

Te tipako me te rapu tipu pai

Selecting and sourcing quality plants

For restoration planting to be successful, young seedlings need to survive and thrive. This is no easy task in Wellington's rugged, windy and exposed coastal environments. Choices about the type of plants, where they are sourced from, where to put them on a site and how well they are planted are all important factors that can make a big difference to the success of any project.



He aha ai me whakatō tipu taketake? Why plant natives?

“My key recommendation for an exposed site like this - keep it native - non-natives don't survive! Find out what plants are suited to your site and just choose a few hardy species at the beginning to create some shelter. Add in trees you like, to attract birds, later on.”

Ian, Churton Park

Eight good reasons to use native plants in Wellington

1. **Better survival rates** - local native plants are adapted to the rugged landscape and conditions so they are more likely to survive than non-natives or natives from other parts of the country.
2. **Less work and resources** - native plants in Wellington seldom need fertiliser and are self-sufficient once established.
3. **Stabilise Wellington's soils and steep slopes** - local native plants have evolved with the Wellington soils and landscape so naturally function better as stabilisers and have existing relationships with soil bacteria and fungi allowing better uptake of nutrients and water.
4. **Help restore Wellington's natural character** - only 1% of the original coastal forests and 5% of lowland forests remain in Wellington.
5. **Provide habitat and food for native wildlife** - native plantings create corridors or 'stepping stones' between the few remaining mature forest and wetland areas, extending food sources and habitat for birds, bees and insects. These species then help spread native seeds and pollen across Wellington.
6. **Improve water quality flowing to the harbour and out to sea** - native plants act like sponges, filtering sediment and nutrients from the water. This helps threatened species like giant kokopu that live in Wellington streams, as well as fishing grounds in the harbour and along the coast.
7. **Make the most of resource consent requirements** - many resource consents require land remediation. Developing a native plant restoration plan at the beginning of any land development can save time and money when it comes to planting. For example, by ensuring top soils are retained and not compacted during construction, making the most of existing shelter and vegetation, selecting plants for slope stabilisation, shelter etc.
8. **Personal satisfaction and connection with your neighbours** - anyone who has done the hard yards restoring native plants will attest to the satisfaction in seeing the landscape change from weeds and degraded landscapes to thriving habitat for birds and wildlife.

Te tipako tipu mō tō wāhi whakatō tipu

Selecting plants for your site

Choosing the right plants for your site is critical for long term success.

Plants have characteristics that make them more or less suitable to environmental conditions like wind or salt exposure, soil moisture, terrain and light levels. Some plants need shelter to grow and may not survive on exposed land.

It is often best to start with a limited range of hardy, quick-growing plants in an area you have time to look after in the first year. Start in more sheltered areas (eg gullies, stream sides, around existing bush) and work your way towards more exposed areas over time.

Plant lists for a range of environments across Wellington are found in the Wellington City Council guide: *Restoration planting sites*.

Chose eco-sourced plants

Eco-sourced plants have been grown from the seed of wild plants that naturally occur in a particular local area or ecosystem. These plants are easier to care for and more likely to survive because they are better adapted to the conditions of their local area.

Wellington City Council only uses eco-sourced native plants for restoration planting. This helps to preserve the unique genetic material of Wellington's local plants and avoids the risk of planting non-local species that could become invasive.

If you source plants from sources other than the Wellington City Council nursery, make sure they have been eco-sourced from the Wellington area.

If you want to propagate your own plants, ask Wellington City Council for advice, a copy of its eco-sourcing guidelines and how to apply for a seed collection permit.

Taupata is one of Wellington's hardier plants, an essential plant for all coastal areas, such as at this site in Paekawakawa Reserve, Island Bay.



Te rapu tipu pai

Sourcing quality plants

The Wellington City Council Berhampore Nursery produces on average 100,000 eco-sourced plants a year for restoration planting. Community groups and residents can apply for free plants for restoration planting.

The nursery grows a selected list of species, focusing mainly on those that have good survival rates when planted in Wellington's conditions, especially on exposed sites. The plants available vary from year to year to cover a range of

priorities, such as riparian planting to improve water quality and reduce erosion, or coastal planting where there has been extensive loss of habitat. If you are wanting plants that are not currently available, contact the Council for advice or to request that the nursery grow them in another year.

The Wellington Forest & Bird nursery and other community nurseries also grow a wide range of eco-sourced plants for restoration work and community groups.

Several commercial nurseries and garden centres produce native plants in Wellington. If you order from a commercial nursery or garden centre, specify Wellington eco-sourced plants.

It can take up to 18 months or more to grow plants from seed into plantable seedlings. Some native species such as rimu only seed every 5-10 years, this is the reason they are only available sometimes. Order plants early to ensure you can get them in time for your planting season.



Berhampore nursery: eco-sourced trees and shrubs ready for dispatch for the new planting season.

Growing your own plants

If you want to grow your own plants, you could set up a backyard nursery or work with other groups who already have nurseries and may have spare space.

Collecting any plant material (fruit, seeds, seedlings etc) from parks and reserves requires a permit from Wellington City Council. If the land is private, always get permission from the landowner.

