Responses to questions from stakeholders from 24.04.2018 workshop

Process questions

What is the life of the whaitua? Is it just here to provide a WIP? Where will it be in 5 years' time?

The role of the Ruamāhanga Whaitua Committee is to produce a Whaitua Implementation Programme (WIP), however the community conversations and change generated by this process will continue well beyond the life of the Committee. A change to the Natural Resources Plan (Regional Plan) will be generated from the recommendations in the WIP and the catchment management (whaitua) approach will continue.

Can you define a structured consultation approach beyond today?

The Committee will continue to engage with partners, stakeholders and the community in the next month. A draft WIP will be released in mid-June for people to provide feedback on. Responses will be analysed and considered by the Committee ahead of finalising and presenting their recommendations to Greater Wellington Regional Council in August 2018.

Is all the research and modelling publically available, completed or non-completed, and raw data?

Modelling reports are publically available on our website at: http://www.gw.govt.nz/ruamahanga-technical-reports/. Please note none of the reports have been peer reviewed by a third party and this process won't occur prior to the WIP being finalised.

Will we get a response to these questions and a right of reply?

These are the responses to the questions. There is the opportunity for further discussion at the second stakeholder workshop on 24 May and to comment further by providing feedback on the draft WIP.

Objectives and limits questions

Where are the objectives for primary production values?

The National Policy Statement for Freshwater Management (NPS-FM) directs regional councils to set freshwater objectives which are defined in the NPS-FM as objectives that describe **intended environmental outcome** in a freshwater management unit (FMU).

Primary production values have been reflected in the Ruamāhanga Whaitua Values - Community values. These values underpin the Committee's decision making process.

How are you only using the A, B, C, D, E framework to set limits for each attribute in each FMU?

The 'A, B, C, D' states are attribute states as prescribed in the National Objectives Framework (NOF) of the NPS-FM. For the finalised WIP, and in the subsequent plan change, these will be described in numeric form, as set out in the NOF. For non NOF attributes appropriate classifications have been used such as for MCI 'excellent' to 'poor'.

Will the methods that you are proposing achieve the objectives? Are the objectives achievable?

We will inevitably need to try methods and see what works. There is no one method that will achieve the objectives. The Committee's approach is to be enabling, to foster innovation and allow flexibility for continuous improvement. Whether the methods are achieving the objectives will be assessed through ongoing monitoring in all FMUs.

Why are fish objectives not set for catchments?

There are a series of narrative fish objectives for FMUs. Some are specific to certain catchments, and some apply to all catchments.

Why are the bottom lines so low for NPS bands (toxicity) versus ecosystem health?

On review of whaitua recommendations, MCI objectives for a number of catchments are overset at levels better than current, including even when current is better than MCI80. I.e. achievability has been assessed.

The National Objectives Framework (NOF) bands, including the national bottom lines, are identified through the work the Ministry for the Environment does to produce and amend the National Policy Statement for Freshwater Management. Currently all measures in the NOF, with the exception of *E.coli* and planktonic cyanobacteria, are attributes of ecosystem health. Where the NOF contains an attribute, that attribute and its bands must be used in freshwater objective setting.

Amendments to the NPS-FM 2017 require DIN and DRP freshwater attributes be set to achieve periphyton attributes - has this been considered?

Yes, as required by these changes to the NPS-FM, there will be nutrient criteria identified for dissolved inorganic nitrogen (DIN) and dissolved reactive phosphorus (DRP) in the WIP as part of the set of methods to achieve the identified periphyton objectives.

Review nutrient allocation. Method? Or value, or both?

The decision not to allocate nutrients will be reviewed in 10 years' time. The review will consider whether limits and objectives are being achieved, whether the tools to administer an allocation regime are adequate, and whether alternative management methods would be more appropriate.

How do the nitrogen, phosphorus and sediment reductions relate to FMUs and river achievement of instream FW objectives?

Based on the Committee's freshwater objectives, limits have been identified for each river freshwater management unit for the annual amount of nitrogen (kg/yr nitrate-N) and phosphorus (kg/yr total phosphorus) to reach water from diffuse sources (i.e. leached through soil and into groundwater) and, separately, from major point sources (i.e. the five wastewater treatment plants).

