

TANK Collaborative Stakeholder Group

Meeting 40 - Record



When: 31 May 2018, 9:00am start
Location: Ellwood Function Centre, 12 Otene Road, Waipatu, Hastings, 4172

- Note: this meeting record is not minutes per se. It is not intended to capture everything that was said; rather it is a summary of the proceedings with key comments noted. *Text in italics indicates a response from HBRC to questions posed during the meeting.*
- *Where additional information has become available subsequent to the meeting (such as answers to questions unable to be answered in the meeting), this is included in red italics*

Key to text boxes

	Actions required
	Recommendations
	Decisions, agreement/disagreement

1. Meeting Objectives

1. Receive information about the Draft Drinking Water Source Protection
2. Receive the Tutaekuri Values report
3. Draft Plan - Identify areas of consensus and understand the solutions and alternatives being sought

2. Welcome and karakia

Robyn welcomed everyone and blessed the meeting with a karakia

3. Apologies, Housekeeping and other matters

Nine TANK Group members provided apologies.

Robyn went through the housekeeping, ground rules for observers and other matters.

4. Notices

Robyn noted that Terry Kelly (observer) was present at meeting 39, it was not noted in the minutes.

5. Introduction – Objectives for the day (Mary-Anne Baker)

Mary-Anne noted that the Draft Drinking Water Source presentation is a result of work being done by the Joint Drinking Water Group, providing feedback on what their work is going to entail.

The aim for the Draft plan discussion will be to achieve consensus and highlight where the non-consensus items are. Mary-Anne spoke to the action points.

Mary-Anne explained to the Group that Sandy has been away the past month therefore we have been unable to progress any of the work in relation to the amendments for the freshwater quality attributes table presented at meeting 39.

6. Drinking Water Safety – Rina Douglas

Rina spoke to the TANK Group of the work the Joint Working Group has been doing on their behalf. At meeting 37 the JWG was given a mandate to look at potential rules and drinking water safety. A decision was made by the JWG to get some expert help given the tight timeframes. The JWG engaged Good Earth Matters to do work on their behalf. Rina asked the Group if they could couch their feedback and questions with that in mind. Rina will take back any comments and feedback to the JWG. No recommendations have been made by the JWG, it's just an update as to where things are with that work.



The above diagram was presented – identifying the way that drinking water services are provided in the region. Regional Council provides the science and management around resources, the two TLA's Napier and Hastings providing the facilities and Services and DHB with health services. Everyone is working together and there is a constant flow of information.

7. Annette Sweeney – (Principal) Good Earth Matters

Annette introduced herself, noting her experience as Environmental Engineer in Water Services, holding a Masters in Resource Management, having worked on Public Health Risk Management Development Plan and currently working with the HDC on their Drinking Water Strategy.

Annette summarised what her presentation would entail

- why we need some RMA provisions to protect drinking water supplies;
- what water sources are in the TANK catchments so that we know exactly which sources we are talking about;
- the activities and risks that need to be managed and how the source protection zones are determined;
- the options for Regional plan provisions and
- What recommendations could be made to the Joint Working Group.

Annette noted that no decisions were required at this meeting, but raised the question - why we need source protection? Water is a precious taonga, it is highly valued in its own right and is a source of human drinking water. We have RMA and National Environmental standards which require that drinking water be protected as a source. The Board of Inquiry findings feed into the RMA framework. The RPS and Regional Plan objectives provide a strong objective around no degradation of groundwater across the whole region. GEM (Good Earth Matters) are looking at the source protection region, and whether there a need for a high level preventative risk management. The Board of Inquiry are really focused on six fundamental principles of drinking water, these are:

1. Highest standard of care
2. Protection of Source water (Driver for this work)
3. Maintaining multiple barriers against contamination
4. Change proceeds contamination (Constant of changes within the source)
5. Suppliers must own the safety of the drinking water
6. Preventative risk management approach.

Principle 2 is the key driver for this work, the Protection of Source water being of paramount importance. It is of paramount importance that risks to sources of drinking water are understood, managed and addressed appropriately.

Principle 6 applies preventative risk management approach and provides the best protection against waterborne illness. Once contamination is detected, contaminated water may already have been consumed and illness may have already have occurred. Accordingly, the focus must always be on preventing contamination. This requires systematic assessment of risks throughout a drinking water supply from source to tap; identification of ways these risks can be managed; and control measures implemented to ensure that management is occurring properly.

RMA & NES (Sources of Human Drinking Water)

Source protection included in Part 2 of the RMA is implicit, not explicit. To promote the sustainable management of natural and physical resources. Managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety. The Board said that National Environmental standard for the protection of sources of human drinking water was around trying to plug a legislative gap, that was an attempt to make that requirement as implicit in Part 2, explicit for the protection of source water.

Questions and Comments

Member - Source Protection Zones, is this rural communities as well? How do you determine a community source, is that water supply to twenty or more households.

