Ngā Awa programme report

2021/2022

The fourth year of Ngā Awa consolidated the river restoration programme and confirmed the value of working closely with mana whenua at-place. Relationships were built and strengthened by doing practical work together.

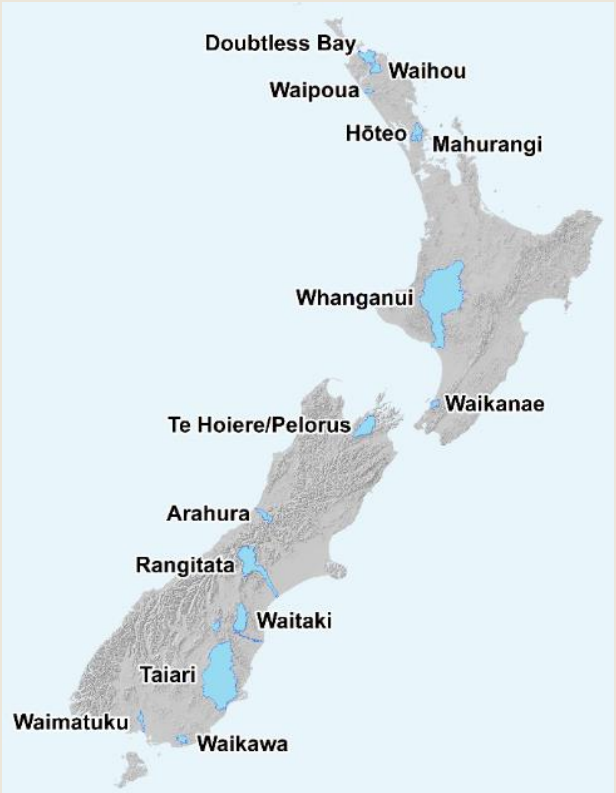
Jobs for Nature (JFN) resources escalated on-the-ground work, led by contributing partners in catchments that received this extra funding.

The Taieri scroll plains are a significant feature of the catchment. *Photo: Sarah Wilcox*

Research highlights

- Initiating a project with the Upper Taiari Wai catchment group to explore decision-making around land-use diversification.
- Building an interactive web tool to determine how to monitor progress in river restoration projects, such as those funded by Jobs for Nature.
- Progressing geomorphology research to support river and gravel management in the Waikanae River.
- Contributing to new river management tools by supporting a University of Canterbury Smart Ideas research project for underwater riverbed mapping.
- Exploring issues around climate change resilience in the Taiari catchment.

> "Significant progress with mana whenua in developing a shared vision and aligning our values has been a standout this year. The partners are proactively engaged and resourced and are all working together to progress Te Mana o Taiari."
>
> Chris Kavazos, Taiari River ranger



The 14 Ngā Awa catchments. Note that 'Taiari' is the rūnuka-preferred spelling, as indicated in Kā Huru Manu, the Ngāi Tahu Atlas.

Department of Conservation
Te Papa Atawhai

New Zealand Government

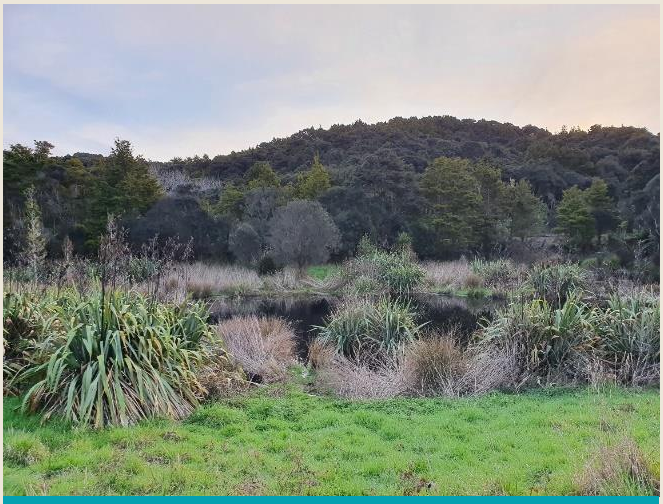
Highlights by river

Doubtless Bay: Awapoko, Oruru and Oruaiti

- **People:** More relationships with hapū and community were formed, and we received positive feedback about developing a community-driven restoration plan for the rivers. Community and kaitiaki from several marae attended workshops, events and training, including kayak training for survey work, stream health monitoring assessment kit (SHMAK) training, and riparian assessment tool training led by NIWA.
- **Research:** About 23 īnanga spawning surveys were carried out by the Ngā Awa team, Whitebait Connection and local kaitiaki, and sites for restoration identified. Mapping of the existing and historic wetlands in Doubtless Bay is underway.
- **Restoration:** We are supporting Te Paatu Ki Kauhanga Trust to restore 10km of river with the funding they received from the Ministry for the Environment. We are also working with nurseries to ensure a supply of eco-sourced plants for FY23 restoration work and supporting planning for īnanga spawning habitat restoration.

