

Ruamāhanga Whaitua Implementation Programme (WIP) Progress Report

June 2023

Report Purpose

This report provides an update on progress made with implementing the recommendations of the Whaitua Implementation Programme (WIP), developed by the Ruamāhanga Whaitua Committee, and received by Greater Wellington (GW) in August 2018.

It will be updated every six months and presented at a GW Environment Committee meeting. It will be accompanied by a paper summarising the report, along with the other WIPs, and identifying successes, issues, and risks. In time, this report will be retired as GW moves to integrated Catchment reporting with these recommendations picked up alongside the wider range of environmental programmes GW and others are committed to delivering.

The next progress report may be provided earlier than the proposed six-monthly update as a one-off as the stand-up of the new Rōpū Taiao Environment Group in GW means there is fresh thinking happening on how to consider the outstanding recommendations.

Important note on the limitations of this data

Information provided here is provisional until it has been reviewed and endorsed by reference groups and/or governance groups which are to be established. It includes implementation attributed to organisations other than Greater Wellington and in some cases their agreement has not yet been obtained and therefore may be revised.

The interpretation of some of the more generally worded recommendations, and therefore their implementation category (and any other details provided regarding their implementation), may also be changed by reference groups and/or governance groups.

Interpreting this report

The table below is broken down by recommendation as recorded in the Whaitua Implementation Programme (WIP).

Some recommendations in the WIP list multiple actions to be completed. Where these actions require different mechanisms to implement them, the recommendation is broken down in the table as sub-recommendations, reflecting the distinct pieces of work to be implemented.

An example is when a recommendation has multiple bullet points within it and only some of those bullets can be grouped under a single implementation mechanism.

Where this occurs, the wording of the recommendation is shown in full but the non-applicable parts are shown as crossed out. These parts that are crossed out are not lost – they are repeated against a different implementation mechanism.

Implementation Category

The report includes a column showing Implementation Category. This is a high-level grouping used by Greater Wellington for reporting purposes.

The category 'NRP Plan Change by 2024' means a change to the Natural Resources Plan (Greater Wellington's regional plan) to be undertaken by 2024. This is underway.

Note that the category 'To be commissioned by deliverables' indicates that the work is not currently being implemented so needs to be commissioned. This means an assessment has been made that a new deliverable is required to implement the recommendation, including identifying which organisation will lead its implementation. These are the outstanding recommendations that need resourcing and need to go through the relevant lead agency's business planning and prioritisation processes to be confirmed.

Summary of Progress

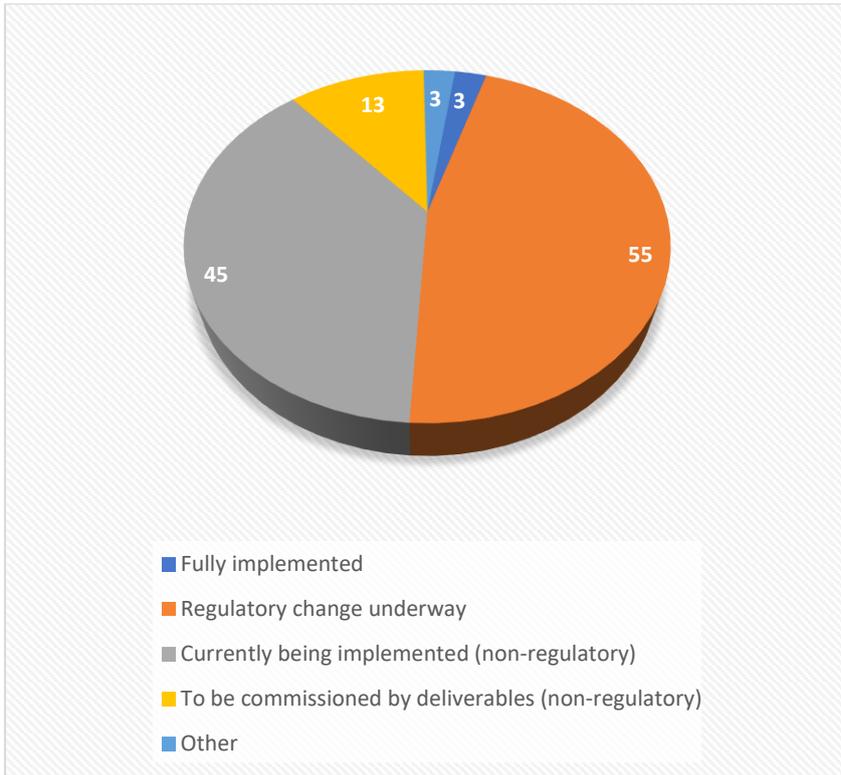
The table and pie chart below show progress towards implementation of the WIP.

Almost 50% of the recommendations involve a regulatory change to the Natural Resources Plan (NRP), which will be notified by December 2024. The high proportion of regulatory recommendations reflects where the Proposed Natural Resources Plan (PNRP) was in the RMA process at the time the WIP was written.

A high proportion of the non-regulatory recommendations are underway as they've been picked up through business-as-usual work in the years since the WIP was completed.

Implementation Category	Number of recommendations
Fully implemented	3
Regulatory change underway	55
Currently being implemented (non-regulatory)	45
To be commissioned by deliverables (non-regulatory)	13
Other	3
Total	119

Note: The numbers in the table exceed the number of recommendations in the WIP as some recommendations have multiple sub-recommendations to be implemented through different mechanisms.



Accessing the WIP

This report needs to read in conjunction with WIP which can be accessed here: [Final-Ruamhanga-WIP-August-2018-Pdf-version.pdf \(gw.govt.nz\)](#). The WIP provides the context to each recommendation.

Ruamāhanga Whaitua – Progress by individual recommendation

Recommendation	Recommendation wording	Implementation category	Comment
1			
1.1	<p>Greater Wellington will:</p> <ul style="list-style-type: none"> • Support mana whenua as active partners in the management of the Ruamāhanga whaitua • Work in partnership with mana whenua to develop a management structure that includes a permanent role for hapū/marae at the FMU level • Work in partnership with mana whenua to establish and resource a kaitiaki support structure that ensures that Ruamāhanga whaitua hapū and marae are enabled to participate fully in FMU and catchment community planning, including: <ul style="list-style-type: none"> – Identification of indicators – Monitoring programme – Kaitiaki training – Development of matāuranga Māori • Ensure that sufficient funding and dedicated resourcing to enable mana whenua participation are available as soon as the implementation of an FMU/freshwater objective framework begins • Establish operative roles for mana whenua and hapū/marae in the management of water quality and quantity and river management activities in the Ruamāhanga whaitua • Support hapū/marae to develop their own indicators for each FMU, including one for Ruamāhanga as a whole. This process to start as soon as the implementation of an FMU/freshwater objective framework begins • Include hapū/marae indicators in reporting on progress towards meeting freshwater objectives • Establish and support the process for mana whenua analysis and interpretation of hapū/marae indicators • Ensure that hapū/marae are informed through multiple channels of any new resource consent applications or renewals of existing consents within their FMUs, and that their input to the consent process is supported 	To be commissioned by deliverables	<p>New deliverable name: Partnering with marae.</p> <p>Greater Wellington led (Te Hunga Whiriwhiri team).</p> <p>This will be a dedicated project with a focus on creating structures and ways of working with hapū and marae together (by working through marae).</p> <p>Some existing work is underway with hapū and marae through individual projects. This project will need to be aware of this work and could learn lessons about what is working e.g., from the Gladstone cluster.</p>

	<ul style="list-style-type: none"> • Encourage and work with mana whenua on the development and inclusion of mātauranga Māori innovative regulatory and non-regulatory approaches to achieving improved water quality • Include PNRP Schedule B, Ngā Taonga Nui a Kiwa, which specifies the relationship of Wairarapa mana whenua with Te Awa Tapu o Ruamāhanga in the Ruamāhanga whitua chapter • Include PNRP Schedule C, Sites of significance to Wairarapa mana whenua within the Ruamāhanga whitua in a specific schedule in the Ruamāhanga whitua chapter. 		
1.2	<p>Greater Wellington will:</p> <ul style="list-style-type: none"> • Support mana whenua as active partners in the management of the Ruamāhanga whitua • Work in partnership with mana whenua to develop a management structure that includes a permanent role for hapū/marae at the FMU level • Work in partnership with mana whenua to establish and resource a kaitiaki support structure that ensures that Ruamāhanga whitua hapū and marae are enabled to participate fully in FMU and catchment community planning, including: <ul style="list-style-type: none"> — Identification of indicators — Monitoring programme — Kaitiaki training — Development of mātauranga Māori • Ensure that sufficient funding and dedicated resourcing to enable mana whenua participation are available as soon as the implementation of an FMU/freshwater objective framework begins • Establish operative roles for mana whenua and hapū/marae in the management of water quality and quantity and river management activities in the Ruamāhanga whitua • Support hapū/marae to develop their own indicators for each FMU, including one for Ruamāhanga as a whole. This process to start as soon as the implementation of an FMU/freshwater objective framework begins • Include hapū/marae indicators in reporting on progress towards meeting freshwater objectives • Establish and support the process for mana whenua analysis and interpretation of hapū/marae indicators • Ensure that hapū/marae are informed through multiple channels of any new resource consent applications or renewals of existing consents within their FMUs, and that their input to the consent process is supported 	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.

