OURS.

THE MANAWATŪ RIVER
LEADERS' ACCORD

ACTION PLAN 2016-21

VISION

Kei te ora te wai, kei te ora te whenua, kei te ora te tangata

If the water is healthy, the land and the people are nourished

GOALS

Our goal is to improve the Manawatū River, the mauri (lifeforce) of the Manawatū River Catchment such that it sustains fish species and is suitable for contact recreation, in balance with the social, cultural and economic activities of the catchment community.

This goal represents a community opportunity to develop leadership in catchment improvement and capture the social and economic benefits of such leadership.

1. The Manawatū River becomes a source of regional pride and mana.
2. Waterways in the Manawatū Catchment are safe, accessible, swimmable* and provide good recreation and food resources.
3. The Manawatū Catchment and waterways are returned to a healthy condition.
4. Sustainable use of the land and water resources of the Manawatū Catchment continues to underpin the economic prosperity of the Region.

*Noting that some parts of the catchment by their nature are not safe for swimming.

Background

The first Action Plan was launched by the Manawatū River Leaders' Forum in July 2011 and led to a significant amount of collaborative effort right across the Catchment. This revised Plan aims to build on that effort to further improve our river as we look ahead to the year 2021.

The Manawatū River Leaders' Accord was signed in August 2010 when key Iwi/hapū, industry, farming, environmental and council representatives from around the Manawatū River Catchment came together to publicly pledge their commitment to the good health of the River as the Manawatū River Leaders' Forum. It marked a significant turning point in freshwater management as the parties moved from apportioning blame to agreeing that there was a water quality issue and a need for collaborative solutions. The Accord set a clear vision and goals for the River.

As part of achieving these goals, leaders committed to developing their first Action Plan made up of over 130 actions.

A significant amount of work was carried out under the first Action Plan in both rural and urban areas. $5.2 million worth of funding from Central Government's Fresh Start for Freshwater Clean-Up Fund added impetus to a suite of eight projects and a total of over $30 million has been invested by all parties to date. This second iteration of the Action Plan aims to refresh and refocus efforts to improve the Manawatū River and Catchment. It sets out the science, the process, the actions put forward by signatories and how you can get involved in the journey.

WHO'S INVOLVED?

The Manawatū River Leaders' Accord unites 34 diverse signatories representing a wide range of stakeholder organisations including: Iwi/hapū, local and central government, Massey University, major industry, farming, environmental and recreational advocacy groups. These signatories are collectively known as the Manawatū River Leaders' Forum.

The Forum was originally brought together by Horizons Regional Council and is now facilitated by an independent chairperson. Members meet at least twice a year to report on progress, share ideas, discuss concerns and build relationships to benefit the River and Catchment. Since the Accord was signed in 2010, a number of new parties have sought a seat at the Forum table. Dairy NZ, Beef + Lamb NZ, Environment Network Manawatū and the Save our River Trust are all now actively involved as part of collaborative efforts.

Action points

REDUCE THE NUTRIENT AND BACTERIA FROM POINT SOURCE DISCHARGES

REDUCE THE IMPACT OF FLOOD CONTROL AND DRAINAGE SCHEMES

PROTECT AREAS OF HABITAT FOR NATIVE FISH, BIRDS AND TROUT

REDUCE SEDIMENT RUN-OFF FROM EROSION PRONE FARMLAND, THE RURAL ROAD NETWORK, AND AREAS OF MAJOR EARTHWORKS

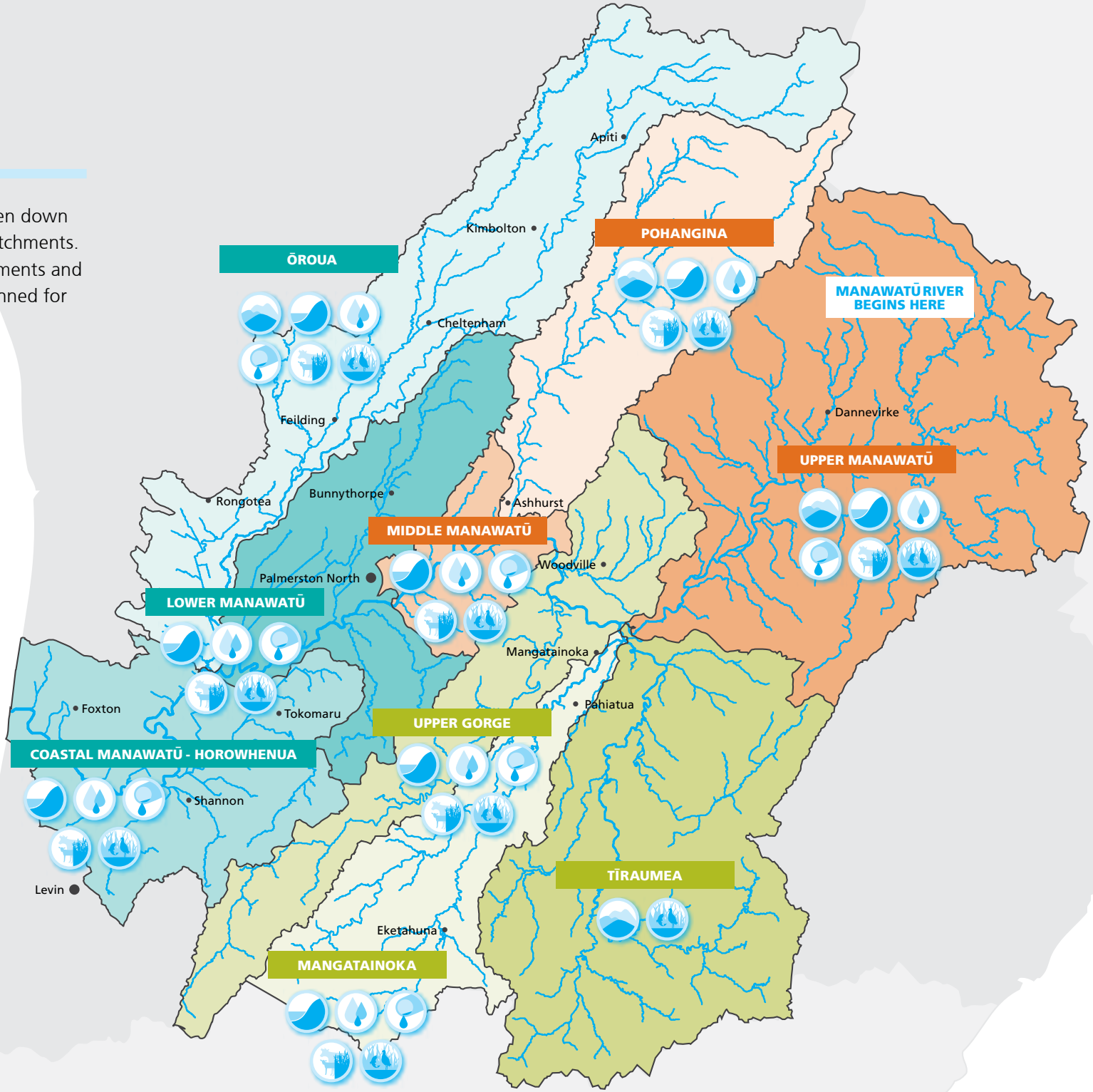
REDUCE THE RUN-OFF OF SEDIMENT, NUTRIENTS AND BACTERIA FROM INTENSIVE LAND-USE SUCH AS DAIRYING AND CROPPING

INCREASE AWARENESS OF THE CHALLENGES FACED BY FRESHWATER AND ACTIONS THE COMMUNITY CAN TAKE

PREVENT OVER-USE OF WATER

WHAT'S HAPPENING AND WHERE

The Manawatū Catchment is broken down into nine areas that we call sub-catchments. This map outlines these sub-catchments and provides an indication of work planned for each area.



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OUR JOURNEY TO DATE

FEB 2010
First meeting of the Manawatū River Leaders' Forum

AUG 2010
Manawatū River Leaders' Accord signed

JUL 2011
Horizons introduces new Manawatū River Accord rate

JUL 2011
Action Plan launched

APR 2014
Publication of comprehensive science and progress reports

MAR 2014
98 Environmental Farm Plans completed under the Accord

FEB 2014
Upgrades underway at wastewater treatment plants

FEB 2012
Release of first progress report

MAR 2012
Leaders' Forum receive $5.2 million to accelerate clean-up effort, matched by $25 million locally

JUL 2012
Hui ā-iwi Forum established

SEP 2012
First round of Manawatū River Community Grants

FEB 2013
One of NZ's largest inanga spawning sites identified at Whirokino

JUN 2013
River Accord wins Green Ribbon Award

JUL 2013
4,200 plants planted at Manawatū River source

AUG 2014
208km of fencing installed and 66,240 plants planted as part of Clean-up Fund

AUG 2014
A number of native fish and whitebait habitat restoration projects completed under Clean-up Fund

SEP 2014
NIWA and Horizons Regional Council undertake fish passage trial at Upper Kingston Road

NOV 2014
Oroua River, a tributary to the Manawatū, receives NZ River Award for second most improved in the country

DEC 2014
Horizons Regional Council's One Plan becomes operative

MAR 2015
Clean-up Fund commits to further community involvement projects

MAR 2015
Meeting of Science and Mātauranga Māori Advisory Panel to inform revised Action Plan

MAR 2016
2nd iteration of the Action Plan released

2020+
Waterways are safe, accessible and provide for recreation and food sources, sustainable land and water resources continue to underpin the Region's economic prosperity. Waterways are returned to a healthy condition, the River becomes a source of regional pride and mana.

A Snapshot of the Catchment

The Manawatū Catchment, in the lower North Island of New Zealand, measures approximately 5,900 km² or 590,000 ha. This equates to around 2.2% of New Zealand. The River itself varies considerably along its length depending on the geography and use of the land through which it flows. For example, in the upper Manawatū sub-catchment land use is 69% sheep and beef, 17% dairy and 13% forest (native and exotic) while land use in the coastal Manawatū-Horowhenua sub-catchment at the bottom of the Catchment is 37% sheep and beef, 36% dairy, 21% forest (native and exotic) and 1% urban. The following table shows how land is used across the catchment as a whole.

