

## Just another day at the beach?

By Jennifer Graham

Beach season has once again come and gone. Nova Scotians and guests are packing away towels and closing down cottages after a summer enjoying the province's wonderful beaches. As we shake the sand out of our clothes, let's think a bit about beaches and what's being done to ensure we can continue to enjoy them into the future.

Beaches are part of coastal systems that include cobble shores, cliffs, headlands, sand bars, salt marshes, sand dunes, mudflats, and coastal lagoons changing with each tide. From a geological perspective, beaches are here today, gone tomorrow – over hundreds of years eroding cliffs provide the sediment to build new beaches, while eroding beaches in turn, feed the building of salt marshes.

Together, these coastal features provide natural buffers that protect people against coastal flooding, waves, and erosion. They also provide shelter and food for species like sandpipers and other migratory shorebirds.

The *Nova Scotia Beaches Act* administered by the Parks Division at Department of Natural Resources demonstrates that the province recognizes the value and significance of beaches. The intent of this legislation is the "*protection of beaches and associated dune systems as significant and sensitive environmental and recreational resources*". The beaches protected under this Act are listed because they are special places that once faced threats such as aggregate removal, or have vulnerable coastal features and species, such as piping plovers at Beach Meadows near Liverpool.

We all want beach season to last forever, and the *Beaches Act* is an important tool in ensuring that it does. It is one of the few provincial Acts that focuses on threats facing a significant coastal landform. There are, however, a few problems with the Act that hamper its ability to address current and future challenges facing Nova Scotia's coasts.

The first is that the Act only covers 92 of Nova Scotia's approximately 420 beaches – barely a representative sample of the richness and diversity of our provincial beaches.

A second problem is that the *Beaches Act's* narrow definition of "a beach" does not take into account the interconnections between different parts of the coast. Consequently, the boundaries of protected beaches are inconsistent and seldom include the entire beach system. In some places, such as Pomquet beach near Antigonish, dunes and marshes adjacent to the beach have protected status, while in others, only a narrow strip of sand is recognized as a protected beach.

Thirdly, the *Beaches Act* is not well suited for dealing with Nova Scotia's wandering shorelines. Beaches are dynamic, and expand, shrink, and shift in response to natural forces such as wind, waves, and sea ice. Story Head beach near Chezzecook is a good example of a travelling beach – since 1996, this lovely barrier beach has moved landward at a rate of 36 to 38 metres per year.

Finally, and this is its biggest limitation, the *Beaches Act* cannot address contemporary threats to beach systems caused by the unprecedented rate and pace of development along Nova Scotia's coasts. In Queens County alone, between 2000 and 2004, thirty eight percent of new housing construction took place on coastal lots.

The increased development on our beaches causes habitat loss and alteration, disrupts natural coastal processes and alters the natural system and its functions, making these systems more vulnerable to floods, storm surges, accelerated erosion and sea level rise.

We should be updating the *Beaches Act* to address unprecedented environmental change. Sea level rise is a natural process that has been happening in Nova Scotia for centuries. However, because of human influences in the global climate system, rates of sea level rise are beginning to accelerate and these impacts to our coasts are starting to be felt. Most scientists predict that along Nova Scotia's coasts, sea levels will rise by an additional 70 cm over the next 100 years.

Beaches will need space and materials to adapt to these changes. The current *Beaches Act* does not take into account how the sediment necessary for beaches to rebuilt themselves moves between different parts of the coast.

To keep our beaches safe, the *Beaches Act* must reflect both natural and human-induced changes along our coasts. A modernized *Beaches Act* should protect entire beach systems and take into account the dynamic nature of coastal systems. It should also put clear limits on development and destructive activities along our coasts. Modernizing the *Beaches Act* is an investment in Nova Scotia's natural heritage. Are we willing to take the necessary steps to protect beaches before next beach season?

*Jennifer Graham is the Coastal Coordinator at the Ecology Action Centre. She likes icy Nova Scotia beaches (really) and believes updating the Beaches Act is a first steps towards a comprehensive coastal policy for Nova Scotia.*