

# Dune Usage



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Western Bay of Plenty  
District Council



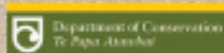
Tairāwhiti



Whakatāne District Council  
Whakatāne District Council



Oportiki District Council



Department of Conservation  
Te Papa Ataturu

*working together to care for our coast*



Coast Care  
BOP  
Programme

Coast Care Information Brochure Number 4

Many of New Zealand's sandy beaches are backed by a system of sand dunes and interdune hollows. There is an increasing demand by people to use the dunes and beaches more extensively for a range of activities and pursuits.

As the dune system protects the coastline **and** developments against erosion, increasing use must be carefully planned and managed to minimise damage to the dunes and their vegetation.

## The Beach and Frontal Dune

The beach itself is tolerant of a range of intensive recreational uses, but the very narrow frontal dune is extremely fragile. Even moderate pedestrian usage can destroy frontal dune vegetation.

Once small patches of the frontal dune lose their vegetative cover, strong winds can complete the destruction, initially by producing blowouts, then transverse mobile dunes and finally a completely unstable dune system moving inland. Loss of sand from the frontal dune system by wind and wave action accelerates the landward movement of the coastline, e.g. Shaw Road, at Waihi Beach, above.

Natural recovery from this damage is slow because the adverse environmental conditions are unfavourable for plant growth.



## Secondary and Back Dunes

Most other zones of the dune complex are less fragile than the frontal dune. However, these areas are still sensitive to activities, in particular the top and seaward dune faces.

To prevent damage to dune vegetation and to give the damaged areas a chance to recover, it is often necessary to fence off dune areas (especially the frontal dune) and provide access tracks to the beach.



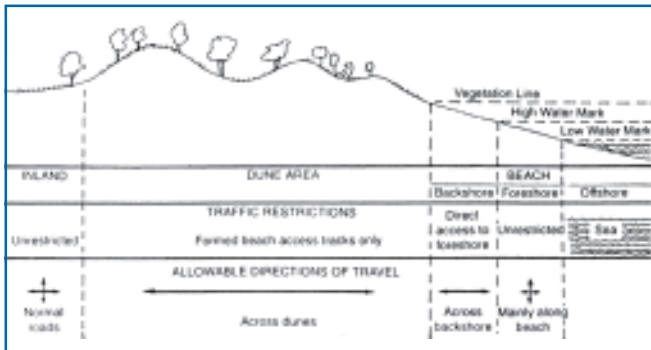
This helps in two ways:

- protection of foredune vegetation and
- concentration of people through one area with the assistance of facilities, e.g. walkways built to lessen the impact.

## Vehicles and Horses on the Beach

Vehicles and horses travelling on the beach between high and low water marks have little impact on the beach system - although they do impact on the marine life such as shellfish beds. However, vehicles and horses in the dunes damage and destroy vegetation, which will result in increased beach erosion rates.

The main impact is on the dune vegetation, firstly by direct bruising and breaking of the above ground parts, and secondly by physical damage to the underground plant parts by the shearing forces of tyres and hooves.



### Principles for control of traffic to minimise beach erosion

For many years we have enjoyed the sandy beaches around our coastline and have thought little of our impact upon these places. We are now learning that the sand dunes are a dynamic and fragile environment

which require people's understanding and protection for them to retain their protective vegetation and to continue as a buffer between the land and sea.

In many areas of the Bay of Plenty, Coast Care programmes are being organised by Environment Bay of Plenty and the coastal District Councils, for the community to become involved in the protection and enhancement of our coastal areas. These groups are involved in a variety of works with support from their local authorities. You are welcome to also become involved and assist at any time.

Coast Care projects involve community members of all abilities, experience and skills. All are welcome, there are no restrictions or costs.



## Titles in this information series are:

- No. 1 Bay of Plenty Coast Care
- No. 2 Formation and Functions of Beaches and Sand Dunes
- No. 3 Foredune Vegetation
- No. 4 Dune Usage
- No. 5 Coastal Plants - Pingao
- No. 6 Coastal Plants - Spinifex
- No. 7 Control of Vehicle Damage in Sand Dunes
- No. 8 Sand Ladders - Getting you to the Beach
- No. 9 Backyard Buffers
- No. 10 Coast Care Code



## Contact

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