

Kāpiti-Mana Forest and Bird Newsletter

September 2024

Editorial: Should Fonterra pay for drained peat soils.

Recently, RNZ released an article about farming on land that was once peat wetlands and is now drained peatlands. It was headed "[Is the heat about to go on Fonterra over farming on drained peat?](#)" It went on to say *Government officials have been quietly exploring how much carbon dioxide could be saved if the country reflooded its peat soils. The answer was more than four million tonnes of carbon dioxide a year - more than Huntly's coal-fired power station.*

So peat is back in the headlines and, some time or other, NZ has to deal with its peat. This is a small problem for NZ because only 1% of our land is peat, whereas some European countries have 20% or more of their land as peat soils. They are spending millions restoring their vast peatlands and that could put a spotlight on us if they rewet peatlands and we don't. There are other more direct pressures. Some international companies are reducing their carbon footprint by decarbonizing their supply chains so they may target milk products grown on drained peatlands.

There are about 167,000 ha of privately farmed peat in NZ and an estimate of between 4 and 6.4 million tonnes of carbon is released from them every year, and, as I argued over QEP, those emissions would stop if they were rewetted. Net NZ emissions are about 60 million tons per year so this is about 10% - just from drained peat.

One of the issues is that the science of rewetting and turning NZ's drained peatlands back to peat wetlands again has not been done at scale yet, but while Europe's sites are somewhat different, their experience will help to inform us how to do it.

So far, their experience has shown that the first and most important action to take is to re-establish the water levels as near as possible. The best possible method is to completely fill in field drains preferably with peat but this is expensive and the peat has to come from somewhere. Using dams instead is tricky because while the areas are flattish, they are not sufficiently flat for one dam to reflood an area. Several may be needed. Initially, the small areas near a dam will have the right water levels, but over time, the wetted area will spread out.

Rewetting drained peatlands is an attractive option because the process is cheaper than many other

climate mitigation measures. But that cost does not factor in the loss of farmland, and many farmers have bought farms where drainage had already been done, so they will feel aggrieved. However, drained peat is not the most productive farmland. GW was in a similar situation with QEP. Until a few years ago, they simply maintained the existing extensive drain network. Construction of the drains preceded them by decades.



Rewetting will stop the emissions of carbon but to get the full benefit, functioning peat wetlands need to be established. This will be more difficult. Finding peat forming plants is the first problem. In both QEP and on NZ farmland, these plants have been missing for decades and will not reappear spontaneously. Some that were present in QEP are no longer in the Wellington Region, so thoroughly have we used these peatlands for our purposes. The plants may have to be sourced from healthy peat wetlands and they are not likely to be local. Growing these plants in quantity may be a problem. The soil chemistry at the planting site will have changed which may lower their survival rate when planted out. But if we can establish peat forming plants in small plots throughout the peat areas, they will spread and support a water regime that will allow the peat swamp to develop over time.

There are a couple of other considerations.

- Reflooding peat creates methane, (a greenhouse gas) but research has found the climate impact is more than outweighed by stopping carbon dioxide emissions.
- Restored peat wetlands would supplement our remaining wetlands which are only 10% of the wetlands that NZ once had.
- Restored wetlands would help our wetland bird, fish and insect species.

- Little gain can be made by restoring damaged wetlands on the DOC estate.

This is not going to be an easy conversation for NZ to have. Like most of climate discussions, the long term public consequences (and benefits if we had acted early) must be weighed against the pain and disappointment of individuals losing an asset, part of an income, a freedom and maybe a way of life.

Whaitua o Kāpiti (Catchments of the Kāpiti region)

On 10 September I spent the morning at Raukawa Marae in Ōtaki where Greater Wellington councillors received Te Whaitua o Kāpiti (Kapiti Catchments) Implementation Programme report. It was a tremendously hopeful event to be part of and wonderful to feel the respect and cohesion between the local iwi and the manuhiri (visitors) including councillors from both KCDC and GW, most of whom were pakeha.

