

A Restoration Vision for Hamilton City

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Hamilton has only a few tiny remnants of the former indigenous forest cover, perhaps less than 20 hectares in total of high quality indigenous habitat. This, the largest remnant Claudeland's Bush at 5.2 ha. And this, Hammond Bush, the richest of all the remnants with 145 native plant species, visiting kereru, and recently discovered native bat; but only 1 ha in extent!

But Hamilton does have its unique gully systems, as Professor McCraw has taught us, originating in the wanderings of the Waikato River over a period of 5000 years and a process known as spring sapping. Here is the Mangakotukutuku gully named after the kotukutuku or native tree fuchsia. The gullies are the natural arteries; the potential lifeblood of a citywide restoration of indigenous heritage in the form of indigenous ecosystems. Gullies have been badly treated in the past but they still provide a resource of indigenous biodiversity; mostly the vegetation is dominated by grey willow but there is often an understorey of indigenous plants like the cabbage tree. Even where weeds are dominant gullies still provide some important ecosystem services such as supporting desirable wildlife. And some native birds persist even in these highly modified systems; I am privileged to go to sleep at night with the call of the morepork or ruru echoing in the Kirikiriroa gully.

We know what the original gully vegetation was like and our newly published book provides this background information beautifully illustrated by Catherine Beard. It also gives information on what species to plant, where to plant them and how to look after them. There is a diverse range of native plants that can be used in these restorations. As well as looking good, they all perform important ecosystem functions; the nectar producing kowhai feeds the native birds. The fleshy fruits of the native conifers like rimu feed the birds and in turn are spread by them. The lacebark flowers profusely every autumn and grows into a good-sized tree within 5 years. We also know from the pioneering work of people like Alwyn Seeley, Peter Morris and the Edgar's that it is possible within 20 years to have a good canopy cover of native trees established in a gully setting.

But we still need to do more and a 1999 Science Fair student modelled the approximate magnitude of this task. Take the concept of bringing back the tui to Hamilton, an icon for restoration success so elegantly identified many years back by Tui 2000. Comparing Hamilton with other North Island cities shows we probably need almost 100 hectares of

good habitat within the city or 1000 hectares within 10 km of the city to achieve resident tui. The figures would be somewhat lower to achieve at least more regular tui visitors than what we have at present.

So to summarise, as outlined in our book, we need to:

- Use existing sites as nuclei,
- Develop corridors and linkages,
- Consider buffering,
- Use a range of different approaches: bare ground to canopy manipulation,
- Consider ecosourcing,
- Carefully conduct site selection,
- Mimic natural succession and carry out enrichment later,
- Conduct regular aftercare, weed and pest control.

Now if we revisit our gully map we can see the broader picture and we know we need to restore the gullies, link them to the river and the peat lakes and the forest remnants. Thinking even wider, we need to establish corridors along the Waikato River north to the Hakarimata range and south to Maungatautari. We have an excellent start with the Gully Restoration Guide, with the HCC Gully Management Plan and we can count on an ever-increasing number of school and private gully restorations. And we have even seen the first subdivision proclaiming a gully enhancement approach.

Because of some farsighted decision-making by the Council, we have now been presented with some unique opportunities at Claudeland's Park and at Horseshoe Lake (Waiwhakareke). At Horseshoe Lake with the coordinated Polytechnic/Council approach, there is the prospect of doubling the area of indigenous forest within the City, providing a significant stepping-stone for native birds. And why not a Waikato designed Xcluder predator proof fence around some of it to really give the native birds a helping hand?

So to conclude, we need to:

- Think big but in stages,
- Encourage the indigenous in hedges, parks gardens, and restorations,
- Change the ecosystem to evergreen,
- Change the local seed rain balance,
- Remember all components of the ecosystem,
- Develop a citywide strategy based on community support and partnerships.

And I can't stress enough the last point on this list. We have a host of willing participants: RAFT, Tui 2000, Ecologic, Forest & Bird, Tree Trust, Keep Hamilton Beautiful – there are so many I can't even remember them all. And facilitators like the staff of the Sustainable Environment Team.

So let's bring back the tui and more! Within one human generation and for the new generation! Thank you.