki to conduct monitoring.
- The expressway has essentially transformed the water in our rohe. It was a condition to monitor the impact of the road on Mahinga Kai for five years. The strategic benefit was that the expressway completely intersects the rohe, so we could establish monitoring sites both up and downstream providing a framework for state of the environment monitoring across the whole rohe.

- The key findings are based on reporting consent requirements, but it does reflect the state of the environment report from our knowledge paradigm.
- The monitoring included a watercress indicator – for health and safety of Mahinga Kai. We modified this to campylobacter in water rather than watercress; Suite of heavy metal indicators; Capture of fish – abundance and health; and we monitored the cultural effects – impact on contact with nature, environmental distress survey.
- The report includes the measurement units to measure the attributes and the targeted attribute state. Where national standards existed, they were adopted and where we were doing novel things like tuna monitoring, we identified our own targets.
- Wairua and whakapapa – used the Environmental Distress Scale as a method to quantify the impact on wairua due to environmental degradation. The EDS is a social science method utilised globally to measure the impact of things like fracking on indigenous people, in Malaysia - volcanic eruption impacts, Australia - open cast mining and drought. This deals with that part of the system where people are distressed by environmental degradation, the most common response is to detach and disassociate. Increasingly globally we are understanding that if people aren't connected to waterways there is no social licence for regulation to improve the water ways or manage climate change.
- Freshwater ecologists can provide the best evidence on how to create healthy waterways but won't achieve the behaviour change required. The EDS gives us a mechanism to measure and then respond.
- The EDS was aggregated with a simple social science survey about connection to nature and recreation so are related measures – are people connected to water and nature.
- Two periods in time when we undertook the surveys, 2020, average of 4 and last year, 2.6 interactions with waterways. Perhaps COVID contributed to the 2020 level. It is a subjective measure, what one person considers contact someone else wouldn't.
- Changes because of the expressway were high. People on average described the severity of the impact as severe.
- Report highlights the rate of intergenerational knowledge transfer and is part of the NPS-FM in relation to Mahinga Kai and is to be protected by regional council. The Mātauranga Māori knowledge continuum requires we learn and practice ancient practice it but also teach and develop new practice.
- In our caucus all aspects of this knowledge are relevant to freshwater and Mahinga Kai, connection to water and the language around water. These applied aspects allow us to understand if the system is going to protect our water. If people don't understand or see the value, then they won't want to protect it.
- People are learning and practicing this knowledge, and some are sharing and creating it. Very few are teaching and practicing it. We would like to look at this and the intervention we need is to give people opportunity to access cultural practices.
- These systems are not applied in the regulation of freshwater management. When there is disturbance, we know that there is stress on whanau wellbeing, access to Mahinga Kai, etc. Also, the stress that comes with not being recognised as an impact by

Waka Kotahi, government, and territorial authorities, because this part of the system isn't considered in the resource management process which is largely biophysical.

- The challenge to getting these aspects considered is how do you measure these values and validate them? One of the opportunities is that we have some wonderful evidence that tells you this is a space that hasn't been explored before and that this is an area that is going to continue to be measured by mana whenua. What happens in a monitoring system when this information isn't included, is that you fail to examine that space in its entirety. It's a very indigenous way to look at spaces. We are trying to look at the place where science and Mātauranga Māori can improve things.
- When the expressway was being developed, I saw the impact on our uri, one working with whanau, and they'd give examples of going down to the river to cleanse and heal but because of the disturbed sites they felt disconnected. We also had kaimahi coming to see us who were carrying physical and emotional weight from having to clear spaces, support whanau and have conversations with Waka Kotahi and the council. We had to undertake clearing rituals to keep them well enough to continue their mahi.
- At various places along our waterways, we have taniwha and there were times when we were asked to settle the mauri of the taniwha who were creating disturbances for people working in the waterways. The more we can inform and support connections to waterways, that's the beauty of what hapu and iwi can offer, they understand what is happening in a space and why. Often relates to the Mātauranga that has been handed down over the generations. This approach is about health and safety to keep everyone safe.
- Kāwanatanga Whare: Acknowledged that these impacts resonate for non-Māori also and the benefit of the process mana whenua had in place to help whanau through this.
- **QUERY** - Mana Whenua Whare - noting what GW recommends for incorporating community information in the work going forward acknowledging the gaps and rosy picture shown by SOE monitoring and baseline picture.
- **QUERY** - asking for recommendation on monitoring Dissolved Oxygen (DO) and Kaimahi advised that it, "Needs to be continuous monitoring over the summer months."
- **QUERY** - Will there be support for a 1mg target for nitrate and Kaimahi advised that, "We support what you want for your WIP."

AGREED – Kāwanatanga Whare deeply respects and accepts the evidence of current state and the importance of the mana whenua attributes presented, and that this material will be included in the package going forward.

11-11:30am Morning Tea (30 mins)

ITEM 3: CURRENT STATE AND DRIVERS CONTINUED – DR MIKE JOY SESSION

- Nitrate toxicity – inherently problematic measure. Created from experiments conducted within a controlled laboratory environment and then a measure of 6.7mg was integrated within the NPS-FM. This level of Nitrogen impacts the aquatic life faster, promoting algae growth and hypoxia.

