

Changing Coastlines

by Margaret Rendell



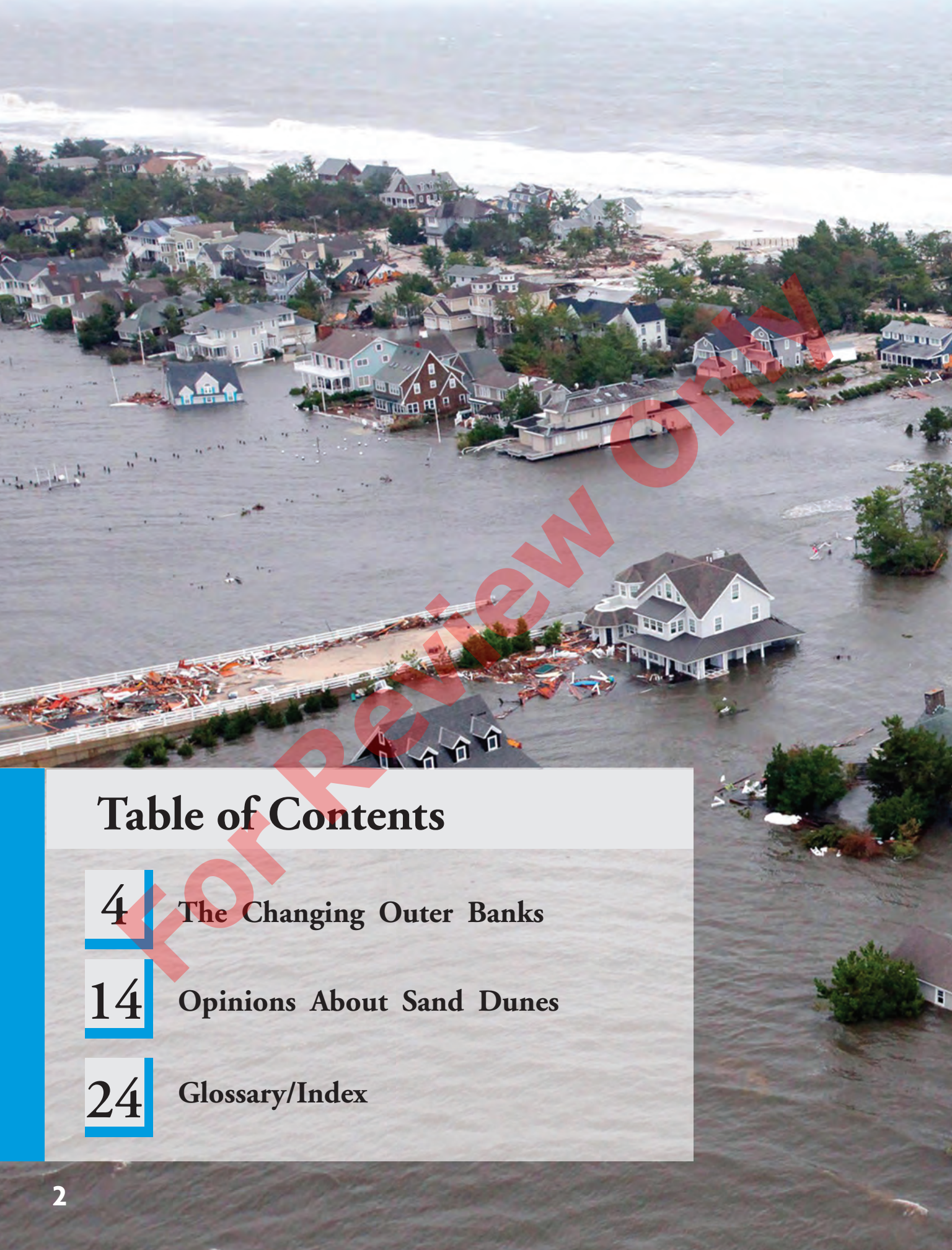


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The Changing Outer Banks

The Outer Banks are a series of long, thin islands. These islands lie off the coast of North Carolina, in the Atlantic Ocean. They stretch down the coast from north to south. Many of the Outer Banks are less than a mile wide.

The Outer Banks are sandy islands off the coast of North Carolina.



The surface and shape of the Outer Banks change a lot. Wind, rain, and huge storms called hurricanes cause many of these changes.

Some changes on the Outer Banks happen slowly, over time. Other changes happen quickly.



Wild Horses

The Outer Banks are home to wild horses called Banker ponies. Explorers from Europe brought the horses there on ships long ago. Some of these horses swam to the islands from ships that sank. Today there are about 400 Banker ponies on the Outer Banks.

Weathering and Erosion

Weathering is one way the Outer Banks change slowly. Weathering is the action of something wearing away. Weathering causes the shape and size of the Outer Banks to change over time.

Water and wind cause weathering. These natural forces can wear away rocks, sand, and land.

Water crashing against rocks causes weathering.



▲ Sand is constantly moving due to erosion.

Erosion happens when sand and rocks are moved from one place to another. Strong, fast-moving ocean waters called currents flow along the coast. The currents move sand away from beaches.

Ocean waves and rainwater also carry sand away. When the wind blows, it carries sand away, too.

Both weathering and erosion reshape the land. Parts of the Outer Banks get smaller.

Erosion has taken sand away from this beach.





Hurricanes are big, spinning storms. This photograph from space shows how the winds move in a circle.



Hurricanes

Big storms called hurricanes hit the Outer Banks fairly often. These storms cause changes to happen quickly.

Hurricanes have very strong winds. They bring huge amounts of rain. They cause giant waves to flood the land.

They can cut chunks out of the coast. They can make whole beaches disappear. Hurricanes can even cut a narrow island in two.

These storms start over the ocean. Then they might move to land.

▲ Hurricane winds can blow a person over. They can blow down trees. They can even blow off the tops of buildings.



◀ Ocean waves and flooding created a breach in Hatteras Island.

Over fifteen years ago, people on the Outer Banks heard scary news. A strong hurricane was coming their way. It was called Hurricane Isabel.

The storm flooded the islands. Water went everywhere. Many homes were destroyed.

Giant waves cut right through an Outer Bank island known as Hatteras Island. The waves created a new passage called a breach. Hatteras Island was cut in two.

Hurricane Isabel Facts

There were **STRONG WINDS** up to 169 kilometers (105 miles) per hour. That's almost twice as fast as a car goes on a highway.

There were **BIG WAVES** 9 meters (30 feet) high. That's as tall as a three-story building.



9 meters
(30 feet)