

Waikato Coastcare

TIAKI TAKUTAI

Weed control on our coasts

About weed control

Many coastal regions in the Waikato are overrun with invasive plants, such as exotic grasses and garden escapees. These weed species actively invade our dunes and are less effective in repairing storm-damaged dunes than our native sand binding plants (kōwhangatara/spinifex and pīngao). Weeds outcompete native dune plants, displacing native species (insects, lizards, and birds), so weed control is essential to give our native species a chance and restore our natural coastal habitats. For the best chance of success, it is important to have a regular weed control programme when working on a coastal restoration project. If you don't, then all the hard work of the community and volunteers can be wasted! If you plan to do any coastal weed control, or have any concerns about pest plants in your coastal area, please contact your local council office or the Coastcare Waikato team.

Identifying pest plants

The first step in a coastal restoration project is assessing the weediness of the site. To do this, it's important to become familiar with both native plants and exotic weeds. For a serious weed infestation, you can call the council, hire a qualified contractor, or carry out weed control yourself on your own property. To control weeds on public land, you need the correct qualifications and permission from your local council.

There are a number of weeds commonly found on dunes in the Waikato region that are worth getting to know. Kikuyu is a widespread grass weed which is highly invasive and usually one of the first weeds we target. Other common coastal weeds include pampas (often confused for our native toetoe), buffalo grass, climbing dock, exotic ice plant (careful, there is a native variety), gorse, blackberry, agapanthus, lupin, marram and flowers like gazanias and African daisies.

If in doubt of whether a plant is a friend or foe, you can use a plant ID app, for example, Seek by iNaturalist. To identify weeds, you can check out the [Weedbusters website](#) or the [Waikato Regional Pest Management Plan](#), which is also found online.



Pampas is often confused for native toetoe.

Native plants work best

While dunes do not stop wave erosion, they provide a natural, self-repairing buffer to absorb the impacts of storm events. Dune vegetation plays an important role in natural beach processes, and it is important to have the appropriate sand-trapping native plants on the seaward face of the dune. Exotic species such as kikuyu and ice plant often dominate dunes, but are not as effective as native kōwhangatara/spinifex and pīngao plants at trapping sand and repairing storm-damaged dunes.



Kōwhangatara/spinifex seed head.

Methods of weed control

Various methods are used for weed control on our coasts, ranging from hand pulling to chemical application. It is important to use the right method, or weeds will rapidly re-establish. The appropriate method is determined by the weed species and density, the size of the area needing weed control, and whether any native plants are growing nearby.

Hand weeding

- Labour intensive, but suitable for some weeds, sensitive sites, or small infestations.
- Weeds that can spread from fragments or germinate from any attached seeds need to be removed from the site.
- It is vital to check the area regularly and remove weeds before they spread.
- If vigilant, small sites can be maintained by hand weeding once initial weed control is completed.

Mechanical site preparation

Bulldozers or bobcats are often used by Coastcare following initial use of herbicide to kill weeds at sites where native plants are absent or in low numbers. This method works to remove root fragments and most weed seeds in the sand. The material is then buried at the toe of the dune, effectively providing a 'clean slate' for restoration plantings. This method is not appropriate in areas with many native plants. Initially, it is costly, but it is economical in the long term as the weed seeds and fragments are removed and less weed control is needed to maintain the site.



Bulldozers are used to remove root fragments and weed seeds in the sand.



Target spraying of pest plants with a knapsack.

Herbicide

- Practical over large areas, or to create a "buffer strip" along lawns.
- Can be used to target species that cannot be hand-pulled, or that will regrow if cut down.
- The most common method is spraying with a knapsack. If spraying is not suitable or desirable, cutting the stem and applying herbicide gel to the stump is an effective alternative for woody weeds and vines.

Herbicides have different withholding periods that must be observed before the area can be replanted (the withholding period can be found on the Material Safety Data Sheet for the product, or will be on the label).

Coastcare uses herbicides to remove weeds that are widely spread, too difficult to remove by hand and/or weeds that regrow if the roots are not fully removed from the ground. Coastcare commonly uses plants that tolerate some herbicides as a buffer at restoration sites. This involves planting pīngao, wīwī and/or pōhuehue between back dune sites and spinifex zones, and using grass-specific sprays to prevent reinvasion by exotic grasses.

Gradual removal of tall exotics

Only useful in areas where exotics are not too dense. The remaining exotics provide a nursery environment for young native shrubs/trees.

Shade via dense native plantings

This is a long-term approach that requires some hand or spray-releasing of young plants in the first few years. Not effective for some weeds which are shade tolerant (for example, kikuyu) and not appropriate on foredune areas.

For more information, please contact
Waikato Regional Council on 0800 800 401 or
coastcare@waikatoregion.govt.nz.