

TE HOIERE/PELORUS PROJECT

April 2022 Newsletter

Doom Creek, photo by Wayne Stronach

Children lead citizen science

Children are becoming the experts on water quality in Te Hoiere streams.

Nine-year-old Willow Watt of Okiwi Bay is one of about 20 [Conservation Kids](#) using SHMAK (Stream Health Monitoring Assessment Kits) to assess stream health by identifying species present and water clarity. The NZ Landcare Trust/Conservation Kids initiative trained young volunteers then allocated them a site to monitor for a year, starting in June last year.

Willow, a Te Kura (Correspondence School) pupil, was assigned Alfred Stream near the DOC rest area in Rai Valley township. She's seen levels change dramatically and floodwaters munch away part of the bank, but the water's mostly been quite clear.

"I like how you find lots of endangered creatures that you won't see very often," she says. "It's important for water to be clear otherwise some fish can't see and might get eaten by bigger fish or eels. If it's really murky with lots of dirt it might block up fishes' gills and make it hard for them to breathe."

Willow's favourite fish are bully species that "swim so fast we can't tell what type they are". She also likes stoneflies "because they mean the water is really clear" and the way some caddisfly larvae build tiny huts out of stones.

Willow shares her freshwater knowledge with her teacher via a digital portfolio and sometimes posts are published on the Te Kura blog.

The aspiring scientist, archaeologist and dinosaur enthusiast lives at [Okiwi Market Gardens](#), a property with

30 hectares of native bush which mum Kirsteen describes as "the children's playground".

Conservation Kids Pelorus coordinator, Antonia O'Donnell, says up to 20 children have been monitoring streams. Eight regulars include home-schooled families and Rai Valley Area School pupils. After training, each was assigned one of six streams which would probably benefit from restoration. The next step will be choosing a couple for planting, to keep water shaded in summer and stabilise banks, creating a healthy habitat.

[NZ Water Citizens](#) (funded by the Mountains to Sea Trust) covered the cost of the SHMAK kit and planned restoration, following nomination by the [NZ Landcare Trust](#).



Willow Watt surveys stream species, above, and measures water clarity with Antonia O'Donnell and her daughter, Meika, below.



Te Hoiere makes impossible task achievable

Lynley Fox, dreams of leaving Beechdale Farm at the end of Tunakino Road in better shape for future generations.

Lynley loves 400ha of native bush on the property where she and husband Nigel have farmed since 2005. She collects seed and seedlings for growing out then planting into ineffective areas avoided by stock.

It's been trial and error, Lynley admits. The self-taught nursery-woman learned from a New Zealand plant book, Marlborough District Council and Department of Conservation restoration guides and especially from successes and failures.

At first, Lynley scattered seed onto trays of potting mix, with varying success. Kahikatea thrived, with 800 growing one year. But her favourite – red beech – struggled with only five surviving. After reading that soil microbes and bacteria boost germination she mixed scoops of forest floor detritus with potting mix, but results with beech remained disappointing.

A key to success has been gathering seedlings no taller than 12cm from rotten logs and potting them up to grow out before planting.

“After all the work of propagating and planting, it’s discouraging when seedlings die.

“I wish people understood what it takes to just farm let alone fencing and vegetating the land to make the world a better place like Government, systems and people want us to do.”

To ease their workload, last year the Foxes sold their dairy herd. Lynley is still busy managing beef cattle and a flock of Valais Blacknose Sheep bred up from frozen embryos imported in 2017. With sister Carrie, she runs handcraft business [The Woolly Sisters](#) ([ThewoollysistersNZ](#) on Facebook).

“With all this going on, it’s hard to find the time to release hundreds of seedlings.”

Te Hoiere Project will help make what at times seems an impossible task, doable, Lynley says.



It was heart-warming to have dozens of volunteers help plant 600-700 seedlings she'd grown in a boggy corner of the farm last July, organised by Antonia O'Donnell of Rai Valley Catchment Group and Wendy Sullivan of the NZ Landcare Trust. Outward Bound volunteers later released and mulched each tree. In March they were spray-released, by a Te Hoiere Project contractor.

Unfortunately, many did not survive submersion during six months of constant rain.

The Foxes will pay for seedlings and Te Hoiere Project help with planting and maintenance, for two years. To meet demand for eco-sourced plants, Lynley's offering seeds and seedlings.

Catchment care coordinator, Aubrey Tai, says Beechdale Farm stood out on a helicopter survey of Te Hoiere catchments during heavy rain in February. At the top of Tunakino catchment, established plantings helped prevent bank erosion and sediment loss.

Lynley's resources: North Marlborough Planting and Restoration Guide, published by the Marlborough District Council and DOC, is [here](#) Protecting and restoring our natural heritage – a practical guide (DOC), is [here](#).



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DOC issues invite to torchlit fish survey

Anyone interested in observing a torchlight hunt for shortjaw kōkopu is invited to join DOC regional freshwater ranger, Kate Hunt.