Reductions in sediment are linked to the achievement of a number of lakes and rivers objectives, most particularly MCI and the impacts of sediment in the lakes. The sediment targets were established from modelling of a range of mitigation options for their impacts on reducing sediment loads as well as impacts on rural economics. The Committee has identified targets for all FMUs based on good management of stream bank erosion across the whole whaitua and for the five freshwater management units (producing the most sediment load from non-native land uses) based on achieving both good stream bank erosion management and extensive and strategic hill erosion reductions.

Have cumulative effects been taken into account? Is water quality data in sub-catchment good enough to consider improvements in sub-catchment and downstream?

Yes, cumulative effects have been a critical part of the Committee's work and decisions, most particularly in relation to the impacts of urban and rural land use activities on Lake Onoke and Lake Wairarapa. Iterative development of the objectives and limits has been based on ensuring that downstream objectives and limits can be achieved through the changes in the sub-catchments above.

Why was nitrogen allocation not set? What were the issues?

The data on existing loads and the distribution of those loads is not good enough to allocate.

Although the Committee has chosen not to allocate nitrogen, there will be a limit in place at the sub-catchment which people will need to operate within. The Committee has also set in-stream nitrate criteria.

The decision to go down a non-allocation route will be reviewed in 10 years' time. If the limits are not being met then an allocation regime could be implemented. Information will be collected and models refined in the meantime which would input to any review decision in 10 years.

How do we fit economic values alongside environmental values? (In the form of environment plans).

Has the value of "economic use, resilience and prosperity" been taken into account?

The decision making by the Committee has been underpinned by the Ruamāhanga values. 'Economic use, resilience and prosperity' is one of a range of community values that were identified and considered when decisions were made. The Committee has also considered the economic impacts of their recommendations.

Have instream sediment objectives/outcomes (e.g. deposited sediment, clarity, etc.) been considered (rivers)?

Reducing sediment load can improve conditions for macroinvertebrate community health and play a role in native fish health and providing for recreational and cultural values. Sediment also has a role in releasing nutrients, most notably phosphorus. The Committee is setting limits, and targets for sediment to be achieved by 2050 (in tonnes per year) – see table on this. The Committee has identified targets for all FMUs based on good management of stream bank erosion across the whole whaitua and for the five freshwater management units (producing the most sediment load from non-native land uses) based on achieving both good stream bank erosion management and extensive and strategic hill erosion reductions.

Where is the incentive to keep improving?

Some improvements are required by the law while others have been determined to provide for a range of community values.

How are FMUs set up? What monitoring data is there for each? Is there suitable monitoring to calculate loads?

For more information on how FMUs were developed see the following document:

Snelder T and Fraser C. 2016. Defining a biophysical framework for Freshwater Management Units of the Ruamāhanga Whaitua. LWP.

What is 'plan B' if the NOF changes?

Changes to national directions are outside of Greater Wellington Regional Council's influence. We would need to work with whatever is directed from central government.

Are the physiochemical targets/limits set at NPS band, current state (over what period) or some other value, and why?

See the freshwater objectives and limits tables for the numeric values.

Targets and limits have been set to achieve the freshwater objectives and are set for each FMU. The load limits will be set as rules in the regional plan. Monitoring will need to occur in each FMU.

What are the FMU limits for E.coli, nutrients and sediment? Prefer setting instream load limits per catchment.

See tables that show limits for each FMU.

Why do some of the catchments have a big improvement planned? E.g. D to A.

Modelling in some catchments shows that sizable shifts are possible with implementation of a range of mitigations. The Committee considered the results from the modelling alongside a range of other information and their values when considering what shifts in water quality they wanted to achieve.

Note: The future shifts in freshwater objective were modelled. The desired changes can only be analysed through modelling.

Science and monitoring questions

Is the whaitua asking GWRC to increase monitoring to track progress towards objectives?

The future monitoring framework will need to reflect the WIP recommendations. The need to monitor 21 freshwater management units is likely to mean increased monitoring.