	<ul style="list-style-type: none"> • Encourage and work with mana whenua on the development and inclusion of mātauranga Māori innovative regulatory and non-regulatory approaches to achieving improved water quality • Include PNRP Schedule B, Ngā Taonga Nui a Kiwa, which specifies the relationship of Wairarapa mana whenua with Te Awa Tapu o Ruamāhanga in the Ruamāhanga whitua chapter • Include PNRP Schedule C, Sites of significance to Wairarapa mana whenua within the Ruamāhanga whitua in a specific schedule in the Ruamāhanga whitua chapter. 		
2	The Ruamāhanga whitua chapter of the PNRP includes all the objectives for mauri, natural form and character and habitat, fish and mahinga kai, sediment, and water quality and aquatic ecosystem health as set out in sections 4.3.1, 4.3.2 and 4.3.3 and Tables 8, 9, 10, 11 and 12 in Appendix 3.	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
3	<p>The PNRP includes a policy that describes how the periphyton objectives in this WIP will be achieved by the following approaches:</p> <ul style="list-style-type: none"> • Achieving the in-stream nutrient criteria for periphyton set out in Table 1. • Achieving the nutrient targets for diffuse sources in Table 2 and for point-source load reductions in Table 4 • Achieving the sediment load reductions in Table 3. • Undertaking extensive riparian planting for the purpose of creating suitable shading for streams to reduce temperatures and photosynthetic active radiation. • Ensuring that any consented in-stream works and activities maintain or restore flushing flows suitable to avoid nuisance periphyton build-up. 	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
4	<p>The PNRP includes a policy that describes how the macroinvertebrate community health objectives (indicated by the MCI) in this WIP will be achieved by the following approaches:</p> <ul style="list-style-type: none"> • Achieving the in-stream nutrient criteria for the management of periphyton in Table 1. • Achieving the nutrient targets for diffuse-source and point-source loads in Table 2 and Table 4. • Achieving the sediment load reductions in Table 3. • Undertaking extensive riparian planting to reduce water temperatures, reduce fine sediment inputs from stream bank erosion, increase organic matter input (as a food source) and provide habitat for adult insects to colonise from. • Retaining and improving the natural character of water bodies, such as riffles, pools and runs. • Ensuring that any consented in-stream works and activities are managed to minimise the release of deposited fine sediment. 	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.

	<ul style="list-style-type: none"> Progressively reducing the use, frequency and extensiveness of mechanical in-stream disturbances in flood protection, drainage and gravel-extraction activities. Greater Wellington facilitating, and implementing the findings of, research to identify innovative approaches to improve macroinvertebrate community health, as sought by Recommendation 9 of this WIP. 		
5	<p>The Ruamāhanga whitua integrated land and water management system should:</p> <ul style="list-style-type: none"> Seek to be a comprehensive, catchment-wide system that increases ecological and social health and wellbeing as well as improving water use reliability Create resilience to the pressures of changing weather systems under climate change Empower communities to identify and implement suitable processes and management options in their sub-catchments in order to contribute to the whitua-wide approach. 	No applicable deliverables to implement	<p>These are guiding high-level principles and outcomes, achieved through other recommendations, rather than having deliverables themselves.</p> <p>These directions feed into the Catchment planning processes underway.</p>
6	<p>In order to see the effective implementation of all the objectives, limits and policy packages described in this WIP, the Committee supports:</p> <ul style="list-style-type: none"> A programme of actions where rural and urban catchments have a collective responsibility to make change and improve water quality A mainly non-regulatory approach to staying within discharge limits for diffuse contaminants An emphasis on the use of integrated planning tools (sub-catchment groups, farm planning tools and user groups), supported by education and incentives Regulation of point-source discharges of contaminants, land use activities and water takes Seeking means for promoting and ensuring continuous improvement and innovation across all sectors and communities Collecting and making available information on resource use in the whitua as a way of enabling better decision-making at all scales. 	No applicable deliverables to implement	These are guiding high-level principles and outcomes, achieved through other recommendations, rather than having deliverables themselves.
7	Greater Wellington, along with iwi and other partners, develops a coherent FMU implementation framework that results in effective and successful managing to limits at an FMU scale, in both rural and urban environments, to achieve freshwater objectives.	Currently being implemented	The stand up of Greater Wellington's new Rōpū Taiao Environment Group in May 2023, including the introduction of catchment plans will encompass this recommendation.
8	Greater Wellington resources the Freshwater Management Unit Implementation Framework sufficiently to support the development of an implementation work programme.	Currently being implemented	To be provided through the stand up of Greater Wellington's new Rōpū Taiao Environment Group in May 2023, the introduction of catchment plans, and the inclusion of implementation work in the Long Term Plan (LTP) if necessary.
9	Greater Wellington ensures that, in preparing the Ruamāhanga whitua plan change to the PNRP, it works with communities and the Ruamāhanga Whitua Committee to ensure that the NPS-FM is appropriately given effect to, including in accordance with the freshwater objectives approach described in NPS-FM Policy CA2	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.

	and recognition of the 2017 amendments to the NPS-FM in relation to Te Mana o te Wai (NPS-FM Objective AA1) and mātauranga Māori.		
10			
10.1	<p>Innovation in land and water management practice in the Ruamāhanga whitua should be encouraged and actively facilitated by Greater Wellington, including by:</p> <ul style="list-style-type: none"> • Including a policy in the Ruamāhanga whitua chapter of the PNRP, to be considered in resource consent processes, that recognises the value of innovative practice in the achievement of the objectives of the Ruamāhanga whitua • Avoiding resource consent conditions that would prevent trialling of alternative management approaches where change and future proofing are known drivers, while also recognising the need to mitigate risk • Taking opportunities for ongoing plan changes to provide for innovative practice • Actively reviewing the effectiveness of the implementation of Greater Wellington operational activities and planning practices and of the recommendations in this WIP in order to promote continued improvement and learning, and to ease bottlenecks • Ensuring that management processes within Greater Wellington reflect a desire to support innovation. This may include internally rewarding “bright ideas” and establishing/fostering internal practices that support and reward innovation. 	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
10.2	<p>Innovation in land and water management practice in the Ruamāhanga whitua should be encouraged and actively facilitated by Greater Wellington, including by:</p> <ul style="list-style-type: none"> • Including a policy in the Ruamāhanga whitua chapter of the PNRP, to be considered in resource consent processes, that recognises the value of innovative practice in the achievement of the objectives of the Ruamāhanga whitua • Avoiding resource consent conditions that would prevent trialling of alternative management approaches where change and future proofing are known drivers, while also recognising the need to mitigate risk • Taking opportunities for ongoing plan changes to provide for innovative practice • Actively reviewing the effectiveness of the implementation of Greater Wellington operational activities and planning practices and of the recommendations in this WIP in order to promote continued improvement and learning, and to ease bottlenecks Policy Effectiveness Monitoring Programme (contact person Lucy) • Ensuring that management processes within Greater Wellington reflect a desire to support innovation. This may include internally rewarding “bright ideas” and establishing/fostering internal practices that support and reward innovation. Deliverable – review of GW processes which hinder innovation 	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.

10.3	<p>Innovation in land and water management practice in the Ruamāhanga whitua should be encouraged and actively facilitated by Greater Wellington, including by:</p> <ul style="list-style-type: none"> • Including a policy in the Ruamāhanga whitua chapter of the PNRP, to be considered in resource consent processes, that recognises the value of innovative practice in the achievement of the objectives of the Ruamāhanga whitua • Avoiding resource consent conditions that would prevent trialling of alternative management approaches where change and future proofing are known drivers, while also recognising the need to mitigate risk • Taking opportunities for ongoing plan changes to provide for innovative practice • Actively reviewing the effectiveness of the implementation of Greater Wellington operational activities and planning practices and of the recommendations in this WIP in order to promote continued improvement and learning, and to ease bottlenecks • Ensuring that management processes within Greater Wellington reflect a desire to support innovation. This may include internally rewarding “bright ideas” and establishing/fostering internal practices that support and reward innovation. 	Currently being implemented	Aligns with the Greater Wellington Policy Effectiveness Monitoring Programme (Environmental Science team).
10.4	<p>Innovation in land and water management practice in the Ruamāhanga whitua should be encouraged and actively facilitated by Greater Wellington, including by:</p> <ul style="list-style-type: none"> • Including a policy in the Ruamāhanga whitua chapter of the PNRP, to be considered in resource consent processes, that recognises the value of innovative practice in the achievement of the objectives of the Ruamāhanga whitua • Avoiding resource consent conditions that would prevent trialling of alternative management approaches where change and future proofing are known drivers, while also recognising the need to mitigate risk • Taking opportunities for ongoing plan changes to provide for innovative practice • Actively reviewing the effectiveness of the implementation of Greater Wellington operational activities and planning practices and of the recommendations in this WIP in order to promote continued improvement and learning, and to ease bottlenecks • Ensuring that management processes within Greater Wellington reflect a desire to support innovation. This may include internally rewarding “bright ideas” and establishing/fostering internal practices that support and reward innovation. 	To be commissioned by deliverables	<p>New deliverable name: Review of GW processes which hinder innovation.</p> <p>Greater Wellington led.</p> <p>Workshop that culminates in a report with recommendations for improved practices and processes internally to support land and water management practices externally.</p> <p>Should consider innovation across new Rōpū Taiao Environment Group.</p> <p>Should include reviewing policy effectiveness related to plans.</p> <p>May include identifying opportunities to use science and other knowledge, and external partnerships and tools.</p>
11			
11.1	The Committee recommends that:	Currently being implemented	Industry Good Management Practice (GMP) is already being utilised by Greater Wellington.