The National Policy Statement for Fresh Water is the legal document that initiated this process. It had six guiding principles called Te Mana o te Wai (TMoTW). They are:-

1. *Mana whakahaere*: the power, authority, and obligations of tangata whenua to make decisions that maintain, protect, and sustain the health and well-being of, and their relationship with, freshwater
2. *Kaitiakitanga*: the obligations of tangata whenua to preserve, restore, enhance, and sustainably use freshwater for the benefit of present and future generations
3. *Manaakitanga*: the process by which tangata whenua show respect, generosity, and care for freshwater and for others
4. *Governance*: the responsibility of those with authority for making decisions about freshwater to do so in a way that prioritises the health and well-being of freshwater now and into the future
5. *Stewardship*: the obligations of all New Zealanders to manage freshwater in a way that ensures it sustains present and future generations
6. *Care and respect*: the responsibility of all New Zealanders to care for freshwater in providing for the health of the nation.

Greater Wellington decided that catchment committees would decide how these principles were to be implemented. The committee for Kapiti's catchments was called Whaitua o Kāpiti.

Whaitua o Kāpiti was the first whaitua committee to choose to use the Tiriti House Model where the world views of mana whenua (local iwi) and the

But as I said near the beginning of this article, climate disruption will force us to deal with peatlands some time.

Kapiti has drained and undrained peat wetlands. What about them?

Russell

world views of kāwanatanga (the Crown, including pakeha and other community representatives) are brought together to create an inclusive approach to governance. The model seeks to support an equitable partnership approach.

Two objectives were decided. 1. That healthy water would be viewed as fundamental to the existence of all living things. 2. That the six guiding principles would be implemented through Tiriti based decision making.

Values for all catchments are: ecosystem health, human contact, threatened species and mahinga kai. Each of these values has components that need to be managed based on information and understanding. For instance ecosystem health has the components of water quality and quantity, habitat, aquatic life and ecological processes.

There are also values to be considered for each catchment such as drinking water supply, fishing, animal drinking water, irrigation, and more.

There are 11 local catchments to consider. Wairongamai, Waitohu, Ōtaki, Mangaone, Kōwhai, Waimeha, Waikanae, Wharemauku, Whareroa, Wainui and Paekākāriki and Kāpiti Island.

For Forest and Bird, the following selected outcomes are of most importance. They include all freshwater bodies, wetlands, rivers and streams, groundwater and springs.

Outcomes

Ecosystem Health

- Water will be cool, clear with reduced contaminants and nutrients.
- Flows and levels will provide the habitat needs of feeding, breeding and migratory indigenous species.
- There will be a greater abundance and diversity of healthy biota.

Threatened species

- Indigenous threatened species are protected and their presence, size and distribution, abundance size and recovery is enhanced to improve the viability of their population and their threat classification.

Natural forms (including riparian areas)

- Natural processes, connections, and behaviours are reflected to the greatest practical extent.
- Braided reaches are protected.
- Indigenous riparian vegetation is increased and improved.
- Streams, springs and wetlands are naturally connected so the waterway is resilient when there is pressure on water quantity or quality.
- All freshwater bodies and their riparian areas are preserved and protected, and restoration is encouraged where natural character values have been compromised.
- By 2040 fresh water bodies, their riparian margins, and aquatic biodiversity are providing greater regulation and resilience to assist in reducing the effects of climate change.

Finally, the document describes and assigns desired values for each of the 11 catchments so you could look at the catchment you live in and see what the desired state is.

Book: The High House by Jesse Greengrass.

This is a book about a small group of people living in a world maybe 40 years from now when climate change is affecting everyone's lives. The book is written in the first person with the subjects describing what they do and their experiences. It is atmospheric – you feel you are living through that time. This makes it very real. It is quite exciting and an easy read. (You might want to take your anti-paranoia meds before you start.)

Next Public Meeting:

16 October 2024 : Yolande Brophy of Te Rito Gardens speaks about An innovative wetland restoration in Otaihangā

Greenwaste sites are an unfortunate reality, but can they be converted into an environmental asset when their commercial use ends? Come and hear about the work of KCDC and Te Rito Gardens to

It is fair to say that for each catchment, the desired state is an improvement on what we have now for all aspects of the waterway.