How did you decide what physiochemical measures to set values for?

There are compulsory attributes that are prescribed by the NPS-FM such as *E.coli*, periphyton etc. that the Committee was required to set freshwater objectives for.

What approaches/methods are used to measure cultural values?

Currently, kaitiaki monitoring strategies are being developed with the mana whenua of the region to identify priorities, roles and indicators for cultural monitoring. The Ruamāhanga WIP will recommend that hapū and marae are supported to develop their own indicators for each FMU including one for the Ruamāhanga as a whole.

Do we have a data management strategy? Who owns data in the future? E.g. from catchment communities?

The development of the data management strategy will be one of the tasks of the implementation programme. There is an ongoing conversation about what data needs to be collected, how best to collect it, how to store it and how to transparently make it available for people to use. Questions around the privacy of data, who owns it and not doubling up on data already being collected are some of the issues to resolve.

What data do we need to collect to capture the economic impacts of environmental improvements? Who gathers this data?

This is still to be determined.

What does 'fair' MCI mean?

MCI Quality classifications are below:

Excellent: Macroinvertebrate community is typical of undisturbed or reference conditions for the stream type.

Good: Macroinvertebrate community shows limited changes from the expected conditions for the stream type. Reflects light levels of disturbance and/or pollution.

Fair: Macroinvertebrate community shows changes from the expected conditions for the stream type. Reflects moderate levels of disturbance and/or pollution.

Poor: Macroinvertebrate community shows large changes from the expected conditions for the stream type. Reflects significant levels of disturbance and/or pollution.

Lakes and river management questions

How can we justify the removal of pest fish with the protection of pest fish?

The draft objectives give voice to the protection of native fish in the Ruamāhanga whaitua, as well as recognising the need to ensure non-native fish do not compromise native fish values. Some non-native fish are provided protection under the RMA (i.e. trout and salmon under section 7(h)). Any regional planning decision, including the plan change resulting from the Ruamāhanga WIP, needs to appropriately provide for these non-native fish values, including for the way that recreational fishing of such fish may be valued in the relevant area. Some other non-native fish present in the Ruamāhanga whaitua (e.g. Rudd) are defined as pest species in New Zealand. The Committee's recommendations recognise that the management of such pest species may play an important role in future catchment management and in improving the health of water bodies and particularly of Lake Wairarapa.

What is the cost impact of raising the level of the lake? How many properties would be affected? What is the effect for each property?

The Committee's recommendations to consider deeper lake levels are part of a long term aim to achieve a healthier Lake Wairarapa by 2080, and include further investigating options to hold the lake levels higher. Modelling for the Committee showed that changing the hydrodynamics of the lakes, such as though deeper water, show potential in shifting the lake away from its current very poor state. Investigation into raising lakes levels would need to develop an understanding of the impacts on the health of lake and surrounding wetlands as well on the way farming is undertaken around the lake. These would also need to identify in detail the how options could be rolled out as part of the intergenerational work needed to achieve this objective.

What are you doing to improve the water carrying capacity of the Tararua Ranges? How would you slow down the water coming off the Tararuas?

The Committee is interested in making recommendations to the Department of Conservation to ensure the role of a healthy understory in the ranges is recognised and looked after as part of ensuring resilient catchments. The Committee recognises that pest control activities such as Project Kaka have had a positive effect in improving the understorey of the Tararua Ranges from what it was 20-30 years ago and that this is very valuable to slowing the water down.

Slowing water down – how would you do it? How will it impact flood zones? Will land be less reliable e.g. with water on it?

The Committee is supportive of known techniques such as the use of wetlands in river corridors to retain floodwaters and other managed aquifer recharge (MAR) methods, and of the afforestation or pole planting of headwaters. The Committee also strongly supports innovation and new practice. This should inform the way the whaitua community and its institutions think about slowing the water down, driving the discovery, testing and roll out of different methods over the coming decades.

High risk activities and land use change questions

How is high risk categorised? Is it the same for all classes of land?

Regulating land use change. What is the definition of intensification?

