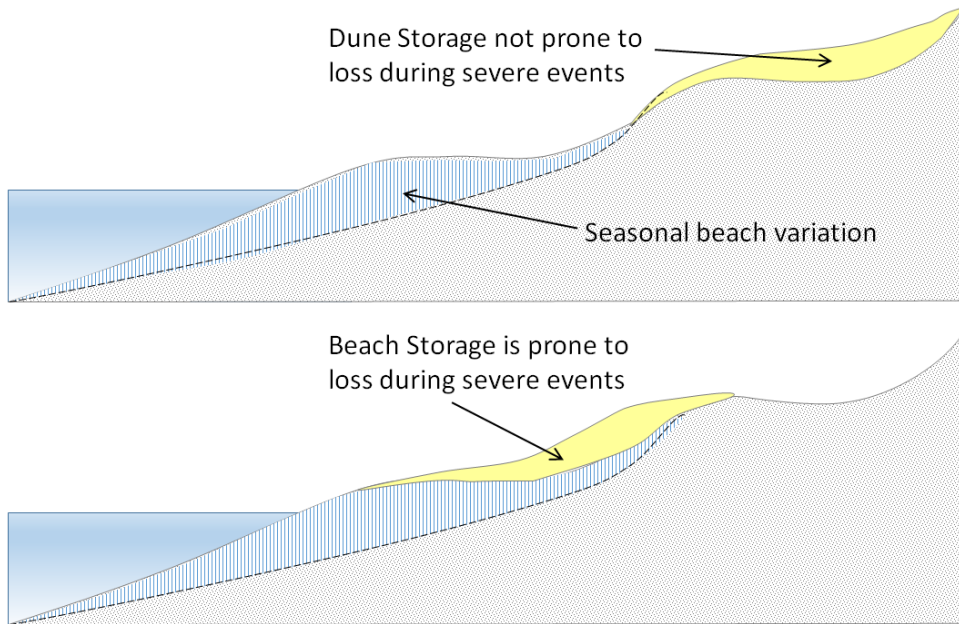


Coastal Dunes and Beach Stability

The condition of our coastal dunes contributes significantly to coastal stability. Under normal conditions, wind can transport 2 to 6 m³/m of sand from the beach to landward. Effective delivery to the coastal dune is necessary to balance storm erosion, which can be 20-40m³/m from a '1 in 10 year' storm, or 80-150m³/m from a '1 in 100 year' storm.



For dune erosion-recovery balance to occur, sand must be able to move into the primary dune. Landward transport can be blocked by a scarped dune face, or transport can bypass the primary dune through blowouts and sand sheets.

Sand which stays on the beach gets redistributed by seasonal beach movement from waves and tides, and doesn't always contribute to recovery of the initial dune erosion.



Key parameters influencing how much sand is received by the primary dune include the sediment size distribution, wind conditions, primary dune slope, dune alignment and coverage of dune vegetation.