	<ul style="list-style-type: none"> • GMP be emphasised and innovation fostered as part of every farm plan and by the operational practices of Greater Wellington and territorial authorities in the Ruamāhanga whitua • Industry guidelines are the primary source of GMP guidance • Sub-catchment groups, communities and industry bodies help to develop and apply appropriate GMP specific to the identified requirements of FMUs • All sectors, including the three waters sector, actively design and progressively implement GMP, not just the primary sector • As Greater Wellington cannot implement GMP on its own, it develops partnerships with industry, stakeholders and communities for supporting the implementation and adoption of GMP, with the critical role of industry recognised. 		Note: All new and reviewed farm plans include this. However, not all existing farm plans have been reviewed/updated to include GMP.
11.2	<p>The Committee recommends that:</p> <ul style="list-style-type: none"> • GMP be emphasised and innovation fostered as part of every farm plan and by the operational practices of Greater Wellington and territorial authorities in the Ruamāhanga whitua • Industry guidelines are the primary source of GMP guidance • Sub-catchment groups, communities and industry bodies help to develop and apply appropriate GMP specific to the identified requirements of FMUs • All sectors, including the three waters sector, actively design and progressively implement GMP, not just the primary sector • As Greater Wellington cannot implement GMP on its own, it develops partnerships with industry, stakeholders and communities for supporting the implementation and adoption of GMP, with the critical role of industry recognised. 	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
12			
12.1	<p>The Committee recommends that water use efficiency be improved among all water users in the Ruamāhanga whitua, including by:</p> <ul style="list-style-type: none"> • Local councils (as suppliers of water) improving water conservation by residential, commercial and industrial users, establishing appropriate demand management strategies during water shortages, improving resilience and reducing demand in issuing of consents for new builds and subdivisions, and investigating opportunities for water re-use • Group and community water suppliers appropriately managing demand during water shortages and supporting improved resilience of supply 	To be commissioned by deliverables	<p>New deliverable name: Water Conservation Programme.</p> <p>Proposed that this be led by Masterton District Council, Carterton District Council and South Wairarapa District Council (or Wellington Water on their behalf).</p> <p>Each of the above Councils would lead their own document.</p>

	<ul style="list-style-type: none"> • Irrigation users meeting at least 80% efficiency of application and further improving practices through recognised programmes • Greater Wellington recognising that exceptions to the “80% efficiency of application” requirement may be appropriate where the financial return from a less efficient water application can be shown to be high (i.e. the water use is highly economically efficient) or where there are meaningful benefits for the environment in a less efficient water use, effectively offsetting the benefits of being 80% efficient • Greater Wellington and territorial authorities working together to develop long term plans for the management of water races in the Ruamāhanga whitua that meet the objectives of this WIP and provide for the values of the water bodies and communities • Increasing education opportunities across types of water users. 		
12.2	<p>The Committee recommends that water use efficiency be improved among all water users in the Ruamāhanga whitua, including by:</p> <ul style="list-style-type: none"> • Local councils (as suppliers of water) improving water conservation by residential, commercial and industrial users, establishing appropriate demand management strategies during water shortages, improving resilience and reducing demand in issuing of consents for new builds and subdivisions, and investigating opportunities for water re-use • Group and community water suppliers appropriately managing demand during water shortages and supporting improved resilience of supply • Irrigation users meeting at least 80% efficiency of application and further improving practices through recognised programmes • Greater Wellington recognising that exceptions to the “80% efficiency of application” requirement may be appropriate where the financial return from a less efficient water application can be shown to be high (i.e. the water use is highly economically efficient) or where there are meaningful benefits for the environment in a less efficient water use, effectively offsetting the benefits of being 80% efficient • Greater Wellington and territorial authorities working together to develop long term plans for the management of water races in the Ruamāhanga whitua that meet the objectives of this WIP and provide for the values of the water bodies and communities • Increasing education opportunities across types of water users. 	Currently being implemented	Being delivered through farm plan tools.
12.3	<p>The Committee recommends that water use efficiency be improved among all water users in the Ruamāhanga whitua, including by:</p> <ul style="list-style-type: none"> • Local councils (as suppliers of water) improving water conservation by residential, commercial and industrial users, establishing appropriate demand management strategies during water shortages, improving resilience and reducing demand in issuing of consents for new builds and subdivisions, and investigating opportunities for water re-use 	To be commissioned by deliverables	<p>New deliverable name: Water Races Long Term Management Options Project.</p> <p>Greater Wellington led.</p> <p>This will be a dedicated project. Work will commence with identifying objectives, preliminary scope and resource requirements, then testing these through a project brief</p>

	<ul style="list-style-type: none"> • Group and community water suppliers appropriately managing demand during water shortages and supporting improved resilience of supply • Irrigation users meeting at least 80% efficiency of application and further improving practices through recognised programmes • Greater Wellington recognising that exceptions to the “80% efficiency of application” requirement may be appropriate where the financial return from a less efficient water application can be shown to be high (i.e. the water use is highly economically efficient) or where there are meaningful benefits for the environment in a less efficient water use, effectively offsetting the benefits of being 80% efficient • Greater Wellington and territorial authorities working together to develop long term plans for the management of water races in the Ruamāhanga whitua that meet the objectives of this WIP and provide for the values of the water bodies and communities • Increasing education opportunities across types of water users. 		<p>(or business case or similar mechanism) to identify whether there is a mandate to proceed further.</p> <p>The project will need to align with the Wairarapa Water Resilience Programme.</p> <p>This deliverable is shared with Recommendation 107.</p>
13	All people of the whitua need to be involved in efforts to ensure that water is used efficiently and with care, and the burden of change in order to improve water quality should be borne across communities.	No applicable deliverables to implement	This is a principle and addressed through other recommendations, rather than having specific deliverables attached to it.
14	Greater Wellington establishes as an urgent priority, and actions, a monitoring plan as required by Policy CB1 of the NPS-FM for the monitoring of each FMU.	To be commissioned by deliverables	<p>New deliverable name: Whitua Monitoring Plan encompassing each FMU.</p> <p>Greater Wellington led.</p> <p>Word document for each Whitua. Each FMU is to be represented. To meet requirements of NFS-FM 2020 s3.18.</p> <p>Note: although each FMU will be addressed, this will not necessarily mean monitoring sites will be implemented. Modelling or extrapolation may be utilised.</p> <p>To action the plan, a revised monitoring programme will need to be put in place.</p> <p>This deliverable is also shared with recommendations 17, 19, 20 and 21.</p>
15	Greater Wellington establishes as an urgent priority, and operates, a freshwater quality accounting system as required by the NPS-FM (Policy CC1). The existing water take accounting system should be upgraded so that it is compatible with the quality system and is accessible to the public and water users.	Currently being implemented	Greater Wellington’s Environment Group have been progressing this but identified issues with data which are being resolved. An ICT component may be progressed separately.
16	Greater Wellington requires the provision of information on contaminant inputs, sources and/or losses and mitigation activities from resource users, as appropriate to the issues, suitable for the development, operation and use of fit for purpose freshwater accounting.	Currently being implemented	A Freshwater accounting system is being developed by Greater Wellington, as described in Recommendation 15.
17	Greater Wellington develops a suitable monitoring programme(s) to establish in-river sediment loads and/or concentrations, including confirming relationships to sediment loads off land and the effectiveness of	To be commissioned by deliverables	New deliverable name: Whitua Monitoring Plan encompassing each FMU.