- Oxygen levels vary notably by season and for this reason is also not a great measure.
- The Manawatu River was the worst in the world out of 570 sites for the swings and that's at 0.67mg so within the A band.
- At 0.3mg aquatic life begins to die but the Nitrate Toxicity level is set at 6.7mg. A lot of councils use the nitrate toxicity level so a river like that Rangitikei gets an A.
- Less than 0.3mg protects 95% of aquatic life. There is a big difference between the toxicity value and the actual value that impacts aquatic life.
- Research highlighted that at 0.87 mg, you get a higher risk of colorectal cancer. New Zealand has the highest levels of this type of cancer in the world.
- NPS measure doesn't recognise that phosphorous can be bound in sediment and stirred up at any point as it requires a water sample, not sediment.
- For lowland streams there is a 17% exemption so when it's low flow, lots of algae bloom, lots of light and a flood comes through and it might only flood once or twice a year causing a lot of damage, but the exemption means that it still scores an A.
- NPS mentions macrophytes but only in relation to lakes, not streams.
- Concern about how the Macroinvertebrate Community Index (MCI) settings have been modified in a way that misrepresents the actual quality of the water. MCI also highlights that ecosystem health is number 1 issue but doesn't measure it.

Discussion

- QUERY – Kāwanatanga Whare: Does Mike hold any specific info on the streams that we are looking at? Mike Joy – no.
- Dr Russell Death: What should the critical ecosystem measures be? Mike Joy - Continuous dissolved oxygen (at as many sites as possible at tough times of the year), Deposited sediment (great citizen science measure too), fish and invertebrates. Macrophytes – key for the lower streams.
- Mana Whenua Whare: Acknowledged Mike for coming into the space which often receives a strong reaction from those having to work in accordance with this misguided national directive. I know that comes with a personal cost and I want to thank you for always answering the call of Mana Whenua to set appropriate targets.
- What I'm taking from your presentation is that we have all these measures but there are ones that we could focus on that are truly indicative of water quality – dissolved oxygen, periphytons, sediment and macrophytes. I am taking these measures as the key ones to monitor.
- This resonated with a Mana Whenua Whare member's experience of the water.
- Mike Joy: A healthy lowland river won't be fluctuating wildly. Exemption of 17% is problematic. If I was to seal the room up and we run out of oxygen for 17% of the time, we'd die, and we can't average or median this stuff away without considering the consequences.

- Kāwanatanga Whare: Our aim is to get consensus on wherever we need to go. We as a house support the MW house in terms of the attributes, they have represented. We are trying to be progressive and create constructive change. To influence GWRC to bring about some of these extra measures, we need to underpin our decision-making on management plans and FMUs.
- QUERY – Is there a preferred approach to continuous monitoring over discrete monitoring? Mike Joy - Testing continuous dissolved oxygen levels though new tech that cost \$25k and are considerably more reliable. It's better to have less sites with good data than lots of sites with lower quality data. Cost – talk about the cost of colorectal cancer vs water testing.
- QUERY - What about E. coli? Mike Joy – More information is coming out about E. coli testing and we are learning that it can live a lot longer in the food source and not just the water.
- Kāwanatanga Whare: What does continuous mean? Mike Joy - you'd hit it at the hotspots for the key times. The regional council has monitoring sites that you'd set up for longer periods of time.
- Mana Whenua Whare: A member described how continuous dissolved oxygen measuring tools were placed in a lake and left for a month, providing a great dataset.
- QUERY - We are committed to doing things differently and it would be good to understand the best measures? Mike Joy - Dissolved oxygen.
- QUERY - Is it more that we need to get the parameters right, or the measure? The A, B, C and D measures need to all be below 1mg of nitrate.
- Dr Russell Death: An opportunity to agree key ones and test ideas.
- QUERY - Mana Whenua Whare: What's the relationship between water quality and quantity? Mike: All of these issues were just become concentrated with low flows but also extreme events are going to cause considerable damage. It's all connected.

12:30pm Lunch (30 mins)

- Mana Whenua Whare: Made point that the EDS can be used for all members of the community Pākehā are the demographic majority in our community so it must be done with the wider community if we want change. However, it is important to make the distinction that there is a different cultural context for Māori.
- Mana Whenua Whare: Weeds are rampant and it's symptomatic of what's happening in the water. GW Flood Protection are conducting weed removal because phosphates and nitrates are rampant which impacts Mahinga Kai. Developing attributes means we can defend it if needed.
- Many of the waterways in Ōtaki have the brown slimes and the holding of sediment. Correlation between captured and suspended sediment and slime.

ITEM 4 - State of the environment presented to the Kāwanatanga Whare by GWRC staff
b) Kāwanatanga Whare – Presentation on understanding of the current state of freshwater across the Whaitua and the key drivers these are connected to. (See Appendix 2)