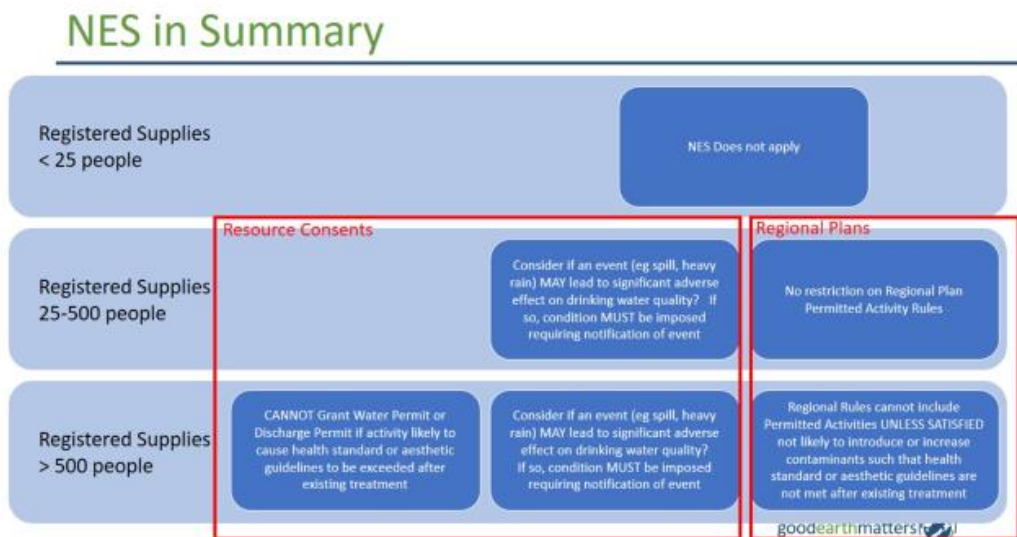
Annette - This work is focused on registered drinking water supplies which are community supplies rather than self-supplies which are the individual households. The registered supplies are through the drinking water provisions, a lot of that is driving through from the NES.

Member - An example of that is here at Waipatu, we have 10-12 elders on that community supply and neighbouring those are other individuals getting water from another source.

Member – The rules (and regulations applicable to registering drinking water supplies and implications of being registered or unregistered in MOH/Health Act terms) are quite complicated. Anyone can register they just need to go to the DHB. If you have what is called a specified self-supply, that means you are a self-supplier but that you have a facility that serves the public e.g. Marae, then you’ll be a specified self-supplier and you should be on the register. The provisions of the NES go further and say how many people are actually receiving the water. That is something a lot of people have concerns about.

Annette noted you can have a Regional Plan which goes further than the NES. The NES provides different categories depending on how many people are supplied by a water source.

- Registered Supplies < 25 people
- Registered Supplies 25-500 people
- Registered supplies > 500 people



NES provisions don't apply for supplies for less than 25 people. The NES has provisions about how resource consents are dealt with in relation to sources of drinking water supplies serving over 25 people. In terms of the resource consents, these are activities which require consents under the Regional Council (limited to water takes and discharge permits).

What is a protection zone and how big it is? Any resource in an area which is upstream, the NES requires the Regional Council in considering that consent, to think about an event which could happen such as a spill, heavy rainfall event that may lead to a significant adverse effect on drinking water quality. If Regional Council grant a consent, they have to put a condition on that consent which says that if that event occurs the consent holder needs to notify the Regional Council and

the Water Supply Authority so that means they can then take preventative action for that event. For registered suppliers who service more than 500 people, there is a requirement in the NES that says Regional Council cannot grant a water permit or a discharge permit if the activity would cause a health standard (New Zealand Drinking Water Health Standards) or one of the aesthetic guidelines to be exceeded after the level of existing treatment for that water supply.

Questions and Comments

Member – Does the current Resource Management Plan have permitted activities that are likely to introduce or increase contaminants?

Annette – I have some concerns but can't answer definitively

Member – What is 'likely' with the 30%? Is that something the JWG will provide advice on?

Annette - I don't have a good answer but we are looking at risk activities and how those risks play out into the water supply area. What that threshold is for 'not likely to' is the question and what the Board is saying is that water supply should take a precautionary approach when it comes to that

Member – Noted that the JWG are talking about very high levels of protection.

Annette highlighted the following:

- A Regional Plan may be more restrictive in the National Environmental Standard.
- The NES (2008) says that you don't have to change the rules in the regional plan immediately, however it must be changed during a scheduled plan change or plan review. In this process we look at whether those permitted activity rules meet the NES standard.
- The question about what is upstream or up gradient in terms of groundwater is problematic and one of the issues that has potentially held back the implementation of the NES on a nationwide basis.
- There has been a lack of information, therefore it has been quite hard for the applicants and Regional Councils to implement this in a meaningful way.

Questions and Comments

Member – How far are we in meeting the principles and understanding the limitations with TANK?

Annette – There has been an amazing amount of work done in the last two years speaking from the work HDC have been doing with Hastings supplies. The understanding around SPZ's is much greater but can always be improved. There is a huge amount of collaboration and information sharing.

Robyn noted that there are some people around the TANK table who are in the JWG; Chris Dolley, Brett Chapman, Craig Thew, Nick Jones, Ngaio , some of whom are present today.

Member – Is there any consideration given to construction standards for water takes

Annette – There is work happening in this space. The Board of Inquiry's most likely cause of the contamination of drinking water was the contamination of the aquifer. They are managing construction standards from the source (abstraction point to tap) this is about managing from that point so work occurring in both areas.

