What is a Sand Dune?

A sand dune is a mount, hill or ridge of sand that lies behind the part of the beach affected by tides. They are formed over many years when windblown sand is trapped by beach grass or other stationary objects. Dune grasses anchor the dunes with their roots, holding them temporarily in place, while their leaves trap sand promoting dune expansion. Without vegetation, wind and waves regularly change the form and location of dunes. Dunes are not permanent structures.

Sand dunes provide sand storage and supply for adjacent beaches. They also protect inland areas from storm surges, hurricanes, flood-water, and wind and wave action that can damage property. Sand dunes support an array of organisms by providing nesting habitat for coastal bird species including migratory birds. Sand dunes are also habitat for coastal plants. The Seabrook dunes are home to 141 species of plants, including nine rare, threatened and endangered species.

Construction of beachfront homes and hotels can encroach on sand dune habitat. Increased tourism, foot traffic, and removal of plant species can cause severe erosion. Beach litter is aesthetically unpleasing, and can be harmful to shorebirds and other animals.

For more information contact the New Hampshire Coastal Program at (603) 431-9366 or visit www.des.nh.gov/coastal.