At the meeting, GW councillor, Simon Woolf, who has participated in the Porirua Whaitua process, said he was envious of the outcomes achieved for Kāpiti. The process has shown that the Tiriti House model can be effective at ensuring the views of both sides are heard and can result in agreed outcomes that result in the wellbeing of our waters. It shows what can be achieved if we work together.

In closing, three examples of why this was a hopeful experience?

-The health and wellbeing of our waters and their ecosystems was prioritised in the outcomes - that's a win for te taiao/nature.

-This will also be good for climate change

- There are many recommendations for regulatory (plan change) and non-regulatory action.

Pene

Te Whaitua o Kāpiti GW press release:

<https://www.gw.govt.nz/your-region/news/shared-vision-for-healthy-kapiti-waterways-combines-western-science-and-matauranga-maori/>

Te Whaitua o Kāpiti Document:

<https://www.gw.govt.nz/document/22861/te-whaitua-o-kapiti-implementation-programme/>

Biochar

At a KCDC event which got people who won KCDC climate grants together, I met a person who made biochar (a material that is essentially carbon) from organic material. The material is heated in the absence of air, so it turns to charcoal. Charcoal and biochar are essentially the same thing. If it is heated to high temperature without air, biochar may remain stable in soil for hundreds or maybe thousands of years.

rehabilitate a wetland at the Otaihangā Greenwaste site.

From 7.10 (for a cuppa) and 7.30pm start
At **Waikanae Community Centre:**

28-32 Utauta Street, Waikanae

<https://maps.app.goo.gl/k3Y18mjTpJEM9PC3A>

* Please remember your coins for koha and raffle

Exhibition: Waikanae Estuary Care Group Turns 20

Do call in, between 28 September and 10 October 2024, and see this Group's exhibition and celebrate their achievements. The exhibition is in the Deane Community Art space next door to the Paraparaumu library: (9 Iver Trask Place):

<https://maps.app.goo.gl/yW8FUpJRQGgHfeaT9>

Public Meetings in Porirua?

We'd like to engage more with F&B members who live closer to the southern end of our branch, so we're thinking of having a public meeting on the third Wednesday evenings of alternate months to when we have public meetings in Kāpiti. We will also plan some nature walks that are closer to Porirua.

We'd love to know what you think of this plan...

Newsletter index

We've made an index of recent newsletters so find that key piece you wanted to read again?

<https://www.forestandbird.org.nz/branches/index-articles-kapiti-mana-newsletters>

Porirua Harbour and Catchments

Porirua Harbour and Catchments Community Trust recently held their AGM. The community trust came out of the former joint harbour committee which was 'local government - heavy'. One concern of the trust is that the Porirua Harbour Accord, which was at point of signoff when the previous committee was disbanded in 2018, has still not been signed and they are trying hard to make this happen. In addition to their very successful photo competition, and planting with GOPI at Motukaraka Point, the trust this year wrote 10 submissions to local and central government on matters that may impact the

Sunday afternoon nature walks

While there are a couple of great F&B connected walking groups (about 4hr tramps), in 2025 we'll be trialling an 'easy Sunday nature walks' option for members to meet each other and enjoy local reserves. The first will be to Greendale Reserve in Otaihanga, on Sunday 27 February 2025, and thereafter on the 4th Sunday afternoons. We'll release more details in the New Year. Our contact is Doug Miller on 0204645537.

Calendars & Diaries – going... going...

We will supply our last calendars and diaries at our October public meeting but you don't need to wait that long to support our only branch fundraiser!

Calendars are \$18, Diaries \$25 and they make great gifts. A way to stay connected to the environment of New Zealand.

To order, contact our treasurer, Peter Kentish on pk2003_595@hotmail.com (there's an underscore between the 3 and the 5), or call him on 02102770520. You can pay cash to Peter, or by online banking into: 38-9020-0171967-00 Forest and Bird Kapiti Mana Branch Ref: Your name and e.g. 2C1D (for 2 calendars and 1 diary).

harbour, as well as raising other issues with Porirua City Council. They noted to Wellington City Council that their long term plan also needed to consider the health of the harbour as they own 21.5% of Spicer Landfill, and a considerable chunk of the city's waste water enters the harbour. It is great to see the Trust well supported, active and connected. Keep up the sterling work team!