	mitigations. Greater Wellington requires the progress of actions to mitigate sediment loss, including riparian planting and hill-slope erosion practices, to be regularly reported.		Greater Wellington led. Refer to recommendation 14 for details.
18	Greater Wellington establishes a data protocol and reporting plan to ensure that all aggregated data collected is publicly available and provided in a fit for purpose and transparent manner.	Currently being implemented	Being implemented by Greater Wellington through an accounting system. Data is currently aggregated and publicly available but not in a fit for purpose manner. Remainder of the recommendation will be delivered through the data platform project.
19	Greater Wellington supports community monitoring and the wider integration of monitoring results to support FMU outcomes.	To be commissioned by deliverables	New deliverable name: Whaitua Monitoring Plan encompassing each FMU. Greater Wellington led. Refer to recommendation 14 for details.
20	Greater Wellington undertakes a review of flow monitoring sites in the Ruamāhanga whaitua. Where necessary, to ensure that the network is fit for purpose in implementing this WIP, it makes changes to the network, including the establishment of new sites.	To be commissioned by deliverables	New deliverable name: Whaitua Monitoring Plan encompassing each FMU. Greater Wellington led. Refer to recommendation 14 for details.
21	Greater Wellington establishes a social and economic monitoring and assessment framework with indicators agreed by the community. Greater Wellington includes social and economic monitoring in the monitoring plan for the Ruamāhanga whaitua.	To be commissioned by deliverables	New deliverable name: Whaitua Monitoring Plan encompassing each FMU. Greater Wellington led. Refer to recommendation 14 for details.
22	Greater Wellington undertakes a full review of the land and water management system at the next regional plan review (10 years) and makes appropriate changes to the plan.	NRP Plan Change after 2024	Being managed by Greater Wellington through its regulatory programmes of work.
23	Greater Wellington includes in the PNRP a policy or policies that identifies that “river and lake management” is for the health of the water body itself, recognising: 1. That the mauri of the water sustains the mauri of the people 2. The critical importance of providing for the habitat and natural character of rivers and lakes in achieving the Ruamāhanga freshwater objectives 3. The extensiveness and importance of small streams, wetlands and backwaters (in braided rivers) in the Ruamāhanga whaitua in providing healthy native fish habitat and bird habitat and the conditions for mahinga kai species, places and activities to thrive.	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
24	Greater Wellington includes in the PNRP a policy or policies that identifies that “river and lake management” is for the health of the water body itself, recognising: 1. That the mauri of the water sustains the mauri of the people	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.

	<p>2. The critical importance of providing for the habitat and natural character of rivers and lakes in achieving the Ruamāhanga freshwater objectives</p> <p>3. The extensiveness and importance of small streams, wetlands and backwaters (in braided rivers) in the Ruamāhanga whitua in providing healthy native fish habitat and bird habitat and the conditions for mahinga kai species, places and activities to thrive.</p>		
25	<p>Greater Wellington plans and implements the Committee’s vision for healthy rivers and lakes in the Ruamāhanga whitua by:</p> <ol style="list-style-type: none"> 1. Ensuring that the river and lake management functions of the Council achieve freshwater objectives and targets in each FMU 2. Working with mana whenua and communities in co-creating what river and lake management for the health of the river looks like within each FMU. 	Currently being implemented	<p>Te Kāuru Upper Ruamāhanga Floodplain Management Plan sets out a change in river management to improve the health of the rivers in the Upper Ruamāhanga catchment. Such as allowing the river more room, less in river works and planting of the buffer (riparian). Intervention methods have changed since the adoption of Te Kāuru (circa 2019) with many small erosion events being left and watched as they are deemed not to be of any risk to people or infrastructure. The lower catchment will require a wider plan, which is to be developed over the next six years.</p> <p>The Waiohine River Plan has now been adopted by Council. Within this river plan it talks about water quality and outlines the WIP water quality targets for the Waiohine River Plan. The plan outlines recommended plan (PNRP) changes to align water allocation as well as planting for river management, biodiversity, and cultural resource.</p>
26	<p>Greater Wellington identifies and implements methods for further enabling mana whenua participation in land and water resource management, including with papa kāinga, marae and hapū (as appropriate), to ensure that the values of mana whenua are appropriately reflected in freshwater planning and regulatory processes and in flood protection strategic and operational planning and implementation.</p>	Currently being implemented	<p>Greater Wellington’s work programmes includes incorporation of Mana Whenua values in the following areas:</p> <ul style="list-style-type: none"> • freshwater planning and regulatory processes • flood protection strategic activities • flood protection operational planning • flood protection implementation.
27	<p>Greater Wellington includes in the PNRP a policy promoting the restoration of rivers, lakes and wetlands to achieve the Ruamāhanga freshwater objectives, which supports activities in the beds of rivers, lakes and wetlands when these activities are undertaken for such restoration purposes.</p>	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
28	<p>Greater Wellington reviews current planning and implementation activities relevant to the health of lakes and rivers in order to:</p> <ol style="list-style-type: none"> 1. Identify any changes necessary to planning, governance, investment and practice to deliver the Ruamāhanga whitua objectives through river and lake management 2. Identify new multidisciplinary systems to deliver integrated river and catchment management 3. Progressively implement the findings of this review work. <p>“Activities” could include institutional delivery structures, the alignment of future relevant land and water programmes and investments, and the application of GMP in operational and capital expenditure works.</p>	Currently being implemented	<p>Being implemented by Greater Wellington through several initiatives.</p> <p>Floodplain Management Plan Guidelines are currently being reviewed to ensure they capture WIP recommendations and are relevant to how flood protection is undertaken in today’s environment. The review will be completed late 2023.</p> <p>Flood Protection also have a Code of Practice that has been updated to reflect WIP recommendations around water quality/healthy rivers and streams.</p>

29	<p>Greater Wellington seeks and takes opportunities to enhance the natural form and character, aquatic ecosystem health and mahinga kai of rivers, streams, lakes and wetlands across the Ruamāhanga whitua, including by:</p> <ol style="list-style-type: none"> 1. Aligning the planning and operation of flood management activities (e.g. floodplain planning) with the Ruamāhanga whitua objectives and policies 2. Identifying and implementing management options to enhance natural character and to achieve the Ruamāhanga freshwater objectives when undertaking operational works (e.g. willow removal and gravel extraction) 3. Aligning and supporting farm planning and farm plan implementation with the Ruamāhanga whitua objectives 4. Investing in riparian planting for shading and stream bank erosion management and in wetland restoration 5. Supporting and undertaking the restoration of native fish spawning habitat, including in water bodies affected by flood management activities. 	Currently being implemented	<p>Te Kāuru Upper Ruamāhanga Floodplain Management Plan covers river activities within the Upper Ruamāhanga catchment. It has objectives in the plan that seek to achieve this recommendation. The Code of Practice is also aligned to meet this recommendation.</p> <p>Riparian planting is part of the implementation of Te Kāuru. Funding was achieved through the Ministry for the Environment 'Jobs for Nature' programme that has seen 150,000 native plants planted over 100ha over the last 4 years. This funding was based off Te Kāuru.</p> <p>Te Kāuru funding has now become available to enable us to continue this work in the upper catchment, along with the appointment of Riparian and Community officers. The river schemes also undertaken enhancement work restricted to scheme funding.</p> <p>The lower valley work is via the current scheme structure, where substantial planting is undertaken through each work programme. Over the next six years a river and/or catchment plan will be developed that with mana whenua, TAs and the community that will align with all relevant WIP recommendations.</p> <p>The Waiohine River Plan has now been adopted by Council. Within this river plan it talks about water quality and outlines the WIP water quality targets for the Waiohine River Plan. The plan outlines recommended plan (PNRP) changes to align water allocation as well as planting for river management, biodiversity and cultural resource. The vision, targets and requirements of the Whitua programme and Te Mana O Te Wai are incorporated into the Waiohine River Plan.</p> <p>There is also farm planning and riparian planting and biodiversity work underway.</p>
30	<p>Greater Wellington includes a policy in the PNRP to restore the health of Wairarapa Moana by 2080, including to provide for mahinga kai, support native fish populations and restore the health of the Wairarapa Moana wetlands.</p>	NRP Plan Change by 2024	<p>Being managed by Greater Wellington through its regulatory programmes of work.</p>
31	<p>Greater Wellington commits to the restoration of the health of Wairarapa Moana, including Lake Wairarapa and Lake Ōnoke, by undertaking research, investigations and experiments in management approaches, strategic planning and changes to operational activities to progressively improve the lake health and to reach the objectives of this WIP by 2080 at the latest.</p>	Currently being implemented	<p>All falls under Wairarapa Moana Wetland Project.</p> <p>Wairarapa Moana will form part of the Lower Valley catchment/river plan that will be developed over the next 6 years with mana whenua, TAs and community. The current barrage gate consent will expire in 6 years so that a catchment/river plan is able to be thoroughly investigated (with or without the gates).</p> <p>Some parts of this recommendation are also covered in the following recommendations.</p> <p>Governance arrangements will change with the introduction of a Statutory Board.</p>
32	<p>Greater Wellington undertakes feasibility studies of "in-lake" management options for the purposes of providing for the community values of Wairarapa Moana and achieving the freshwater objectives identified in this WIP. Options to investigate include:</p> <ul style="list-style-type: none"> • Re-routing the Ruamāhanga River into Lake Wairarapa, particularly at flows below the median flow, with higher flows bypassing the lake 	Currently being implemented	<p>This recommendation is being implemented through the Lower Wairarapa Valley Development Scheme Review and Management Plan Project Plan led by Greater Wellington.</p> <p>Knowledge Water are progressing with the development of a hydraulic model to test the options identified by this recommendation.</p>