- Many ways to collect data, some continuously, some monthly, and some are less frequent – like lake survey. You can apply many types of statistics, mean vs median. Depends on the question you want to answer.
- Our monitoring network has gaps, it doesn't cover all the proposed FMU. We have tried to use the best quality data to give an indication.
- The NPS-FM for dissolved oxygen requires continuous monitoring, which we haven't done.
- The state of the environment won't tell you about peak stressor events. Sediment, won't tell you why certain events happen, won't tell you about the lower part of the Waikanae stream as monitoring station is approx. 2km up the stream.
- Small streams do not meet bottom lines for several attributes.
- Two additional attributes proposed - dissolved nitrogen and copper and heavy metals.
- Baselines are calculated from existing data. Provided to show change over time. Monitoring sites have gaps in relation to the FMUs, we don't have baseline data for dissolved oxygen for any FMU. Periphyton only in Otaki and Waikanae.
- It is important to note that we monitor groundwater for human health reasons. No specific attributes in the NPS-FM for groundwater. Kapiti has sandy porous soil which means contaminants can travel easily into the underground supply.
- Most importantly, with estuaries, lag time needs to be considered. For many attributes the lag time will be significant lag as contaminants will be suspended as a sediment.
- Key insights include: Nitrogen in rivers and streams do not seem to be too much of an issue for this Whaitua. Most GW monitoring sites are below 0.3g/m³ for nitrogen toxicity (noting that threshold for the A band is <1g/m³). Phosphorus levels are moderate to high across the Whaitua. Excessive sediment, fine sediment in particular, is one of the key issues for this Whaitua – particularly in the rural space. Poor habitat in urban sections of streams are also a key issue.
- Focusing on higher order attributes like plant growth and macroinvertebrates is more meaningful.
- Dr Russell Death: Nitrates are often converted to Dissolved Inorganic Nitrogen (DIN,) be good to have standard language.
- Kaimahi: Gaps in our monitoring of urban sites, KCDC have more data in that space.
- Dr Russell Death: Periphyton and NIWA models could be explored.
- Dr Russell Death: Ammonia gets converted to nitrates easily and quickly and can kill everything, example Manawatu streams.

- QUERY: In our slower moving streams there is not much oxygen, we have low dissolved oxygen, are we going to get nitrate converting back to ammonia? Dr Russell Death - We don't know the answer to that.
- QUERY – Mana Whenua Whare: Does good monitoring data exist for the lakes? Kaimahi (K&I): It does. We just haven't done enough of the SPI surveys for lakes that we need to determine baseline and current data. However, the legislation says the lack of a formal baseline doesn't justify you not acting.
- QUERY – Mana Whenua Whare: If there is no data on dissolved oxygen what's your suggestion moving forward? Kaimahi (K&I) – Can gather the continuous monitoring this summer – given we can get the resourcing, data for current state can actually be gathered pretty quickly.
- Kaimahi: We recognise social science is a gap in relation to catchment management. There is a national quality of life survey and four of the councils who participate in it are based in the Wellington region. It collects data from the community on things like how they feel about the natural and built environment and used to assess these impacts. A potential mechanism to monitor the impact.
 –Link to survey www.gw.govt.nz/assets/Documents/2022/08/QoL-8-City-Topline-FINAL-Interactive-PDF.pdf .
- QUERY – Mana Whenua Whare: How will local knowledge be integrated into the monitoring? Kaimahi (K&I): That's up to the Committee but am excited to see how tuna can be integrated into the measurements.
- QUERY – Mana Whenua Whare: How did the other Whaitua deal with the gaps in monitoring and prepare their WIP? Useful to make the Kapiti WIP as strong as possible.
ACTION: Kaimahi to provide a summary of what has been learnt from the previous Whaitua and the recommendations in relation to monitoring.
- QUERY – Mana Whenua Whare: How do we move forward to do the monitoring and then set the levels upon which we want to achieve? Kaimahi (K&I) - Manager will speak to this in their presentation.
- QUERY – Kāwanatanga Whare: If we take the 1mg nitrates and we put it through the model what does it mean for commercial farming? Dr Russell Death.
- Dr Russell Death: There are very few places in the country that we couldn't put in the 1mg limit and not be able to carry on. I would be advocating for much lower levels of nitrates, 1mg is still too high. To improve ecological health, you need to start thinking about 0.3mg. Most of our sites are at or below that level.

ITEM 5 – DRAFT FEEDBACK ON BUILDING THE MODEL

a) Dr Russell Death to seek feedback on aspects of What's in and What's out of building the modelling framework for the Tiriti Whare

- Groundwater is difficult to model, and we don't know how to measure wetland health so from a modelling perspective, it's not something the model can include.

- QUERY – Kāwanatanga Whare: wetlands, lakes and groundwater are linked to rivers, can we change the bands to some sort of input into river flow? Dr Russell Death -There is no science that looks at rivers and ground water. If you have a healthy wetland feeding a river, will it make a healthy river? We simply don't know how.
- Dr Russell Death: There isn't the science to use wetlands, lakes or groundwater in the model and recommend against including them. I have been influenced by the NPS-FM. You could come up with your own thresholds but it's often best to work within the framework that has been imposed. I think they are reasonably good so let's go with what we've got, the exception is nitrates.
- Dr Russell Death: The only contentious issue is nitrates. There is no nitrate in the NPS-FM but I've decided to include it and not to include Nitrate Toxicity as it won't help us. Having a nitrate threshold will enable you to predict will happen if we do X and Y. So, the model is considering ecological health, Mahinga Kai health, tuna measures and cultural distress. It will include data around some pathogens – E. coli and campylobacter.
- Periphyton and macrophytes, chemicals, heavy metals (suggest black box where the river doesn't breach any of the Macroinvertebrate Community Index (MCI)).
- There is no reason the Whaitua can't say that they want zinc levels to be at X but I don't know how it's impacted by land use, there isn't enough info to include it in the model.
- I don't know if we have the data to model dissolved oxygen here. I think there are Dissolved Oxygen (DO) loggers i.e., invertebrates and fish. DO is important but I think a better measure is whether your Fish Index of Biotic Integrity (FIB) and MCI are high. We can monitor DO without it being in here. Want you to be comfortable with what you measure. The problem is we don't have a lot of DO monitoring in the catchment.
- The end box includes a measurement of what the state of the system is.
- There are better measures than temperature. If a stream is 10 degrees is that good and bad? I can go to a stream and look at the macrophytes and know what is going on for that stream.
- Macrophytes and stream cover are a big issue for Kapiti. Noting that the model can't distinguish between native and exotic macrophytes. It would be ideal to have it more nuanced but it's just not possible to achieve that.
- Important to reiterate that the model describes the linkages between these things and hopefully we can support this with data. Be up to the Committee to determine what the specific threshold rules are.
- Riparian margin as a measure is useful. Land use goes through the riparian strip which will reduce the amount of phosphorus in your waterway. If no riparian margin, then it will come off the land and straight into the stream.