Member – At the moment there are rules in the Resource Management Plan about the creation of the bore (drilling) and the JWG propose that there should be use rules as well that will ensure that those activities are not creating risk. Not just the drinking water bores but the surrounding bores that are potentially at risk.

Member – Want clarification - can the TANK plan be more restrictive than the Regional Plan and RPS

Annette – The TANK Plan Change is a change to the Regional Plan.

Mary-Anne confirmed that the TANK Plan Change would give effect to the Regional Policy Statement, but the RPS doesn't include rules.

Member – We might want to propose a change to the Regional Policy statement as well

Annette – Anything we propose must be consistent with the RPS and must give effect to the objectives and policies. If there are not strong enough objectives and policies in the RPS we may need to look at whether there needs to be some changes but that is entirely out of the scope at the stage.

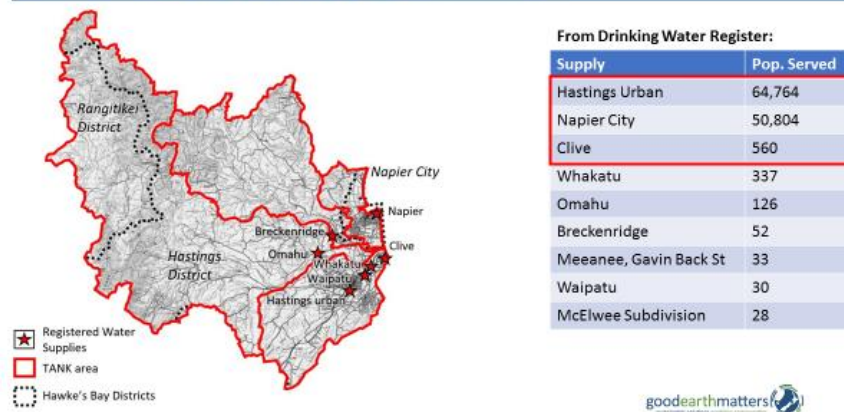
Member – The recommendations that the JWG will be making to the TANK Group will be limited in terms of the provisions that can go into the Regional Plan and limited in terms of the scope of all the work that the TANK group have collectively done. The JWG can make recommendations to change the RPS, this would not be comprehensive but suggest further work to be done.

Annette – The JWG have signalled they want to look at what happened to drinking water in the wider region. Annette noted that there are only three supplies that meet the 500 persons threshold; Hastings Urban, Napier City and Clive. The other ones which are registered do meet the 25 people threshold although what’s already been indicated is that there a lot of other community supplies throughout the region that are probably less than that are not yet registered.

Member – There will certainly be other supplies with greater than 25.

Annette – There some in the Hastings area that were greater than 25 such as Waimarama, but fall outside of the TANK catchment.

Drinking Water Supplies in TANK



Risk Activities

GEM have looked at the guidance around how risk is assessed in water supply catchments (Nationally e.g. New Zealand Drinking Water Guidelines, internationally e.g. Australia World Health Organisation etc.). Generally a risk management approach is taken.

Annette suggested Part three of the Stage 3 Board of Inquiry Report provided good information regarding the sort of risk which could occur in source areas which prevent a risk.

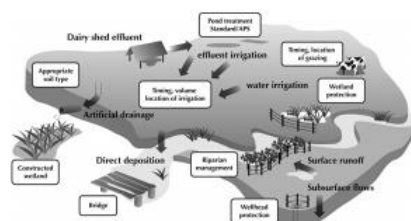
One of the issues with Havelock North which was an event based condition so that contamination got through after a heavy rainfall event. What they are looking at is the understanding of what happens in that heavy rain events or earthquake events which can cause upset conditions. They talked about being cognisant that the Aquifers can change, it’s a very dynamic environment and we probably an assumption that these things are reasonably steady state. The Board is saying, no they are not and that it is very dynamic and the permeability of Aquifers and Aquitards should be considered to be a dynamic variable.

Member – Can you please explain an Aquitard?

Annette – An Aquitard is the layer which basically slows down the chance for contaminants going from the surface through to the groundwater.

Risk Activities

- What sorts of activities are of interest in a water supply protection zone?



From: Guidelines for Drinking Water Quality Management, NZ

Table 9.5: Human activities and associated inputs into freshwater ecosystems with human health risks

Activity	Contaminants	Health risks
Agriculture and horticulture	Sediments Nutrients Pesticides and other toxic chemicals and metals Faecal microbial contaminants	Immune and endocrine disruption Retarded physical and cognitive development, blue baby syndrome
Industry	Nutrients Toxic chemicals and metals Oils	Foetal malformation and death
Mining	Sediments Toxic chemicals and metals	Nervous system and reproductive dysfunction
Urbanisation, infrastructure and development	Sediment Pesticides and other toxic chemicals and metals Oils Faecal microbial contaminants	Behavioural changes Cancers Waterborne disease
Recreation	Oils and fuel Toxic chemicals	

Modified after Stanley and Weinstein 2004.