Community SHMAK workshop facilitated by Whitebait Connection and hosted by Kauhanga Marae. *Photo: Maddy Jopling*

Hōteo



Wetland at the proposed Hōteo Gorge restoration site in July 2021 before restoration. *Photo: Sue Clearwater*

- **People:** Collaborations between our work and The Forest Bridge Trust, Auckland Council and Kaipara Moana Remediation are building. We supported iwi in their Environment Court appeal against consent granted to Waste Management to establish a landfill at Dome Valley/Wayby Valley. This area is part of the Hōteo catchment. Expert evidence on biodiversity values (including Hochstetter's frogs), wetlands and streams was presented.
- **Research:** A review of Public Conservation Land (PCL) in the Hōteo and Mahurangi catchments was completed. It described the history, values, management and issues, and made recommendations. This information is informing our restoration actions.
- **Restoration:** The restoration of a PCL site in Hōteo Gorge has begun. We are organising weed and pest control and further fencing at the site and working with a local nursery to grow natives for future planting. Experts at Auckland Council recommended eco-sourcing rarer species and planting in specific habitat zones. An archaeological assessment of the site was also recommended to manage the risks that restoration work may have to cultural sites.

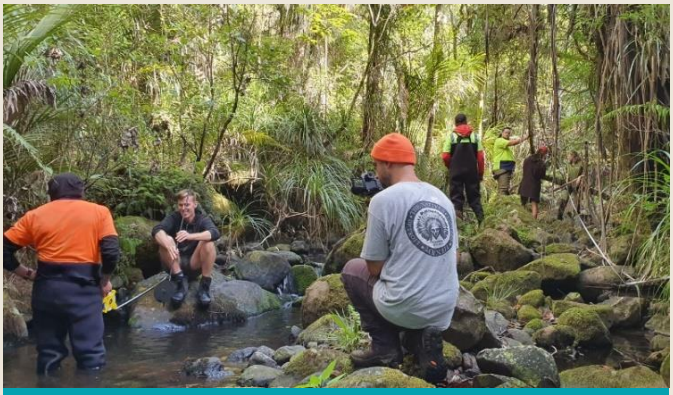
Mahurangi

- **People:** The Mahurangi East Land Restoration project, a collaboration between Ngāti Manuhiri Settlement Trust and Auckland Council, began in 2020. It is a $5 million, 5-year project focussed on reducing sediment to restore the health of the Mahurangi Harbour. Ngāti Manuhiri is positive about working with us on cultural health monitoring.
- **Research:** The wetland delineation project has been completed and will be followed up with ground-truthing. Priority wetlands will also be identified. A geomorphological assessment indicated besides restoring the wetlands, work to restore the modified headwaters and upland sections should be prioritised. Potential sites for biodiversity monitoring were evaluated ahead of summer 22/23.

Waikanae

- **People:** Waikanae Ki Utu ki Tai Project continues to use a Treaty house partnership framework with mana whenua Ātiawa ki Whakarongotai, Kāpiti Coast District Council, Greater Wellington Regional Council and DOC. A highlight this year was consulting with the community on the vision, shared kaupapa, values, objectives and actions.
- **Research:** A literature review collating existing information about the catchment was completed. A method to monitor the effects of the JFN restoration work was piloted. We also began further geomorphology research to inform better management of the river's excess sediment, which must meet flood protection goals while maintaining or restoring the wai ora of the river.
- **Restoration:** Work delivered through Waikanae JFN includes riparian and sustainable land management. Work based on sustainable land management plans has been carried out on iwi-owned land and private farmland.

Waipoua



The national freshwater monitoring team training Te Roroa Environs team kaimahi. The work was filmed by Dan Nathan and a video about the work produced. *Photo Matt Calder*

- **People:** We work in partnership with the operations team of Te Iwi o Te Roroa. This year we supported the restoration work of Te Toa Whenua and the Native Forest Restoration Trust. We also trained Te Roroa to carry out ecological health monitoring and created a virtual educational field trip about the Waipoua River.
- **Research:** Monitoring fish on either side of a ford across the lower river has progressed according to a framework and the distribution of shortjaw kōkopu surveyed. Analysis of survey data confirmed anecdotal evidence that pigs prefer to disturb ground near waterways, which can increase sediment in the river. The wetlands we mapped remotely were ground-truthed to ensure they were characterised correctly.
- **Restoration:** With support from Fonterra, we made progress on retiring the waterways and wetlands on dairy land in the upper catchment. Continued support was provided to Te Toa Whenua to establish a nursery supplying eco-sourced plants for riparian restoration.

