



## Vehicle Damage in Sand Dunes

**We're seeing more four-wheel drive vehicles on our roads, beaches and sometimes our sand dunes.**

**Vehicles and sand dunes do not go together. They can destroy the plants that help keep the sand dunes strong, killing them with a single pass. They're also equally destructive towards native birds, their nests and their eggs.**

### *Sand dune erosion*

Does it matter if a few dune plants are destroyed? Simply, yes! Beaches and sand dunes (the coastal zone) are very exposed and the sand is moved easily by wind. Sand dune 'blow outs' often start from small areas where plants have been damaged. Exposed sand dries out quickly, making it easy to be carried away by wind. On the crest of dunes, this process is ongoing, quickly forming elongated depressions or gullies.

As a gully deepens, its sides become steep. Sand that was underneath neighbouring plants slides down the slope, and can also be blown away. If the roots of the plants are exposed the plants can die, resulting in even more wind erosion.

From a small area of damaged dune a big erosion feature can develop, expanding to 1000 m<sup>2</sup> in less than two years.



### *Migrating dunes*

This process means the amount of sand sitting above the high water mark is reduced. Sand dunes migrate inland, changing the profile of the beach and consequently allowing the sea to move inland.

When coastal erosion reaches this stage it can cause huge problems for coastal land owners, roads and public buildings. Migrating, moving dunes can invade pastures and block roads, and degraded beach profiles can drop the bed level of coastal streams leading to other effects like undermining bridge abutments.





## Controlling sand dunes

To stop dunes eroding we need to make sure they have good vegetation cover. Plants on the seaward side of the foredunes grow in a harsh environment and trap windblown sand to maintain the dune barrier. They have the ability to tolerate salt water and salt spray, strong winds, low fertility and dryness. Extra planting of suitable native species, dressing of fertiliser and control of browsing animals all help to maintain these erosion controlling plants.

## Vehicle access

To keep the vegetation healthy and intact, all vehicles should be kept off the dunes. If you need to access the beach, use a beach vehicle access way.

Public vehicle accessways should have a 'sand ladder' base. These help control erosion and prevent your vehicle getting stuck in the loose sand.



See *Coast Care Brochure 5 – Sand ladders, getting you to the beach.*

## Let's work together

By cooperating with other beach users, and the district and regional councils, we can make sure the region's beaches are kept safe for everyone to enjoy.

Members of the public can apply for permits from Tauranga City Council (TCC) for quad bike use along Pāpāmoa East Beach.

Together with TCC, members of the Mount Maunganui Surf Casting Club installed an accessway for everyone to use and to prevent wind erosion. Club members appreciate that dune protection is in their best interests and participate in Coast Care activities as well as the policing of inappropriate vehicle use by other beach users.

## Getting involved

About 1,000 coastal residents like you are members of a programme called Coast Care. This is a partnership between local communities and local government agencies in the Bay of Plenty to restore and protect dunes, both for their biodiversity value and their role as a natural buffer from the hazards of the sea.

We do things like:

- weed and rabbit control
- planting of native dune plants
- beach clean-ups
- fencing and fertiliser application

We'd love it if you joined us. Help us set objectives for your area's dunes and then work with like-minded locals to improve the dunes for everybody.

*Dunes damaged by vehicles will erode. This could lead to all vehicles being banned from them. It's in your best interest to make sure this doesn't happen.*

## Find out more

If you want more information on Coast Care groups and programmes contact:

**Coast Care Coordinator, Bay of Plenty Regional Council**

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**Bay of Plenty Regional Council** in partnership with Tauranga City Council; Whakatāne, Western Bay of Plenty, and Ōpōtiki District Councils; and the Department of Conservation.