Annette noted that protection is not about regulation as such, it needs to encompass, identify and understand the risks to drinking water sources and then addressing and managing them appropriately. Some activities may not be appropriate in a source protection zone but most of it is around understanding what's happening in the protection zone and how it is being managed and being certain how you validate that it's being managed appropriately.

GEM are looking at how those risk activities are currently managed, this is just a high level look at the Regional Plan and the source and activities that come through those National and International guidelines. Some activities are currently regulated through the Regional Plan. There are also activities which fall outside the Regional Plan e.g. hazardous substances and fuel storage tanks, they are predominantly managed through the Hazardous Substances Act.

Member – Do earthworks disturb the aquitard?

Grey – JWG have been looking at that in terms of understanding what risks are produced by earthworks over aquifers. Historically only regulated earthworks from the sediment. It is an area we are looking at whether it needs to be regulated further.

How are Risk Activities Currently Managed?

Activity	RRMP	Activity	RRMP
Fertiliser application	Permitted	Stormwater	New TANK provisions
Pesticides / Agrichem	Permitted, GrowSAFE	Vegetation clearance	Permitted (conditions apply)
Wastewater Disposal	Permitted – Discretionary (depends on scale & system)	Bore drilling	Controlled – consent must be granted
High Stocking Rates	Feedlots are Permitted (conditions apply)	Abandoned / unmaintained bores	Non-Complying
Offal Pits or similar	On-property: Permitted	Bore decommissioning	Permitted – no consent required.
Solid waste disposal	On-property: Permitted Otherwise requires consent	Landfills	Controlled - Discretionary
Animal Effluent Disposal	Controlled		
Hazardous substances	HASNO	Foundation Piles, poles	Building Act ?
Fuel Storage Tanks	HASNO	Earthworks	District / City Plans
Mining	District & Regional Plans	Road runoff	District / City Councils / Stormwater Rules
Wastewater reticulation	District / City Councils		



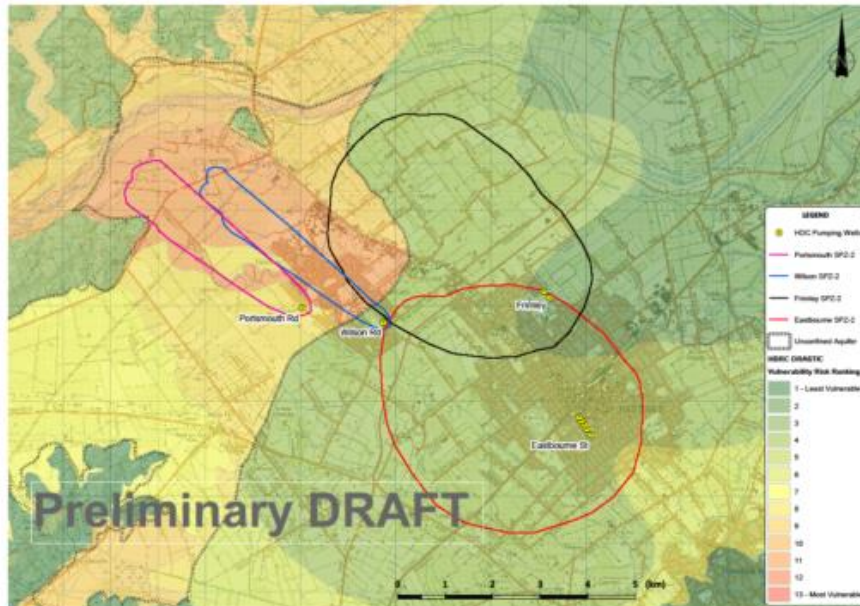
Annette referenced work done by GNS which are capture zone guidelines for New Zealand. The three different types of zones are.

1. Capture Zone – TOTAL area that contributes to water that will eventually end up at the abstraction point
2. Protection Zone – Area defined by travel time of water to the abstraction point
3. Microbial Protection Zone – 1 Year travel time based on bacteria and virus

Tonkin + Taylor have found that the 1 year travel time is appropriate to the majority of chemical contaminants so the source protection zone is the area where it will take less than a year for the groundwater to get to the abstraction point.

There is also a smaller zone which is a 5m radius termed the Immediate Protection Zone – this zone is generally ‘owned’ by a municipal supplier. This can have an immediate impact on the water source. In the absence of anything in the Regional Plan, Consents have been working to a generic radius of 2km out from a bore source.

For the Hastings Urban Supply there are four main borefields.



- The main borefield is Eastbourne Street - red circle (above image) is the source protection zone = 1 year travel time.
- The other main borefield is Frimley - green zone = 1 year travel time.
- Flaxmere Wilson Rd and one in Portsmouth Rd (smaller single bores) = fast travel time (hence the elongation with water coming straight through). Portsmouth Rd is still in use but within 18 months will move to an emergency supply back up and that has to do with stream depletion effects.

Questions and Comments

Member – Will the size of the pumps in those zones make a huge difference? Flaxmere and Wilson Rd pumps are huge hence elongated.

Annette – The SPZ's have been assessed at the maximum consented capacity which these bores are not operating at yet. The day to day operation at the moment, the actual SPZ will probably be smaller than those. Wilson Rd is consented for 80l/s whereas Eastbourne is consented for 560l/s, Portsmouth is 120l/s and Frimley is consented for 480l/s. It's to do with the speed of the Groundwater through there as to why they are elongated out that way.