	<ul style="list-style-type: none"> • Alternative management regimes for the lake level gates at Lake Wairarapa • Alternative management regimes for Lake Ōnoke, including in relation to the timing, location and operation of lake mouth openings • Experimenting with alternative management options, such as temporarily holding Lake Wairarapa at higher levels than current practice, as a means of testing proof of concepts for potential broader application. <p>All such feasibility studies of in-lake management options should be completed within 10 years of the issuing of this WIP (i.e. by 2028). Experimentation should ensure an appropriate consideration of the WCO. Effective and early engagement with the Ruamāhanga whaitua community and broader public as part of any such feasibility work will help to underpin successful experimentation and the robust identification of management choices for future implementation.</p>		
33	<p>Greater Wellington investigates further options for restoring the health of Wairarapa Moana, including restoring the Ruamāhanga River flow into Lake Wairarapa, including to:</p> <ul style="list-style-type: none"> • Mitigate the impacts of wave action • Reduce the re-suspension of sediments in order to improve clarity • Create conditions suitable for macrophytes to survive and thrive • Remove nutrients and sediments • Restore the health of mahinga kai species • Enhance the health of wetlands. 	Currently being implemented	<p>As per Recommendations 32 & 34 this is being implemented through the Lower Wairarapa Valley Development Scheme Review.</p> <p>Jobs for Nature funding has a research component for fish and water quality.</p>
34	<p>Greater Wellington recognises and supports research being undertaken by external groups, mana whenua and the whaitua community on means to improve the health of Lake Wairarapa and Lake Ōnoke, and actively considers the application of new knowledge to the management of activities affecting the lakes, including through planning, consent practice and operational management practices.</p>	Currently being implemented	<p>This recommendation is being implemented through the Lower Wairarapa Valley Development Scheme Review and Management Plan Project Plan.</p>
35	<p>Greater Wellington actively informs and works with external agencies, including the Department of Conservation, to link the management of non-native fisheries and the commercial harvest of native fish species with achieving the Ruamāhanga whaitua objectives and to deliver on the needs of catchment communities.</p>	To be commissioned by deliverables	<p>New deliverable name: Meeting with DoC re fisheries with identification of any next steps</p> <p>Greater Wellington led.</p> <p>Meeting with DoC representative for Wairarapa fisheries to be initiated by Greater Wellington as part of Wairarapa Moana project discussions.</p> <p>To be followed by written advice (for example a memo or similar) to any local whaitua governance group overseeing implementation of the Ruamāhanga WIP.</p>

36	Greater Wellington sets water quality limits and targets for nutrients and sediment loads as rules in the PNRP for each FMU within the Ruamāhanga whitua, in accordance with Tables 2 and 3. Targets should be expressed as percentage reductions (from the limits) in the Ruamāhanga whitua plan change.	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
37	Greater Wellington sets water quality limits and targets for E. coli concentrations as rules in the PNRP for each FMU within the Ruamāhanga whitua, in accordance with the four attribute states in Table 8 in Appendix 3.	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
38	Progressively reduce sediment loads in the five FMUs producing the greatest sediment load off non-native land, as modelled under the baseline (current state), in accordance with the targets (to be achieved by 2050) set in Table 3. These “top 5” FMUs are: <ul style="list-style-type: none"> • Taueru • Huangarua • Eastern hill streams • Whangaehu • Kopuaranga. 	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
39	As a priority for implementation in the “top 5” FMUs, Greater Wellington works with communities to establish and implement farm plans on properties where they do not presently exist.	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
40	Progressively reduce sediment loss from net bank erosion in all non-“top 5” FMUs in the Ruamāhanga whitua in accordance with the targets (to be achieved by 2050) set in Table 3.	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
41	Greater Wellington reviews progress in achieving the targets (set in Table 3) 10 years after the notification of the Ruamāhanga whitua plan change, including describing the extent of mitigation work undertaken and the modelled and/or monitored impacts on water quality in rivers, streams and lakes in the whitua.	NRP Plan Change after 2024	Being managed by Greater Wellington through its regulatory programmes of work.
42	Across the whitua, Greater Wellington supports and drives improved management of critical source areas and high-risk land uses in line with GMP, including through working with industry partners.	Currently being implemented	Being implemented by Greater Wellington’s Environment Restoration team.
43	In the “top 5” FMUs, Greater Wellington undertakes further sub-FMU scale planning with local communities to establish the locations of highest priority in which to undertake sediment mitigation works in order to achieve the targets in Table 3.	Currently being implemented	Across the whitua, Greater Wellington supports and drives improved management of critical source areas and high-risk land uses in line with good management practice, including through working with industry partners.
44	Greater Wellington aligns the planning, funding and support of sediment mitigation activities, including both riparian restoration and hill-slope erosion and sediment control, with the identified priority areas and targets and the suitable mitigation approaches.	Currently being implemented	Across the whitua, Greater Wellington supports and drives improved management of critical source areas and high-risk land uses in line with GMP, including through working with industry partners.
45	Greater Wellington promotes the uptake of sediment mitigation through connections with new research into sediment mitigation measures, practices and adoption mechanisms, and Greater Wellington, industry and community extension services to enable the uptake of constantly improving practice.	Currently being implemented	Across the whitua, Greater Wellington supports and drives improved management of critical source areas and high-risk land uses in line with GMP, including through working with industry partners.

46	Greater Wellington reviews the need for a nutrient allocation regime 10 years after the Ruamāhanga whitua plan change, or by 2029. NOTE: Grandparenting would not be considered a suitable allocation regime if one were to be implemented.	NRP Plan Change after 2024	Being managed by Greater Wellington through its regulatory programmes of work.
47	Greater Wellington and industry promote and support the implementation of farm planning as a primary tool of management at a farm scale.	Currently being implemented	Being implemented by Greater Wellington's Environment Restoration team.
48	Greater Wellington further incentivises and promotes the adoption of farm planning and the activation and review of existing farm plans.	Currently being implemented	Being implemented by Greater Wellington's Environment Restoration team.
49	Greater Wellington and iwi partners and industry work together to promote and implement GMP in both rural and urban contexts. Appropriate GMP for the Ruamāhanga catchment should be defined.	Currently being implemented	Being implemented by Greater Wellington's Environment Restoration team. Good Management Practice (GMP) is a long-standing aspect of farm environment planning. Recent developments in this work include updating the GMP competencies of staff with deliberate training, staff development. GMP advisory services are planned in line with catchment priorities as determined by Whitua water quality objectives and land enhancement grant programmes support landowners implementing farm system changes to enhance GMP at a property scale based on catchment priorities. GMP promotion in urban context is not being implemented, apart from a minor amount of services (less than 5% of total programmes) provided to lifestyle block owners on the fringes of urban areas.
50	GMP should be emphasised as part of farm planning.	Currently being implemented	Being implemented by Greater Wellington's Environment Restoration team.
51	Greater Wellington reviews the land use rules structure including for break-feeding, cultivation, and livestock exclusion, to ensure that the requirements are clear to resource users when resource consent is required.	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
52	Greater Wellington actively promotes and enforces the requirements of the permitted activity rules for break-feeding, cultivation and livestock exclusion.	Currently being implemented	Being implemented by Greater Wellington's Environment Restoration team. This work aligns with Recommendation 49, GMP. Riparian restoration programme and various land enhancement grant support opportunities are enabling compliance through a farm environment planning delivery model. Enforcement of the requirements, where the above is not successful, is a standard regulation response.
53	Greater Wellington provides a new rule for land use changes where a new land use results in an increase in contaminant load as a discretionary activity in the PNRP. A land use change that results in a decrease in contaminant load shall be a permitted activity.	Fully implemented	
54	Greater Wellington expands its support for extensive, whitua-wide riparian planting for the management of stream bank erosion and for in-stream benefits (e.g. shade to reduce periphyton), including through: <ul style="list-style-type: none"> • Priority in farm planning design and implementation • Increasing funding for riparian planting, as well as improving access to and awareness of the funds 	Fully implemented	The implementation of Te Kāuru Upper Ruamāhanga Flood Management Plan is to riparian plant the buffer along the Upper Ruamahanga catchment. This was limited to the Ministry for the Environment Jobs for Nature funding as Te Kāuru did not have funding

