## Lower Waitaki Work Programme Summary:

One of the key activity areas for the 2017 – 2018 year in the Lower Waitaki Zone was a continued focus on the Wainono lagoon, and the work on improving its water quality. This included significant work on weed control, and willow removal, and the protection and monitoring of native mudfish and tuna. A survey of over 8000 hectares of farmland in the Waihao area was undertaken in conjunction with the Morven Gelnavey Ikawai Irrigation company. This survey identified Critical Source Areas, and recommendations were made to better control the run off of sediment, phosphorus and other nutrients into the local waterways. Other farmland focus included continued support for landowners working towards Good Management Practices (GMP), and developing better understanding of best winter grazing practice. The Zone team is also working with the Foundation for Arable Research on a project they have initiated into buffer strips to again control sediment run off.

There was significant activity related to the role out of Plan Change 3, which requires farmers to control nutrients and sediment loss through the use of Farm Environment Plans (FEP). As we move into the 2018 – 2019, there will continue to be significant work to support local farmers and community groups to work toward best practice, and around protecting and enhancing biodiversity and our natural environment.

Outcome	Status	Progress update
<b>Wainono Lagoon</b> The ecosystem health and mauri of Wainono lagoon and its catchments is improved	On Schedule	<ul> <li>Controlling weeds, clearing willows and working on stream erosion – while looking after recent focus of the team working at Wainono Lagoon on Te Rūnanga o Waihao's Te Mana improve the water quality of the lagoon through a range of measures. It is led by the rūnat Environment with contributions from Environment Canterbury and the Department of Core. The majority of the physical work carried out in the past year has focused on controlling we the water quality and biodiversity of the lagoon. This has included working with the Depart on the gravel bar and completing willow control on important wetlands on the lagoon man. Work has also commenced on properties in Waituna. This willow clearance and bank prote waterway.</li> <li>Two new native mudfish populations have been found in small streams that run into the lagen and completing willow and to protect these sites. Fish barrier work to help prevent mudfish is being undertaken on Buchanan's Creek by the Working Waters Trust.</li> <li>The annual tuna (eel) monitoring was also undertaken by rūnanga and Environment Canter better understand eel populations as an indicator of overall ecological health in Wainono I</li> </ul>
<b>Good Management Practice (GMP)</b> All land is managed at good management practice (GMP) and priority issues/areas are dealt with and collaboration with irrigation schemes in key catchments	On Schedule	<ul> <li>Improving on-farm winter grazing practices during the winter months to reduce run-off int 2017, with the development of clear information for farmers and on-farm events. South C quantity of winter feed crops make many farming areas high risk for phosphorus and sedir to poor water quality. A new brochure 'Better grazing to help water quality' was produced ideas to minimise pasture damage and reduce run-off into waterways. This proved timely</li> <li>More than 8000 hectares of farmland in the Waihao area, south of Waimate, has been sur joint project between Environment Canterbury and the Morven Glenavy Ikawai Irrigation (local farmers in the scheme has been working with Environment Canterbury's Land Manage Critical Source Areas – the small, low-lying parts of farms such as gullies and swales where Recommendations were then given to each farmer on the best ways to reduce phosphoro transferring into the waterways on their property. The aim was to provide landowners wit improving their management of water, such as adding a wider grass buffer. The recomme Environment Plans, which are now required as part of the land use consenting process, wi Water Regional Plan.</li> <li>Our zone team continues to work with and alongside land owners to further the knowledg Practices</li> <li>Numerous small educational events have been held at catchment group level and support</li> <li>Industry partnerships have provided expertise for extension activities such as Beef and Lar field days</li> </ul>

esident mudfish and tuna have been the o Te Wai project. The project aims to nga and funded by the Ministry for the nservation.

reeds and willow trees that have an impact on tment of Conservation to control the weeds rgins.

ection work will reduce erosion into the

agoon and habitat protection and other fish species from preying on the

rbury biodiversity staff. The aim was to Lagoon and its catchments.

to waterways was a key focus for the zone in anterbury's soil types, topography and the ment loss into our waterways. This can lead d for farmers to highlight simple and low-cost with an extremely wet July in the area. rveyed for its impact on water quality in a Company (MGI). The entire collective of 22

gement and Biodiversity team to identify their run-off can enter the waterways.