DECISION: To continue with the 'boxes' of model components following discussion with Russell.

3:00pm Afternoon tea (15 mins)

ITEM 6 – TARGET SETTING SITES IN FMU’S AND RECOMMENDATIONS FOR MONITORING

a) Discussion and agreement of extent and considerations for target setting sites. Kāwanatanga paper to table (Senior Catchment Advisor)

- Specific decisions that relate to your TOR attributes need to be set at a targeted attribute site. The paper offers a set of considerations that GW can offer to that space. Our recommendation is that MW take this away and consider what other considerations need to be accounted for. Evan has been speaking to the wider monitoring network, which is separate, to make the distinction.
- P. 6 and Figure 2 includes a map of possible target setting points within your proposed FMUs and there are a bunch of considerations in the paper.
- Kāwanatanga: In relation to Table 2 it would be good to know exactly where the monitoring sites are.
- Mana Whenua Whare: With the selection of monitoring sites we need to be clear on what picture we are trying to create. Feeder streams are often where the problems are.
- QUERY - Mana Whenua Whare: How flexible are the monitoring sites in the future?
Evan: If you’ve locked it in the FMU you’d want to get it consistent. You’ve got to link it back to the purpose of the monitoring site-especially if you want long term data on an FMU monitoring system you don’t want to move them around.
- QUERY - Mana Whenua Whare: What happens when we get D’s and E’s? How does the monitoring framework link with future action plans to improve the water quality. If it’s not triggering action, why do it? Evan - This is the whole point of why GW has changed our approach. Issues should go from our Knowledge & Insights team to Policy so they can determine the actions that need to be taken.
- Mana Whenua Whare: It seems important to look to the places where there are problems to monitor as otherwise it will just be status quo with no action.
- Mana Whenua Whare: I think we frame it that we know there are issues in our catchment, and we want to monitor in places where there are issues, so it reflects the challenges within the FMU. The monitoring will allow us to put in action plans. Might not be an immediate action but I’d also say that to reallocate discharges and water takes, is the lever that will allow us to do that. Also, there is a requirement for councils need to respond to degradation within the NPS-FM.
- ACTION: Mana whenua whare to take away and consider the considerations for assigning target attribute setting sites and come back to the Tiriti whare with their proposal.
- ACTION: Provide the longitudes and latitudes of proposed sites to Aaria/Mana Whenua Whare to compare with own mapping.
- ACTION: Provide zoomed in maps of each proposed site so the proposed positioning is more visible.

b) Evan Harrison (Manager, Knowledge, Knowledge and Insights, GW) will be available to respond to questions and discussion on GW's monitoring network and approach.

- Will provide an overview of work we are starting to scope around the review of our monitoring network. An important part of this review is to hear from our partners, local knowledge is important.
- Want to hear from the Committee what you'd like us to think about as we figure out what monitoring needs to do in the coming period.
- Knowledge and Insights Team are working on three key pieces: a monitoring review (looking back), evaluation and monitoring framework (looking forward) and a knowledge framework.
- Phase 1 – includes a stock take and gap analysis of GW monitoring programmes. Finalising the scope now.
- Phase 2 - This will then link into the evaluation framework and the knowledge framework.
- The monitoring for each programme will also be detailed.
- The DO attribute. If its compulsory, we are just going to have to point our monitoring officers towards and continuous monitoring is something we need to move into.
- The Whaitua recommendations can flow into what the monitoring looks like where to monitor and what to monitor. Local knowledge is key and that is something that we want to have come into it.

c) Workshopping to combine understandings of current state and establishing initial agreement on priority issues for management

- Dr Russell Death: there are monitoring knowledge gaps – macrophytes, campylobacter, the health of tuna and habitat quality change. Evan highlighted that there are staff who can assist.
- Mana Whenua Whare: There are a number of sites that we want to look at but we don't have the resources. Is resourcing available to create an active partnership to deliver the monitoring needed to align with the Whaitua process?
- Kāwanatanga Whare: There are lots of community groups who are doing a lot of restoration work along the awa. Citizen science opportunity.
- Mana Whenua Whare: We've got a resource which doesn't always require the council to deliver. Some of these actions could be answered quite quickly with iwi and community. We can get a workforce we just need the investment.
- ACTION: for GW staff to meet with Russell (Thurs 2/11) to identify most valuable data gaps that summer monitoring could contribute to for modelling approaches.

