

What can you do to help?

Keep off the dunes and stick to the tracks

Wheels and feet destroy important plants and make dunes unstable.

Watch your dog

Don't let dogs run over dunes or chase shorebirds – and clean up after them.

Take your rubbish home with you

Keep our beautiful beaches free of litter.

Keep stock in the paddock

Farm stock can trample dunes, birds and wildlife, and eat dune plants. Fence off coastal margins.



Stick to the tracks to protect the plants and dunes.

Take action – get involved

Contact the CoastCare Co-ordinator at the Northland Regional Council to find a CoastCare group near you.

For more information

Visit www.nrc.govt.nz/coastcare or email coastcare@nrc.govt.nz

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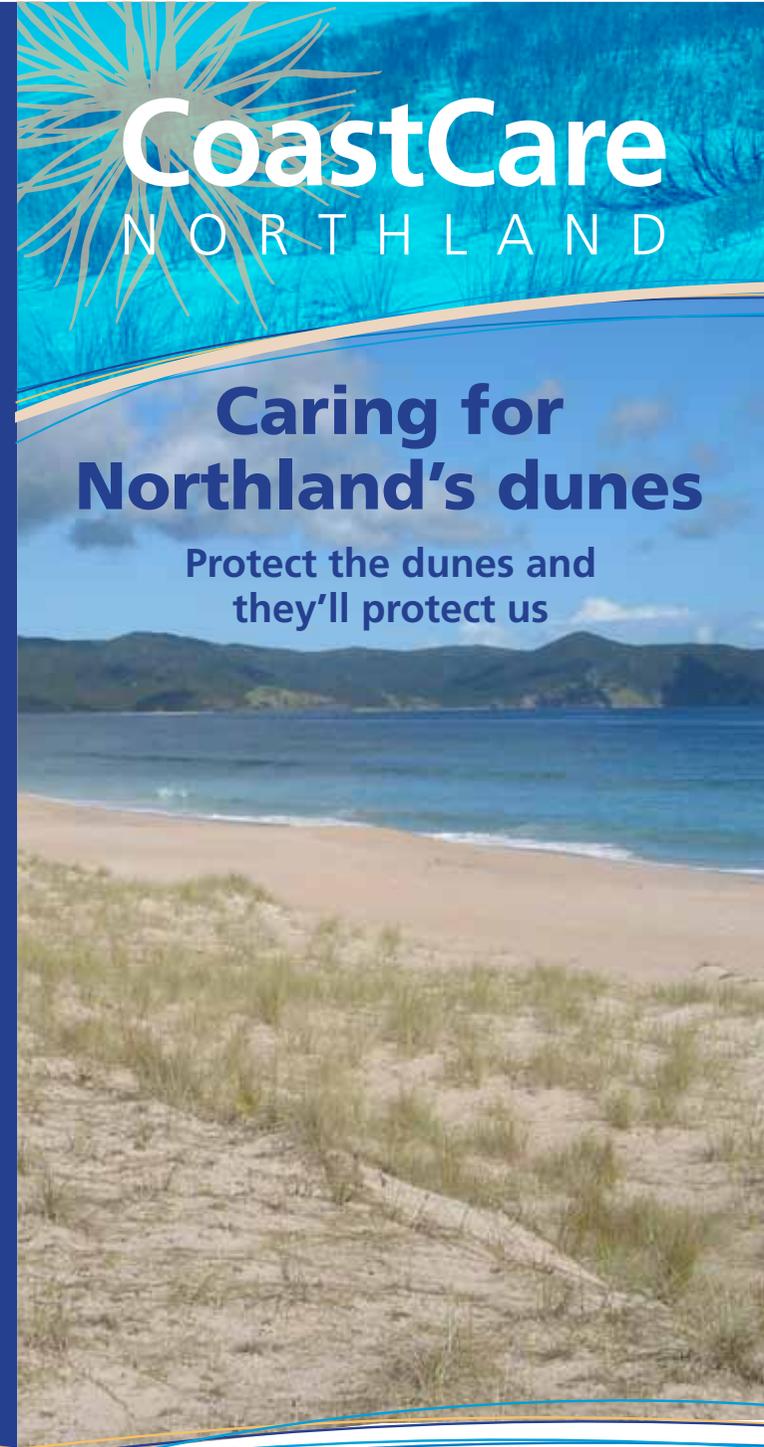
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February 2012