The Committee is recommending that further investigation and research is undertaken by GWRC with industry to determine and further refine the list of land use changes they are proposing as high risk.

How can land use be included in this criterion? Does the risk category stay set in stone?

Some types of land uses combined with certain climatic and geographical conditions can lead to negative impacts on water quality and could therefore result in FMU limits not being met and objectives not being achieved. It is important that in these circumstances, new land uses activities with the potential to impact on water quality are assessed to help achieve the communities' aspirations for water quality and ecosystem health. A discretionary activity status means a resource consent is required, but does not necessarily mean a decline for a resource consent, just that the effects are appropriately assessed.

Concern when LUC changed/intensification is provided through consent, in the absence of ensuring an allowance for existing users. This acts to essentially allocate rights through consent. Has a S32 analysis been undertaken in looking at alternative approaches and costs to meeting current proposals?

Land use classes are not changed, but there may be a new land use activity that is proposed within an FMU with a certain LUC that could have the potential to impact on water quality due to its climate and soil conditions. This new land use activity could result in exceeding limits and not meeting freshwater objectives. The new land use activity can propose mitigation to manage the effects of their new activity on the limits. An existing user within the same FMU that wanted to change their land use activity to one that was more high risk would also need to go through the same consenting process and could also propose mitigation in order to achieve limits and objectives.

Urban water questions

Stormwater discharge – what is the definition of stormwater?

Stormwater is the runoff that results from rain being prevented, by hard surfaces, from soaking in to the ground and will include a range of contaminants in the runoff picked up as it runs across these surfaces. In the PNRP stormwater is defined as 'runoff that has been intercepted, channelled, diverted, intensified or accelerated by human modification of a land surface, or runoff from the external surface of any structure, as a result of precipitation and including any contaminants contained therein.'

Can we change the definition of wastewater to reflect that water is often reused?

No, but we can determine the quality of wastewater that can be reused and allow for reuse to happen.

Point source going to river. If all were stopped, what would the model be? What level would nitrate drop to?

The table 'point source discharges – current and target allocations' shows the nitrate-N current allocation in kg/yr from the major point source discharges – the wastewater treatment plants. The target discharge is based on 100% disposal to land by 2040. These point sources are a minor contributor to the overall nitrate loads in the catchment, but are a much bigger contributor to total phosphorus loads.

Farm plans and FMUs questions

How are community FMUs going to be structured? Iwi, Council or local community?

It is entirely up to the community to come together and determine this. The community jointly determine their structure and who's involved.

Confidence that a non-regulatory FEP will equitably achieve reductions in over-allocated catchments?

Much can be achieved through a more holistic approach to FEPs, through a broader lens in farm planning. Non-regulatory methods such as education and incentives can lead to behaviour changes and flow on improvements to water quality.

How widely have you looked at other Council experiences with FEPs?

Fairly widely. Experience with environmental management plans in sectors other than farming have also been considered.

Are catchment groups going to have responsibility for auditing the uptake of voluntary farm plans? (Resourcing??). Who is keeping an eye on everyone?

It is up to the FMU community to ascertain what support they would like from Greater Wellington Regional Council and other industry.

What does GMP mean in an environmental context?

In this context, Good Management Practice (GMP) is the continuation of improving practices (both urban and rural) to minimise the impact of land use activities on water bodies and the environment more generally. As knowledge changes, GMP continues to evolve.

How does enforcement/improvement occur at farm level to achieve the FMU target?

The Proposed Natural Resources Plan (PNRP) rules will be enforced as well as the resource consents, which will also include the Ruamāhanga Whaitua specific rules once they have been notified and have some legal weight. This may also require the FMU community to have a role in compliance and enforcement within their own FMU.

What process directs farm plans and how does it work?

Farm plans are a voluntary scheme provided by the Land Management department of GWRC. Landowners can apply for a farm plan and get support from GWRC.

Regulation of farm plans? Compulsory? Voluntary (non-regulation)? What is expected? The catchment groups will dictate this.

The Committee is recommending voluntary farm planning.

How are the catchment community and farm plans being provided for in the framework?