LAND USE	**KM²**
Sheep and/or Beef	3,426
Dairy	1,058
Native Cover	1,018
Exotic Cover	234
Built-up/Parks/Others	63
Cropping	48
Other	23
Water Body	14
Horticulture - Veg	11
Horticulture - Other	6
Dairy Run-off	4
Total	**5,905**

Over the decades, the River and its catchment have been extensively modified as a result of land clearance and development, discharges and flood and drainage control works. Unfortunately, an unintended consequence of this development has been degradation of the River's water quality and native flora and fauna. Some of these changes have been incremental as land has been developed and farmed; others have been almost instantaneous such as the introduction of point source discharges. However, just as changes to the River's make-up have evolved over time, efforts to mitigate the impact of development have also been evolving. There are no longer any farms that discharge dairy shed effluent to waterways and upgrades are being made to reduce the impact of wastewater treatment plants across the Catchment. The Manawatū Catchment is now one of the most heavily monitored and studied catchments in the country, allowing us to better understand and respond to the challenges it faces. The original Action Plan identified nine sub-catchments. These are the: Upper Manawatū, Tiraumea, Mangatainoka, Upper Gorge, Pohangina, Middle Manawatū, Lower Manawatū, Oroua, and Coastal Manawatū- Horowhenua. The specific challenges facing each of these sub-catchments can be further explored online at www.manawaturiver.co.nz

Mā rau ringa e oti ai!

Through the collaboration of the many the project will be completed!

MANAWATŪ CATCHMENT FACTS:

- 618 dairy sheds operate in the Manawatū Catchment and are inspected annually by Horizons Regional Council. Inspections include an assessment of dairy effluent storage and discharge systems. The compliance rate for 2015 was 97%.
- The One Plan identifies 49 sub zones within the Manawatū Catchment. The volume of surface water that can be consented for stock water, irrigation and other uses varies between these sub zones and is set out in the Plan's water allocation framework. Seven sub zones are fully allocated. These are: Mangatewainui, Tamaki-Hopelands, Hopelands-Tiraumea, Mangaramarama, Turitea, Middle Oroua and Lower Oroua. A further seven sub zones are overallocated. These are: Upper Tamaki, Lower Tamaki, Raparapawai, Mākākahi, Mangapapa, Mangaatua and Makino.
- There are 97 wetland sites in the Catchment. Of these, 18% are actively managed and 28% are legally protected.
- There are 321 native bush remnants in the Catchment. Of these, 11% are actively managed and 25% are legally protected.
- If a new wetland or bush remnant site is discovered and the landowners are willing, the site is surveyed using the rapid ecological assessment survey and some degree of active management may occur. New sites are surveyed to prioritise work.
- There are 196 consented discharges to waterways across the Manawatū Catchment. These discharges are to surface water or groundwater and include (but are not limited to) discharges from wastewater treatment plants, storm water, disturbance of sediment on stream and river beds during certain activities and leachate from landfills.

Over 120,000 plants have been planted alongside waterways in the Catchment since the launch of the first Manawatū River Leaders' Accord Action Plan.

The Review Process

A substantial amount of collaborative work has taken place across the Catchment under the original Action Plan, launched in July 2011. However, with Clean-up Fund projects drawing to a close and new Forum members coming on board, the Forum felt it was time to reflect on achievements to date and refocus Accord efforts. The Manawatū River Leaders' Accord is a voluntary initiative and this Plan identifies the voluntary actions signatories have committed to undertaking between now and the end of 2021 for the good health of the River.

You'll note there are fewer actions in this version of the Action Plan. This is because we've tried to make these more focused to achieve the best results. Signatories were conscious of the need to identify a lead agency responsible for each action as well as timeframes and measures of success to help us report back in 2018 and again in 2021/22. Accord partners are also mindful of the Treaty Settlement process currently underway, which is likely to result in arrangements or actions which will need to be incorporated into the Forum's work around the River.

SCIENCE AND MĀTAURANGA MĀORI ADVISORY PANEL

In early March 2015 a Science and Mātauranga Māori Advisory Panel comprising 20 scientists from across New Zealand met to inform development of a second generation Manawatū River Leaders' Accord Action Plan. The Panel was asked to: provide a statement on the current state and trends of water quality in the Catchment; summarise progress made to date; identify when results would be seen; and review/recommend actions for the Forum to implement.

The Panel was largely supportive of work underway to improve the state of the Manawatū River and Catchment. They recommended that these actions be continued or enhanced through the next iteration of the Action Plan and noted that, although a lot of work had been carried out, the Forum was just three years into its journey. They also expressed their backing for the comprehensive monitoring and research programmes already in place. This monitoring has been invaluable in helping to prioritise actions to improve the River's state and is now some of the most extensive nationwide.

While the Panel could only comment on long term trends (20 year trends) for eight sites in the Catchment due to the length of datasets available, they were able to comment on current state for 76 sites in the Catchment. The Panel's report and recommendations were presented to Forum members and are publically available online at www.manawaturiver.co.nz In this report and the Panel's advice it's clear that perseverance, careful targeting of works and continuity of effort will be key to achieving long-term success. More about the Science and Mātauranga Māori Advisory Panel's findings follows in the science section of this Action Plan.

STAKEHOLDER GROUPS

In addition to receiving the Panel's report, signatories worked in their stakeholder groups to review previous actions and identify any new actions for inclusion in this revised Action Plan. These stakeholder groups represented:

- Iwi/hapū;
- Environmental interests;
- Farming and industry;
- Local government; and
- Regional Council.

Following group discussions, representatives from each group submitted the actions they could commit to as a group or that organisations within their group wanted put forward for inclusion in the final Action Plan. In contributing these actions, groups were asked to identify a lead agency, supporting agencies, how the action would be measured and a timeframe for progress or completion.

Stakeholders discuss actions they can take to clean-up the River and Catchment at a Manawatū River Leaders' Forum meeting in 2015.

The Science

MONITORING WATER QUALITY

Monthly samples are collected at 76 river and stream sites across the Manawatū Catchment as part of Horizons Regional Council's primary water quality monitoring network. Of these sites, 17 are positioned directly downstream of major point source discharges such as treated wastewater from towns or industrial discharges. By monitoring water quality upstream and downstream of discharge points, scientists are better able to determine the impact of each point source discharge on overall water quality and whether these discharges are improving. It also allows them to calculate how much of the nutrient in the river comes from these point sources and how much comes from other sources such as run-off from farms or other parts of the landscape, and whether the amount from these other sources is getting better or worse. To complement monthly and annual sampling, Horizons measures some aspects of water quality in the Manawatū on a continuous basis (every 15 minutes). This captures daily variation in measures like water temperature (31 sites), dissolved oxygen (4 sites) and sediment (8 sites).

In addition to monitoring water quality, Horizons measures the amount of algae or periphyton present in rivers and streams. This is measured at 32 sites on a monthly basis and includes monitoring of the potentially toxic cyanobacteria or blue-green algae. Bugs and insects are another important indicator of river health and annual monitoring is carried out at 31 sites to look at the number and type of invertebrates present.

It is worth noting that some measures that were previously considered an issue in the Catchment, such as the amount of oxygen needed to break down organic matter in discharges, are no longer measured on a widespread basis. This is because previous efforts to restore water quality targeted these concerns and several years of monitoring has confirmed biological oxygen demand is no longer an issue other than at a few discrete point source sites in the Manawatū.

A Horizons Regional Council hydrology staff member checks a monitoring site in the Tararua District.

He mauri ora, he wai ora

If the life force is intact, the water will sustain life

KEY ISSUES IN THE CATCHMENT

The impact of nutrients, sediment, and bacteria on aquatic life as well as the scarcity of cultural resources were key areas discussed by the Science and Mātauranga Māori Panel. The Panel felt it important to communicate the time it will take for work carried out in the Catchment to be reflected in the datasets. Recent research shows the average time between water leaving the root zone and emerging in the river channel at low flows can be anywhere up to 11 years. As a result, there will be a lag in the time it takes for changes in land use or management practices to become evident in the Catchment.

Improvements in in-stream habitat as a result of shading and reduced run-off from riparian planting will also take time to show though. Similarly, planting to address hill country erosion will take time to mature and produce benefits and ecological responses will develop as species recover from their current state to a new state and recolonise restored habitats.

There are some actions that Panel experts expect to produce immediate improvements in water quality, such as fixing or removing point source discharges. However, it will take time for these improvements in the river to show in the monitoring results due to the frequency of water quality monitoring and the inherent variability of the data[1].

NUTRIENTS

Like grass on a lawn or paddock, aquatic plants need nutrients to grow. The two major nutrients are nitrogen and phosphorus. While these nutrients occur naturally in small amounts, they become an issue in higher concentrations as they promote excessive plant and algal growth.

The Panel agreed that toxicity of nitrate and ammonia are generally not an issue in the Manawatū Catchment. Only a few point source discharge sites show an ammonia issue. These are mainly around the Feilding and Dannevirke wastewater treatment plants, which have now been upgraded as part of the Manawatū River Clean-up Fund project. However, nitrogen and phosphorus generally exceed targets for controlling the growth of nuisance algae (periphyton).

1 Samples occur once per month and it will take a number of samples of the improved state to start showing improved trends in long term datasets.

There was some good news about nutrient trends:

- 20 year trend analysis of total oxidised nitrogen shows an improving trend at four sites, a degrading trend at one site and no significant trend at three sites.
- 20 year trend analysis of ammoniacal nitrogen shows an improving trend at four sites, a degrading trend at three sites and no significant trend at one site.
- 20 year trend analysis of dissolved reactive phosphorus shows an improving trend at three sites and no significant trend at five sites.
- There were some short-term improvements (last 5 years). However, the Panel noted that these could be related to the dry summer and subsequent algal growth at the end of the monitoring period.

The Science continued

PERIPHYTON AND PHORMIDIUM (CYANOBACTERIA)

Periphyton is the algae found on the bed of rivers and phormidium (a type of cyanobacteria) is a blue-green algae found in rivers which can be toxic to dogs. The data shows excessive growths occurring in the Mangatainoka, Tiraumea, Mākākahi and mainstem of the Manawatū River below Palmerston North. Five year trends for periphyton indicate a potential decline in water quality. However, scientists noted uncertainty around whether this is a true decline as the effect of a long dry summer at the end of the data period is not able to be removed (flow adjustment of trends). Further periphyton trend analysis is being undertaken. The Panel noted phormidium can be seasonally influenced (present one year but not the next) and toxicity is variable between sites and monitoring visits throughout the Catchment. The phormidium dataset is not long enough to report on trends.