us sediment, nutrients and bacteria h practical and customised approaches to indations will also be incorporated into Farm th Plan Change 3 to the Canterbury Land and

e and understanding of Good Management

ed by zone team staff nb Farm Environment Plan workshops and

Outcome	Status	Progress update
<b>Biodiversity</b> The biodiversity in the priority areas of: Waitaki Mouth, Waitaki riparian wetlands, Northern Fan spring heads, and areas of grey scrub is protected and enhanced	On Schedule	<ul> <li>The Immediate Steps Programme continues to apply protection and enhancement to sites to date. A key partnership project has been to protect prehistoric limestone fossils dating grass and freshwater crayfish near Duntroon. The Immediate Steps funding will enable the safeguarding the natural features of wetland and limestone escarpment. Fencing and weet the local flora and fauna. The site has outstanding natural features such as limestone cliffs including rare marsh arrow grass. The waterway is also home to at-risk freshwater kēkēwa for the project – the Alps 2 Ocean Cycle Trail passes through the site and it is also part of t A research project on the Waitaki River is looking at how to improve habitat for endangern habitat in the Waitaki and develop transferable techniques for other braided rivers. The p islands created and birds nesting on many of them.</li> <li>As part of a wider restoration project, faecal source tracking took place the Black Hole or of E.coli. The aim is to use the information to help identify the hotspots and the possible a contamination at the swimming site.</li> <li>We continued to support the co-ordination and resourcing of pest management in the Ha complete. Ground spraying of willow, lupin has taken place and we are working with DOC</li> <li>Zone team is working with other agencies such as LINZ and DOC on the control of wilding</li> </ul>
<b>Plans and rules are understood and complied with</b> There is widespread community understanding of and compliance with the Waitaki sub-regional section of the LWRP and WCWARP	On Schedule	• The zone committee is supporting the irrigation industry and local schemes, as well as loc use efficiency. For example, recent surveys with shareholders of Waihao Downs have help efficiency which can be incorporated into Farm Environment Plans.
Improved scientific knowledge We have increased catchment knowledge in priority areas (science) and we understand the effectiveness of interventions (monitoring) Include PC3	On Schedule	<ul> <li>The zone team is supporting a Foundation for Arable Research (FAR) project looking at set The project is currently in its planning stages, with FAR, members of the community, local all being on the project group</li> <li>PC3 – Plan Change 3 requires farmers in the South Canterbury Coastal Streams are to ma use of Farm Environment Plans. A consent to farm campaign, using local farmers in the provided clear information about what action they needed to take.</li> <li>Zone team members, predominantly Land Management Advisors, have undertaken many and a number of drop in sessions have been run to support understanding of the new rule</li> </ul>
<b>Community Ownership</b> There is widespread ownership of catchment health by the community	On Schedule	<ul> <li>Our committee process has enabled the expression of Kaitiakitanga through mana whenu enabled a broader understanding of customary values associated with water. Our recommodance 3) provide for an allocation of water specifically for the purpose of enhancing make.</li> <li>We continue to support community groups such as the Waihao Wainono Community Cate toward best practice</li> <li>Regular communication has continued with the local community through a variety of med advertisements highlighting the role of the zone committee, Environment Canterbury and water and biodiversity outcomes.</li> <li>A new informative sign has been erected at the Black Hole swimming spot on the Waihao quality and what is being done to improve this.</li> </ul>

s of most significant value. \$689,000 allocated back 23 million years, endangered marsh e land at 'Anatini' to become a QEII covenant, ed control will also contribute to protecting s with fossils and its diverse plant community, ai crayfish. A public walkway is also planned the Vanished World fossil trail.

red nesting birds. This project will improve project is proving successful, with seven

n the Waihao River to try to identify sources actions that can be taken to reduce faecal

kataramea. Dead spar removal was 80% C Twizel to coordinate work in the upper river conifers in this catchment

al community initiatives, to increase water ped identify actions to improve irrigation

t back strips for the control of sediment loss. rural professionals and Zone Team members

nage nutrients and sediment loss through the rinted material, targeted affected farmers and

one-on one-sessions with landowners,

ua's role in decision making. It has also mendations for the Waitaki Plan Change (Plan hinga kai.

chment group to work together to move

diums, including newsletters, articles and d other agencies who are working to improve

River to give information about the water