Putting Northland first



Putting Northland first

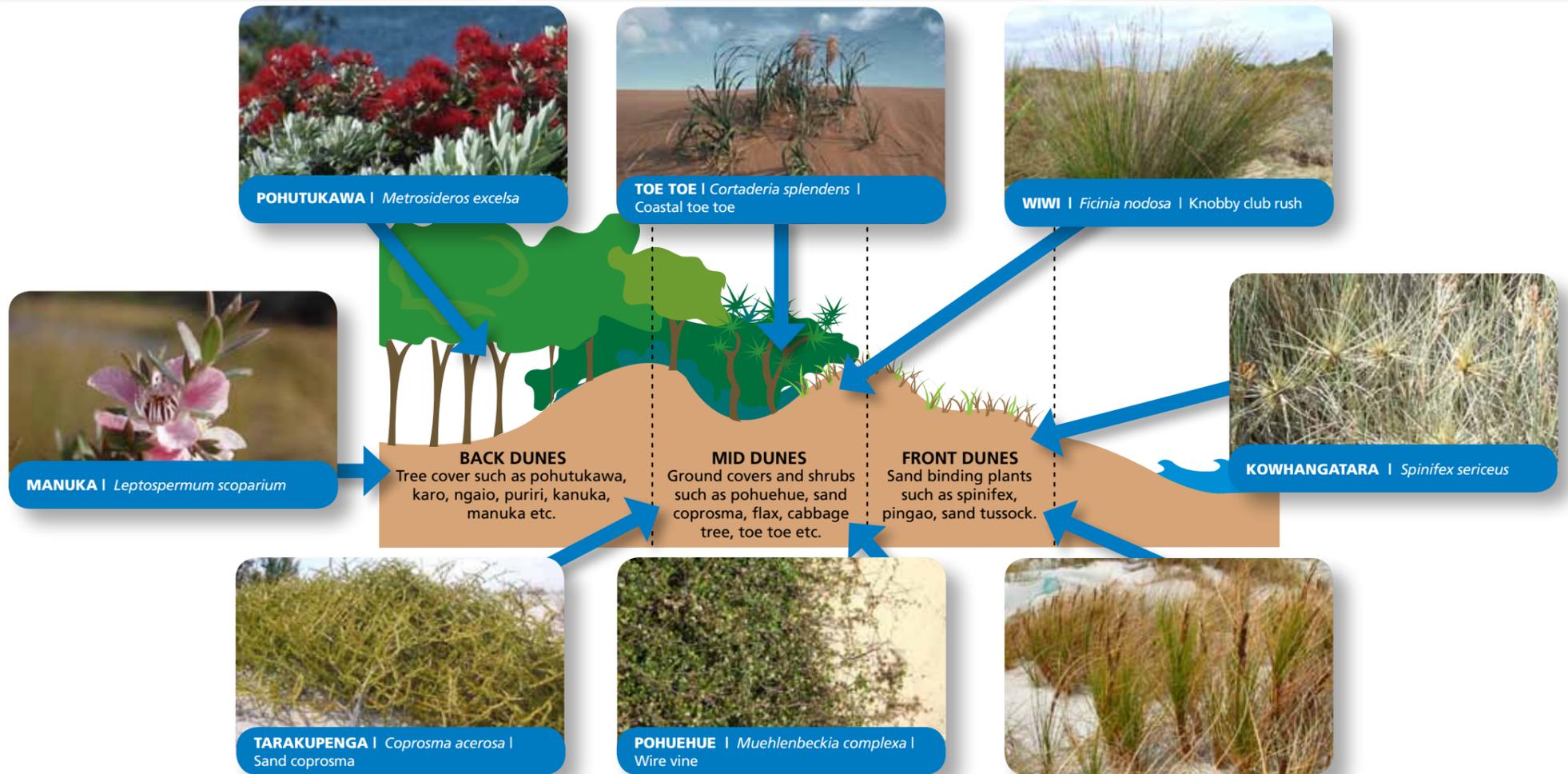


Native plant species in our dunes

Vegetation plays an important role in natural dune formation, as well as beach and dune values.

The dune system can be divided into three main zones – front dunes, mid dunes and back dunes.

In each zone in the dune environment, different native plant species can be found.



Native dune plants

...can

- Reduce wind erosion.
- Build up sand dunes which reduce wave erosion.
- Speed recovery of dunes after storms.
- Grow in the hostile coastal environment.

...can't

- Prevent direct wave erosion.
- Withstand excessive damage from people, stock or vehicles.
- Cope with mowing.
- Tolerate introduction of unsuitable exotic plants.



Pingao (foreground) and spinifex are able to tolerate the harsh front dune environment and are important sand-binding plants.

Pest plants in our dunes

In many coastal areas, introduced species have been planted to try to stabilise or beautify dunes.

Unfortunately these species aren't as effective at dune protection as native plants, and they sometimes make erosion worse.

Many introduced species have become a problem as they dominate large areas and threaten native species.

Some of the problem species are agapanthus, exotic iceplant, prickly pear, daisies, acacia, boneseed, coastal banksia, freesias, kikuyu grass, and acacia, Norfolk Island hibiscus and sheoak.



Purple groundsel



Exotic ice plant

Help stop the spread of pest plants

Many pest plants are garden escapees – you can help by:

- Composting garden waste instead of dumping it onto the dunes
- Removing invasive introduced plants and replacing them with natives.

Contact the Northland Regional Council for removal techniques and suitable replacement plants.