The Committee is recommending that farm planning is further promoted and incentivised but remains voluntary. There are two types of catchment communities, those framed within an FMU boundary and those that initiate themselves in a social context for their own self-determined reasons (they may involve people living in different FMUs).

If a voluntary farm plan system, if there is a 'bad' operator, how do we pull them into line?

The community will need to determine a process around this, including having conversations with those in their FMUs that may not be improving their practices. Rules will still be enforced and consents monitored by GWRC.

Will there be more than one catchment community per FMU? If there is, how will they operate together?

This is up to the communities to organise but Greater Wellington Regional Council can support.

Will GMP achieve the objectives? (Post it: Where and when can we see further detail on the FW objectives)?

GMP is just one mechanism to achieve the freshwater objectives and manage to limits. The numbers that correspond to the bands for the freshwater objectives have been provided.

Farm environment planning – How is this built into the proposed plan and enabled?

Method 12 in the PNRP includes the encouragement of farm environment plans and support is provided by GWRC for their development and implementation.

Have you clarified or defined what is included in farm plans?

Yes, there are templates for farm plans.

How do we ensure the public voice is in catchment communities?

FMU catchment communities will have limits to address and freshwater objectives to meet that have been determined through engagement with the wider local community. It is up to individual FMU catchment communities to determine how they come together and who is involved.

How do you communicate with the landowners in the catchment?

Many landowners have existing relationships with GWRC, but building new relationships with landowners is also a key priority of GWRC.

Why are positive behaviors not happening by everyone now?

Improvements are happening all the time, but some people need more education and encouragement to make better behaviour changes for how they carry out activities.

Why are input methods preferred? What does this mean?

In general, the Committee are not recommending input controls.

Water storage questions

Does the WIP provide enough direction on the command areas, for folk to invest?

Where is off setting? The whole water allocation/minimum flows has highlighted how important it is to look at water storage.

What plans are in place to provide options for those who will lose some/all of their water allocation? Does the whaitua support storage?

The Committee's recommendations do not mean anyone will lose some/all of their water allocation. The reliability of being able to use the allocation will reduce in catchments where the minimum flow is increasing. Reliability of supply for Category A users will also decrease when the Committee's recommendation to have Category A takes cease take (rather than the current restriction) at minimum flow comes into effect in 10 years' time.

The Committee supports a wide variety of storage options and does not envisage any one particular option will provide the overall solution that improves the reliability of water supply for the whole community and increase the community's resilience.

Water allocation questions

Permitted activities

Permitted activity takes to be reduced from 20m^3 to 5m^3 per day and then takes are to cease at minimum flow- does this include stock drinking takes?

No, stock drinking water and water for domestic needs are provided for on top of this by the RMA

How will you monitor the change to permitted activities and cut off at minimum flow?

There are likely to be targeted compliance programs to monitor permitted activities, especially in catchments that have a high degree of use.

How is the PA volume determined? Title or property size etc.

The Committee has not recommended any changes to how the PA volume is determined. The amount of take still applies per property.

Minimum flows

Why are minimum flows set for torrent fish? Is 90% of all habitat or 90% of torrent fish habitat? Is 90% habitat protection for torrent fish the minimum flow for all FMUs and rivers?

How did you arrive at the minimum flows?

Was torrent fish used to set minimum flows in all FMUs?

FMUs (for water allocation) were split into two main groups for the review of minimum flows and allocation limits by the Committee. One group contained the larger, faster flowing gravel-bed rivers including the main stem of the Ruamāhanga itself. The other group contained the smaller valley floor streams and rivers rising in the eastern hills.

For the group of gravel-bed rivers, the minimum flow assessment focused on ecological values, and especially the amount of physical habitat available to fish at low flows. In these types of rivers it is considered more likely that habitat space becomes a limiting factor for some fish communities before other factors such as water temperature increases and oxygen level depletion. Torrent fish were chosen by the Committee as the target species for this assessment because they are indigenous, known to live in the Ruamāhanga River and its main stem tributaries and also have the highest flow demands relative to other native species.

