Ngā kahiwi, ngā pīnakitanga me ngā taumata
Ridgelines, upper slopes and hilltops

Wellington City is surrounded by a dramatic backdrop of ridgelines and hilltops, stretching from the South Coast to Colonial Knob in the north and horseshoeing the city in the town belt. Once cloaked in lowland and coastal forests, these areas have been completely altered over time. A history of logging, burn-off, clearance for farming, and planting of macrocarpas and pines has resulted in a very different mix of plants, often overrun with weed species like gorse and barberry. Whilst there are pockets of original forest in gullies and lower slopes, the original forests and scrubland vegetation on the ridgelines and hilltops has largely disappeared.

Along with the Council, there are many community groups and landowners working hard both planting and encouraging regeneration of these upper areas.

"We started out planting along the sides of new mountain bike tracks to fill in the bare ground. Then it became about getting a greater diversity of plants and a canopy over the tracks. Then the goal moved to planting the top of Polhill itself. Now my goal is restoring a podocarp forest and planting 1000 nīkau back in Polhill! It's taken a while to get to understand how we can meet this goal but now I'm looking 100-200 years ahead...".

Garth, Highbury,
Polhill Reserve planting volunteer

Nōhanga Habitat

Site conditions on the hilltops and ridgelines of Wellington City can be extreme.

They are exposed to winds from all directions, often strong. They are exposed to full sun yet, conversely, often sit in low cloud. They can be extremely dry, then very wet. Many of these hilltops and faces are also exposed to salt spray and have shallow stony or clay soils. Establishing plants in these conditions can be extremely challenging.

(Above) South of the Brooklyn wind turbine, native vegetation emerges through gorse; tree ferns cover lower south-facing gullies

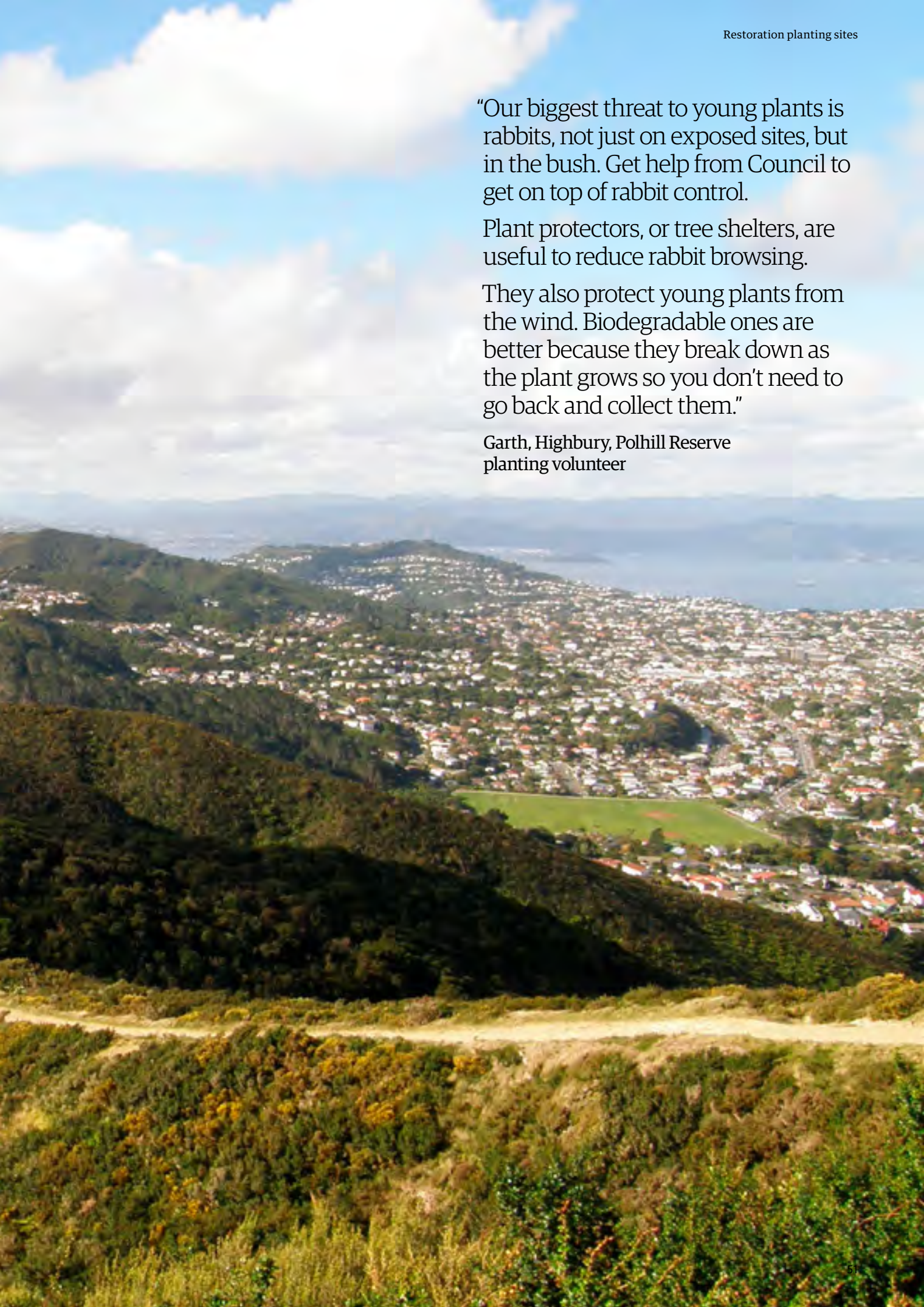
(Left) Hillside vegetation at the top of Belmont trig, raukaua, kāpuka and kakaha are sculpted to the wind.