	<ul style="list-style-type: none"> Producing plants (e.g. at Akura nursery) or assisting communities to produce plants fit for such a programme. 		<p>available. However, this has since changed, and planting can now occur under this funding base.</p> <p>The Waiohine River Plan has now been adopted by Council. Within this river plan it talks about water quality and outlines the WIP water quality targets for the Waiohine River Plan. The plan outlines recommended plan (PNRP) changes to align water allocation as well as planting for river management, biodiversity and cultural resource.</p> <p>The vision, targets and requirements of the Whaitua programme and Te Mana O Te Wai are incorporated into the Waiohine River Plan.</p>
55	Greater Wellington includes a rule in the PNRP for wastewater discharges to meet the target allocations for nutrients in Table 4. Target allocations are to be met by 2040.	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
56	Greater Wellington ensures that the nutrient allocations for wastewater discharges in Table 4 are reviewed and changed appropriately when plan reviews occur, including to recognise ongoing changes to and improvements in GMP.	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
57	Greater Wellington works with territorial authorities to ensure that wastewater is discharged appropriately to land by 2040, recognising that direct discharges to water may occasionally be acceptable but only in exceptional circumstances and only at high flows (e.g. three times the median flow).	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
58	Greater Wellington works with territorial authorities on a suitable permitted activity rule for the irrigation of wastewater to farm land. This should include conditions on the standard of the discharged effluent, discharge rates and timing, and any restrictions on where this irrigation should occur.	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
59	Greater Wellington introduces discharge standards for all point-source discharges.	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
60	Urban stormwater is managed in accordance with GMP and progressive improvement and the PNRP policies and rules.	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
61	Greater Wellington, along with iwi and other partners, supports the formation and coordination of catchment communities in both urban and rural environments.	Currently being implemented	Being implemented by Greater Wellington's Environment Restoration team.
62	Greater Wellington supports and contributes to the continued development of the Wairarapa Catchment Communities/Pūkaha to Palliser project, which aims to bring catchment community groups together and "make it easier" for them to achieve desired outcomes for their communities, whether they are environmental, social, cultural or economic outcomes.	Currently being implemented	<p>Riparian planting programme is working closely with the community where possible. Te Kāuru now has funding, this will open up a significant ability for GW to work with communities to establish riparian margins throughout the upper catchment. It is early days for the funding, so work needs to commence on developing a programme for this in conjunction with the new Rōpū Taiao Environment Group and Te Hunga Whiriwhiri.</p> <p>The Lower Valley, as stated in other recommendations, will require community input to enable a successful catchment plan.</p> <p>The Waiohine River Plan covers the restoration and conservation of the riverside to enable catchment community groups to become involved.</p>

63	Greater Wellington supports and contributes to the development of a multi-agency delivery platform that will effectively respond and deliver resources effectively and efficiently to the needs of catchment communities. This agency coordinated response will enable communities to make changes ahead of regulation and support innovation.	Currently being implemented	Once the Lower Valley catchment plan is completed Greater Wellington will be able to support and contribute to developing a multi-agency platform.
64	Greater Wellington writes a compliance plan with the community for compliance with rules in the PNRP, including targets and limits.	Currently being implemented	Will dovetail with Greater Wellington catchment plans.
65	Greater Wellington implements good compliance systems e.g. strategic compliance across activities (prioritising compliance on higher risk activities).	Fully implemented	Strategic compliance programme is already operating.
66	Greater Wellington undertakes a prioritisation exercise to determine the further investigations that need to be completed in the catchment to better understand effects and/or to establish causality to inform future management. The priorities identified in the following recommendation should also be included.	To be commissioned by deliverables	New deliverable name: Investigation Strategy for the Whaitua. Greater Wellington led. Report with recommendations on priorities for science investigations across the whaitua, including noting priorities already highlighted within the WIP.
67			
67.1	The following investigations should be considered priorities as part of the implementation of Recommendation 66: <ul style="list-style-type: none"> Establish sedimentation rates (and gather other information on the impacts of sediment on lake health and river health) for Lake Ōnoke, including to establish a relationship between catchment loads and lake health. Complete a further investigation, including via modelling, of sediment loads lost from land use activities, including to identify how loads are changing over time. Complete a further investigation of contaminant pathways through groundwater, including soil vulnerability and attenuation processes. 	Currently being implemented	
67.2	The following investigations should be considered priorities as part of the implementation of Recommendation 66: <ul style="list-style-type: none"> Establish sedimentation rates (and gather other information on the impacts of sediment on lake health and river health) for Lake Ōnoke, including to establish a relationship between catchment loads and lake health. Complete a further investigation, including via modelling, of sediment loads lost from land use activities, including to identify how loads are changing over time. Complete a further investigation of contaminant pathways through groundwater, including soil vulnerability and attenuation processes. 	To be commissioned by deliverables	New deliverable name: Contaminant Pathway Investigation. Greater Wellington led. This would need a staged approach. Would need to wait for completion of SkyTEM to begin the groundwater portion, expected to be a couple of years away (see work underway to implement recommendation 89). Stage 1: Desktop and scoping <ul style="list-style-type: none"> Consider what national/research work has been undertaken in this area already.

			<ul style="list-style-type: none"> Consider how work can be used in FMUs. Scope investigations to apply national programmes for soil. <p>Stage 2: Soil attenuation study</p> <ul style="list-style-type: none"> Undertake soil investigations <p>Stage 3: Groundwater Monitoring programme.</p> <ul style="list-style-type: none"> Targeted monitoring where you have a groundwater issue (in a groundwater management zone). <p>Stage 4: Catchment Pathways</p> <ul style="list-style-type: none"> Attenuation pathways report outlining results. Could potentially then apply results to other similar catchments. Would need to involve a soil/land scientist.
67.3	<p>The following investigations should be considered priorities as part of the implementation of Recommendation 66:</p> <ul style="list-style-type: none"> Establish sedimentation rates (and gather other information on the impacts of sediment on lake health and river health) for Lake Ōnoke, including to establish a relationship between catchment loads and lake health. Complete a further investigation, including via modelling, of sediment loads lost from land use activities, including to identify how loads are changing over time. Complete a further investigation of contaminant pathways through groundwater, including soil vulnerability and attenuation processes. 	Currently being Implemented	
68	Greater Wellington advocates for, and actively seeks out, alternative funding models for mitigation measures in order to promote successful and extensive implementation.	Currently being implemented	<p>Greater Wellington Flood Protection actively searched out additional/alternative funding through the first Covid19 lockdown, successfully obtaining a \$5 million, 5 year riparian planting programme through MfE.</p> <p>Also obtained shovel ready funding through the Provisional Development Fund for erosion works, one of which is for River Road, Masterton (\$2 million). This work is to protect the Ruamāhanga River from the closed MDC landfill.</p>
69	Greater Wellington should actively seek capital from central government and promote external capital investment, such as carbon offsetting programmes, in assisting landowners in extensive uptake of sediment mitigations across the whitua.	Currently being implemented	As per Recommendation 68. Flood Protection has obtained central government funding to assist with erosion control (riparian planting and hard engineering). We will continue to apply for capital funding from central government when it is available.

70	<p>To improve water supply reliability, the Ruamāhanga whitua integrated land and water management system should:</p> <ul style="list-style-type: none"> • Integrate multiple management options for water retention, including attenuation, storage and harvesting at a range of scales, and efficient use in the long and short terms, rather than be dependent on any one mechanism • Actively promote attenuation of water in soils, wetlands, lakes and groundwater systems across the catchment • Ensure an equitable approach to improved water storage and water use efficiency by both rural and urban users. 	Currently being implemented	Being implemented through Wairarapa Water Resilience Strategy.
71	Greater Wellington includes in the PNRP a policy that recognises the importance of the role of attenuation of water in soils, wetlands and lakes and their riparian margins in the whitua to support groundwater recharge and wetland restoration and help build resilience in communities.	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
72	Greater Wellington includes in the PNRP a policy that recognises the benefits of multiple mechanisms (such as storage, harvesting, attenuation and aquifer recharge) that increase resilience and water reliability of supply.	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
73	Greater Wellington includes in the PNRP a policy, or amends existing policy, to provide for circumstances where water may be taken at higher flows for purposes wider than storage e.g. aquifer recharge.	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
74	Greater Wellington further investigates integrated solutions to water reliability. These should include integrating storage, harvesting, attenuation and managed aquifer recharge, and facilitate pilot projects to prove feasibility.	Currently being implemented	Being implemented through Wairarapa Water Resilience Strategy.
75	<p>Greater Wellington requires users of water to manage their take and use in a more equitable manner and to ensure GMP, including to:</p> <ul style="list-style-type: none"> • Seek efficiency gains when consents are renewed for all water use activities • Promote small-scale storage on urban and rural properties in order to increase resilience and to encourage everyone to take part in improving water use efficiency • Require takes from directly connected groundwater to reduce and cease at times of low flows in rivers in the same way that surface water takes are managed • Require community supply takes to do more to reduce take at minimum flows, while protecting the ability to take water for people’s health needs • Reduce water race takes at minimum flows to only the water required to provide for people’s domestic needs and stock drinking needs. 	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.