Kate is surveying Te Tauihu waterways from Kaikōura to Golden Bay, looking for native migratory fish. This includes shortjaw kōkopu (pictured below) at two Te Hoiere/Pelorus sites - Little Mountain Camp Creek which is a bush-and forestry-lined tributary of the Wakamarina River and Cullen Creek, near Linkwater.



Shortjaw kōkopu are one of five whitebait species. Adults spawn in flooded streams. Larvae hatch in the next fresh and head to the sea. Juveniles make their way upstream in the whitebait run, spending the rest of their life in freshwater.

Twenty years ago a survey identified nine shortjaw kōkopu at Little Mountain Camp Creek. On a return visit in 2020/21, only one was spotted.

"We'll focus on a 400-metre stretch with a spotlight," says

Kate. "Any and all species seen along the stream are also noted."

Shortjaw kōkopu thrive in pools with clean gravels and rocks, where a waterway's gradient starts to climb. The species is nationally vulnerable due to factors including deforestation, land use change and intensification, sedimentation, river course changes, and predation/competition from introduced fish species.

Kate and fellow northern South Island freshwater ranger, Anna Henderson, plan to do the surveys in late April, depending on weather. If you'd like to join them or want photos of native migratory fish or freshwater pest species email kthunt@doc.govt.nz.

What's happened?

- * Filming of Ministry for the Environment **short videos** promoting Te Hoiere
- * Fourth and final **dung beetle release** for Linkwater catchment, March 30. Staggering releases over 12 months ensures a non-stop waste management service as subsequent batches spend part of their lifecycle underground as pupae. Beetles are reported to be following herds onto adjacent land.
- * **Annual biodiversity monitoring** of conservation land in Te Hoiere/Pelorus in March, by Cawthron Institute for Department of Conservation. Field teams travelled to selected riparian sites to collect data on plant and animal communities, habitat characteristics and water quality.
- * **DOC Wasp control** at Ronga, Carluke, Brown and Pelorus Bridge Reserves. Bait is placed when wasps are feeding on protein (late Feb-mid March).
- * A trained dog and handler surveyed the upper Te Hoiere catchment, under **DOC's Ngā Awa River Restoration Project**. They were seeking whio/blue ducks and assessing the catchment's suitability to support a whio population.
- * **Ruapeka wetland restoration planning** begins at field meeting between landowners, Ngāti Kuia, MDC, DOC, Marlborough Lines and consultants

What's happening?

- * Contractors start **controlling weeds and erecting fences** in Te Hoiere catchments. Five fencing contractors, one pest plant contractor and four offering both planting and pest plant control are signing service agreements to restore Te Hoiere/Pelorus.

"Everyone is highly skilled and open to hiring and training people from the community and catchment," says Marlborough District Council Environmental Contracts Manager, Sioban Harnett. "They're enthusiastic to be involved in a restorative project like this which is great to see."

- * Sixteen landowners on 22 properties met one-on-one with catchment coordinator, Aubrey Tai re **opportunities for funding** to support fencing, weed control, planting and dung beetle release. Another five properties had **catchment condition surveys** completed in the last two months.

What's next?

- * **Family Fish Fest**, Alfred Stream Reserve, Rai Valley, 10am-mid-day (see p4)
- * **Celebration of Te Hoiere Trust Deed signing**, postponed by Covid restrictions, date to be announced.



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Trust provides stable base for Te Hoiere restoration



Marlborough Mayor, John Leggett, signs the Trust Deed backed by Te Hoiere Project Manager Heli Wade, Council Environmental Science and Monitoring Manager Alan Johnson and Governance Group co-chair and Sounds Ward councillor, Barbara Faulls.



Ngāti Kuia chair Waihaere Mason (left) and general manager, Dave Johnston, signed on behalf of the iwi.

The signing of a Trust Deed in March launched a new era for Te Hoiere Restoration Project.

The document was signed in the Marlborough District Council Mayoral office by Council chief executive Mark Wheeler and Mayor, John Leggett. It was then couriered to Nelson for signing on behalf of Ngāti Kuia by general manager Dave Johnston and chair Waihaere Mason .

A celebration is planned, post-Covid restrictions.

Waihaere who also co-chairs the Te Hoiere Project Governance Group says Te Hoiere Kaitiaki Charitable Trust provides a stable base to work from, clear direction and a legal obligation to ensure funded work is done.

Mayor Leggett sees the Trust as “a robust partnership between iwi, the community and Council which contributes expertise and knowledge.”

Governance Group co-chair, Barbara Faulls, was at Te Hora Marae two years ago when then conservation minister, Eugenie Sage, announced Government funding for the Project.

“It’s been a long path for stakeholders but aims and aspirations remain true,” says the Council Marlborough Sounds Ward Councillor who lives at Linkwater.



Al-Valley, fred Stream Reserve, Rai Saturday May 21

10am - unction
10.10am - Rai Valley SHMAK
10.20am - Electric Fish-
ing Demonstration Demon-
10.30am - Fish ID stration
11am - Macroinver-
tebrates hunt and ID
11.20am - Stream Habitat talk

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Check out [Te Hoiere Integrated Catchment Enhancement Plan](#)



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