AQUATIC LIFE

Macroinvertebrate (stream insect) communities are good to excellent in most places in the Manawatū Catchment. However, One Plan targets aspire for Macroinvertebrate Community Index (MCI) scores to be better at the majority of sites. Invertebrate communities are particularly affected in the Lower Manawatū (downstream of Palmerston North), Mangatera and Mangatainoka Rivers. There are three improving trends in invertebrate communities within the catchment: Mangatainoka at Putara, Mangatainoka SH2 Bridge (near the Mangatainoka township) and Manawatū at the old Teachers' College site (just upstream of the Fitzherbert Bridge in Palmerston North).

There are 23 species of fish in the catchment (both native and introduced), some of which are present in lower numbers than desirable. Horizons increased its monitoring in the catchment over the last 5 years. However, at the point of the Panel's report there was insufficient data to make statements on native fish trends.

BACTERIA AND SWIMABILITY

Pathogens (illness-causing viruses, protozoa and bacteria) enter our waterways as a direct result of human (e.g. wastewater treatment plant discharges, leaking septic tanks) and animal (e.g. run-off from farmland and direct stock access to waterways) effluent. One Plan targets for bacteria are not being met across the catchment. However, 20 year trend analysis of *Escherichia coli* (*E. coli*) counts show improving trends at five sites and no significant trend at three sites.

There are a range of factors influencing suitability for swimming including personal preference, access, look and feel of the location, physical safety, water temperature and state of flow. The Panel commented on suitability for swimming in the context of phormidium, *E. coli* and visual clarity. By these measures, suitability for swimming is very site and season specific. At monitored sites within the

Manawatū Catchment there are times when the phormidium, *E. coli* and clarity conditions are suitable for swimming and times when they are not. The Safe Swim Spots section of the Horizons Regional Council website is regularly updated during the summer swimming season for the public to evaluate risk.

When choosing a swimming spot, people are advised to adhere to the following guidelines:

- If the water looks clean and clear and it's a sunny day it should be safe to swim.
- It is safest to wait for the water to clear after rain before swimming at a river or stream swimming spot.
- If musty smelling, black slimy mat-like growths are observed on river bed stones during low river flows, it is safest for you and your dog to avoid using the river.

SEDIMENT AND CLARITY

Sediment is a naturally occurring component in any waterway due to shifting river beds and erosion. However, excess sediment leads to: discoloured water that's unattractive for swimming and recreation; clogged river bed gravels with less room for insect habitat and fish spawning; reduced visibility for fish that need to see to catch food; reduced in-stream vegetation; clogged water supply intakes; water that's unpalatable to stock; water requiring a higher standard of treatment before it's suitable for human consumption; and a reduced carrying capacity of lowland flood control schemes.

Monitoring shows clarity targets are not being met at any of the sites Horizons monitors in the Catchment. The Panel agreed that sediment and erosion caused by storm events will be the main driver of these clarity issues.

Of the eight monitored sites that have 20 or more years of clarity data, one site showed an improving trend and the remaining seven showed no significant trend. Modelling work to assess the impact of sediment and erosion control works carried out as part of the Sustainable Land Use Initiative (SLUI) to date indicates that these will result in an 11% reduction in annual sediment load in the Manawatū Catchment by 2043. If implementation of SLUI continues at its current rate, this reduction is modelled to be 27% by 2043.

Long-term continuous sediment monitoring at six sites in the Catchment has shown patterns of reduced storm loads at four sites, increasing loads at one site and no trend at one site.

CULTURAL HEALTH

There is a scarcity of customary resources within the Catchment. Increased monitoring of cultural values is on-going at four sites. However, there is currently insufficient data to report on trends. The Panel concluded that it would be good to have cultural values better identified and incorporated into the decision making process for the Action Plan.

Key Actions and Activities

In developing the original Action Plan, Accord partners identified six key action areas to meet the goals of the Accord. Since then, another has been added in recognition of the need for greater community involvement.

Each action area is represented by an icon, which you'll see beside tasks put forward in this Plan to help identify how each task will contribute to improvements.

REDUCE THE NUTRIENT AND BACTERIA FROM POINT SOURCE DISCHARGES

REDUCE THE IMPACT OF FLOOD CONTROL AND DRAINAGE SCHEMES

PROTECT AREAS OF HABITAT FOR NATIVE FISH, BIRDS AND TROUT

REDUCE SEDIMENT RUN-OFF FROM EROSION PRONE FARMLAND, THE RURAL ROAD NETWORK, AND AREAS OF MAJOR EARTHWORKS

REDUCE THE RUN-OFF OF SEDIMENT, NUTRIENTS AND BACTERIA FROM INTENSIVE LAND-USE SUCH AS DAIRYING AND CROPPING

INCREASE AWARENESS OF THE CHALLENGES FACED BY FRESHWATER AND ACTIONS THE COMMUNITY CAN TAKE

PREVENT OVER-USE OF WATER

REDUCE SEDIMENT RUN-OFF FROM EROSION PRONE FARMLAND, THE RURAL ROAD NETWORK, AND AREAS OF MAJOR EARTHWORKS

Sediment is a natural component of any waterway system. It's the natural by-product of mountain and hill erosion, the shifting of waterways and the consequent erosion of stream banks. However, the Manawatū River suffers from an abnormally high level of fine sediment (sand, silt and mud). Excess sediment causes a range of social, environmental and economic problems.

The major sources of fine sediment are:

- Accelerated erosion on some hill country farmland;
- Stream bed and bank erosion due to floods and stock access; and
- Rural road network failures where roads pass through unstable country.

The Forum's key action for reducing the impact of sediment is the Sustainable Land Use Initiative (SLUI). Led by Horizons Regional Council, this is the largest regional programme to address hill country erosion in New Zealand and involves working with landowners and other agencies to develop Whole Farm Plans. The primary focus of these plans is erosion control. Modelling work to assess sediment and erosion control works carried out as part of the SLUI to date indicates that we can expect an 11% reduction in annual sediment load in the Manawatū catchment by 2043. If we continue to implement the SLUI at its current rate this reduction is predicted to be 27% across the catchment by 2043.

Key tasks in this action area include:

- Continuing the SLUI and looking for opportunities to accelerate this programme across the catchment.
- Promoting the uptake of Land Environment Plans where SLUI is not a priority.

SLUI work to date:

- 202 farms mapped, covering 110,812 ha
- 210.8 km of fencing (mix of fencing new afforestation, retiring land, retiring riparian margins and retiring wetlands)
- 725,669 trees planted
- Environmental work carried out to protect 3,282 ha of land

REDUCE THE NUTRIENT AND BACTERIA LOAD FROM POINT SOURCE DISCHARGES

Like sediment, nutrients are also a naturally occurring part of any river system. However, the Manawatū River suffers from unnaturally high levels of nitrate and phosphate which promote excessive plant and periphyton (algal) growth. Pathogens are illness-causing viruses, protozoa and bacteria. At high levels they can lead to waterways that are unsafe for swimming, gathering kai and stock water. They can also significantly increase the cost of treating water for human consumption.

The main sources of nutrients and bacteria are:

- Discharges from sewerage treatment plants, town storm water and industry;
- Stock effluent, urine, fertiliser and leaching from farmland; and
- Direct access of farm animals to waterways.

There are 196 consented discharges to ground and surface water across the Manawatū Catchment. These encompass everything from wastewater treatment plants and storm water, to disturbance of stream and river beds resulting from certain activities and leachate from landfills. Over time a considerable effort has been made to reduce the number and impact of these discharges. There are no longer any dairy sheds in the Catchment that discharge effluent directly to waterways. This is down from 334 in 1997. Reducing the impact of point sources from wastewater treatment plants was a major focus of Clean-up Fund efforts through the last Manawatū River Leaders' Accord Action Plan. Plants targeted for improvement were: Woodville, Dannevirke, Pāhiatua, Kimbolton, Feilding and Shannon. As these upgrades are now largely completed, we expect to see their impact start to show through in the regular monitoring downstream of these discharges.

Key tasks in this action area include:

- Upgrades by Horowhenua District Council to remove 100% of the discharge from their Foxton wastewater treatment plant from the Foxton River Loop in favour of land-based treatment. Upgrades to remove 81% of the discharge Shannon wastewater treatment plant from water and apply this to land.
- Manawatū District Council operationalising its land treatment system at the Feilding wastewater treatment plant.
- Continued work to find and test innovative solutions for wastewater treatment e.g. Tararua District Council investigating alternative crops for land treatment sites and developing large tephra treatment plants at Dannevirke and Woodville.

REDUCE THE RUN-OFF OF SEDIMENT, NUTRIENTS AND PATHOGENS FROM INTENSIVE LAND-USES SUCH AS DAIRYING, HORTICULTURE AND CROPPING

As explained under other key action areas, sediment and nutrients occur naturally in all river systems while pathogens enter waterways as a direct result of human and animal activities. Nutrient has been identified as an issue for the Catchment and Horizons Regional Council is in the process of working with Dairy NZ, Horticulture NZ and fertiliser companies to implement rules of regional plan the One Plan around nutrient management. This requires 416 existing dairy farmers in priority areas to apply for consent. Any new conversions of land to intensive land use are also subject to One Plan nutrient management requirements. In addition to this regulation, there is a vast amount of work underway across the catchment to fence and plant along riparian margins (streambanks) to help soak up nutrients before they enter our rivers and streams.

Key tasks in this action area include:

- The coordination of fencing and planting initiatives across agencies to ensure synergies and best results.
- Ongoing implementation and evaluation of the One Plan policy and rules around nutrient management.
- Fonterra working with dairy farmers to record nitrogen information and assist in reduction of nitrogen leaching.

Over 380km of fencing has been erected alongside waterways since the first Manawatū River Leaders' Action Plan was launched in 2011.

REDUCE THE IMPACT OF FLOOD CONTROL AND DRAINAGE SCHEMES ON THE PHYSICAL CHARACTER AND NATURAL PROCESSES OF THE MANAWATŪ CATCHMENT

Human occupation along the banks of the Manawatū River dates back to 14th century AD. The population grew significantly from the 1870s onwards and flood protection and land drainage became paramount to keeping people and properties safe. When the Moutoa sluice gates were constructed between 1959 and 1962 they were the biggest river control works of their time. There is now an extensive network of flood protection in place across the Catchment, including the provision of 1 in 500 year flood level protection for Palmerston North City.