Whanganui

Macroinvertebrate sampling at Operiki stream with Ngāti Pamoana whānau. *Photo: Jane Taylor*

- **People:** Engaging with communities and kaitiaki at-place is central to our work. We worked with hapū partners to re-survey macroinvertebrate communities at specific sites to compare their ecological health 25 years later. Comprehensive stream health assessments were undertaken with Ngāti Hikairo at Matahiwi, Koriniti, Ranana and in the headwaters.
- **Research:** Reports of fisheries and biodiversity information and atutahi (īnanga) spawning were completed. A Massey University summer student assessed the channel change in two reaches of the river using historic aerial imagery. With Ngā Paerangi, we began a river engineering investigation into sites where atutahi habitat could be restored.
- **Restoration:** More than 2,000 plants were planted at atutahi spawning sites in partnership with Whanganui District Council, Horizons Regional Council, Pasifika Community and Te Ao Hou Marae. Sites included the Matarawa, Awarua and Tutaeika Streams and the Whanganui River at Te Ao Hou Marae. Discussions with the Kakahi community about restoring the health of Rata Reserve and adjoining wetlands have begun.

Waihou

- **People:** Our work with Ngāti Toro is supporting kaitiaki to plan restoration work for the year ahead. The Ngā Awa programme is being integrated into the Puketi Forest rōpū despite challenges in formulating a shared vision. Various training opportunities and workshops including SHMAK, were provided for kaitiaki and community members.
- **Research:** A literature review of the river's values, past monitoring, restoration projects and research is close to completion. Research indicates that *Waipapa* is the preferred Māori name for this river.

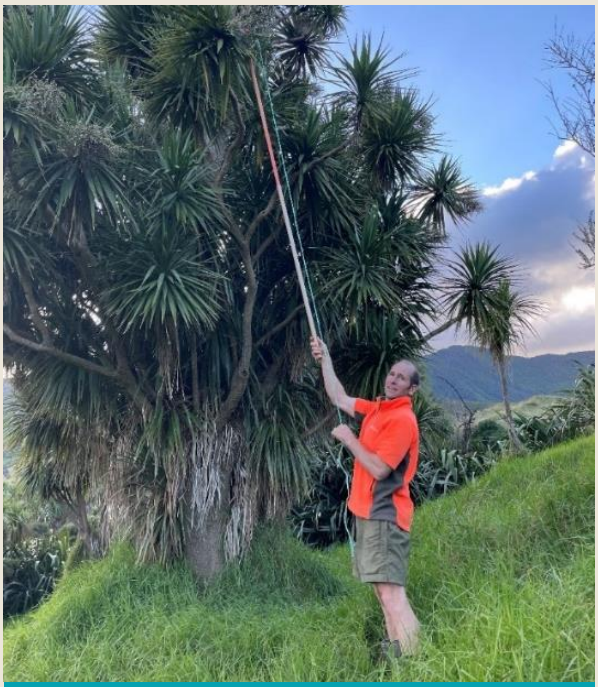
Arahura

- **People:** A catchment group was established with Ngāti Waewae, Mawhera Incorporation, farmers, landowners and residents.
- **Research:** A cultural health assessment report was completed and action points were agreed with the joint steering group.
- **Restoration:** Dung beetles were introduced to reduce the impacts of animal dung. Mawhera Incorporation and Ngāti Waewae are leading a JFN project with opportunities for jobs and training. Restoration and revegetation work at Arahura Pā continues and a community space and propagation centre were set up.

Inaugural catchment group meeting at Arahura Marae. *Photo: Deb Magner*

Te Hoiere / Pelorus

- **People:** Working collaboratively remains a feature of the Te Hoiere project. Relationships were deepened by a wānanga, *Te Reo o Ngāti Kuia*, which was organised and led by Ngāti Kuia for members of the project trust and working group.
- **Research:** The upper Te Hoiere catchment was surveyed for whio by a team that included a trained whio detection dog. Despite searching for 5 days, no birds were found. The Cawthron Institute led a project to gather baseline biodiversity data from sites in the upper catchment. This work will enable changes to be tracked and is part of a future integrated monitoring plan.
- **Restoration:** Ngāti Kuia began restoring Ruapaka Wetland beside SH 63 in partnership with DOC, Marlborough District Council and landowners. Ngā Awa funding has enabled Ngāti Kuia to co-design this project in a place that has great significance to them as mana whenua.



