

VILLAGE VIEW

ANDREA LEONARD

Beach erosion, whether occurring at Coast Guard Beach or on the long stretches of sandy barriers that fringe the Atlantic seaboard as far south as Key Biscayne threatens to cost Americans billions of dollars in the decade of the '80s.

Hurricane-spawned tidal waves, wind-driven seas, winter storms, and even unusually high tides take their toll, and, as more and more people encroach upon beach fronts, the damage to man-made land improvements is counted in millions of dollars after every major storm.

In instances of lost private property, these costs are borne by private citizens; when public property is destroyed, taxpayers pick up the tab. Only a few weeks ago, eight foot waves swept over Route A1A, the roadway separating Fort Lauderdale from its famous beach. Wind-driven seas rolled ashore, flooded streets, stalled cars, and lifted wooden benches where tourists usually sit beneath rustling palms to watch the foamy surf lace-edging the placid ocean.

Sand, seaweed, and debris littered the road between surges of the sea. Basement apartments flooded. When large waves destroyed sections of a protective sand bar beyond the beach, creating a steep slope and dangerous undertow, swimmers were warned away from the water. All this

occurred under a warm sun in a cloudless sky. A full moon coupled with an ocean storm located about 700 miles north-northeast of south Florida's coast generated the abnormally high tides and winds. In the wake of the flood tides came the dollar estimates.

The same storm wreaked havoc all along the southeastern Atlantic Coast; on the Outer Banks of the Carolinas, the ocean reclaimed acres of land overnight. Heavy winter storms are still to come this year; each one will take its share from Hatteras, Cape Fear, and all along the shore.

Only a few winters ago during a furious blizzard, the dunes backing Cape Cod National Seashore's Coast Guard Beach were eaten and blown away; gone as well as the parking lot; the road to the beach was truncated halfway down the hill. The same storm did millions of dollars worth of damage to property on Boston's North Shore.

For thousands of centuries, of course, the seas have alternately built up and taken away from land masses. A sand bar is built, slowly and painstakingly, only to disappear in short hours of a raging storm. A spit of sandy beach grows ever longer, dunes form, plantlife takes root, soil is deposited in layer after layer as the seasons turn; suddenly there comes a hurricane out of the south, and the entire peninsula disappears. The coastline is in a constant state of change.

Until people began constructing buildings on such fragile outposts, it mattered little. Only the scenery was changed. The fish still swam in the breaking waves, the rivers still flowed to meet the salt seas, the beach grasses held some of the dunes despite wild tugs of the winds, the marshes withstood the crashing combers, the bays harbored the clams, quahogs, oysters, and scallops, and nature's cycle repeated itself through eons of time.

Today, storms, hurricanes, and high tides that erode beaches mean huge financial losses to those who have built on shores affected by these elements. Oceanfront property owners hire contractors to throw up seawalls designed to hold back rising waters in hopes of saving their property from destruction. Groins and jetties are other futile efforts to stem the inexorable tide of nature's forces.

In the centuries before Europeans came to this continent when our Cape was the Land of the Wampanoags, humans and such natural events as stormy weather co-existed harmoniously. If high tides took away a beach, another formed nearby. The Wampanoag made no effort to defy wind or tide; his tepee stood on ground far above the reach of any salt water except spray the winds might carry.

As recently as the 1800s, most Cape Cod beachfront construction was temporary; nothing more substantial than a few fishing shacks and boat sheds stood at the water's edge. Homes were built upon foundations laid on high and substantial ground.

Along with the railroad, however, came people unfamiliar with the ways of the sea and shore, and along with the automobile, people flocked to the beaches by the millions. All along the coast, from Maine's rocky bastions to Boston's north and south shores, from Cape Cod's Nantucket and Vineyard Sounds to Connecticut's Long Island Sound and New York's Great South Bay, Long Beach and the Rockaways, from Jersey Shores to Maryland's eastern shore, and on down to Virginia's Currituck Sound, on down to the Outer Banks, on down to Georgia's barrier islands, on down Florida's coastline, came people seeking an ocean view, a waterfront site, a place where the sea would become their plaything.

Again and again the ocean demonstrates its unwillingness to be tamed. To be sure, there are June days when it lies, calm as a pond, winking and sparkling in warm sunshine. There are July days when it washes the busy beaches with the gentlest of wavelets and the mildest of breezes. There are August days when it heaves hardly a sigh as sailboats wing over its surface like bright butterflies over a flower garden. And there are September days when the air is like wine and the water proves briny only if you taste it.

Then again, there are September days, October and November days, and days in the dark of winter, when the sea goes mad. It rears up and tears at the shore. It walks inland on a high tide as though it has every right to invade the careful pattern of man's production. It carries off lawns, bath houses, docks and piers; it undermines foundations and tumbles boulders and cottages into its depths as easily as it erases a sand castle. Summer residences, roads and streets, groves of trees, lovely gardens, all may disappear under the towers of a wrathful sea.

Photographers snap pictures; headlines scream of freak floods and killer storms; descriptive words flow from our typewriters like ants from a giant colony disturbed. And when the storm subsides and the sea is quiet again, we rebuild. We really do! Army engineers draw plans and legislatures appropriate funds for projects intended to hold back the sea.

Isn't that astonishing? Isn't that irrational? Doesn't experience convince us our defenses are inadequate, pitted against the might ocean and furies of storm?

Do we rebuild beyond reach of such seas? Not at all. We reconstruct as closely as possible to the spot where our recently-destroyed property stood. Do we learn respect for the awesome forces that swept it all away? On the contrary, we defy them to re-occur. Knowing, as we do if we read our history or talk with people who remember previous storms, that another, sooner or later, is inevitable, we go straight out and repeat the procedure of building too close to the water's edge in the apparent belief that most recent event was unique. And when another angry sea comes roaring ashore, we bemoan our losses.

People who rebuild on the waterfronts are not alone; similar behavior can be found the world around. On river banks prone to flooding, on mountainsides subject to avalanches or mudslides, and at the base of active volcanoes, people build, and after catastrophe strikes, they rebuild.

Sometimes I question the much-touted intelligence of modern man and the whole human race.