Member – GNS in their re-mapping work have moved the unconfined aquifer (in the last six months) hundreds of meters in the direction of the Flaxmere bores so that the unconfined aquifer now is not that far short of those bores. When these bores are taking water at 300l/s pathways are established. The path is stretching further towards the unconfined aquifers. New water is showing up at Whakatu and that is miles away from the unconfined aquifer.

Member – Would a larger number of smaller bores have less impact? Portsmouth, Wilson and Frimley are all awfully close to the unconfined, semi-confined and confined aquifers, the potential risk is greater

Action: Annette to speak with Tonkin + Taylor about the unconfined aquifer boundaries, Tom to raise this with HBRC scientists.

Grey – The scope of work looking at protection zones around existing takes (consented takes) and how and if we need to apply this precautionary approach and what those provisions need to look like. More information to TANK is achievable within the next couple of months

Mary-Anne – We might not have all the solutions and further work may be required

Member – I wanted to point out that those borefields contain multiple bores so if you were going to try and regulate the intensity of water pumping, you would have to set not only some limits on each bore but also the space between them, I'm not sure that's going to be feasible

Member – I think it's difficult to turn around and make those recommendations but it's reasonable for us to point out that we identify this as a risk

Mark – It's a good question and if Vaughn is right the TA's would want to know

Annette – HDC are looking at what an optimised borefield layout may look like e.g. whether it is better to have a larger number of smaller takes or a smaller number of bores with larger takes.

Jenny – What do you mean by vulnerability?

Mary-Anne – It's more technical than I can answer. Its role was to identify areas where there was more risk to the aquifer by land use activities. It was representing where the unconfined aquifer and the more likely connections to groundwater were.

Annette – With regards to septic tanks there are a number which are present in these areas. Acknowledge the issue and the risk to both the groundwater and to the drinking water supplies.

Member – noted that existing bores and unused bores are also a potential risk. Regional Council and District Councils are doing some work in terms of their data base trying to capture unconsented bores

Mary-Anne noted that 'managing risk' decisions are not for this meeting. We need to consider what can be dealt with through the TANK plan change and what is outside of scope. There are other processes that will come out of the JWG analysis in relation to the work that GEM are doing. The JWG will provide information around what are the rational, reasonable options and identify when these can be implemented.

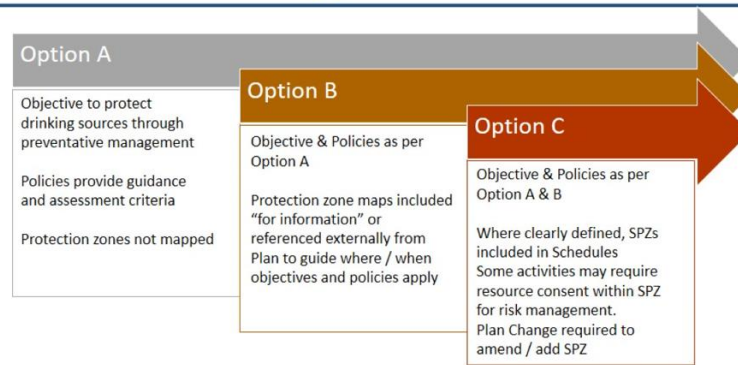
Tom also made note of the Sustainable Homes programme (LTP), one of the aspects of that is to support and fund the removal of old septic tanks so trying to get ahead of the regulation.

Member – With regards to timeframes, it seems there is a hurry through the work you are doing in order to meet TANK timeframes. I'm just wanting clarity because to me it seems like a compromise in the quality of your work and after six years of sitting in this process I'm not a fan of hurrying the plan.

Annette – We are very cognisant of the timeframes we needing to work to.

Robyn paused the meeting to allow her to discuss the process is in terms of the work JWG is doing and what relationship that has to the TANK process with Mary-Anne and Tom. Annette continued her presentation and the following options, which she noted were very high level:

Options for Including SPZs to TANK Plan



Supported by non-regulatory methods for sharing of information and agency co-ordination and collaboration.

Option A

- Annette noted that this option wouldn't 'talk' to the permitted activities.
- Protection zones would not be mapped through the Regional Plan

Option B

- Builds on Option A – brings the zone mapping into the Regional Plan
- Napier City is not mapped yet and we won't be able to put maps in the plan at this stage.

Option C

- Starts to address some of the permitted activity issues which may occur and this is getting into the regulation space.
- There would be objectives and policies with clearly defined source protection zones
- Rules may be included
- Don't have information for Clive or Napier – incorporation at a later date would require a plan change

Annette noted that there are assumptions that all of these options will be supported by some non-regulatory methods around sharing of information, agency co-ordination, collaboration and that there would be the suite of tools that are both in the RMA and non RMA process with the work that's been done looking at waste water reticulation, how we service communities or small houses which are not serviced at the moment.

Questions and Comments

Member – Which option would have meant that the Havelock problem didn't occur?

Annette - Option A would be doubtful. Option B, probably a good chance of having it prevented.