Learn more about them here:

<https://poriruaharbourtrust.org.nz>

Kōtukutuku – NZ Tree Fuchsia

Fuchsia Excorticata is another one of my favourites, and it's very definitely a tree - and the largest fuchsia in the world. It can grow up to 12m tall with a trunk up to 3ft in diameter. It is easy to spot in a forest as its flaky salmon coloured bark stands out against the grey/brown/green surroundings. The trunk is even more noticeable because it doesn't often have that many leaves - being one of the few semi-deciduous native plants.



The leaves are thin, a bright green on top, and slightly translucent white underneath.



They, and the fruit/flowers can come directly off the trunk or stems. The flowers are quite beautiful - distinctly fuchsia with a bell shape - starting green at the base, to black near the mouth. This changes to deep rose and blue hues, with blue pollen on the end of pink stamens. When the tui or bellbird have been sipping the nectar you can tell by their blue foreheads. The nectar is adored by tui, bellbird, silvereyes, even kererū (though in our garden the latter pair never get a look in, even the bellbird has to be sneaky). The oval black berries are shiny, about the size of a raisin and so delicious they are called kōnini (as in the 'king' of berries).

They have been eaten raw and used for juice and jam, even used for writing ink. Kōtukutuku are easy

Inspired by Sanderson project Update

Last month I told you about the 11 projects inside the overall Inspired by Sanderson project but decided to leave project 5 (The rewetting of QEP wetlands) until this month.

Project 5 This was a project that was always going to be difficult. We thought that we would simply block the field drains where they entered the large drains that drain QEP.

to grow from seed (if you can get to it before the birds and wētā) or from cuttings. The tree doesn't like too much sun, and enjoys damp but not waterlogged roots so is often found streamside (Mangakōtukutuku valley between Paraparaumu and Akatarawa Forest literally translated means 'stream of the kōtukutuku'). The tree occurs right through the North and South Island and as far south as the Auckland Islands. Kōtukutuku is thankfully not endangered, but it is very palatable and has been eaten out by possums in places, it can also be outcompeted by other weeds such as buddleia and banana passionfruit.



(Notice the colour of the peeling bark on this mature kōtukutuku) Pics © P Burton Bell

Pene

But we could not do it without GW and we knew they would see a lot more difficulties than we did. To make it easier, we planned to rewet a single isolated patch of peat first as a trial and then move to other areas, but even this area, GW decided they needed to survey the surroundings, build a spillway in case of really heavy rain and armour plate the dam surface. But as they looked into the job further, they decided to engage a hydrologist, and later, a dam designer, resource consent writer, and an ecologist.

We thought we were working dry paddocks until after damming and did not require resource consent, but GW decided resource consent was required.

We agreed to not include peat areas alongside the expressway, although to have the peat under the expressway permanently wet would most probably be beneficial (rather than being seasonally wet and dry).

The design that the consultants came up with was a very good one. The final straw as part of their consent was a favourable cultural assessment by Ngāti Toa. These conditions bought us down to the wire in terms of the three-year period of the grant. We had, at least, to get the projects started.

So as the three years got close to running out, I started talking to the funders about us not completing on time. We had met none of our benchmarks, one being the completion of the trial site. There was no option but to give the money for the project back. As it happened economic conditions had changed and the funders were happy to have the funds to support food banks etc. GW has said that they will complete the project but it may take a little longer.

We live in hope. We count the project as a success from our point of view. We started with not much more than an idea. We obtained \$114,000 for this project. The project had sufficient acceptance in GW that they studied it, wrote a resource consent application, which will remain current. When mitigation of climate change is taken more seriously, this project, as they say is “shovel ready”.



One of the pages of the consent application showing the location of the rewetted areas.

Your feedback on this newsletter would be most welcome as would contributions to future newsletter.

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