- ACTION: GW to follow-up with Mana Whenua Whare on investigation priorities and how to deliver summer monitoring for Whaitua purposes to strengthen evidence around Committee decisions and the modelling approach.

ITEM 7 – Lakes and Wetlands

1. **Management recommendations for Lakes, Wetlands and Groundwater quality**
 - a) **Workshopping for agreement on priority issues for management and which Lake water bodies for which target attribute states should be set (GWRC staff)**

LAKES:

- Lakes are not clearly defined in legislation; there is scope for many of Kāpiti's lake-like waterbodies to be managed as lakes, including some man-made lakes (mostly stormwater attenuation ponds) which have community value (e.g., waka ama), and wetlands with open areas of water (lagoons), although most of these are unsuitable for setting Target Attribute States due to salt intrusion / existing management and protection under GWRC wetlands programme.
- Recommendation is to choose a handful of lakes to set Target Attribute States.
- Setting Target Attribute States for a lake automatically triggers the requirement for that lake to have an Action Plan drafted and implemented. This will be done by GWRC in consultation with mana whenua and community.
- Kāwanatanga Whare chose the following 4 lakes:
 - Lake Waitawa (recommended by GW)
 - Lake Waiorongomai (recommended by GW)
 - Lake Ngārara (recommended by GW due to availability of current state information)
 - Lake Ngātōtara (chosen by Kāwanatanga Whare due to importance as historical lake. Currently managed as a wetland; scheduled in the NRP as a wetland and site of significance for Ngā Hapū).
- The NPS-FM requires target states to be set for 11 lake attributes; Greater Wellington has added dissolved copper and dissolved zinc for a total of 13 lake attributes.
- Given the current lack of data on most lake attributes and based on the discussion from the Kāwanatanga Whare caucus (Oct 25), Greater Wellington kaimahi recommend the following steps for the Tiriti Whare:

Step 1:

- Confirm four lakes to set Target Attribute States for: Lake Waiorongomai, Lake Waitawa, Lake Ngārara, and Lake Ngātōtara;
- Set Target Attribute States for these lakes at the National Bottom Line; where these are already above the NBL, attributes are to be maintained or improved.

Note that setting Target Attribute States for these three lakes will trigger Action Plans to be drafted and implemented for these lakes in consultation with mana whenua and communities.

Although the NBL is the minimum required Target State (which may not be desirable for the Committee), expert advice indicates that this improvement in water quality for Lakes Waorongomai and Waitawa would be both significant and difficult to achieve given their current level of degradation. Therefore, reaching the National Bottom Line is considered the first step; stepped timelines for further improvement could be captured in other stages of the process (e.g., Action Plans and environmental outcomes can recommend reassessment and development of future Target Attribute States).

Step 2:

- Include a specific environmental outcome for these four lakes to capture the Committee's vision.

To help inform the Action Plans for the four recommended Target Attribute State lakes, it is useful to understand exactly what the Whaitua Kāpiti Committee want these lakes to be like.

Especially in the case of Lake Ngātōtara, which is currently protected and managed as a wetland, it is helpful to understand exactly what the Committee wishes to achieve by managing this waterbody as a lake (i.e., what values—mahinga kai, whakapapa, etc).

The final paper (sent out EOD) will include an environmental objective drafted by kaimahi for the Committee's consideration.

Step 3:

- Include a specific environmental outcome to capture all other lakes.
Te Whaitua o Kāpiti includes several hundred lake-like waterbodies, including stormwater attenuation ponds, wetland lagoons, and ponds. Setting an overarching environmental outcome for all other lakes will effectively capture the management and protection of those lakes for which Target Attribute States will not be set.

An environmental outcome for all other lakes is included below for the Committee to consider:

The final paper (sent out EOD) will include an environmental objective drafted by kaimahi for the Committee's consideration.

WETLANDS:

The NRP includes 49 Scheduled wetlands in te Whaitua o Kāpiti: 46 in Schedule F3 (identified natural wetlands), and 3 in Schedule A3 (outstanding indigenous biodiversity values).

Discussion:

- Mana whenua Whare: We need direction on how the WIP can address lakes, wetlands and groundwater.

- Mana whenua Whare: What's considered a lake? If there is a technical view that we can't set target attributes under the NOF directly to lakes, can we still make recommendations on how we should manage the FMUs knowing that there are those issues in the wider catchment? We can't be measuring just the health of the channel. Want to bring a technician to the next hui to make sure we cover this off. There is a real risk that the needs of these lakes are ignored.
- Mana Whenua Whare: Would like the opportunity to review the report so meaningful feedback can be provided.
- Mana Whenua Whare: While each of the wetland lake areas might not meet the definition of a lake there are dozens of them. Ground water and surface water interactions are complex, like Te Hapua and feel too big to ignore.
- Kaimahi: with regards to wetlands and lakes, most of the big wetlands, they are managed under a separate wetlands process and is as rigorous as we can make it within the regulations.
- Mana Whenua Whare: The view of manmade vs natural, whether the distinction is important.
- REQUEST - For direct recommendations from GW staff/kaimahi to come to Tiriti whare on Lakes, Wetlands, Groundwater quality and any other 'out of model' matters. This advice should include any of Drivers, Issues, Recommendation proposals for the WIP, types or draft of plan content, and target attribute state recommendations.
- REQUEST - Examine if the Te Hapua wetland complex has any needs in policy/management, has a key groundwater component to its dynamics.
- REQUEST - For response on whether surface water FMU targets will be sufficient to manage outcomes for non-NOF-Lakes (those without Lake target attribute states).
- DECISION – The Taurite to decide if they want a meeting, possibly with Kathie, could be an option to 'convene the tiriti whare' and make agreements on these matters outside of the two remaining meetings. Taurite to advise how to proceed i.e. Zoom.