76	<p>Greater Wellington investigates policy options in the PNRP to provide for “non-consumptive” takes. Consideration will need to be given to:</p> <ul style="list-style-type: none"> • The volume of the take and discharge • Ensuring that the efficiency of the water use is maximised in order to return a similar amount of water to the source • Maintaining the quality of the discharge in relation to the quality of the source water • The distance between the abstraction and discharge points • Any net ecological benefits of the use of the water. <p>The efficiency and quality requirements of this policy would come into effect five years after the plan change. Non-consumptive takes do not include irrigation.</p>	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
77	<p>Greater Wellington includes in the PNRP the following water allocation limits for the Kopuaranga River:</p> <ol style="list-style-type: none"> 1. Increase the minimum flow from 270L/s to 280L/s. 2. Cap the amount of water available to be allocated through consents at the existing consented use. (Existing consented use at June 2018 is 150L/s) 	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
78	<p>Greater Wellington includes in the PNRP the following water allocation limits for the Waipoua River:</p> <ol style="list-style-type: none"> 1. Increase the minimum flow from 250L/s to 340L/s over time as follows: <ol style="list-style-type: none"> a. Five years after plan change (or in 2024), increase the minimum flow to 300L/s. b. 10 years after plan change (or in 2029), increase the minimum flow to 340L/s. 2. Retain the current step down level at which takes shall reduce at 300L/s until the first minimum flow increase in 1 above occurs. 3. Cap the amount of water available to be allocated through consents at the existing consented use. (Existing consented use at June 2018 is 116L/s) 	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
79	<p>Greater Wellington includes in the PNRP the following water allocation limits for the Waingawa River:</p> <ol style="list-style-type: none"> 1. Remove the existing PNRP “lower” minimum flow of 1,100L/s. 2. Increase the minimum flow to the existing PNRP¹ “higher” minimum flow of 1,700L/s over 10 years as follows: 	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.

¹ Schedule R of the PNRP

	<ul style="list-style-type: none"> - Five years after plan change (or in 2024), increase the minimum flow to 1,400L/s for all takes for community and group water supplies and water races. - 10 years after plan change (or in 2029), increase the minimum flow to 1,700L/s for all takes. <p>3. Retain the efficient use and unused water policies in the PNRP to work towards reducing the consented allocation in line with the allocation amount specified in the PNRP (920L/s).</p>		
80	Greater Wellington combines the upper Ruamāhanga and Middle Ruamāhanga catchment management units into a single water allocation management unit through a change to the PNRP.	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
81	<p>Greater Wellington includes in the PNRP the following water allocation limits for the Upper/Middle Ruamāhanga catchment:</p> <ol style="list-style-type: none"> 1. Increase the minimum flow level from 2,400L/s to 3,250L/s over time as follows: <ul style="list-style-type: none"> - No change for 10 years. - 10 years after plan change (or in 2029), increase to 2,700L/s. - 15 years after plan change (or in 2034), increase to 2,970L/s. - 20 years after plan change (or in 2039), increase to 3,250L/s. 2. Retain the current stepdown level at which takes shall reduce at 2,700L/s until the first minimum flow increase in 1 above occurs. 3. Cap the amount of water available to be allocated through consents at the existing consented use. (Existing consented use at June 2018 is 1,910L/s.) 	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
82	<p>Greater Wellington includes in the PNRP the following water allocation limits for the Waiōhine River:</p> <ol style="list-style-type: none"> 1. Remove the existing PNRP “lower” minimum flow of 2,300L/s. 2. Retain the “higher” minimum flow level of 3,040L/s. 3. Cap the amount of water available to be allocated through consents at the existing consented use. (Existing consented use at June 2018 is 950L/s). 	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
83	<p>Greater Wellington includes in the PNRP the following water allocation limits for the Tauherenikau River:</p> <ol style="list-style-type: none"> 1. Remove the existing “lower” PNRP minimum flow of 1,100L/s. 	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.

	<p>2. Retain the existing “higher” PNRP minimum flow of 1,300L/s.</p> <p>3. Cap the amount of water available to be allocated through consents at the existing consented use. (Existing consented use at June 2018 is 234L/s).</p>		
84	For the Lower Ruamāhanga catchment, Greater Wellington retains the existing PNRP minimum flow and allocation amounts.	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
85	Greater Wellington changes the provisions of the PNRP to ensure that in 10 years’ time (or in 2029) those takes classified as Category A groundwater must cease their take when the nearby river or stream reaches its minimum flow.	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
86	Greater Wellington undertakes further investigations to ensure that those groundwater takes classified as Category A do have a direct connection with nearby river, stream or lake.	Currently being implemented	Investigations have been completed but may be refined in the future using additional information about the geology (e.g., results from Sky TEM project). An assessment of the gaps and confidence in information for each area may be needed.
87			
87.1	<p>Greater Wellington undertakes targeted investigations into the Parkvale Stream, Booths Creek, Mākōura Stream, Kuripuni Stream and Tauanui and Tūranganui Rivers to determine the specific minimum flow requirements and allocation limits for each river or stream, within three years of the plan notification or by 2022.</p> <p>In the interim, Greater Wellington includes in the PNRP the following minimum flows and allocation limits:</p> <ol style="list-style-type: none"> 1. For Parkvale Stream and Booths Creek, retain the current allocation limits and minimum flows in the PNRP. 2. Separate the Mākōura and Kuripuni Streams from the Upper Ruamāhanga limits currently in the PNRP and set allocation limits at the current consented allocation and minimum flow at 100L/s based on the management point Colombo Road on the Mākōura Stream. 3. Separate the Tauanui River from the Lower Ruamāhanga limits currently in the PNRP, and set an allocation limit at the current consented allocation and minimum flow of 30L/s based on the management point Iraia on the Ruakokoputuna Stream (correlations indicate that this represents 90% of MALF in the Tauanui and Tūranganui). 4. Set the allocation limit for the Tūranganui River at the current consented allocation and set a minimum flow of 30L/s based on the management point Iraia on the Ruakokoputuna Stream (correlations indicate that this represents 90% of MALF in the Tauanui and Tūranganui). 5. Separate the Huangarua River from the Lower Ruamāhanga PNRP limits (upstream of the Ruamāhanga River confluence), retain the existing PNRP allocation of 110L/s and set a minimum flow of 30L/s based on the management point Iraia on the Ruakokoputuna Stream (the headwaters of the Huangarua River). 	Currently being implemented	Small Stream Investigations work led by Greater Wellington. This work is currently underway.
87.2	Greater Wellington undertakes targeted investigations into the Parkvale Stream, Booths Creek, Mākōura Stream, Kuripuni Stream and Tauanui and Tūranganui Rivers to determine the specific minimum flow	To be commissioned by deliverables	New deliverable name: Minimum flow requirements and allocation limits for Mākōura Stream, Kuripuni Stream.

	<p>requirements and allocation limits for each river or stream, within three years of the plan notification or by 2022.</p> <p>In the interim, Greater Wellington includes in the PNRP the following minimum flows and allocation limits:</p> <ol style="list-style-type: none"> 1. For Parkvale Stream and Booths Creek, retain the current allocation limits and minimum flows in the PNRP. 2. Separate the Mākōura and Kuripuni Streams from the Upper Ruamāhanga limits currently in the PNRP and set allocation limits at the current consented allocation and minimum flow at 100L/s based on the management point Colombo Road on the Mākōura Stream. 3. Separate the Tauanui River from the Lower Ruamāhanga limits currently in the PNRP, and set an allocation limit at the current consented allocation and minimum flow of 30L/s based on the management point Iraia on the Ruakokoputuna Stream (correlations indicate that this represents 90% of MALF in the Tauanui and Tūranganui). 4. Set the allocation limit for the Tūranganui River at the current consented allocation and set a minimum flow of 30L/s based on the management point Iraia on the Ruakokoputuna Stream (correlations indicate that this represents 90% of MALF in the Tauanui and Tūranganui). 5. Separate the Huangarua River from the Lower Ruamāhanga PNRP limits (upstream of the Ruamāhanga River confluence), retain the existing PNRP allocation of 110L/s and set a minimum flow of 30L/s based on the management point Iraia on the Ruakokoputuna Stream (the headwaters of the Huangarua River). 		<p>Greater Wellington led.</p> <p>Study to match other streams in Recommendation 87.</p> <p>Note that these streams were excluded in existing work (the streams covered in Recommendation 87.1) due to the high cost of implementing this recommendation.</p>
87.3	<p>Greater Wellington undertakes targeted investigations into the Parkvale Stream, Booths Creek, Mākōura Stream, Kuripuni Stream and Tauanui and Tūranganui Rivers to determine the specific minimum flow requirements and allocation limits for each river or stream, within three years of the plan notification or by 2022.</p> <p>In the interim, Greater Wellington includes in the PNRP the following minimum flows and allocation limits:</p> <ol style="list-style-type: none"> 1. For Parkvale Stream and Booths Creek, retain the current allocation limits and minimum flows in the PNRP. 2. Separate the Mākōura and Kuripuni Streams from the Upper Ruamāhanga limits currently in the PNRP and set allocation limits at the current consented allocation and minimum flow at 100L/s based on the management point Colombo Road on the Mākōura Stream. 3. Separate the Tauanui River from the Lower Ruamāhanga limits currently in the PNRP, and set an allocation limit at the current consented allocation and minimum flow of 30L/s based on the management point Iraia on the Ruakokoputuna Stream (correlations indicate that this represents 90% of MALF in the Tauanui and Tūranganui). 4. Set the allocation limit for the Tūranganui River at the current consented allocation and set a minimum flow of 30L/s based on the management point Iraia on the Ruakokoputuna Stream (correlations indicate that this represents 90% of MALF in the Tauanui and Tūranganui). 5. Separate the Huangarua River from the Lower Ruamāhanga PNRP limits (upstream of the Ruamāhanga River confluence), retain the existing PNRP allocation of 110L/s and set a minimum flow of 30L/s based on the management point Iraia on the Ruakokoputuna Stream (the headwaters of the Huangarua River). 	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.

