Coastal sand dunes make up a very important feature of our beaches. They have the ability to provide significant protection from severe coastal storms and, with careful design, dunes can be compatible with habitats for native plants and animals, including rare, threatened and endangered species. Artificially enhanced dune systems have the potential of providing even greater protection than naturally forming dunes, if properly designed and maintained. However, both natural and human-made dunes are part of a dynamic system, and will constantly change shape based on the environmental factors present at the site. In order to properly design and maintain a healthy beach and dune system, it is important for coastal communities interested in doing so to thoroughly understand the geomorphic processes of coastal dunes, the need to manage for wildlife and endangered species, and the need to protect human coastal infrastructure. The information presented in this report is intended to help communities become more aware of the functions of coastal dunes and gain an insight of possible artificial dune design and restoration alternatives.