Member – How long will Option B take you to document to the point where it can be implemented in the TANK Plan Change

Mary-Anne suggested these questions need to be considered further by the JWG.

Member – Are we rushing the end of the Plan Change to get everything in? I'm interested in ensuring that Havelock doesn't go through another repeat event. Just recently it was shown that Karamu water was turning up in the Eastbourne bores and they are kilometres apart.

Mary-Anne – We've got some tight timeframes to meet and we've undertaken to deliver a Draft Plan Change to the RPC in August. In making recommendations, the JWG has to work out the best pathway given our timeframe constraints and there may be a need to map out a separate Plan Change process – possibly one that covers the whole region rather than just the TANK catchments. The scope is really big and potentially outside of TANK. We need to determine the most appropriate process to deal with this issue properly and that is a challenge for the JWG to map out the process.

Annette – GEM don't want to rush the process, developing an assessment of the options further and will consider the process which is best. Options are being considered by the JWG and will come back to TANK with their recommendations.

Member – noted that the minutes of the last JWG state that they have already ruled out Option A, unless there is a change in opinion.

Robyn explained that the comments from this meeting will be taken to JWG for consideration prior to them making a recommendation back to TANK.

8. Tutaekuri Awa Report – Values, Objectives and Management

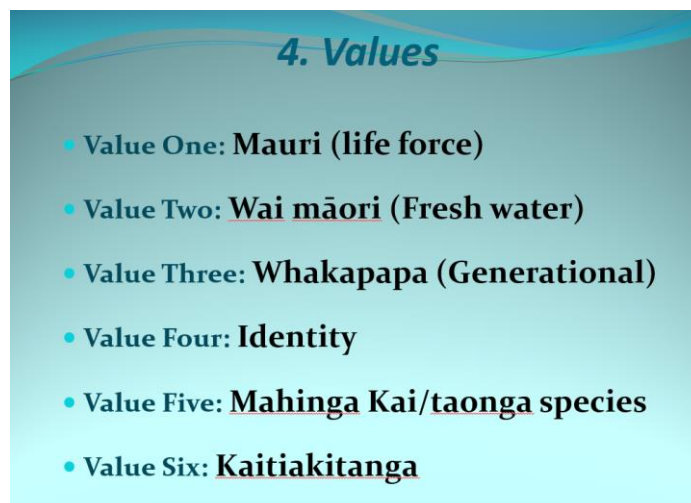
A TANK group member opened his korero with a mihi. He then acknowledged the Ngaruroro Whanau for the extensive Values Report, and thanked a fellow member for allowing him to present at Beef and Lamb.

The member provided an explanation of how Tutaekuri was named, through the generosity of the killing of pets to feed a malnourished group.

He explained who Ngā Hapu of Tutaekuri are and what values and outcomes the hapū and marae would like to be recognised as part of this process. The collection of the different Hapu has established Nga Hapu o Tutaekuri Awa Management Plan and the reason for that was to engage in decision making around Awa and around the catchment. The Hapu Management Plan was a three year process putting that together and was submitted to Hawkes Bay Regional Council in 2014 and the Values report was completed quite recently this year.

Their mission statement being *'To restore and enhance the māuri of the Tūtaekuri awa'*.

The following values and objectives were identified and elaborated on.



5. Objectives

- **Objective One: The maintenance and enhancement of Mauri Wai – Life-force of Water**
- **Objective Two: The Promotion of Mauri Ora – Life-force of Life**
- **Objective Three: The restoration of Mauri Whenua – Life-force of Land**
- **Objective Four: Kaitiakitanga – Guardianship is promoted and upheld**

Questions and Answers

Ceri – You say you will be planting 11 000, is that how many plants you put out already?

Member – We've got 4,000 left to make 11 000 and that will be 28 July

Member – The role of tapu and rahui, are there varying degrees of protection (under tikanga)

Member – Hygiene is quite high value historically

Member – Tapu – it's got to be something that is taonga, that's precious and where we are today and the newness of these things that are arriving into the system, need to look at how the mauri is affected and affect some form of rahui (prohibition). This discussion is currently going on with this Mauri monitoring framework and I'm looking forward to what will be provided to us within that space

RPC Member – I was looking for a connection between 'our' values and science. The closest connection we can give is what we consider Mauri or *the life essence of water*, a scientist will call the *structure of water*. We identified very early that the closer to the source from the ground that you get your water, the purer it is. As a consequence the life around those spots was more vibrant, the fruit was richer and colours more vibrant, and generated more life - the further it journeyed down the Awa and across the Whenua, the more it imbued those things and changed the structure of the water to alter the mauri of the water. The closer to the source the more important the level of tapu. Cultural practices implemented over time were built around protecting that standard and are primarily based on maintaining the highest possible quality because of the tapu (for us) that it had at its birthplace. When we touch it, we are uplifting the mauri of that water through our practices, the way we utilise that space, through the animals and plants that we introduce to it. Anything that compromises that tapu has to be reviewed.

Member – If you had the ability to improve kaitiakitanga, how would you do this?

