

# Sand Dune Vegetation

## Fact sheet

### Sand dune vegetation: The natural protection measure for our foreshores

The Shoalhaven coastline provides environmental, social, cultural and economic benefits for our community and visitors. Healthy and vegetated sand dunes are an important part of sustaining a resilient coastline and have many benefits such as:

- Providing natural protection for houses, walkways, roads, public parks, storm water outlets and sewage infrastructure by absorbing wave energy from storm waves and wind.
- Provide a natural protection barrier from damaging storms, waves, and winds.
- Provide habitat for an abundance of native fauna, and a diversity of native flora.
- Maintain the cultural significance to foster a connection to country.

The Shoalhaven dune system also contains Bangalay Sand Forest of the [Sydney Basin and South East Corner bioregions](#), a listed threatened ecological community under the *Biodiversity Conservation Act 2016* (NSW). Thus, it is vitally important that degradation and fragmentation of dune system vegetation is minimised to ensure the conservation and continued functionality of such range restricted threatened ecological communities.



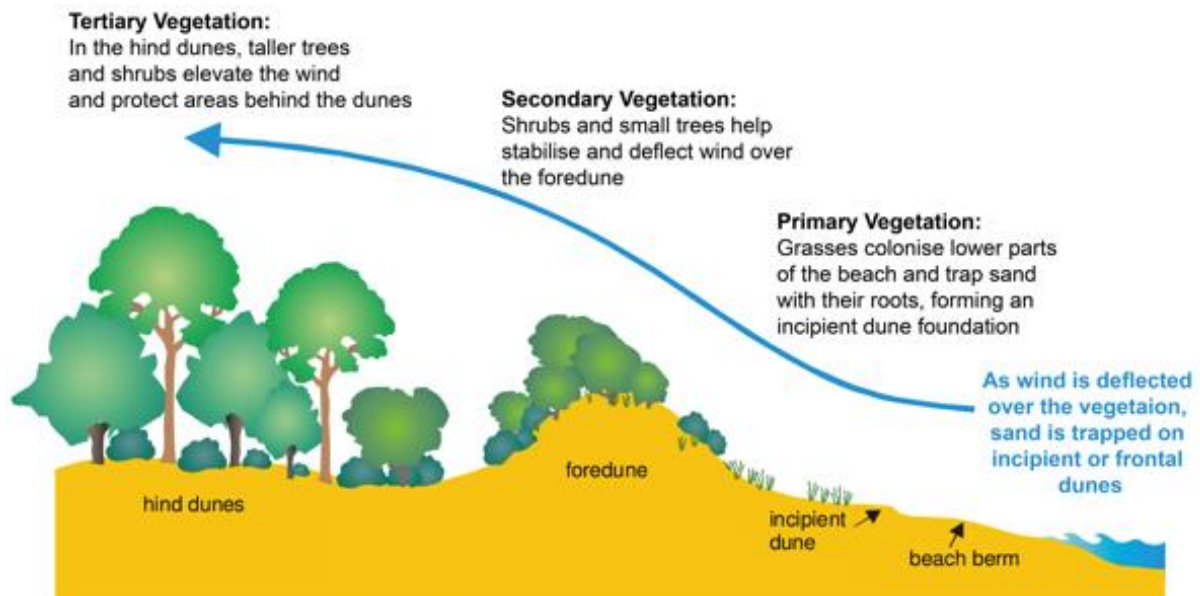
Example of Bangalay Sand Forest in good condition, Old Erowal Bay, November 2020 (Ecoplanning, 2022).

### Parts of the dune system

The main parts of a healthy dune system include:

- Primary vegetation (grasses and creepers) – forms the incipient dune behind the beach berm. The vegetation traps sand like a net and reduces sand and salt spray travelling away from the beach.
- Secondary vegetation (shrubs and short trees) – stabilises the dunes and deflects wind over the foredune.
- Tertiary vegetation (larger, established trees) – located on the hind dune forms an important wind and wave buffer for the areas behind. These parts of the dune can vary and, in some areas, tall trees and shrubs naturally grow closer to the water line. The health of the endemic vegetation in these areas supports the most suitable parts of the dune system that they should be growing.

**Remember:** All parts of the dune system are important. Low species trap sand and salt spray near the water, whereas taller species with deep root systems stabilise the dunes and protect from large storm waves and wind.



Parts of a healthy dune system (adapted from NSW Department of Land and Water Conservation, 2001, Coastal Dune Management Manual).

## Our impact on vegetation

Human activities can have a major impact on dune systems. It is important to know that:

- Taller species like trees provide greater long-term protection as they have a larger and more widespread root system and due to their height, also disperse offshore winds.
- Removing native plants or debris increases the risk of erosion, the presence of weeds and also diminish foraging, sheltering and breeding habitat for endemic fauna species.
- Cutting and pruning plants makes them susceptible to disease and restricts the depths of their stabilising root networks.
- Invasive weeds and non-native species disrupt vegetation communities, pollination cycles, water use, nutrient transfer, patterns of erosion, and dune stability.



Tall trees as part of the natural dune system at Narrawallee Beach, October 2021.

Council has a rigorous program to closely monitor and respond to acts and reports of vegetation vandalism. This is supported by Council's [Vegetation Vandalism Prevention Policy](#).



### Find out more

[getinvolved.shoalhaven.nsw.gov.au/foreshore-protection-management](https://getinvolved.shoalhaven.nsw.gov.au/foreshore-protection-management)  
Or search "Foreshore" on our website.

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