Flood protection is vital. However, advancements in both our knowledge and engineering technology mean we're now able to consider new ways of managing flood protection alongside environmental goals for the River. Horizons Regional Council is responsible for managing river and drainage schemes throughout the Catchment and has increasingly been working to ensure native plants are used wherever possible, engineering works are designed with consideration of critical habitats and all works are undertaken in accordance with relevant codes of practice and regulatory requirements.

Key tasks in this action area include:

- Continuing to provide flood protection, erosion control and drainage schemes whilst maintaining the river's natural character and geomorphology wherever possible.
- Development of a habitat forum by Massey University to provide monitoring and review of river works and share best practice examples.
- Promotion of riparian fencing and planting along one side of drainage schemes where possible.

PROTECT AREAS OF HABITAT FOR NATIVE FISH, BIRDS AND TROUT, AND ENABLE MOVEMENT BETWEEN THESE AREAS

The Manawatū Catchment is home to 23 species of fish as well as a number of regionally significant trout fisheries and spawning areas - particularly in the upper Manawatū and Mangatainoka areas. Many of our native fish need to migrate to the sea as part of their breeding life cycle so it's really important that there are no barriers to this migration. Other populations such as the rare dwarf galaxid are non-migratory and found in the upper reaches of the Manawatū. In this case, barriers between their habitat and the wider river are actually beneficial and these prevent the free passage of predatory fish. Maintaining and enhancing the populations of native fish and freshwater species is really important from a cultural perspective as mahinga kai.

There are also projects underway to protect native bird habitats. One such project is the Oroua Blue Duck Protection Project with the aim of increasing whio populations in the Oroua River Catchment. There are a number of wetlands throughout the Catchment and the Manawatū Estuary became an internationally recognised Ramsar site in 2005 as a home to numerous rare birds and a breeding ground for native fish.

Key tasks underway in this action area include:

- Identifying and protecting critical breeding areas. The Whirokino site on the Manawatū River near Foxton is one of the largest whitebait spawning sites in New Zealand.
- Continuing efforts to walk streams throughout the Catchment to identify and fix barriers to native fish migration.
- Targeting fencing and planting efforts to critical areas of habitat.
- Carrying out ongoing monitoring of fish and fish populations to better understand and work to increase these.

15 barriers to fish migration have now been removed or fixed.

PREVENT OVER-ALLOCATION AND USE OF THE WATER RESOURCE

Rivers naturally experience a range of flows throughout the year. In the Manawatū Catchment these flows are typically higher over winter and lower in the summer. River flows and the associated issues of flooding, bank erosion and over abstraction are managed through the Regional Council's flood management schemes and comprehensive water allocation framework. Demand for water is increasing and water use has more than doubled in our Region over the last 19 years. Hydroelectricity remains the largest water user. The most significant hydropower scheme in the Manawatū Catchment is the Mangahao power station at Shannon. This station opened in 1924, is part of the water allocation framework and provides a valuable recreational resource as a whitewater kayaking facility.

The Region's water allocation framework is one of the most comprehensive in the country. It sets a comprehensive set of minimum flows, allocation limits and water use efficiency measures. Increased metering and automated reporting of water takes has also enabled better self-management by consent holders and oversight of actual vs. consented water use.

Key tasks in this action area include:

- Enhanced documentation and communication of the water allocation framework.
- Increased public reporting on levels of water allocation and use.
- Continued work to reduce overallocation in the small number of sub-catchments that are currently overallocated.

INCREASE AWARENESS OF THE CHALLENGES FACED BY FRESHWATER AND ACTIONS THE COMMUNITY CAN TAKE

The journey to improve the Manawatū River and Catchment is collaborative by its very nature and we all have a part to play in achieving the goals of the Accord. Over the lifetime of this revised Action Plan we will be increasing our focus on public awareness, education and involvement.

Some key tasks in this action area include:

- Regularly and transparently reporting back on progress against tasks identified in the Action Plan.
- Updating the Manawatū River website to better display Accord actions and opportunities for community involvement.
- Establishing an education forum to identify opportunities for collaboration and sharing of resources.
- Communicating the historical and traditional stories of Iwi/hapū in connection to the Catchment's waterways.
- Enhancing access to the River to provide greater opportunities for engagement.

The first in a series of 14 signs telling the cultural history of the Manawatū River catchment was unveiled at the Oroua Bridge near Feilding on Friday 19 February 2016.

Tasks to Support Accord Goals

Achieving the goals of the Accord will require a range of actions varying in duration, complexity and cost. This section of the Plan outlines the tasks put forward by Accord signatories to improve the state of the River. Wherever possible these tasks are time bound and measurable with a lead agency and supporting agencies clearly identified. You'll see icons have been included next to each task. These indicate their connection to the key action areas identified on page 12 of this Plan.

Many agencies will be doing more than the voluntary actions identified in this Plan. However, we have tried to steer clear of regulatory and business-as-usual actions in the main action list. Some consenting issues have been touched upon, though we have tried to focus on areas where organisations are engaging in collaborative actions beyond those you might expect to see in the course of their everyday work. A snapshot of business as usual actions has been included following this list.

Action List

TASK #	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	ACTION AREA
	ACTION 1 - REDUCE SEDIMENT INPUT					
1.	Reduce sediment run-off from erosion prone land through the promotion of Sustainable Land Use Initiative farm planning and the implementation of recommended work programmes and other methods such as environmental grants. Continue to explore options to accelerate SLUI. Work with partners to target remaining farms without SLUI plans.	Horizons Regional Council.	Beef + Lamb New Zealand, Federated Farmers, Te Kāuru	Measurement of activity undertaken as a part of the project. Water quality results and modelling of projected outcomes from the work. Reduction in priority farms without measured actions.	Ongoing programme guided by an annual operational plan	
2.	Support initiatives by the Kitchener Park Trust to investigate the installation of erosion and sedimentation control measures at Awahuri Forest - Kitchener Park to improve water quality outcomes in and downstream of Awahuri Forest.	Oroua catchment Care Group	Awahuri Forest Kitchener Park Trust	Project scope completed.	Scoping project completed by Kitchener Park Trust (timeframe TBC)	
3.	Promote the uptake of Land and Environment Plans (LEPs) to farmers including collaboration with Horizons RC to understand synergies and complementary work with the SLUI plans. Prioritise LEP workshops in priority areas where SLUI plans haven't been adopted and outside of SLUI area.	Beef + Lamb New Zealand	Federated Farmers, Tararua District Council, Horizons Regional Council	Increase in land under SLUI Plans and/or Land and Environment Plans in the Manawatū catchment. Increased awareness of SLUI and LEP by target farmers.	Ongoing.	
4.	Implementation of a possum trapping and eradication venture in Western Tararua ranges in the Manawatū Catchment. Reducing possum numbers will create a healthier bush canopy resulting in less sediment.	Muaupoko	Potential: Department of Conservation, Horizons Regional Council, Horowhenua District Council, landowners	Scoping of project Year on year reduction of possum numbers between 10 and 20% with the ultimate goal of a possum free zone within 10 years.	By 2017 Possum numbers reduced by 50% at least by 2021	

TASK #	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	ACTION AREA
ACTION 2 - REDUCE THE IMPACT FROM WASTEWATER DISCHARGES						
5.	Resolve all current consent applications for larger discharges to the Manawatū River including Eketahuna, Pāhiatua, Woodville, Feilding, AFFCO Feilding site. Ensure any new applications received within the life of the Action Plan are resolved within RMA timeframes.	Consent applicants & Horizons Regional Council	Hapū/iwi, Ngā Kaitiaki O Ngāti Kauwhata, Rangitāne o Manawatū, , Ngāti Whakatere, Taiao Raukawa Environmental Trust	Number of consents processed to completion.	As per RMA timeframes	
6.	Consider engaging an independent (potentially international) expert to provide advice on the treatment processes at wastewater treatment plants throughout the catchment. Hold a wastewater hui to present the findings from the independent advice and discuss challenges and solutions to wastewater management.	Horizons Regional Council	Manawatū District Council Palmerston North City Council	If agreed to proceed - independent expert engaged and report on findings produced. Wastewater hui held.	Dec 2016 Dec 2016 but likely to be ongoing	
7.	Be proactive in managing any new activities that may have an impact on the water quality of the Manawatū River Catchment including any oil and gas explorations where these may have an impact on water quality.	Horizons Regional Council	Tararua District Council, Manawatū District Council, Horowhenua District Council, Palmerston North City Council, Department of Conservation, Te Kāuru, Ngāti Whakatere and wider community.	Proactive communication on behalf of councils.	As required	
8.	Connect all Palmerston North City Council wastewater discharges to one discharge point at the Tōtara Road Treatment Plant. This includes discharges from Linton, Longburn, Ashhurst and Bunnythorpe. The final link from Bunnythorpe is to be completed in the 2015/16 financial year.	Palmerston North City Council		Bunnythorpe discharge connected to the Tōtara Road Wastewater Treatment Plant	To be completed by 30 June 2016	

TASK #	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	ACTION AREA
9.	Undertake a full Best Practicable Option review for the treatment and disposal of its wastewater discharge at Palmerston North's Tōtara Road that will include investigating options for land based disposal as well as continued river discharge.	Palmerston North City Council		Commencement of BPO review - Statement of Intent provided to HRC, the Wastewater Monitoring Group, the Iwi Monitoring Group, Te Rangimārie Marae Trustees, Tanenuiarangi Manawatū Incorporated, and Ngāti Hineaute Hapū, Ngāti Whakatere, SORT, Muaupoko. Annual and interim six monthly reports to on progress to the above groups. Final Council decision on future wastewater scheme. Application for new consents.	By May 2017 6 monthly and Annually June 2021 June 2022	
10.	Undertake an investigation report in the Manawatū District to consider: - the removal of low flow / summer wastewater discharges from waterways. - the feasibility of installation of rapid infiltration galleried to remove direct pipe discharges to waterways. - the consolidation of municipal point source discharges throughout the Manawatū district to concentrate the treatment assets and receiving environment while focusing on a 'no harm' approach to the receiving waterways. - improving operational management and monitoring of existing water treatment plants in the Manawatū District. - improving discharge quality and optimising operational costs.	Manawatū District Council		Investigation report completed.	Preliminary report completed by 30 June 2016	