ITEM 8 - Communications, Messaging and Engagement options and direction

- DECISION - Approval to put current draft decisions and meeting documents on the Waitua website.

a). Tiriti Whare direction on the approach for Comms and Engagement from now to WIP completion and following WIP being formally received by GW Council.

- Kaimahi sought recommendations for suitable graphic design suppliers for the WIP and comms products.
- ACTION: Mana Whenua Whare to provide details of potential designer.
- DECISION - The Taurite as a path for signoffs for approvals to progress comms work that does not require the whole Committee.

- Kaimahi sought any preferred motifs to inform design E.g., Tuna-Otaki, Kanae-Waikanae. Mana Whenua offered Haerenga waka, paddling from Ramaroa to Otaki via the old wetlands.
- DECISION: Important to seek designers that can represent concepts that have been developed/shared through the process.

b). KCDC Climate and Environment Committee on 07 November GW Council on 16 November

- Confirmed 30 min slot on Jocelyn's Committee 07 November. Kaimahi highlighted that the Committee is a public forum so don't want to say anything that's not in the public forum. Request for a MW rep to attend.
- DECISION: Michele to work with Claire through the Taurite to sign-off key messages for GW Council slot. Time of the GW Council meeting on 16 November 2023 to be confirmed and Committee members welcome to attend.

4:45pm – Karakia, Finish and Depart

CONFIRMED ACTION REGISTER

Note that all actions captured during the Committee meeting must be clearly stated as an action and providing instruction to minute taker to note down. If there is no clear instruction to capture an action, it will be included in the requests log/eddy.

Opened	Action	Owner
01/11/23	Item 1 - Set-up a meeting with GW senior staff and co-ordinators (Nicola, Michele, Claire, Phill), Taurite and Kathie re: next steps following December completion of this phase of work.	GWRC
01/11/23	Confirm Agendas for 06 and 13 December as early as possible. This clarifies which outcomes will be sought to conclude the mahi for 2023.	GWRC
01/11/23	Communicate target dates for forthcoming documentation (WIP, S32 etc) as soon as possible to Committee to allow for reviews and caucusing.	GWRC
01/11/23	Kaimahi to follow up heavy metals request as response back to Tiriti whare and a recommendation for the Committee to address this topic.	GWRC
01/11/23	Link on latest Quality of Life survey to be distributed.	GWRC
01/11/23	Kaimahi to provide a summary of what has been learnt from the previous Whaitua and the recommendations in relation to monitoring.	GWRC
01/11/23	Kaimahi to provide a zoom up visual of Figure 2 - map of possible target setting points within the proposed FMUs.	GWRC
01/11/23	Mana whenua whare to take away and consider the considerations for assigning target attribute setting sites and come back to the Tiriti whare with their proposal.	MW
01/11/23	Provide the longitudes and latitudes of proposed sites to Aaria/mana whenua whare to compare with own mapping.	GWRC
01/11/23	GW staff to meet with Russell (Thurs 2/11) to identify most valuable data gaps that summer monitoring could contribute to for modelling approaches.	GWRC
01/11/23	GW to follow-up with Mana Whenua Whare on investigation priorities and how to deliver summer monitoring for Whaitua purposes to strengthen evidence around Committee decisions and the modelling approach.	GWRC
01/11/23	Mana Whenua Whare to provide details of potential designer.	MW

REQUESTS LOG/EDDY

Note that all requests said during the Committee meeting by either of the Whare will be captured in this request log/eddy. If it was not clearly stated or instructed to be captured as an action, it will stay here until it is officially confirmed as an action.

Opened	Request	Owner
01/11/2023	<p>For the Committee to be provided target dates for the documents so planning can occur, and time set aside to review documents.</p> <p>Requested from: Te Tiriti Whare (Item 1)</p>	GWRC
01/11/2023	<p>For direct recommendations from GW staff/kaimahi to come to Tiriti whare on Lakes, Wetlands, Groundwater quality and any other 'out of model' matters. This advice should include any of Drivers, Issues, Recommendation proposals for the WIP, types or draft of plan content, and target attribute state recommendations.</p> <p>Requested from: Mana Whenua Whare (item 7)</p>	
01/11/2023	<p>Examine if the Te Hapua wetland complex has any needs in policy/management, has a key groundwater component to its dynamics.</p> <p>Requested from: Mana Whenua Whare (Item 7)</p>	
01/11/2023	<p>Response on whether surface water FMU targets are sufficient to manage outcomes for non-NOF-Lakes (those without Lake target attribute states).</p> <p>Requested from: Te Tiriti Whare (Item 7)</p>	
01/11/2023	<p>That a meeting of the Taurite, possibly with Kathie, could be an option to 'convene the tiriti whare' and make agreements on these matters outside of the two remaining meetings.</p> <p>Requested from: Te Tiriti Whare (Item 7)</p>	

DECISIONS LOG

Note that all decisions captured during the Committee meeting must be clearly stated as an action and providing instruction to minute taker to note down. If there is no clear instruction to capture a decision, it will be included in the requests log/eddy.