"Our biggest threat to young plants is rabbits, not just on exposed sites, but in the bush. Get help from Council to get on top of rabbit control.

Plant protectors, or tree shelters, are useful to reduce rabbit browsing.

They also protect young plants from the wind. Biodegradable ones are better because they break down as the plant grows so you don't need to go back and collect them."

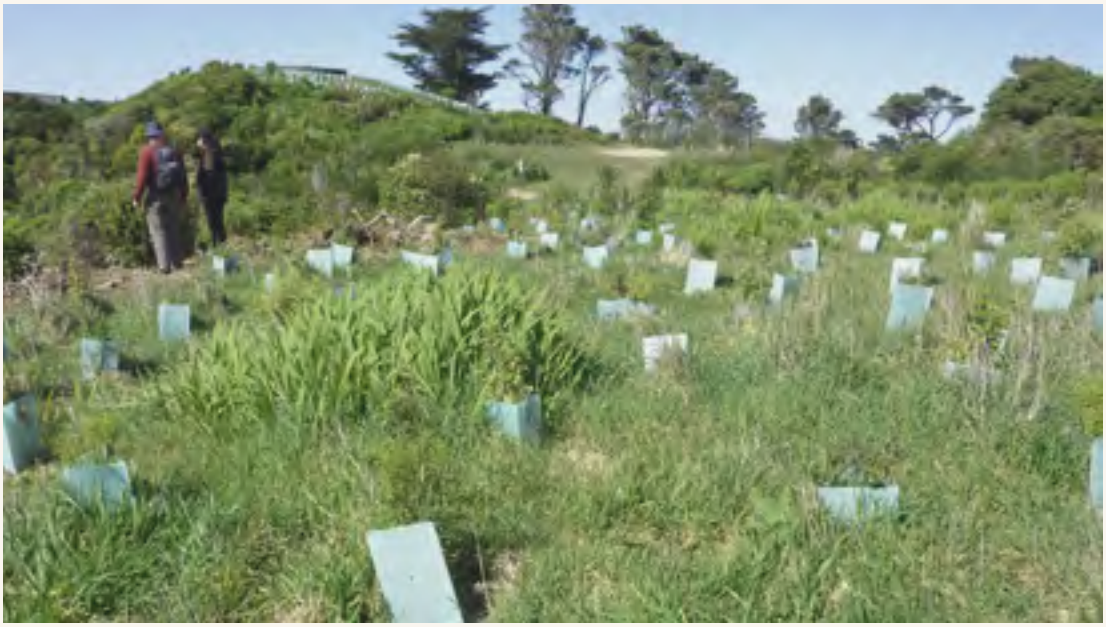
Garth, Highbury, Polhill Reserve planting volunteer



Ngā kahiwi, ngā pīnakitanga me ngā taumata
Ridgelines, upper slopes and hilltops

The aim of restoration planting on ridgelines and hilltops is to support natural regeneration of existing native plants, create shelter, and over time, plant forest or scrubland species that will develop a canopy. Assess the site carefully before removing weeds, as plants like gorse can help shelter young seedlings. Work out the prevailing wind direction and pick areas that might hold soil moisture over the summer period. Tree shelters and even young seedlings can be blown off hilltops in a stiff Wellington breeze.

Success with planting these areas requires careful plant selection. The range of species to choose from initially is very limited. Once shelter is established more species can be added.