TASK #	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	ACTION AREA
11.	Include Iwi/Hapū values in upcoming point source discharge consents with the aim of: reducing at least half the current ecological impact of each discharge on the river with the ultimate goal of nil point source discharges to waterways.	Te Kāuru	Rangitāne o Tamaki nui a Rua	Number of consents where Iwi/ Hapū values have been included. List of upcoming consents: - Discharge to water, Norsewear, Cooling water, expires 31-08-17 - Discharge to water, Prenters Aggregates Ltd. Gravel wash water, sediment, expires 01-07-16 - Discharge to water, DB Breweries, Cooling water, Treated wastewater, industrial effluent, expires 01-07-20 - Discharge to water, DB Breweries, Stormwater, expires 01-07-20 - Discharge to water, Alliance group Ltd. Stormwater expires 01-07-20	2016, ongoing. 2018 2018 2021 2021 2021	
12.	Upgrade Shannon wastewater treatment plant effluent discharge to remove 81% minimum of the treated effluent and discharge to land. Discharge of the remaining 19% via a High Rate Land Passage System (via land) and into the river only when the river is at or above the 20th Flow Exceedance Percentile.	Horowhenua District Council		Wastewater treatment discharge upgraded.	Upgraded by July 2016	
13.	Upgrade the Foxton wastewater treatment plant effluent discharge to remove 100% direct discharge into the Foxton River Loop.	Horowhenua District Council		Consent process completed. Wastewater irrigation system constructed and wastewater removed from Foxton Loop.	By June 2016 By June 2018	
14.	Apply for resource consent renewal for the discharge of Tokomaru treated wastewater into the Centre Drain. This will involve an upgrade and result in a water quality improvement.	Horowhenua District Council		System upgrade completed within consented timeframe.	Consent applied for by 24 January 2017	

TASK #	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	ACTION AREA
15.	Continue to explore land based discharge options for Dannevirke wastewater during summer flows, including options for cut and carry. Scope the role and performance of Miscanthus sp. in a land-based waste water discharge system, with focus on: - Nutrient cycling and capacity for net removal of nutrients. - Crop yield and the potential impact and response to irrigation and nutrient application. - Biomass and energy yield and the expected impact of harvest date. - Potential options for utilisation of crop biomass. - Evaluation of the range in economic value of biomass; using cost of production and value of substitutable energy sources.	Tararua District Council		Completion of report.	Report on information gathered by 30 June 2017	
16.	Deepen oxidation Pond Number 1 at Dannevirke wastewater treatment plant to allow storage of higher volumes of untreated wastewater in the summer period, and discharge through the treatment plant outside the critical low stream flow period.	Tararua District Council		Reduction in total flow discharged when river is in a low flow situation, compared to pre-lining of No 1 Wastewater pond.	Works completed by 30 June 2016	
17.	Complete the upgrade of tephra beds for Dannevirke and Woodville wastewater treatment plants to reduce phosphorus levels in wastewater discharges.	Tararua District Council		Reduction in phosphorus to ensure compliance with Resource Consent threshold.	Installation completed by 30 June 2016 Compliance with resource consents	
18.	Work with Rangitāne to address risks from on-site disposal system at their facilities at Kaitoke Marae, near Dannevirke.	Tararua District Council	Rangitāne			

TASK #	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	ACTION AREA
ACTION 3 - REDUCE THE IMPACT OF STORMWATER DISCHARGES						
19.	Undertake an urban and industrial stormwater discharge stocktake in collaboration with the territorial authorities in the catchment to prioritise stormwater management actions based on the water quality impact of the discharges.	Horizons Regional Council	Tararua, Manawatū and Horowhenua District Council, Palmerston North City Council and other stormwater dischargers	Reporting back to Forum.	Report completed by June 2017	
20.	Install water sensitive designs in the Palmerston North City area to minimise stormwater runoff to the Manawatū River. This includes design measures to manage hydrology on-site before stormwater runoff is concentrated to become a significant point source discharge.	Palmerston North City Council	Horizons Regional Council	Installation of Norton Park stormwater treatment wetland. Development of stormwater design measures for the greenfield North East Industrial Zone Extension Area.	Installation of Norton Park by 30 June 2016 Will be ongoing over the next 20 years.	
21.	Install local gross pollution traps (GPT) to improve the quality of Palmerston North City's stormwater runoff at key locations.	Palmerston North City Council		Installation of Pioneer Drain GPT. Installation of a further 3-4 GPTs over the following four years.	Installed before 30 June 2016 Installed between 2017 and 2021	
22.	Initiate a sediment and stormwater management programme for detention and retention structures from flooding related stormwater discharges within the wider urban catchments of the Manawatū District. Focus will be on growth related stormwater management infrastructure in Feilding.	Manawatū District Council		Installation of high flow (flood related) stormwater detention infrastructure in the new industrial precinct (Kawakawa Rd area).	Design 30 June 2016, construction June 2017	
23.	Undertake stormwater modelling to identify key scheme improvements in terms of management and new works e.g. separate out foreign materials, reduce silt levels and minimise scouring of natural waterways. This is likely to include new stormwater overland flow paths, discharge points as well as interception traps. All with the aim to better manage both peak flows and water quality.	Tararua District Council		Key improvements identified and programmed from available capital budgets. Improvements undertaken.	By 30 June 2016 In 2016/17 and 2017/18	

TASK #	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	ACTION AREA
ACTION 4 - REDUCE NUTRIENT RUNOFF FROM LAND						
24.	Continue to implement the One Plan policy and rules for management of nutrient loss from intensive farms (horticulture, dairy, cropping and intensive sheep and beef farms) in the targeted water management sub zones for existing farms and across the catchment for new intensive land use activities.	Horizons Regional Council	DairyNZ, Federated Farmers, Horticulture NZ, FAR, Beef + Lamb New Zealand, Ravensdown and Ballance	Number of dairy farms, horticultural growers and intensive sheep and beef operating under then nutrient management rules of the One Plan and modelling of water quality outcomes.	Roll out of the targeted water management zones in alignment with the dates in the One Plan	
25.	Continue non-regulatory programmes to reduce sediment, nutrient and bacteria inputs to the waterways of the Manawatū Catchment.	Horizons Regional Council	DairyNZ, Federated Farmers, Horticulture NZ, Foundation for Arable Reesearch, Beef + Lamb New Zealand, Ravensdown and Ballance	Environment activities and extension supported and delivered in partnership to enhance uptake. Extension activities coordinated where appropriate. Joint field days on key themes in priority catchments.	Annual reporting to the Forum	
26.	Develop a constructed wetland in the Manawatū catchment to promote wetlands as a tool for landowners to improve nutrient and sediment management as well as potential water storage.	Industry Bodies (Federated Farmers to initiate)	Landcare Trust, DairyNZ, Horizons Regional Council, Beef + Lamb New Zealand, Federated Farmers, Fish & Game and Department of Conservation, iwi/hapū	The presence of a constructed wetland on a farm in the catchment.	One wetland built by 2018	
27.	Record nitrogen information on dairy farms in the catchment, with one on one assistance provided to at risk farmers to develop ways of reducing nitrogen leaching.	Fonterra		Percentage of farms supplying information.	100% of dairy farms supplying information by 2021	

TASK #	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	ACTION AREA
ACTION 5 - IMPROVE WATER ALLOCATION						
28.	Investigate the financial impacts of maximising groundwater takes for rural community and municipal water supplies to alleviate surface water extraction from the Oroua River and other surface water sources within the Manawatū District. As part of this investigate alternative sources of water for Feilding (groundwater) to reduce the water take for the Almadale Treatment Plant (Feilding Strategic Water Assessment).	Manawatū District Council		Completion of investigation report.	Investigation report to be completed by 30 June 2016	
29.	Work with farmers to increase understanding around the management and recording of water use, to increase efficiency.	Fonterra		Number of dairy farms with a water meter.	85% of farms to install a water metre by 2019	
30.	Produce a summary document of Horizons' water allocation framework including the current state of water allocation in the Catchment.	Horizons Regional Council.		Report completed.	By June 2017	
ACTION 6 - REDUCE THE IMPACT OF FLOOD CONTROL AND DRAINAGE NETWORKS.						
31 .	Carry out works undertaken as part of flood and erosion control schemes and drainage schemes in accordance with regulatory requirements and/or the minor river works and drain maintenance Codes of Practice. Where possible, pool, run and riffle habitats should be maintained and any in-river works should maintain the river's natural character and geomorphology.	Horizons Regional Council	Iwi/hapū	Reporting back to the Forum annually.	Reporting as part of annual compliance monitoring reported on an annual basis	
32.	Investigate a suitable and cost effective procedure for returning fish that are removed during mechanical drain cleaning in priority catchments.	Horizons Regional Council		Reporting back to Forum in 2017.	Investigation and trials over 2016/17	

TASK #	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	ACTION AREA
33.	Promote riparian fencing and planting (including the use of suitable native species) along one side of drainage scheme waterways (where appropriate) to increase shading and improve native fish habitat and reduce aquatic weed growth.	Horizons Regional Council		Reporting back to the Forum on an annual basis.	Ongoing	
34.	Investigate incorporation of wetland component into oxbow and floodway areas within the lower Manawatū River complex including maintaining water connections, and enhancement of open water 'borrow pits'.	Fish and Game	Horizons Regional Council, Horowhenua District Council	Reporting on the feasibility of incorporating wetland habitat for biodiversity and nutrient removal purposes into Regional Council managed floodways.	2018	
35.	Develop a Natural Character Index for all river schemes and engage/ communicate with Horizons Regional Council.	Massey University (Integrated River Soultions)	Fish & Game	NCI reports for key rivers & engagement with stakeholders.	Completed by 2018	
36.	Develop a habitat forum to provide monitoring and review of river works.	Massey (IRS).	Fish & Game, Horizons Regional Council.	Annual forum meeting & examples of best practice.	Annually from 2016	
37.	Restoration of Foxton Loop.	Save Our River Trust	NZ Landcare Trust, Horowhenua District Council, Muaupoko Tribal Authority, Wildlife Foxton Trust, Manawatū Estuary Trust, Horizons Regional Council, Ngāti Whakatere	Existing channel cleared Multi-year resource consent obtained for creating and maintaining a new channel Creation of new channel Measurable water quality improvements.	2016 2016 2017 2021	