Dune restoration

Dunes can be replanted to encourage natural processes, if there's enough space between the beach and buildings or roads.

Replanting can also re-establish important native plants that have become critically rare in some areas – like spinifex and pingao – and restore the natural character and values of an area.

Keep in mind that some areas are naturally unstable and are valued environments just as they are. Before you commit to a project that's trying to address dune stability, contact the Northland Regional Council for advice.

Northland CoastCare groups carry out dune restoration projects to protect and enhance native vegetation and replant it where necessary.



If you're planning a replanting project, get in touch with the Northland Regional Council for advice and to find out what's going on in your area.

Why protect our sand dunes?

Beaches and sand dunes are the narrow but precious bands of sand that lie between the land and the sea.

Sand dunes are natural habitats for a many native species and, in their natural state, they protect land and property from erosion, storms, cyclones and tsunamis.

But many of our dunes are under threat, which creates instability, increased erosion and loss of native plant and animal life.

Large areas of Northland's coastal dunes have been modified for residential development and farmland. This has led to changes in dune stability, often resulting in vegetation loss and wind erosion.

Our dunes are also under pressure as the population grows. Wheels, feet and animals destroy dune vegetation. Even small losses in dune vegetation can lead to significant wind erosion.

The good news is that we can all play a part in caring for and protecting Northland's valuable dunes.



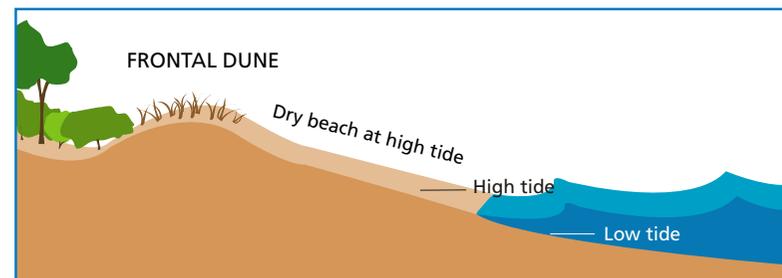
Driving on dunes destroys plants and causes erosion

How do sand dunes work?

Sand dunes are always changing as they erode and build-up in cycles. Vegetation plays a critical role in the natural cycles of dune erosion and recovery that occur on beaches.

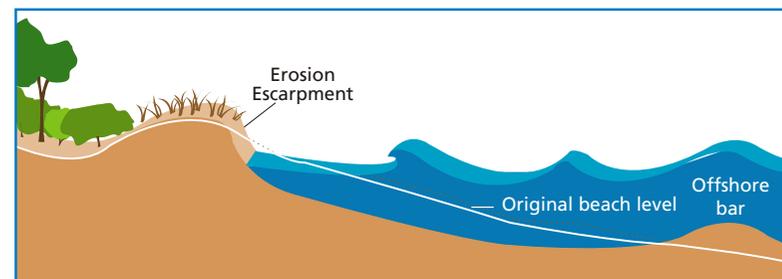
SETTLED WEATHER

Sand builds up on the beach and dunes.



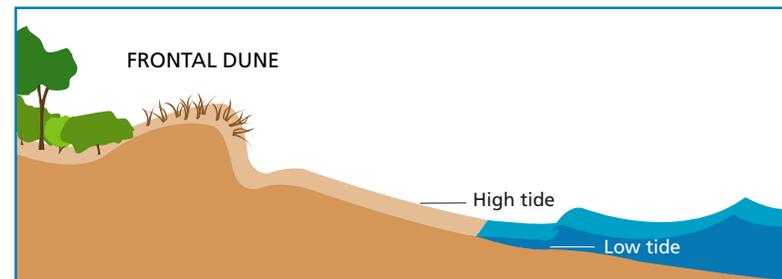
DURING A STORM

Waves erode the beach and dune, leaving a steep dune face. A bar is created as eroded sand settles offshore in the surf zone.



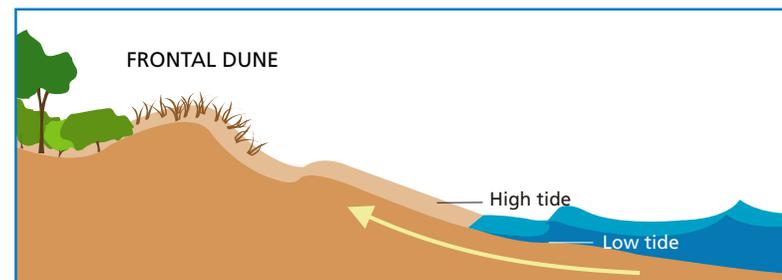
AFTER THE STORM

Sand is transported back onshore and rebuilds the beach. Dune vegetation grows seaward down the eroded dune face.



DUNE RECOVERY

Sand blown landward from the beach is trapped by dune vegetation, gradually repairing and rebuilding the dune.



Thanks to the Dune Restoration Trust of New Zealand for allowing us to reproduce some of its information. www.dunestrust.org.nz