88	<p>Greater Wellington includes in the PNRP the following minimum flows and allocation amounts for small streams and rivers in the Ruamāhanga whaitua:</p> <ol style="list-style-type: none"> 1. Retain the current allocation limits and minimum flows in the PNRP for the Papawai and Otukura Streams. 2. Separate the Makahakaha Stream from the Middle Ruamāhanga PNRP limits (upstream of the Ruamāhanga Category A groundwater boundary) and set the allocation limit at the current consented allocation and the minimum flow at 90% of MALF. 3. Separate the Taueru River (upstream of the Kourarau Stream confluence) from the Middle Ruamāhanga PNRP limits, and set the allocation at the current consented allocation and the minimum flow at 65L/s at the upstream confluence. 4. Separate the Whangaehu River from the Upper Ruamāhanga PNRP limits (upstream of the Poterau Stream confluence), and set the allocation at the current consented allocation and the minimum flow at 18L/s at the Whangaehu River at the Waihi management site. 5. For the streams and their tributaries that drain directly to Lake Wairarapa or the South coast, retain the existing default provisions in the PNRP (90% MALF minimum flow, 30% MALF allocation limit). 6. For all other tributary streams of the main stem Ruamāhanga River that are not listed elsewhere (primarily in the Eastern hill and Valley floor streams water allocation management units), separate from the Lower Ruamāhanga PNRP limit and set default allocation limits of 30% MALF and default minimum flows of 90% MALF. 	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
89	Greater Wellington establishes fit for purpose information about the size and nature of groundwater resources, particularly in the Pirinoa Terraces, Parkvale, Waiōhine and Waingawa parts of the Ruamāhanga whaitua.	Currently being implemented	<p>Pirinoa terraces – undertaken quite a lot of work on this, geophysics and geology, geochemistry and groundwater quality investigation to gain a better conceptual understanding of the Tauanui and Turanganui rivers and their connections to groundwater that feeds into building a groundwater flow model to inform plan change work.</p> <p>Flew SkyTEM across the whole of the Wairarapa valley in early 2023 to understand the geology better to understand the groundwater aquifer boundaries and any additional areas where groundwater might be. Will take 2 years to complete the model. This will then feed into other areas.</p> <p>Additional work will need to follow this, and it will need to be confirmed that the recommendation has been fully implemented over time.</p>
90	Greater Wellington includes in the PNRP a policy to ensure that a precautionary approach is taken to the issuing of resource consents for groundwater takes where information on the nature of the resources is limited.	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
91	Greater Wellington implements the new minimum flow levels in resource consents for the Ruamāhanga whaitua using the following methods:	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.

	Implementing minimum flow levels in resource consents					
	New consents	Existing consents				
		Expire within five years of whitua plan change				Expire more than five years after whitua plan change
	At consent application	At consent renewal	At consent review, five years after whitua plan change			
92	Greater Wellington uses the review of resource consent conditions (RMA section 129) and water shortage directions (RMA section 329), especially where adverse effects are occurring. This includes recognising that when adverse effects are occurring in a particular river or stream, water shortage directions may be issued to further restrict both consented and permitted water use.			Currently being implemented		
93	Greater Wellington amends the permitted activity rule, or introduces a new permitted activity rule, in the PNRP to ensure that users have certainty that water can be taken for reasonable domestic use and animal drinking water (provided the taking does not, or is not likely to, have adverse effects on the environment).			NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.	
94	<p>Greater Wellington identifies in the PNRP, using narrative and (possibly) numbers (unit/volume/day), the meaning of domestic and stock water use, e.g.:</p> <ul style="list-style-type: none"> • Water for an individual’s reasonable domestic needs is the amount sufficient to provide for hygiene, sanitary and domestic requirements • Water for the reasonable needs of a person’s animals for drinking water is the amount sufficient to provide for the animals’ health and welfare. 			NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.	
95	<p>Greater Wellington amends the relevant permitted activity² rule in the PNRP to:</p> <ul style="list-style-type: none"> • Limit take to 5m³/day for surface and groundwater takes, regardless of property size • Ensure that the water allowed under this permitted activity excludes use for which a person has resource consent i.e. a take under the permitted activity cannot be used to provide an extra 5m³ of water for irrigation if a person has a consent for irrigation • Cease permitted take at minimum flows • Retain the ability for Greater Wellington to require metering 			NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.	

² Rule R136 of the PNRP

	Ensure that users have the ability to use water under this rule in addition to water available under Recommendation 93.		
96	Greater Wellington collects better information on water take and use volumes, including for permitted activity takes, in order to provide for more transparent accounting of water use and better management into the future and to ensure that the requirements of the NPS-FM are met. Methods to obtain information on permitted activities could include surveys, modelling and metering of takes where adverse effects are observed or in areas of high demand.	Currently being implemented	To form part of Freshwater Accounting System.
97	Greater Wellington introduces a new rule to the PNRP to provide for the use and diversion of rainwater from a roof to a tank as a permitted activity.	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
98	In order to help meet minimum flow requirements, the Committee strongly supports the use of rainwater tanks and encourages territorial authorities to require rainwater tanks in new subdivisions to promote the efficient use of water.	Regional Policy Statement	Being managed by Greater Wellington through its regulatory programmes of work.
99	Greater Wellington amends the relevant permitted activity rule in the PNRP to ensure that where takes are from surface water bodies, water may be taken below minimum flow levels but it must be reduced to the minimum amount necessary in order to operate dairy sheds safely.	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
100	Territorial authorities inform and raise awareness of water conservation in their constituencies, such as on their websites. Information promoting and encouraging water conservation can extend to all sectors of the community, such as households, businesses, industry, agriculture and recreational facilities, including information on re-using greywater.	Currently being implemented	Being delivered via the Wairarapa Water Resilience Strategy.
101	Greater Wellington requires group and community water suppliers to provide water conservation plans as part of resource consent applications to take water, which include how use will be managed at times of water shortage when restrictions are being placed on other consented water uses (e.g. during summer low flow periods).	Currently being implemented	Being delivered via the Wairarapa Water Resilience Strategy.
102	Greater Wellington supports community water suppliers' moves to manage their networks through metering water users (recognising that some already do so).	Currently being implemented	Being delivered via the Wairarapa Water Resilience Strategy.
103	Greater Wellington supports steps by community water suppliers to improve water supply resilience by increasing the number of water sources, including water storage, particularly where a single source is relied on.	Currently being implemented	Being delivered via the Wairarapa Water Resilience Strategy.
104	Greater Wellington retains the provisions in the PNRP requiring an irrigation application efficiency of 80% in demand conditions that occur in nine out of 10 years, as verified by a field validated model that assesses crop water use, soil water holding capacity, rainfall variability and evapo-transpiration.	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
105	Greater Wellington and industry reinforce and promote best practice when users are measuring and reporting on their water use. The "Blue Tick Accreditation Programme" championed by Irrigation New Zealand is suitable practice for monitoring and reporting on water takes.	Currently being implemented	To be integrated into work on farm plans by Greater Wellington.

106	Greater Wellington explores options for transferring the taking and use of water (including sharing) from one location to another with the intention of making it easier for users, including by changing consenting status (e.g. from discretionary to controlled activity).	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
107	Greater Wellington works with territorial authorities and landowners to collect information and develop long-term management options (in conjunction with Recommendations 9 and 11) for all water races in the Ruamāhanga whitua. The information should be collected and assessed in the order that water races come up for consent renewal.	To be commissioned by deliverables	New Deliverable name: Water Races Long Term Management Options Project. Greater Wellington led. See Recommendation 12.3 which shares this deliverable for details.
108	<p>Greater Wellington develops a policy indicating that water races requiring resource consent before appropriate long-term management options have been developed shall get short-term consent until the long-term status of the water race is decided. Appropriate information for developing long-term management options for each water race may include, but is not limited to:</p> <ul style="list-style-type: none"> • The hydrology of the water race and the interaction with surrounding groundwater and surface water (how much water is in the water race, how much is lost, how much is discharged) • How much water is used and what it is used for • Water quality • Social values, ecological values, mana whenua values, heritage values and economic value • The efficiency of water use and options for increasing efficiency • The areas of management overlap and opportunities for better integration (regional consents and district bylaws). 	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.
109	Greater Wellington amends the date in the relevant provisions of the PNRP for water used by industry from a community drinking water supply to be authorised below the minimum flow, from the existing approach of seven years from the notification of the PNRP to seven years from the date of notification of the Ruamāhanga whitua plan change.	NRP Plan Change by 2024	Being managed by Greater Wellington through its regulatory programmes of work.