

Rehabilitating Waiwhetu Stream - riparian planting

Before the Friends of Waiwhetu Stream (FWS) community group formed in 2011, the stream banks were mostly introduced grasses and weeds. The edges of the stream were regularly mown with very few native species and few trees to provide shade in summer.



Grass verges below Birdwood Rd bridge 2012



Looking upstream from Bell Rd bridge 2012

In addition the stream itself was infested with introduced aquatic and semi-aquatic weeds such as Cape pondweed, willow weed, monkey musk, water speedwell, wild celery, watercress and others.



Cape pondweed



Willow weed blocking the stream



Monkey musk



Water speedwell



Wild celery

Why plant along stream banks?

There are many beneficial reasons for planting along the edge (riparian zone) of streams. Riparian plants can filter rainwater before it enters the stream, they help reduce stream bank collapses and erosion, and native trees provide food (nectar and fruit) for native birds and insects.

When stream edge plants such as sedges (*Carex* spp.) are mature, their leaves reduce bank erosion during high flows and suppress weeds, and they provide a refuge for native fish to hide under.

When stream banks collapse, soil entering the stream is a pollutant, negatively affecting aquatic insects and other invertebrates; these are important food for our native fish.

Trees are also necessary to provide shade for the stream to help keep the water temperature down. If stream water gets too warm its oxygen content reduces and fish will die. Trees also provide habitat for insects, which in turn can be food for fish when they fall into the water.

In urban stream environments such as Waiwhetu Stream, mowing and weed-eating the grass verges deposits grass clippings into the stream itself. This is a pollutant so having edge plantings reduces/eliminates this form of pollution.

Planting stream banks also improves the aesthetic values of an urban stream; making it a more 'natural' and a pleasant environment.

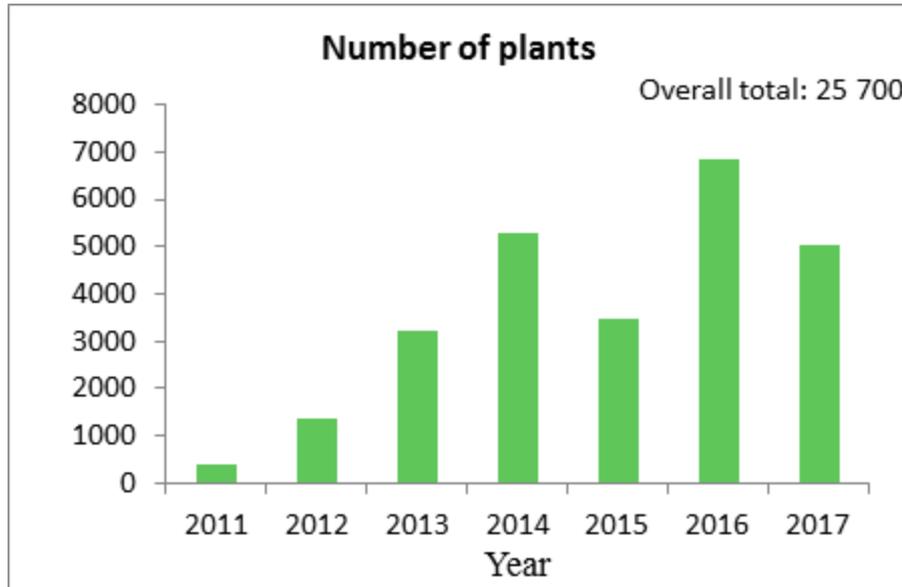


An area that was planted in 2016 showing very good growth in two years

What is our progress?

Since 2011 we have planted more about 5 km of stream banks and planted about 25 700 plants.

Most of our plants have been provided by Hutt City Council but we have also received donations from MIRO (Mainland Island Restoration Organisation) and Wellington Forest and Bird nurseries. All of the plants are eco-sourced (provenance from within the Wellington region).



We have planted a wide range of native tree, shrub, and herbaceous species as well as sedges and rushes.

Eventually the trees will help provide shade for the stream and older edge plantings are helping prevent bank collapses.



A mature edge planting of *Carex secta* protects the stream bank.

As well as planting along the stream banks, we have planted along the stream edge in the tidal 1500 m stretch between Wainui Rd to Bell Rd. Saline tolerant plants are necessary in this area. These plants also provide a safe haven for native fish.



Volunteers planting along the edge of Waiwhetu Stream, Riverside Dr south

The stream corridor has undergone a transformation since 2011. It has become a more pleasant place to visit and we receive a lot of positive comments from the community.



A steep bank planted in 2016



the same area in May 2018



A sloping bank planted in 2016



the same area in May 2018



Planted September 2016



the same area in May 2018



2011 before planting



the same areas in June 2018

There are picnic tables in various places along the stream's grassy verges for people to have a picnic and enjoy the environment. We are grateful to Craig Cottrill from Hutt City Council for arranging for these lovely tables.



An idyllic picnic spot along Riverside Dr south under a magnificent pohutukawa