Opened	Decision	Update
01/11/2023	Item 1 – the 08 November hui be cancelled and a new hui date, 13 December, be added.	
01/11/2023	Item 1 - to focus on and review draft WIPs, S32 and other docs prior to decisions hui and caucused.	
01/11/2023	Item 1 - Kāwantanga Whare deeply respects and accepts the evidence of current state and the importance of the mana whenua attributes presented and that this material will be included in the package going forward.	
01/11/2023	Item 5 - To continue with the ‘boxes’ of model components following discussion with Russell.	
01/11/2023	Item 8 - To put current draft decisions and meeting documents on the Whaitua website.	
01/11/2023	Item 8 - The Taurite as a path for sign-offs for approvals to progress comms work that does not require the whole Committee.	
01/11/2023	Item 8 - Important to seek designers that can represent concepts that have been developed/shared through the process.	
01/11/2023	Item 8 - Michele to work with Claire through the Taurite to sign-off key messages for GW Council slot. Time of the GW Council meeting on 16 November 2023 to be confirmed and Committee members welcome to attend.	

Appendix:

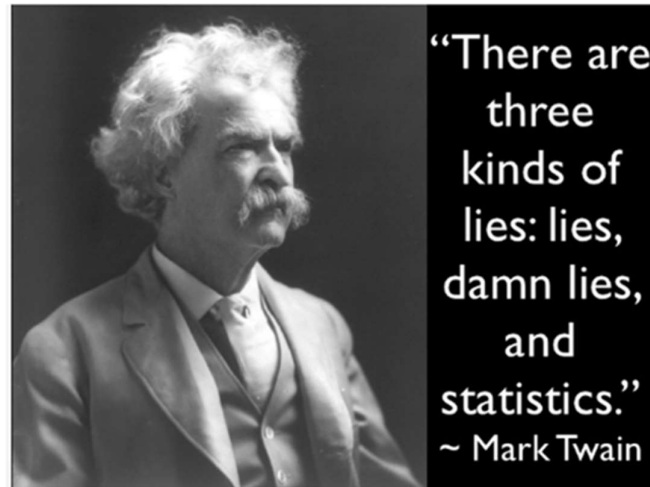
Appendix 1 – (Agenda item 2) Mana Whenua Whare – Presentation on understanding of the current state of freshwater across the whitua and the key drivers these are connected to (Mahina-a-rangi) - Mackays to Peka Peka (M2PP) Kaitiaki Monitoring Programme Report 2023. Prepared by Te Kōnae Limited for Ātiawa ki Whakarongotai Charitable Trust
- Greater Wellington does not own rights to publish.

Appendix 2 – (Agenda Item 4) State of the environment presented to the Kāwanatanga Whare by GWRC staff.

State of the Environment and Drivers of Water Quality on the Kāpiti Coast

A Greater Wellington overview of the current state
of the environment in Whaitua Kāpiti

A presentation to the Tiriti House of the Whaitua Committee
Senior Advisor Environment
11 November 2023

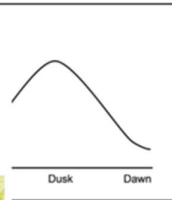


SOE monitoring – What it **doesn't** tell you

Dead eels found in Waikanae waterway

Kapiti News
By David Haxton
30 Jan, 2019 04:09 PM · 2 mins to read

Save Share



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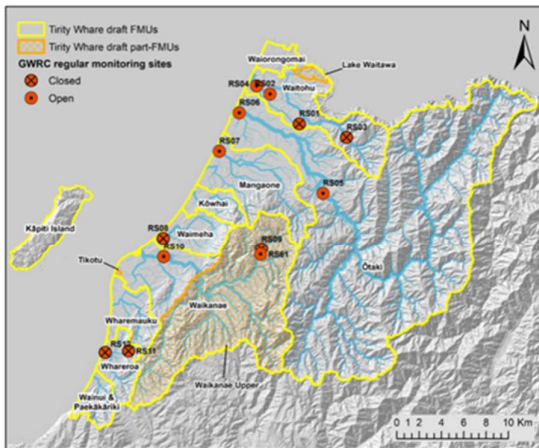
Some key water quality and ecological attribute states compared against the NOF

Site Name (surrounding land cover/substrate type)	Nitrate Nitrogen	Dissolved reactive phosphorus	Water Clarity	E. coli	MCI	Periphyton Biomass
Mangapouri Stream at Bennetts Rd (Urban/Soft)	B↑	D↓	D↑	D↑	D↑	Not measured
Waitohu Stream at Norfolk Crescent (Pasture/Soft)	A↑	C↓	D	D	D↓	Not measured
Mangaone Stream at Sims Road Bridge (Pasture/Soft)	B↑	D↓	C↓	D↓	D↑	Not measured
Otaki River at Pukehinou (Indigenous forest/Hard)	A	A↓	A	A↓	B↓	Not measured
Otaki River at mouth (Indigenous forest/Hard)	A↓	A↓	A↑	A	B↑	A
Waikanae River at Mangaone Walkway (Indigenous forest/Hard)	A	C↓	A↓	A	A	Not measured
Waikanae River at Greenaway Road (Indigenous forest/Hard)	A↓	B↓	A↑	A↓	B	A