The Committee looked at minimum flow requirements relating to a range of habitat objectives for torrent fish. The objective that was subsequently chosen for all rivers was to retain 90% of the habitat that is available at natural 7 Day MALF. This choice was made to reduce the risk that abstraction contributes to meaningful habitat loss at low flows. Modelling showed that in most sub-

catchments the existing (and proposed PNRP) management flows used to control most abstraction consents are generally consistent with this objective. However, the existing minimum flows in the Waipoua and Upper Ruamāhanga provide a habitat for torrent fish of about 70% that is available at MALF. In choosing to recommend higher minimum flows to reduce risks relating to torrent fish habitat, the Committee was also mindful of other values (that had been identified as compromised at times of low flow) in these two catchments that might also benefit (e.g. cultural).

While trout were not explicitly selected as a target species for objective-setting, they were considered in the Committee discussions and modelling. Results suggested that the minimum flows predicted to give effect to the torrent fish objectives would generally be similarly protective for trout.

The actual minimum flow values (in L/sec) have been calculated by either adopting existing flow values for management sites (in the RFP or PNRP) where Committee objectives are met, or converting the threshold from modelling (given as proportion of natural 7 Day MALF) to an equivalent flow rate at the relevant management site. In some cases (e.g. Upper Ruamāhanga), the flow required to retain 90% of the torrent fish habitat available at MALF is roughly equivalent to 90% of MALF. However, the habitat-flow relationship is not necessarily always so linear; for example, in the lower reaches of the Ruamāhanga River, the flow required to meet the same objective for torrent fish is very much lower than 90% of MALF.

For the second group of FMUs habitat modelling was not considered appropriate, especially for the valley floor streams and very low, slow flowing eastern rivers. It is unlikely that habitat becomes the primary limiting factor for aquatic species in these environments before other factors like temperature and dissolved oxygen. There is also much less data available to scrutinise flow limits. Instead, the Committee took the following general approach:

- Where instream flow assessments have been completed by GWRC in recent years (Papawai Stream, Otukura Stream) the Committee was comfortable adopting the existing (Proposed NRP) minimum flows. These flows have taken into account water temperature, dissolved oxygen and eel habitat needs and, in the case of the Papawai Stream, flows required to sustain a swimming hole;
- Where instream flow assessments have not been carried out but allocation pressure is relatively high (e.g. Parkvale Stream, Turanganui River), minimum flows on existing consents should continue to be adopted. However, such catchments are also prioritised for investigation to determine appropriate minimum flow limits within 3 years;
- In any remaining sub-catchments guidance from the proposed NES on ecological flows and water levels was used to set the minimum flows at 90% of MALF.

What is the rationale for waiting 10 years to implement minimum flows?

There are two FMUs where the Committee is recommending the minimum flows increase over time – the Waipoua and the Upper Ruamāhanga. The Committee recognises the impact the increased minimum flows will have on users and the timeframe to implement the minimum flow changes are to ensure those impacted users have time to adapt and prepare for the change.

If moving to cease takes in 10 years for Cat A water, we need data collection to ensure that they are going to be effective in raising water levels not just change it because we think it will. We need water reliability to diversify and prosper as a region.

The 10 year lead in time for Category A takes to cease at minimum flows is to allow those impacted users have time to adapt and prepare for the change.

How do new water users get access to water within a fully allocated catchment?

In fully allocated catchments, new users will need to talk to existing users to see if there is any water that is 'available'. It is also anticipated that water will be 'freed up' as consents expire and are replaced, and efficiency criteria are applied.

Review periods

Why a 10 year review vs 5 year review?

A 10 year review coincides with an obligation to review a regional plan every 10 years. The Committee also recognises that changes as a result of their recommendations may take a number of years to become evident e.g. riparian planting to become established.

Water races

What is the role of water races?

The Committee is making a number of recommendations to understand more about the role of water races and to work with district councils and landowners to develop long term management options for the water races.

Other

What is the method of transferring?

The committee is recommending that the options for transferring the taking and use of water (including sharing) from one location to another water are explored with the intention of making it easier for users, including by changing consenting status (e.g. from discretionary to controlled activity).