TASK #	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	ACTION AREA
ACTION 7 - INCREASE RIPARIAN FENCING AND PLANTING						
38.	Identify public land next to rivers that is suitable for riparian planting - being mindful of constraints of flood capacity objectives (outside of flood scheme areas) and implement work where it can be funded.	Fish and Game	Horizons Regional Council, Department of Conservation	A list of public sites that assist in a strategy for riparian planting projects in catchments.	List of public sites complied by 2018	
39.	Hold a workshop to bring together all groups undertaking riparian fencing and planting so we can link resources, share knowledge and ensure a consistent message. As part of this workshop decide on a coordinated approach to riparian fencing and planting.	Horizons Regional Council.	DairyNZ, Fonterra, Open Country, Fish and Game, Federated Farmers, NZ Landcare Trust, Beef + Lamb New Zealand, Department of Conservation, iwi/hapū, and other interested parties e.g. the bee/ honey industry	Workshop held and resources collated.	Workshop held before 30 December 2016	
40.	Undertake riparian planting projects in conjunction with schools and community groups with a particular focus on Kōhanga Reo and Kura Kaupapa schools.	Iwi/Hapū	Horizons Regional Council	Ongoing	Annual report to the Forum	
41.	Promote riparian fencing and planting through a range of mechanisms including local farming champions and as part of existing DairyNZ and Beef and Lamb field days. This includes the promotion of the assistance and incentives available to farmers for fencing and planting.	NZ Landcare Trust, Federated Farmers, Fonterra and other industry bodies	Horizons Regional Council, DairyNZ, Fonterra, Open Country Dairy	Number of opportunities for the farmer champion to promote riparian fencing & planting (field days, media articles).	Targeting 5 opportunities to promote riparian fencing and planting each year including at least one field day per year Aim to promote the incentives to farmers in four Federated Farmers publications per year	

TASK #	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	ACTION AREA
42.	Support riparian ecological restoration programmes within the Palmerston North City area including support for Green Corridors who plant approximately 10,000 plants annually along the Turitea Stream and drainage reserves within the Summerhill catchments. Green Corridors has received increased funding through PNCC 2015/25 Long Term Plan.	Palmerston North City Council	Horizons Regional Council	Number of plants planted annually.	Ongoing	
43.	Engage dairy farmers in developing riparian planting plans, working alongside their Sustainable Dairying Advisor.	Fonterra.	DairyNZ, Open Country Dairy	Number of farms in the catchment with a riparian planting plan.	100% of farms to have a riparian planting plan in place by 2021	
44.	Establish harakeke nurseries that can be used to create buffers for nutrient run off in vulnerable areas.	Ngāti Parakiore - Ruahuihui Trust	Te Kāuru and Rangitāne o Tamaki nui a Rua	Number of sites established/ number of plants available for riparian planting.	2018	
45.	Continue and maintain the current local projects and environmental activities already underway through the Oroua Catchment Care Group including: Haynes Creek - Cheltenham and Kiwitea, Stoney Creek - Bunnythorpe, Mangaone West - Mt Biggs, AFFCO Manawatū - Feilding, Awahuri Forest - Kitchener Park, Horse Tail Virus Group - Oroua & Rangitīkei Rivers and Oroua River Restoration projects Planting and river restoration project involving a new dedicated nursery on Kawakawa Road.	Oroua Catchment Care Group Committee incollaboration with local communities, Iwi, government agencies, local business and local organisations	Federated Farmers, Manawatū District Council, Department of Conservation, Ngā Kaitiaki O Ngāti Kauwhata, NZ Land Care Trust, AFFCO Manawatū, Awahuri Forest Kitchener Park Trust, Mangaone West - Mt Biggs, Stoney Creek community, Cheltenham & Kiwitea communities, Massey University, Horizons Regional Council	Regular written and verbal reports to the Oroua River Catchment Care Group Committee. Financial accountability reports from each project completed and presented to the Oroua River Catchment Care Group Committee. Nursery and shade houses established.	Reporting years (2018 & 2021) Each project will have contractual dates and periods for reporting, but overall timeframes for reporting to year ending 2016 onto year ending 2017 onto year ending 2018	

TASK #	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	ACTION AREA
46.	One of the supporting agencies will encourage and support existing catchment care groups as well as any new catchment/ sub-catchment care groups wishing to get established.	Any organisation with an interest	Horizons Regional Council, NZ Landcare Trust, Federated Farmers, City and District Councils, Hapū and Iwi, Industry and Industry Good organisations, Deer Industry NZ and Deer Farmers Association, Fish & Game	Support partners are actively involved with existing and new catchment care groups.	Ongoing	
47.	Establish Catchment Care Groups: - Kaitoki/Mangatera and - Bluff Road.	Te Kāuru	Ngāti Pakapaka, Horizons Regional Council, Tararua District Council , Federated Farmers, Fish and Game, Forest and Bird, Land owners, NZ Landcare Trust and Businesses along the Mangatera Stream Department of Conservation, Woodville Community, Walking Access Commission	Catchment Care Group established. At least one improvement project per year . Care Group established. At least one improvement project per year. Cattle removed from river bed.	2016 2016 2016	
48.	Facilitate linkages between the Oroua Catchment Care Group and other initiatives including works at Haynes Creek and projects initiated by community leader i.e. Ozzie Latham and Dave Stewart.	Manawatū District Council	Horizons Regional Council	Quarterly meeting with all interested stakeholders.	Aim to have four meetings per year	

TASK #	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	ACTION AREA
ACTION 8 - INCREASE NATIVE FISH, TROUT AND NATIVE BIRD POPULATIONS						
49.	Facilitate water quality improvement work to help achieve the goals of the Manawatū Accord and tasks of the Action Plan from the $410,000 of targeted rate. Work will include riparian fencing, planting, fish barrier solutions, supporting community initiatives and enhancing fish habitat and spawning sites.	Horizons Regional Council	Beef + Lamb New Zealand, Federated Farmers, DairyNZ Iwi/ Hapū, Department of Conservation, Fish & Game, NZ Landcare Trust.	Measured against the LTP targets and will include amount of riparian fencing, planting and fish barriers fixed and community projects completed.	Annual reporting on achievements for the financial year against LTP targets	
50.	Identify native fish migration barriers and prioritise remediation unless likely to have negative effects on native fish populations. This includes providing advice and financial assistance (where appropriate) to barrier owners to remove/overcome native fish migration barriers. This includes investigating and implementing (where practical) options to further enhance fish passage through streams and rivers within flood and drainage control schemes e.g. fish friendly flood gates.	Horizons Regional Council.	Iwi/ Hapū, Department of Conservation, Fish & Game, NZ Landcare Trust	Annual reporting to the Forum.	Annual reporting to the Forum	
51.	Identify fish (including trout) migration barriers and priorities remediation unless likely to have negative effects on native fish populations. This includes providing advice and financial assistance (where appropriate) to barrier owners to remove/overcome native fish migration barriers. This includes investigating and implementing (where practical) options to further enhance fish passage through streams and rivers within flood and drainage control schemes e.g. fish friendly flood gates.	Fish & Game, Horizons Regional Council	Iwi/ Hapū, Department of Conservation, NZ Landcare Trust	Annual reporting to the Forum.	Annual reporting to the Forum	
52.	Update the stocktake information on the natural wetlands in the Manawatū Catchment and continue to increase the level of protection/ enhancement work of these.	Horizons Regional Council	Iwi/ Hapū, Department of Conservation, Fish & Game, NZ Landcare Trust	Annual reporting to the Forum.	Updating of the stocktake in 2016/17 and ongoing implementation work	

TASK #	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	ACTION AREA
53.	Provide advice about and protection of wetland diversity to landowners.	Fish & Game	NZ Landcare Trust, Department of Conservation, Horizons Regional Council	Number of contacts made annually.	2018 & 2021	
54.	Identify and prioritise important trout spawning habitat. Where possible resurvey identified trout spawning and juvenile recruitment areas.	Fish and Game	Horizons Regional Council	Areas identified and prioritised.	2021	
55.	Identify priority areas where native fish could be reintroduced.	Massey University	Fish & Game, Department of Conservation, Horizons Regional Council, iwi/hapū	Report on priority sites for fish reintroduction.	2016-2017	
56.	Comply with RAMSAR requirements and continued monitoring of the Manawatū River Estuary.	Department of Conservation	Horizons Regional Council	Report to the Forum.	Annually	
57.	Provide guidance to develop Management Action plans for wetland sites to achieve cultural, ecological, recreational, food gathering, opportunities and outcomes.	Department of Conservation	Fish and Game, Local Iwi/hapū. Horizons Regional Council	Management actions are identified for wetland sites and pursued at the discretion/control of landowner/administrator.	Proportion of sites identified by 2018 & 2021	
58.	Parahaki Island - mahinga kai - re-establish māra kai.	Te Kāuru	Families, Ashhurst - Recap	Establish Māra Kai site.	2018	
59.	Finalise the wāhi tapu site inventory and related historical narrative - identify further sites for protection and/or restoration.	Te Kāuru	Rangitāne o Tamaki nui a Rua	Sites for restoration identified. One site under restoration	2016 2018	
60.	Review and/or create wetland inventory for the Eastern Manawatū River Catchment.	Te Kāuru	Potential partners: Horizons Regional Council, Farmers, Fish & Game, Rangitāne o Tamaki nui a Rua and other landowners	Formatted inventory list with actions moving forward for each item/area.	2016, ongoing -Review in 2018	

TASK #	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	ACTION AREA
61.	Enhance/restore up to three wetlands of significance to Te Kāuru hapū.	Te Kāuru	Potential partners: Horizons Regional Council, Farmers, Fish & Game, Rangitāne o Tamaki nui a Rua and other landowners	One wetland established/ enhanced. Three wetlands established/ enhanced.	2018 2021	
62.	Restore wetland and whitebait habitat at Whirokino Bridge (note this project will also contribute to flood control and nutrient run off improvements).	Muaupoko	Potential partners: Horizons Regional Council, Horowhenua District Council, Manawatū Estuary Trust, Landcare Trust, other iwi/hapū, Fish & Game, others	Scoping of project by 2016 TBC % of Horizons Regional Council leased land down stream from Whirokino Bridge converted back from farming to wetland and whitebait habitat.	10% of land redidicated by 2018 30% rededicated by 2021	
ACTION 9 - INCREASE COMMUNICATION BETWEEN ACCORD PARTNERS						
63.	Continue River Leaders' Accord and Forum meetings. Support this continuation through supporting the independent chair, regular reporting on progress against actions, undertaking annual water quality state and trend analysis, and increasing the transparency of actions underway.	Horizons Regional Council	All signatories to the Accord	Number of Forums held. Attendance at Forums. Reporting of actions.	Two Forums to be held per year	
64.	Continue to hold hui-a-iwi providing an opportunity for iwi/hapū to korero with Horizons Regional Council including the One Plan evaluation.	Horizons Regional Council.	Iwi/hapū	Number of hui-a-iwi held each year.	Two hui per year	
65.	Work with the advisory governance board when making decisions about the Manawatū River Catchment.	Horizons Regional Council				