Member - Being a voice in the TANK process, engaging with other sections of the Regional Council e.g. Asset Management, engaging at a TLA level re: consents, Wānanga – how we view, monitor and measure our environment

Member - thanked a fellow group member for the presentation. How important are some of those major tributary streams in the headwaters in terms of iwi

Member - For Mauri, those things that feed in to our waterways affects the Awa. Mauri-wise they are absolutely crucial, not just concerned with the mainstem

Member – Would you have any concerns with damming on the mainstem?

Member – We would ask when reflecting on the values, would it be consistent with our values

Member – We are trying to establish the trigger flows for Ngaruroro and Tutaekuri, we are quite fortunate with the Tutaekuri, it's not as allocated at the Ngaruroro. How important is it to establish appropriate trigger flows in the right places

Member – A lot of the korero we had from our kaumātua saying that the flows are not what they were. There is improvement required for algal blooms etc. As part of the TANK process we have a number in mind to where we want to be with our low flows. Tutaekuri – 2800 (currently 2000) and was 2500 not so long ago (in 2005).

A group member has mentioned management groups for catchments, would your hapu be supportive of these and be involved (maybe include in your recommendations)

Member - We are quite supportive of that process but also need to know there is a back-stop if this doesn't work. Our management Plan is available online and I think having that discussion with the Beef + Lamb group was really encouraging and will only add value

Member – Does your plan include Tutaekuri/Waimate because in the Ngaruroro report that's part of the Ngaruroro catchment, that's where the name of the Tutaekuri actually comes from. Just highlighting how that crosses over.

Member – No it doesn't and a conversation needs to be had. The navigation boards at the Waitangi celestial compass have good information about the location of Tutaekuri.

Member – With regards to the old Tutaekuri bed, do you have values for that and are they addressed in this. I recognise it as the former Tutaekuri but I see it treated as an open stormwater conduit and wonder how you are going to address that (Ahuriri)

Member – Not specifically but through consents trying to get values back into the Ahuriri and waterways

Robyn asked Te Kaha whether he has any suggestions to the TANK members to support the good work of Ngāti Parau hapu

Member – Low flows is going to be the biggest korero

Member – All our values are the same it's just expressed in different ways, we want what you want. The water, land and air looked after and will be happy to work with the hapu to deliver this.

9. Lakes and Wetlands Working Group report on TANK lakes – Gavin Ide

Gavin noted the pre-circulated document, which provides an update from the Lakes and Wetlands Working Group. The Working Group's latest focus on lakes and what to do in the context of the TANK Plan Change. The LWWG would like to see the TANK Group's earlier work around nutrient and sediment proposals being endorsed as these are generally suitable for dealing with lakes, lake water quality and various other values associated with lakes in the TANK catchment area.

Earlier proposals touched on the concept of lake owner collectives, adaptive management, staged approaches to tackling the problem, doing something around stock excess to water bodies. The TANK plan change needs to integrate not just the open water of what we know as lakes but also the wetland margins around the fringes and the connectivity to the streams, the main river bodies and also the connected groundwater, it's a complex package.

Points C and D in that paper talks about this notion of swimmability and recent amendments to the National Policy Statement for Freshwater Management, the Government has seen fit to demand that all Regional Councils define regional targets for swimmability of its large rivers and large lakes within each of the regions. It is important to highlight that the shallow lakes that we are talking about within the TANK catchment area are generally not used for swimming, in fact it's probably likely that if people were to swim in them there would be some tensions if not conflicts with the other values we find in those shallow lakes. The suggestion from the LWWG is that the water quality in the shallow lakes shouldn't be managed primarily in order that they become more suitable for swimming more often because that may be counter intuitive to bird populations or other values associated with those lakes.

Questions and Comments

Member – What about secondary recreational values in those lakes

Gavin – That's quite a different thing from swimmability and the group didn't really delve too much into that in the way of values but some lakes do have secondary contact types of values. One of the limiting factors with these shallow lakes in the TANK catchment area in particular is that most of the ones on that map are limited in terms of public access either because it's on private land or not easy to get to.

Member – The greatest form of recreational value for most of these lakes particularly in the lowlands excluding the Kaweka lakes is waterfowl hunting in May and June. A bit of casual kayaking, family groups living around those lakes so the human contact with the water is extremely limited and part of that is that the boundaries of the beds go right out into the lake.

Member – The tuna management needs a bit of a review. From a Maori perspective it just does not work, the system is broken. All year round these lakes were places of sustenance. People won't go tuna fishing anymore because of commercial fishing.

Gavin – Your reference towards tuna management is more around the harvesting, correct?

Member – it's the protection, you cannot harvest unless you are protecting it.

Gavin – Habitat management issues is something the TANK Plan Change can step into and help solve, but in terms of commercial recreational harvesting of fish species, permits and everything that goes along with that is something completely different – commercial harvesting is subject to regulations administered by Government ministries, e.g. MPI.

Member – We have so many institutions around this table who are protected under legislation however Tangata Whenua still have to repeat the same things at every meeting. At least you are going to look at an increase in wetland which will improve connectivity which is great, thank you.

Gavin noted that most of the LWWG's recommendations are already reflected in the draft TANK plan strawman. Gavin also noted that in point 8 of the LWWG's report, the word needs to be changed from adopting to 'adapting'.

