



# Sand Ladders - Getting you to the Beach



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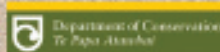
Western Bay of Plenty  
District Council



Tairāroa City



Otago District Council



Department of Conservation  
Te Papa Ataturu

*working together to care for our coast*

Coast Care  
BOP  
Programme

Coast Care Information Brochure Number 8

## Introduction

The increasing numbers of people visiting the beaches in the Bay of Plenty has significant impacts on the dunes and dune vegetation. The vegetation is vital to dune stability as the plants trap windblown sand. Damage to these plants results in erosion and destruction of the dunes and beaches.



This kind of damage shown above is a direct result of people walking on the sand dunes. Natural recovery is impossible without excluding humans from areas like these.

## Sand ladders

Board and chain walkways known as 'Sand Ladders' prevent the lowering of dunes and the development of blowouts. Ease of access to and from the beach is also improved. Strategic placement of these timber boardwalks provide effective access to the beach whilst preventing further damage to the precious dune plants.



## Construction

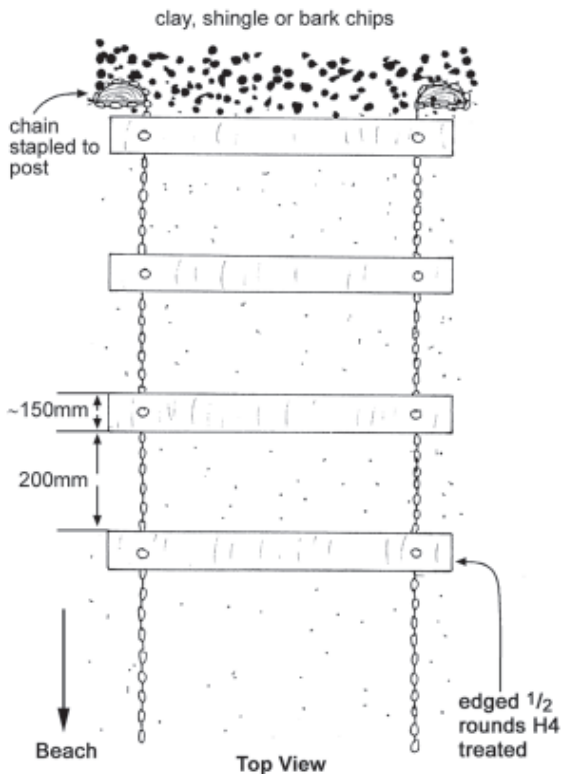
Sand ladders are constructed from timber and chain and placed perpendicular to the beach and dune to provide key access points. The ladder is anchored landward of the dune with no anchorage seaward, this provides for sand movement and creates a 'floating' effect.

Step 1: Find the loose ends of the chain and wrap each one around the top of the anchor post. Attach each chain with at least 2 staples.

Step 2: Dig out any vegetation in the path of the ladder. Then, level off the sand before running out the chain.

Step 3: Bolt the first edged 1/2 round so it is level across the slope (this is VERY important). Use a 200mm spacer to get the right spacing for the steps. You may need to increase or decrease the spacing on one side slightly to go around bends on the track.

Fine bark can also be used on flat areas to help delineate the track, increase the natural aesthetics of the location and is cool and comfortable on bare feet, it also lasts reasonably well.



## Location

The sand ladders need to be conveniently placed so that they will be used by the public. Pedestrian access tracks should be between 1.2 and 2.4m wide and located where the dune slopes are no greater than 30-60 percent (17-31°). Wider access tracks can be created for surf rescue boats or vehicle access (see Coast Care Brochure Number 7). Suitable signs advising of the location of these ladders and access points should also be provided.



## Control of sand dune erosion

Planting with native sand dune plants beside the sand ladder will help to control wind erosion on the sides of the accessways. Fences may be constructed in high impact areas to restrict the human impact on this fragile environment. Past experience has shown that the combination of controlled beach access (sand ladders), exclusion of people from some dune areas (fences), replanting and education can reverse past trends of erosion and destruction to provide a stable beach environment for us all to enjoy.



## 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 Sandladders - Getting you to the Beach
- No. 9 Backyard Buffers
- No. 10 Coast Care Code

## Contact

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