TASK #	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	ACTION AREA
66.	Engage the Science and Mātauranga Māori advisory panel to review the results of monitoring, provide advice on prioritising actions and emerging issues referred to them by the Forum.	Horizons Regional Council	All signatories to the Accord	Number of meetings held with Accord partners. Science and Mātauranga Māori advisory panel continue to inform the development of the Manawatū River Leaders Accord Action Plans. Report from the panel on the water quality of the catchment, and recommendations at each report back to inform future actions.	Report in 2018 Report in 2020	
67.	Hold regular hui with whanaū hapū and Iwi o Ngāti Raukawa, Ngāti Whakatere, Ngāti Hinemata, Ngāti Huia, Ngāti Tukorehe, Nga Iwi O Te Reureu, Ngāti Kauwhata, Te Kāuru and Rangitāne o Tamaki nui, Rangitāne o Manawatū, Kahungunu Tāmaki-nui-a-Rua.	Respective Tribal or Iwi reps	Horizons Regional Council and local LTA's	Number of hui held.	Ongoing	
68.	Collaborate with local hapū/iwi with regard to the Best Practicable Option review for the treatment and disposal of Palmerston North City Council Tōtara Rd wastewater discharge.	Palmerston North City Council	Wastewater Monitoring Group, Iwi Monitoring Group, Te Rangimārie Marae Trustees, Tanenuiarangi Manawatū Incorporated, Ngāti Hineaute Hapū	Number of meetings held with support partners.	Meetings will be held between 2017 and 2022	 
69.	Develop enhancement of the historic ANZAC Park site in collaboration with Rangitāne through Te Motu o Poutoa/ ANZAC Park revitalisation plan.	Palmerston North City Council	Rangitāne	Enhancements implemented.	Works completed by 30 June 2018	 
70.	Establish a co-management framework with Ngāti Kauwhata and consider joint Kaitiakitanga of the Oroua River.	Manawatū District Council	Ngāti Kauwhata	Quarterly updates and number of meetings held.	Aim to have up to four updates per year	

TASK #	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	ACTION AREA
71.	Provide regular updates to the Manawatu District Council's Nga Manu Taiko o Te Kaunihera (formerly known as the Marae Consultative Committee) representing 13 local Hapū/Marae to engage wider consultation with local hapū on any upstream/ downstream effects of MDC point source discharges.	Manawatū District Council	MDC Marae Consultative Committee	Bimonthly updates and number of meetings held.	Aim to have six updates per year	
72.	Engage local Iwi/ Hapū regarding application for resource consents for Foxton and Tokomaru wastewater discharge consents.	Horowhenua District Council.		Iwi/Hapū engaged in both resource consents.	Ongoing	
73.	Provide an opportunity for Forum members to tour a Pastoral 21 farm in the Manawatū catchment, and see how nitrogen is being managed.	Federated Farmers		Tour held and forum members have a better understanding of nitrogen management on farm.	June 2016	
ACTION 10- INCREASE PUBLIC, ACCESS, AWARENESS AND EDUCATION						
74.	Update the Manawatū River website to display a map of community projects and investigate ways of dynamically displaying actions to help the community easily see what's being done, by who and how they can get involved.	Horizons Regional Council	All parties to the Accord	Website displays map of projects and searchable information on new Accord actions.	March 2016	
75.	Develop a content management plan for Manawatū River social media sites to keep content fresh and promote ongoing engagement.	Horizons Regional Council	All parties to the Accord.	Content management plan developed. Number of followers increased. Levels of engagement increased.	March 2016 ongoing	
76.	Promote the Waiora Stream Study programme as a way of engaging schools in stream/river monitoring and education.	Horizons Regional Council		Increase in number of schools participating in Waiora Stream Study programme.	Ongoing	
77.	Establish an education forum to ensure synergies between programmes and share resources.	Horizons Regional Council	Fish and Game, Department of Conservation, Iwi/Hapū, NZ Landcare Trust	Forum established. First meeting by December 2016.	Ongoing	

TASK #	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	ACTION AREA
78.	Actively seek involvement of Hapū members by: identifying interested people; developing a matrix of available skills; identifying relevant Accord priorities and resources, and matching with skills to develop projects.	Manawatu River Leaders' Forum Chairman	Ngāti Tūranga (Hayden Tūroa). Potential partners: other Hapū, Horizons Regional Council, other councils, NZ Landcare Trust, Federated Farmers, landowners	Project scoped and implementation plan agreed Project report to Forum.	June 2016 2018	
79.	Construct cycle pedestrian pathways and a river bridge crossing to provide for easier access to the riverside for recreational cyclists and walkers. There are three cycle pedestrian pathways that have been planned: Ashhurst to the City - Riverside Road to the City still to be completed. Fitzherbert Bridge to LintonConstruction of a downstream Pedestrian/Cycle bridge in the vicinity of Dittmer Drive.	Palmerston North City Council	Massey University, NZ Defence force, NZTA, Horizons Regional Council, Iwi	Pathway from Riverside Road to the city is complete. Completion of the Linton pathway.Construction of Pedestrian/Cycle bridge in the vicinity of Ditmer Drive.	Scheduled for completion before 30 June 2017. Scheduled for completion before 30 June 2018. December 2017	
80.	Install historical whare signage.	Rangitāne o Tamaki nui a Rua	Te Kāuru, Horizons Regional Council, surrounding Land owners and community	Establish Whare and signage. Usage	2017 2018	
81.	Undertake public education and community awareness about the impact of stormwater and wastewater on the Manawatū River thorugh the Palmerston North City Council Three Waters Public Education programme.	Palmerston North City Council		This is an annual programme of the PNCC 2015/25 Long Term Plan and will be reported on annually	Annual programme from 2015 - 2025	
82.	Use Manawatu District Council communication channels to engage the wider community to increase awareness of water use and conservation.	Manawatū District Council		Target monthly communications leading up to and during dry / summer months. Use Feilding Herald District News, MDC website and MDC Facebook	Review at 30 June 2016 to determine appropriateness of channels and frequency of message	

TASK #	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	ACTION AREA
83.	Encourage greater publicity around what is actually being achieved now with regard to water quality improvements and what is planned for the longer term. This may include a newsletter and site specific visits for community groups and link to other work being done. This will include an updated Manawatu District Council website with relevant links to other websites including Horizons Regional Council.	Manawatū District Council		Number of newsletters produced, number of site visits undertaken, website updated, Facebook posts with appropriate links etc.	Aim to have at least one communication per year either as a stand alone publication or supplementary to another MDC publication	
84.	Continue to increase awareness of farmers environmental spend through surveying farmers about their spend on environmental activities on farm.	DairyNZ, Federated Farmers	Beef + Lamb, Foundation for Arable Research	Survey conducted on a regular basis.	Conduct a survey every three years (2017 & 2020)	
85.	Hold wananga korero - about the historical and traditional stories of hapū and Iwi affiliated to and connected with our Rivers and waterways.	Ngāti Kauwhata		Number of wananga korero held.		
86.	Improve the connection between whanau, iwi, hapū and local business within the Manawatū.	Ngāti Kauwhata		Signage installed. Regular public meetings of the Oroua Catchment Care Group.	By end 2016 Ongoing	
87.	Support riverside based activities which bring people to the riverside. These include events organised by Sport Manawatū such as the Whanau Triathlon, the Manawatū Striders half marathon and other events such as the Kairanga Lions Fireworks display.	Palmerston North City Council		Number of events held each year.	Ongoing	
88.	Share solutions within the region and within New Zealand on wastewater processes and programmes for wastewater management.	Manawatū District Council	Horizons Regional Council, Other TLAs in region	Number of meetings held within the Region and around New Zealand.	Aim for one meeting annually (IPEWA - Institute of Public Works Engineering Australasia)	 

TASK #	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	ACTION AREA
ACTION 11 - CONTINUE AND ENHANCE MONITORING OF THE MANAWATŪ RIVER CATCHMENT						
89.	Continue monitoring and reporting on water quality upstream and downstream of major point source discharges.	Horizons Regional Council	Tararua, Manawatū and Horowhenua District Councils, Palmerston North City Council and other major discharge to water consent holders	Reporting of completed work back to Forum.	Ongoing monitoring as a part of the State of Environment and Discharge monitoring programme with reporting to the Manawatū River Leaders Forum annually	
90.	Continue the science and monitoring programmes around water quality management in the catchment.	Horizons Regional Council		Report back to the Forum on an annual basis.	Ongoing	
91.	Ensure compliance with all consented activities that impact on water quality.	Horizons Regional Council		All consents are compliant with regulatory requirement.	Ongoing in line with activity. Reported to forum annually	
92.	Increase monitoring of periphyton cover and biomass, and aquatic macroinvertebrates up stream and downstream of the Search Results Palmerston North City Council Tōtara Road waste water discharge in accordance with a River Monitoring Plan that is to be submitted to Horizons Regional Council by October 2016.	Palmerston North City Council		River monitoring plan submitted to Horizons. Regular reporting of sampling as set out in the River Monitoring Plan.	River Monitoring Plan submitted by October 2016 Reporting from October 2016 for the life of the consent	