There are several options for sourcing propagation material:

- Growing from seed - ask for advice as some species are more difficult to propagate than others.
- Growing from cuttings - cuttings can be an easier option with species that are difficult to grow from seed. Use this option sparingly, though, as cutting-grown plants are clones of the original and lack the genetic diversity of seed-grown plants. If using this technique, harvest the cuttings off a wide variety of plants and areas to maximise genetic diversity.
- Transplanting seedlings - moving young naturally regenerating seedlings can be a viable option for some species however many native plants do not like root disturbance and do not successfully transplant from the forest floor.
- Spreading seed - spreading seed or forest litter is a way to encourage seedling regeneration but should be considered with caution as seeds may not germinate unless the right conditions are present on your own site. Moreover, removal of forest litter can disrupt the environment.
- Be careful about using seeds or cuttings from garden plants as they may be hybrids or variegated varieties and become invasive, eg Pseudopanax hybrids are a major problem throughout Wellington reserves and commonly appear as garden plants.

Plants to avoid

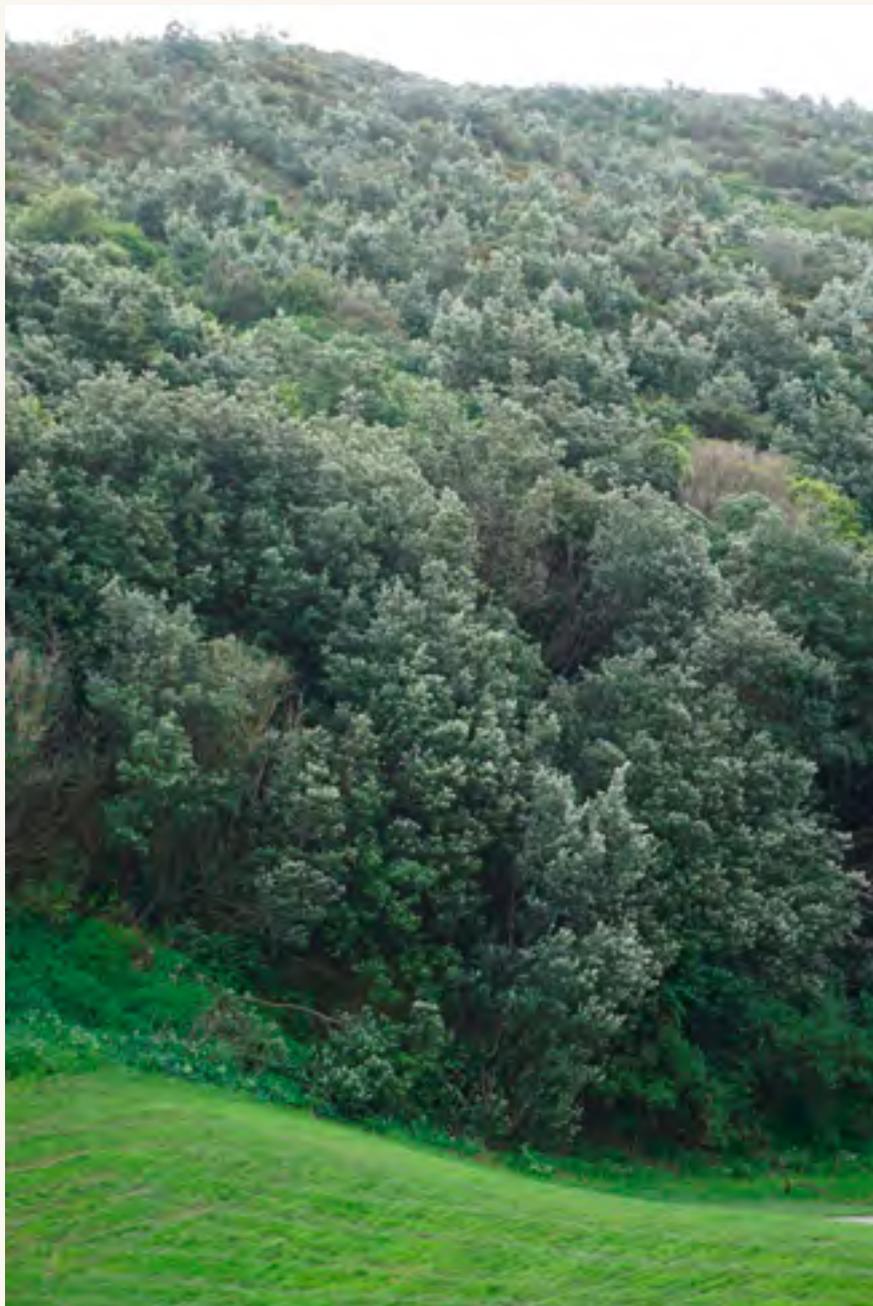
A number of native plants that do not naturally occur in Wellington City have become a problem because they grow so well here that they compete with or hybridise with locally indigenous plants. Using Wellington eco-sourced seedlings will avoid this problem.

Non-local Native Plants

Some non-local plants commonly found in Wellington are the two species of Karo (*Pittosporum crassifolium* and *P. ralphii*), pūriri, pōhutakawa, Northland lacebark and karaka. Karaka was planted by Māori in orchard-like groves and is now being spread by Kererū.

Avoiding spreading weeds and pests to your planting site

All planting stock should arrive from a nursery weed, pest and disease free and be the species ordered. However, always check each plant for weeds, any live animals (eg moths, geckos), eggs etc before planting them. Check any mulch and soil coming to your site as well. This will help keep unwanted pests out of your site and reduce possible spread to neighbouring areas. If in doubt, ask a Ranger for identification of the plants delivered and any possible pests and weeds.



Karo thicket on the coastal hillsides in Houghten Bay. Strathmore and Breaker Bay have similar hillsides covered in mostly karo groves with little local indigenous vegetation.

Karo is a native plant to New Zealand but would not naturally have grown in Wellington. It has become very invasive, taking up habitat from local Wellington plants.