Member – Question where the definition of wetlands is at with PC5. RMA definition of wetlands according to the report commissioned by Council states there would be 291 hectares of wetland around Poukawa but with the current definition with the Council for Wetlands, this could be wet pasture. Agree there should be no difference between wetland and lake, in some places this is simply a waterbody that provides sustenance and gets bigger then smaller. Having being part of that wetland discussion through PC5 and four years mediation I'm inclined to revert to the RMA definition.

Gavin – The status of PC5 and its definition of Wetland is still pending decisions from the Environment Court. The Environment Court had directed experts from three or four parties to get together to have further caucus and conferencing about six weeks ago and the report from that expert conferencing session has gone back to the Environment Court.

Member – (Table on Pg.2 1.3) I don't understand the column Approximate Headwater area – can you please tell us how this relates to the lakes

Gavin – In essence this is the area of land upstream of the lake – it does not include downstream parts of the catchment that the lake is in.

Member – Interpretation (E6) of the report - should not lead to discouragement or impediments to physical works. Should read as 'using physical works to improve wetlands'. Concern that there hadn't been a robust discussion around this.

Gavin – if the state of these shallow lakes is needing a real boost in some way, shape or form, soft intervention such as planting may not get us there. Take Lake Tūtira for example, there is the air curtain experiment happening and that kind of physical work may be right in some circumstances. The [LWWG] felt that in some locations and some circumstances, physical works and structures might still be ok in our lakes and is viewed as a step of last resort.

Member – noted that Gavin is the spokesman of the LWWG and one or two of us around the table sit on that sub group. If there are any spears to throw I am happy to take them. In terms of the question just being asked with reference to physical works, it's an exceedingly important point. There is a number of those wetlands within the TANK catchment that have already been subject to the benefits of physical works. There is a concrete control structure with fish passage on the outlet of Lake Runanga and there is a simple concrete water level control system on the outlet of Lake Hurimoana. What that section is referring to is those sorts of physical works that may well be required to maintain or enhance those individual lakes. It is work that has been carried out in the past under resource consent and its work that's been very positive in terms of the maintenance of those values.

The most important thing with these shallow lakes is not too much water quality it's about a quantity of water and the water levels in them - we just need to make that point a little clearer in the commentary. It's so important you could actually have degraded water quality in a shallow lake and still have very significant biodiversity values but if there is no

water there you've stuffed it up. Wetlands need water to function and if they don't have a choice, they will take some of that toxic water and still provide some good values and still support a whole range of wetland birds and tuna

Member – Does water storage and augmentation within lakes and wetlands answer some of our water supply issues? We are going to store this water in lakes and then in order to utilise that water should we want to augment flows for whatever reason we have to release it. There are some issues that we need to consider. I had a conversation with Nathan and he said that the water that's in lakes if it's released into rivers for example is poorer quality, it's at a higher temperature and a conversation I had with Jenny in the past is there is real concerns about mixing water. Where does this fit in the Draft Plan.
Gavin – It's not too dissimilar from the discussions on naturally occurring wetlands compared to those wetlands that we artificially create or modify. If we are looking to create artificial storage lakes then they can be treated slightly differently to our naturally occurring lakes.

Member – (In relation to E2 pg.1) Thought there was restriction of stock to rivers and lakes previously agreed. I thought that during the discussions we've had in TANK we talked about sheep access but in the plan it talks about cattle, pigs and deer

Gavin – To clarify, in the plan we don't need to have a rule dealing with an activity in relation to lakes. That same rule referring to "waterbody" could apply to lakes, wetlands, rivers and streams.

Member – we hadn't gone into that detail but we had a concern over the biodiversity values of the ephemeral areas and haven't come around with how to manage those without some type of grazing. Most of it is sheep grazing but they do allow for cattle grazing too. It's not an easy one and we are still wrapping our mind around it. The recommendations are still being refined.

Member – Is there anything mentioned about fish passage and promoting native vegetation?

Gavin – Lakes was already fairly implicit and other places recognising value. John had a comment, any plant in a bed of a lake is a good plant but if it's a native one, that's even better

Member – In some instances they compete with each other and that would diminish mauri if that was the case

Gavin – That opens up a whole bunch of other interventions and I think that is beyond the scope of this plan change, how do you pick and choose whether you want indigenous ones or is it a case of weed control activities

Member – The comment was promoting wetland vegetation

Member – I wonder if there is some relevance in the comment that Te Kaha is making in that we are promoting that some of these lakes are going to need some active physical management. It would not do any harm to cover the bases because we will be conscience about fish passage. The recommendation needs further refinement.

The Group broke for Lunch.

10. Draft Plan Change – Mary-Anne Baker

Mary-Anne discussed the purpose of this session – to understand whether the draft plan captures your position accurately and whether the provisions are reflecting the outcomes that you were looking for, have we misrepresented your position in any way, are you ok with the way it's been drafted.

This session was captured on the whiteboard and the text has been inserted into the Meeting 40 Response Sheet.

11. Summary of Action Points

ID	Action item
40.1	Annette to speak with Tonkin + Taylor about the unconfined aquifer boundaries, Tom to raise this with HBRC scientists.

The meeting closed with a karakia at 4.30pm