Dan Moore collecting eco-sourced seed from the Pelorus ecological district for restoration activities. *Photo: DOC*

Waikawa

- **People:** We have worked with Awarua Rūnaka and Waikawa whānau to understand how we can work together better and gain iwi support for collaborative restoration in the catchment.
- **Research:** Work to identify īnanga spawning sites has progressed as well as identifying the timing and number of spawning events. This information will inform restoration work to preserve and enhance existing habitat. Environmental DNA was used to sample selected sub-catchments. We also used the Fish Passage Assessment Tool to help identify structures for remediation.
- **Restoration:** Planning is underway to support planting of riparian edges in the catchment in the 2022–23 financial year. We are also scoping significant sites in partnership with mana whenua and other stakeholders.

Waimatuku

- **People:** Discussions between Ōraka Aparima rūnaka and DOC have identified the Waimatuku River as better meeting the criteria for inclusion in Ngā Awa than the Eglinton river. A consultant worked with the rūnaka to identify their values and aspirations for the river.

Lower Waitaki

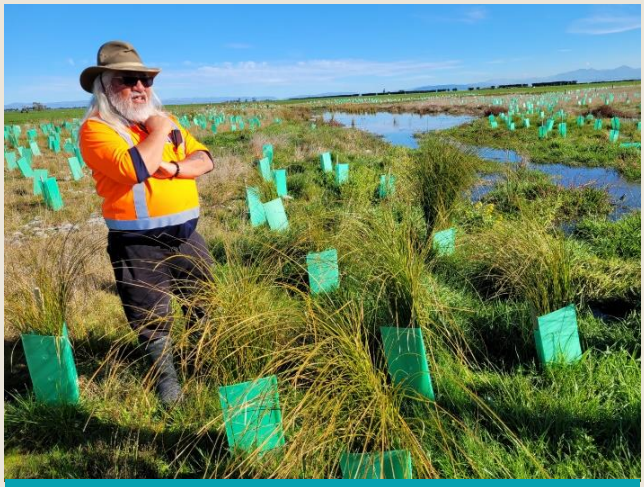
- **People:** Preliminary discussions about how best to work together are underway with Te Rūnunga o Arowhenua, Te Rūnanga o Waihao and Te Rūnanga o Moeraki.
- **Research:** We commissioned a review of the catchment's conservation values and restoration priorities. It was based on interviews and a desktop review of the existing data. The review recommended engaging with local rūnanga and stakeholders as a priority and noted the most significant pressures as encroachment of agricultural land into the braidplain and flow regulation by the Waitaki dam. The review also identified knowledge gaps including fish, bird and wetland surveys, and the impacts of climate and land-use changes on threatened fish species.

Taiari

- **People:** This catchment's Te Mana o Taiari project brings together Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnaka o Ōtākou, Otago Regional Council and DOC to restore and continue care of the Taiari River. Its cross-agency steering group has developed terms of reference and partnership principles, and reviewed the projects that have started.
- **Research:** This year we studied īnaka spawning, kanakana (lamprey) distribution and used environmental DNA for a baseline biodiversity survey of the catchment's species distribution and ecosystem health. Te Rūnaka o Ōtākou led a video project to document work in the catchment. A cultural narrative project led by mana whenua gave local hāpu an opportunity to visit the river and identify values and priorities for Te Mana o Taiari.
- **Restoration:** Ōtākou rūnanka are making excellent progress in their Te Nukuroa o Matamata JFN project restoring the Waihola and Waipouri catchments.

Rangitata

- **People:** Restoration work in this catchment is led by a steering group representing Te Rūnaka o Arowhenua, Ashburton District Council, Central South Island Fish & Game, Environment Canterbury, Toitū Te Whenua Land Information New Zealand, Timaru District Council and DOC. A strategy, Ko te Whakahaumanu o te Rakitata has been co-developed with the guidance of mana whenua and is being reviewed by stakeholders before a public consultation.
- **Research:** A research workstream was established within the working group structure.
- **Restoration:** Restoration is underway at the hāpua (coastal lagoon), īnanga spawning sites, dairy farms at Kirikiri and McKinnon's, historical South Branch arm wetlands, Coldstream dryland terraces, the Peel seed library forest remnant and seven high country stations. Six sites have had comprehensive restoration plans developed and adapted into practical workplans. Beside the river, 26km of tracks have been established for restoration and community use, and may be developed into a cultural trail. JFN projects in the upper and lower catchments have fenced more than 100km of riparian land and eco-sourced and planted more than 100,000 natives. Predator control over the length of the river is now in place with 4,000 traps being checked monthly.



Karl Russell, kaumatua and Arowhenua cultural consultant at a wetland restoration site on a dairy farm in the lower river. *Photo: Brad Edwards*