Data source: <https://www.gw.govt.nz/annual-monitoring-reports/river-water-quality-and-ecology/nitrogen.html>

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GW monitoring sites and proposed FMU's



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Example of current state info – Waitohu and Wairongamai

Parameter	Unit	Statistic	Waitohu FMU						Wairongamai FMU	
			Waitohu @ Forest Park (RS63) Closed 2016		Waitohu @ Norfolk Crescent (RS64)		Mangapouri Stream at Bennetts Road (RS62)		Lowland Rural Site	
			Baseline	Current	Baseline	Current	Baseline	Current	Baseline	Current
Periphyton biomass	mg chl. a/m ²	95 th %ile	Band	Band	Band	Band	Band	Band	Band	Band
Ammonia (toxicity)	mg/L	Median 95 th %ile	A		A	A	B	B		[B]
Nitrate (toxicity)	mg/L	Median 95 th %ile	A		A	A	B	B		[A]
Suspended fine sediment	Black disc (m)	Median	A	[A]	D	D	D	D		[D] [A]
E. coli	/100mL	Median % <250/100mL % <540/100mL 95 th %ile	A	[A]	E	E	E	E		[E]
Fish	Fish-IBI	Latest		[A]	A				[B]	
Macroinvertebrates (1 of 2)	MCI	Median	A	[A]	D	D	D	D		[C]
Macroinvertebrates (2 of 2)	ASP#	Median			D	D	D	D		
Deposited fine sediment	%cover	Median	A*		A*	D*				
Dissolved oxygen	mg/L	1-day minimum 7-day mean minimum								
Dissolved reactive phosphorus	mg/L	Median 95 th %ile	B	[B]	C	D	D	D		[D]
Dissolved copper	µg/L	Median 95 th %ile	B*#				C	C		
Dissolved zinc	µg/L	Median 95 th %ile	A*#				B	B		
Ecosystem metabolism	g O ₂ /m ² ·d ⁻¹	10x ³								

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Other sources of info

			Waikato FBU				Waikaremoa FBU				Waikanae FBU					
			Waikato Stream @ Oak Road (2017)		Mangaone Stream @ Oak Road (2017)		Waikaremoa Stream @ Kauri Grove (2016)		Waikaremoa Stream @ Kauri Grove (2016)		Waikanae River @ Oak Road (2017)		Waikanae River @ Oak Road (2017)		Waikanae River @ Oak Road (2017)	
Parameter	Unit	Statistic	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream
Microbiologicals (1 of 2)	BCU	Median	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Microbiologicals (2 of 2)	QMC1	Median	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Microbiologicals (3 of 3)	APSW	Median	C	C	C	C	C	C	C	C	C	C	C	C	C	C

			Whanganui FBU		Waikaremoa FBU	
			Whanganui Stream @ Oak Road (2017)		Waikaremoa Stream @ Oak Road (2017)	
Parameter	Unit	Statistic	Upstream	Downstream	Upstream	Downstream
Microbiologicals (1 of 2)	BCU	Median	C	C	C	C
Microbiologicals (2 of 2)	QMC1	Median	C	C	C	C
Microbiologicals (3 of 3)	APSW	Median	C	C	C	C



Groundwater and Estuaries

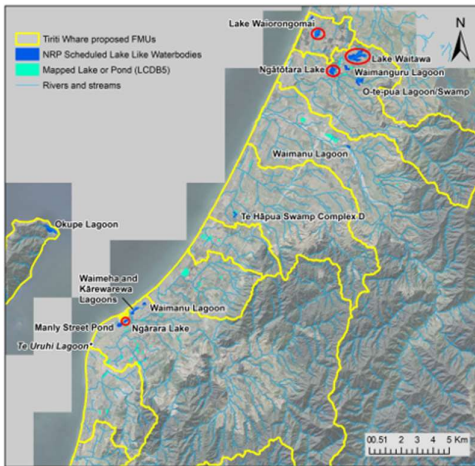
			Otaki									
			Waikato FBU				Otaki FBU					
			Waikato Stream @ Oak Road (2017)		Mangaone Stream @ Oak Road (2017)		Waikaremoa Stream @ Kauri Grove (2016)		Waikaremoa Stream @ Kauri Grove (2016)		Waikanae River @ Oak Road (2017)	
Parameter	Unit	Statistic	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream
Nitrate-Nitrogen	mg/L	Median	Below NPL	Below NPL	Above NPL	Above NPL	Below NPL	Below NPL	Below NPL	Below NPL	Below NPL	Below NPL
E. coli	cfu/100ml	Maximum	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

2022 monitoring results for Waikanae Estuary

Syr mean sedimentation rate (mm/yr)	10yr mean sedimentation rate (mm/yr)	RPD (cm)	Mud content (%)
-1.8	8.6	30	8.6



Lakes and wetlands



*Scheduled in the NRP but no longer exists as a waterbody



Drivers of water quality