TASK #	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	ACTION AREA
93.	Explore the joint development of Cultural Health Index with District Health Board and Horizons Regional Council.	Te Kāuru	Horizons Regional Council and District Health Board	Collaboration opportunity established.	2016	
94.	Organise a PhD project which develops an integrated catchment management plan for the Manawatū catchment.	Massey	Massey, Horizons Regional Council (active involvement and access to information)	Integrated Catchment Management Plan.	2016 - 2018	
95.	Report on threatened or endangered freshwater invertebrates in the Manawatū Catchment.	Massey	Department of Conservation, Horizons Regional Council.	Report on current status of invertebrates.	2017	
96.	Increase Kakahi and Koura monitoring and reporting.	Massey	Horizons Regional Council	Report on current status of Kakahi and Koura.	2016	
97.	Make tools, guides and workshops available to landowners and community groups to monitor water quality.	NZ Landcare Trust	Horizons Regional Council, Federated Farmers, Beef + Lamb New Zealand	Water quality data is collected by landowners and groups to a standard that enables the data to be used in a way that complements and enhances the current regional council monitoring regime. Equipment made available and records kept of use	100 landowners engaged in the program by 2021 Aim for 50 uses of the equipment per year	

TASK #	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	ACTION AREA
98.	Develop Cultural Health Index for three selected sites: • Kaitoki - given the proximity of the Kaitoki marae and the restoration of the swimming hole, it appears to be logical to consider the development of a CHI to show progress over time • Mangatera at Dannevirke - Make this part of the restoration of the Mangatera - this is an ideal site to involve kuia and kaumātua, but also the kura and all other interested whānau. The stream is very accessible to the community and many memories appear to be associated with it. Proposed site: Mākirikiri Reserve • Mangapuaka/Mangahei - to establish the health of the streams at this point in time: - to identify what needs to be done to improve on the health right now - to be able to show any impacts of oil exploration should it go ahead in the future.	Ngāti Pakapaka (Kaitoki & Mangatera), Ngāti Parakiore (Mangapuaka)	Te Kāuru, Rangitāne o Tamaki nui a Rua and Kura Kaupapa Māori o Tamaki nui a Rua, Department of Conservation	Annual monitoring established. Results shared with HRC. Action planning based on CHI. 2 years of monitoring results available.	2016 (Mangapuaka), 2017 (Kaitoki & Mangatera), - - 2018	
99.	Baseline Cultural Health Assessments of Manawatū tributaries where Tararua Wastewater discharges impact - Woodville, Dannevirke, Pāhiatua.	Kahungunu ki Tamaki nui-a-rua	Horizons Regional Council; Tararua District Council; Department of Conservation	Production of three Cultural Health Assessment reports.	Annual reports with 3rd report completed by February 2019. Assessments to be repeated in years 2 and 3	
100.	Install more cultural monitoring triggers and sites on the Oroua River.	Ngāti Kauwhata	Massey University, Te Wānanga o Raukawa	Number of extra sites.	2018	
101.	Link Ngāti Raukawa Treaty Claims research to two inland waterway research projects in Porirua ki Manawatū region, executed by Te Rangitāwhia Whakatupu Mātauranga Ltd, (trading as Te Rangi) a Māori research company with teams, funded by Crown Forestry Rental Trust.	Dr. Huhana Smith, Director	25 hapū and Iwi O Ngāti Raukawa-ki-te-Tonga	Two reports completed. Mapping projects completed.	2017	

TASK #	TASK DESCRIPTION	LEAD AGENCY	PARTNERS	MEASURED BY	TIMEFRAME	ACTION AREA
ACTION 12 - EXPAND THE MANAWATŪ RIVER LEADERS ACCORD						
102.	Find further national or corporate funding to assist environmental works and programmes to enhance water quality and manage soil erosion in the Manawatū Catchment.	Horizons Regional Council	All accord signatories and members of the Manawatū River Leaders Forum	Over the term of the Action Plan, timeframes around water quality improvements reduce due to the introduction of new funding.	Ongoing	
103.	Find more resources to enable Iwi/Hapū to enhance cultural, historical, traditional and economic values of the Manawatū River.	Hapū & iwi leaders	Horizons Regional Council. All signatories to the Accord	Number of funding sources secured.	Ongoing	
104.	Look for economic development opportunities within the Manawatū catchment that can contribute to the goals of the Accord.	Horizons Regional Council, PNCC Economic Development Agency		Annual report back to the Forum.	Ongoing	

Voluntary Actions vs. Business as Usual

Many of the signatories to this Action Plan are engaged in actions that support work undertaken under the Manawatū River Leaders' Accord as part of their mandated day-to-day work. While this list is by no means comprehensive, it provides a snapshot of some of these business-as-usual activities. For more information about any aspect, please contact the organisations identified.

Horizons Regional Council:

- Monitoring and ensuring compliance of consented activities that impact on the River.
- Continuing to support and grow the Enviroschools network within the Manawatū Catchment. Currently at 21 schools.

Department of Conservation (DOC)

- Continuing to support the protection of blue duck (whio) in the upper Oroua subcatchment and supporting the expansion of protection in other catchment areas.
- Undertaking appropriate animal pest control to mitigate sediment run-off from the headwater catchments in the Ruahine Ranges and Tararua Ranges.

Te Kāuru

- Actively engaging with Horizons Regional Council on issues relevant to the Awa such as:
    - All matters arising as a consequence of Iwi Leaders' Forum negotiations with Crown;
    - The acceleration of the SLUI programme to reduce erosion in hill country and providing input on appropriate native plants, existing wāhi tapu sites, as well as alternative funding and economic development opportunities; and
    - Ensuring complete transparency from oil explorations and prevention of new contamination through disposal of exploration wastewater.

Iwi/hapū and environmental groups

- Participating in resource consent processes for discharges and water allocation, and advocating for best environmental outcomes.

Palmerston North City Council

- Requiring integrated stormwater management for subdivisions or developments in order to reduce the impact of stormwater runoff.
- Developing programmes to guide development and enhancement of public spaces adjoining the river e.g the Manawatū River Framework, Green Corridors, cycle and pedestrian pathways etc.

Ngāti Kauwhata

- Monitoring reports and initiatives and advocating for inclusion where appropriate e.g. Environment Aotearoa 2015, legal cases and findings about indigenous peoples' rights, trade agreements etc.

Join the Journey

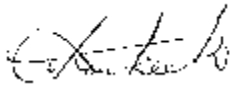
The Manawatū River flows through all of us. It shapes our Region and reflects our people. It is precious because it is ours and we all have a part to play in protecting this precious resource for future generations. There are many ways you can play your part as we work towards an improved River Catchment. Below are just a few of the ways that you can get involved:

- Participate in a community planting day - these are usually notified on the Manawatū River Facebook page and via local community groups.
- Remember drains should only drain rain - wash your car on the lawn and refrain from tipping any solutions down the drain to prevent harmful chemicals making their way into urban storm water systems.
- Use phosphate free laundry and dishwashing detergents.
- If you live alongside a waterway, consider working with your neighbours to establish a catchment care group.
- If you're a school or community group, get in touch with Horizons Regional Council's Environmental Educator to find out more about resources available to help you learn more about the River and its catchment.
- Visit the Manawatū River website www.manawaturiver.co.nz and join the conversation on Facebook.

Our Commitment

MICHAEL SPAANS
CHAIR
DAIRY NZ

MALCOLM BAILEY
DIRECTOR
FONTERRA



TE WAARI CARKEEK
CHAIRPERSON
TE RUNANGA O RAUKAWA INC

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MAYOR
HOROWHENUA DISTRICT COUNCIL

REG KEMPER
AUTHORISED SIGNATORY
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JAMES STEWART
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FEDERATED FARMERS

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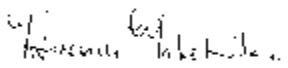
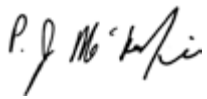


MAROKOPA WIREMU MATAKATEA
SUPERVISOR
MUAUPOKO TRIBAL AUTHORITY



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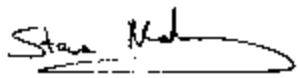
SOCIETY OF NEW ZEALAND



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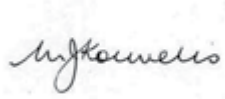
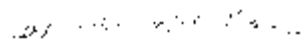
VICE-CHANCELLOR
MASSEY UNIVERSITY



MARGARET KOUVELIS
MAYOR
MANAWATU DISTRICT COUNCIL

E kore a Parawhenua e haere ki te kore a Rakahore

Water wouldn't move if it wasn't for rock - Partnership in ventures is essential for success



HONE MORRIS
REPRESENTATIVE
TE KĀURU

BRUCE GORDON
CHAIRMAN
HORIZONS REGIONAL COUNCIL

MANAHI PAEWAI
REPRESENTATIVE
TE KĀURU

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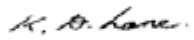
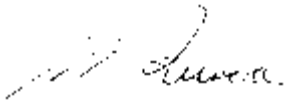
CLINT WORTHINGTON
PRESIDENT
FEDERATED FARMERS TARARUA

GRANT SMITH
MAYOR
PALMERSTON NORTH CITY COUNCIL



KELVIN LANE
CHAIRPERSON
MANAWATU ESTUARY TRUST



MOETATUA TŪROA
KAUMATUA
NGA HAPŪ O HIMATANGI

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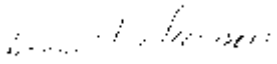
MAYOR
TARARUA DISTRICT COUNCIL



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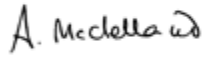

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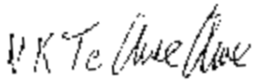
ROYAL FOREST AND BIRD PROTECTION
SOCIETY OF NEW ZEALAND

ALASTAIR COLE
CO-CHAIR
ENVIRONMENT NETWORK MANAWATU

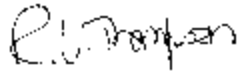
MAURICE TAKARANGI
MATUA MOANA TE RANGI
TE MAURI O RANGITAANE O MANAWATŪ.



WIREMU K TE AWE AWE
CHAIRPERSON
TE RANGIMĀRIE MARAE
TE KAUNIHERA KAUMATUA O
RANGITĀNE KI MANAWATŪ
RAUKAWA DISTRICT MĀORI COUNCIL

PHIL TEAL
REGIONAL MANAGER
FISH & GAME NEW ZEALAND
WELLINGTON REGION

VERIFIED BY:



RICHARD THOMPSON
INDEPENDENT CHAIRPERSON
MANAWATU RIVER LEADERS' FORUM

The Manawatū River flows through all of us.
It shapes our region and reflects our people.
It is precious because it is ours.

BE PART OF THE CHANGE

Find out more about actions to
clean-up the river online at

www.manawaturiver.co.nz

and be part of the change.

facebook.com/manawaturiver

twitter.com/manawaturiver

For more information contact
Horizons Regional Council
24hr Freephone
0508 800 800