

Management guidelines for dune use

Pedestrian control fences

Introduction

Vegetation is vital to dune stability. It traps sand as it is blown up from the beach and holds it in place where it contributes to the build up of the dunal system. Damage to the dune vegetation results in wind erosion and lowering of the dunes, leaving them less able to withstand wave attack.

Dune vegetation is easily damaged by trampling and by disturbance of the surrounding sand. Even moderate pedestrian traffic can soon cause significant damage to the sensitive dune vegetation and prevent the recovery of plants in the affected areas. In these situations the most effective remedy is to fence-off the vulnerable sections of dune and provide access tracks to the beach.

Pedestrian-control fencing

The installation and maintenance of pedestrian-control fencing can be expensive and should therefore only be used where it is considered necessary. Low cost control measures such as signs, bollards, vegetation barriers or basic fences to direct pedestrians in the required direction should be considered where pedestrian impact is minor. These works are more of a psychological than physical barrier and are preferred because of their low cost and low visual impact. Further information on signage can be found in Leaflet No. V-02.2.

The characteristics of fencing suitable for dunal areas include:

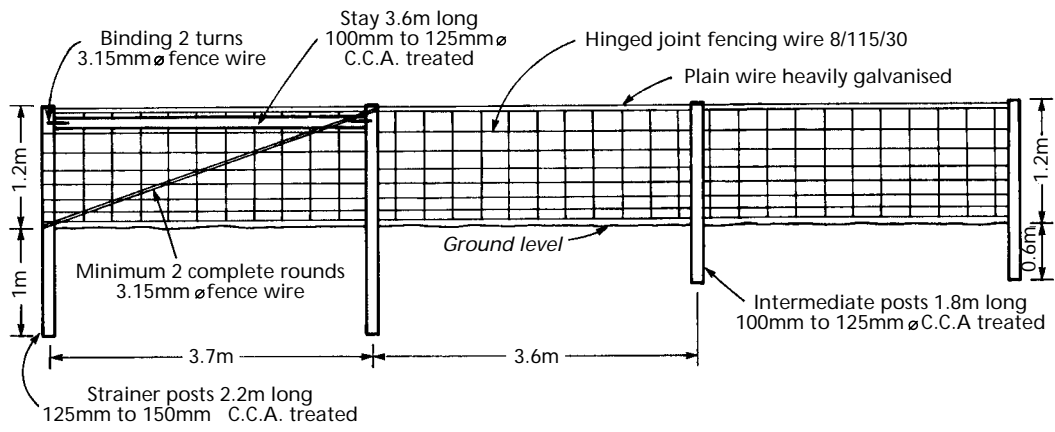
- low wind resistance so that wind-borne sand will not readily build up against it

- durability against the harsh beach conditions
- relatively low installation, maintenance and replacement costs
- an acceptable visual appearance for the particular location.

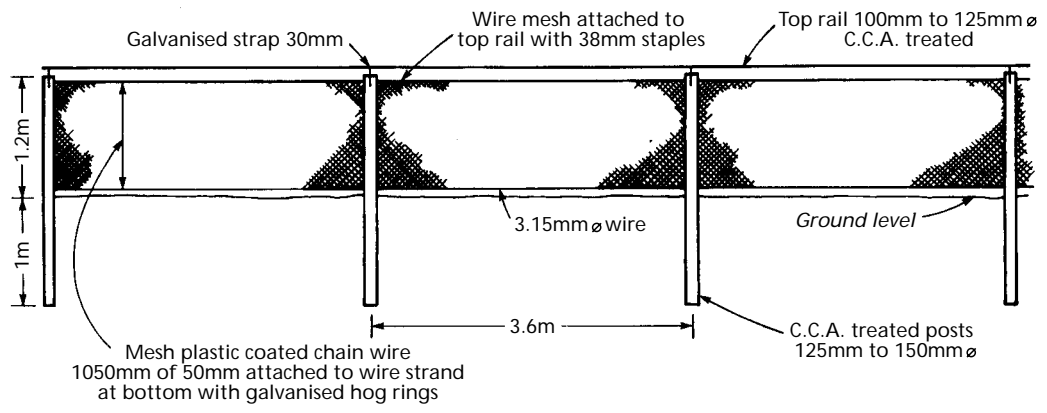
To meet these needs, most fencing on dunal areas is now constructed using CCA-treated pine posts and galvanised fencing wire. CCA-treated pine posts are readily available, economical, and have an attractive and splinter-free finish. They come in a range of lengths and diameters suitable for fencing applications and the CCA preservative provides long-term protection against termites and rot. All CCA-treated timber should be withheld from use until the external surfaces are completely dry following the treatment process. All offcuts and residue material should be disposed of in an approved landfill site.

A commonly used fencing wire is 8/115/30 hinged joint wire with heavy galvanising on the lower stringers and picket wires. New wire coating technologies are producing fencing wire with multiple coatings which are claimed to offer corrosion resistance far superior to that of conventional galvanising. The wire is attached to the posts and rails with galvanised fencing staples. Care should be taken not to drive the staples in too far and thus damage the wire's protective coating. Galvanised punched strapping or specially made galvanised brackets are commonly used to reinforce the joints between the posts and rails.

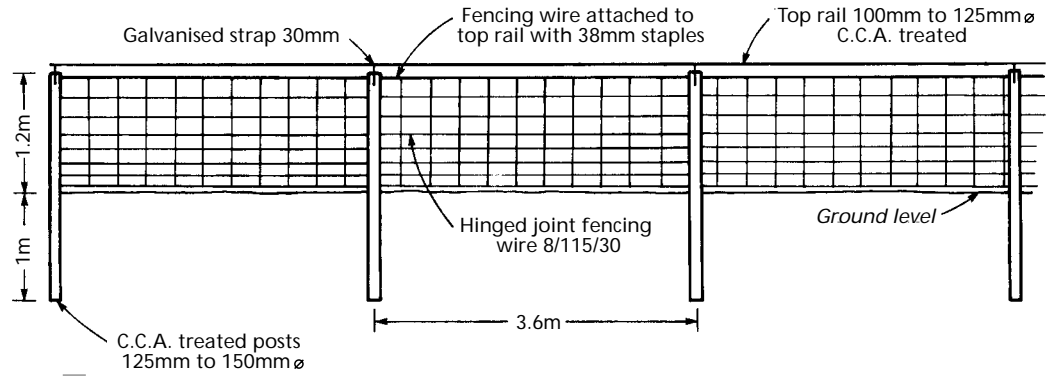
BPA -01



BPA -02



BPA -03



The illustration shows specifications for three typical fences for dunal areas. Plan BPA-01 gives specifications for a basic, low cost dune fence, while plan BPA-03 gives specifications for a sturdier fence with a top rail that would be more suitable for high traffic areas. The fence with plastic-coated chain wire mesh (BPA-02) would be too expensive for the seaward side of dunes where fences can be lost through wave attack, and the high wind resistance of the mesh would cause windblown sand to pile up against it. However, this type of fence gives an attractive and durable result in places such as heavily used amenity areas and access tracks. Information on pedestrian access tracks can be found in Leaflet No. V-02.6.

Low visibility fences are also used in these areas to enhance sea views and to retain natural visual appeal. They generally consist of CCA-treated pine posts with up to six strands of plastic coated wire or stainless steel wire threaded through drill holes.