(Above) Planting on Brooklyn Hill has been a staged project, with removal of broom and gorse in small sections. Tree shelters have been used to assist growth of the plants as well as providing relief from rabbits browsing.

(Below) Planting on Brooklyn Hill, using a biodegradable tree shelter will not be so intrusive as the green shelters.

Tips for planting on ridgelines, upper slopes and hilltops

One of the biggest threats to young plants in these areas is browsing from rabbits and hares. Carry out rabbit control before planting and monitor animal damage throughout your project.

Plants suited to these sites may grow lower and more compact than if they were placed in more sheltered sites. Space plants close together, 0.5–1 m from each other.

Shelter is key to establishing plants in these areas. Plant in the shelter of existing vegetation and rock formations. Plant 3–5 plants together in clumps so they shelter each other.

If there is gorse present, clear small areas between the bushes and plant into them. The gorse will act as a shelter while the young plants establish. Keep the cleared areas small so wind can't funnel through the site between young seedlings. Gorse needs full sunlight to thrive, so will naturally die back as a new canopy of trees takes over.

Use one fertiliser tablet for each plant where soils are low in nutrients and add crystal rain if watering plants is unrealistic.

Plant in late June and July, once ground moisture is reliable, allowing time for the new plants to settle in before the next summer.

Exposure to wind can dry out plants and loosen them in the soil, damaging their roots and sometimes blowing them away. Use tree shelters, firmly staked into the ground. Biodegradable shelters are preferred as they break down naturally so don't need to be collected as the plant grows or if they are blown off.

Mulch around plants where possible to retain moisture, keep weed growth down and add nutrients to the soil.

(Above) A new biodegradable tree shelter, made of coconut husk.

(Below) Taupata and other young seedlings can quickly be destroyed by rabbit browse.

Plant list for ridgelines, upper slopes and hilltops

Ridgelines, upper slopes and hilltops		Life form	Plant preferences & tolerances				Abundance	
Māori/ Common name	Botanical name	Plant type	Soil moisture needs	Light levels	Frost tolerant	Wind tolerant	Early stage	Later stage
Coastal tree daisy	*Olearia solandri*	Bushy shrub to 5m	Dry to semi-moist	Sun	✓	✓	++	
Whauwhaupaku	*Pseudopanax arboreus*	Small tree to 3-6m	Semi-moist	Sun to semi-shade	✓	✓	+	
Kakaha, bush lily	*Astelia fragrans*	Flax like to 2m	Semi-moist	Sun to semi-shade	✓	✓		+ +
Kāpuka / Broadleaf	*Griselinia littoralis*	Small tree up to 4m	Semi-moist	Sun to semi-shade	✓	✓	+ +	
Tree Hebe	*Veronica parviflora*	Tall shrub up to 5m	Semi-moist	Sun	✓	✓	+++	
Koromiko	*Veronica stricta*	Shrub up to 4m	Semi-moist	Sun to semi-shade	✓	✓	+ +	
Mingimingi	*Coprosma propinqua*	Shrub 2-5m	Dry to semi-moist	Sun	✓	✓	+++	
Mingimingi / Twiggy coprosma	*Coprosma rhamnoides*	Shrub up to 1.5m	Semi-moist	Sun	✓	✓	++	
Broad-leaved poa	*Poa anceps*	Grass, 1m	Semi-moist	Sun to semi-shade	✓	✓		++
Silver tussock	*Poa cita*	Grass, 0.7m	Dry	Sun	✓	Exposed	+++	
Ramarama	*Lophomyrtus bullata*	Shrub to small tree, 3-6m	Semi moist	Sun to semi-shade	✓	✓		++
Raukaua	*Raukaua anomalus*	Shrub up to 3m	Semi-moist	Sun	✓	Exposed	++	
Stinkwood	*Coprosma foetidissima*	Shrub to 3m	Semi moist	sun	✓	✓		++
Tauhinu / Cottonwood	*Ozothamnus leptophyllus*	Shrub, 2m	Dry	Sun	✓	✓	++	
Thin-leaved coprosma	*Coprosma areolata*	Shrub up to 5m	Semi-moist	Sun	✓	✓		++
Toetoe	*Austroderia toetoe*	Grass up to 4m when flowering	Semi-moist	Sun	✓	Exposed	++	
Whaririki / Mountain flax	*Phormium cookianum*	Flax up to 1.5m	Dry to semi-moist	Sun	✓	✓	+++	

+ use sparingly ++ use commonly +++ use plentifully ✓ yes • categorised