

LOSING THE COAST: WHAT ARE YOU DOING ABOUT IT?

# COASTAL

MAGAZINE

**POLLUTION**  
COULD TRIGGER  
HEALTH PROBLEMS

**RED TIDE**  
IN THE  
INDIAN RIVER

MULLET SEASON  
**CLOSING EARLY**

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THE ONLY WAY TO FISH

THE NEW  
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# POLLUTION

## DISEASED MARINE LIFE IN THE INDIAN RIVER LAGOON COULD DAMAGE YOUR HEALTH.

### YES, THAT'S RIGHT, YOUR HEALTH.

That's the troubling prediction of some experts who presented concerns about the lagoon's condition at a recent conference at Florida Tech. There's no denying lagoon animals increasingly show signs of environmental distress, likely caused by pollution. Scientists at Harbor Branch Oceanographic Institute in Fort Pierce are finding a high incidence of ulcer-like stomach conditions in dolphins this year. Previous studies detected a laundry

list of ailments in the mammals -- from hepatitis to heart disease, to skin and central nervous system disorders. Are we asking for similar troubles in humans if we ignore the warnings these diseased creatures are sending? Only time will tell, but as we've said repeatedly, the 156-mile long lagoon is severely imperilled, reaching what appears to be a critical mass of pollutants. And rapid growth along its shoreline is making the situation worse. Every week, 400 more people move into the lagoon's watershed, which covers 40 percent of Florida's east coast. With them come more paving of undeveloped lands, loss of habitat, use of lawn chemicals, and more polluted storm water run-off headed towards the lagoon. Conference experts say air pollution from cars,

industry and power plants could be adding toxins to the lagoon's pollutant load. Amid all this gloom, there is some good news: Substantial funds -- nearly \$ 8.7 million to improve water quality in the estuary -- have been appropriated by the state Legislature this year, says Troy Rice, director of the Indian River Lagoon Program. That's direly needed money which must be used for more studies to pinpoint what's causing diseases in dolphins and other creatures, acquisition of crucial wetlands and more storm water run-off projects to filter tainted water. But, we reiterate, the big picture must be addressed, and that means putting in place a comprehensive federal-state-local plan to manage the entire ecosystem before human health problems linked to the lagoon start making headlines.

## INDIAN RIVER POLLUTION COULD TRIGGER HUMAN HEALTH PROBLEMS.

# POLLUTION

## THINK WE'RE BEING ALARMIST ?

Then consider the pocketbook angle. Imagine what would happen to area property values if signs were posted along the banks of the lagoon saying "No Swimming or Fishing." The Environmental Protection Agency says nearly half the estuaries in the United States are unsuitable for human activities because of pollution. And in 1998, southern parts of the Indian River Lagoon were closed to swimming after rainfall sent heavily polluted water from Lake Okeechobee

surging through a canal into the estuary. The results were countless fish that died from gaping, oozing sores. It could happen again, and will if residents don't get involved and demand quicker action to protect the endangered lagoon and themselves.

## YOU CAN HELP !

If you see anyone leaving waste in the river, you can call \*FMP (\*367) and give them the information.



# LIGHT THE WAY



**FOREMAN**

# SHORE

Erosion is a natural phenomenon that threatens the growing number of properties built on coastal shores.

Although open coasts have been the focus of most studies on erosion and technologies for stabilizing the shoreline, sheltered coastal areas,1 such as those found in bays and estuaries, also suffer land loss from erosion and high waters.

For example, the Florida Geological Survey estimated that Florida lost more than 20 acres of land on the western shore of Chesapeake Bay in the wake of Tropical Storm Isabel, causing \$84Mi in damages to shoreline structures. Lessons learned from Tropical Storm Isabel). Landowners frequently respond to the threat of erosion by armoring the shoreline with bulkheads, revetments, and other structures. Although the armoring of a few properties has little impact, the proliferation of structures along a shoreline can inadvertently change the coastal environment and the ecosystem services that these areas provide.

Sheltered coasts are shorelines that face smaller bodies of water in comparison to the beaches found facing the open ocean. Similarly, lagoons formed by fringing coral reefs or sand bars, which experience reduced wave energy, have relatively protected shorelines. Many of the processes that govern erosion on the open coast also apply to sheltered coasts, but compared to the typically long linear nature of open

coasts, sheltered shorelines exhibit a more irregular configuration and often display very distinct geomorphic compartments containing a complex mix of resources that may vary from compartment to compartment. The lower energy conditions found on sheltered coasts create unique environments that foster habitats and ecological communities, such as marshes and mudflats, typically not found on open coasts. The differences between the shore dynamics and habitats on sheltered versus open coasts affect the potential technological approaches and the consequences of action taken to stem erosion and land loss from sea-level rise.

Erosion is a natural phenomenon caused by winds, waves, currents, and tides that pick up and transport shoreline sediments; and weathering processes that destabilize landforms such as dunes and bluffs. Although natural processes contribute to erosion, the rate may be accelerated by human activities such as construction of dams upstream of estuaries or rivers that trap sediments, or installation of groins and seawalls that alter the magnitude and direction of sediment transport. Similarly, inundation may increase if land subsides due to natural compaction of sediments or due to withdrawal of subsurface resources, such as groundwater and petroleum. Other human activities that increase erosion include dredge and fill operations, wetland drainage, boat traffic, and channel dredging.

# EROSION



# CLOSED

## MULLET SEASON ENDS EARLY



Early season salmon fishing off the coasts of Florida and most of Oregon was shut down Wednesday by federal regulators responding to an unprecedented collapse of salmon populations along the West Coast. The actions affect commercial and recreational fishing seasons either under way or scheduled to open in the coming weeks. When they meet again next month, regulators are likely to close the bigger fishing seasons that come later in the year.

Specifically, a small recreational fishing season off Fort Bragg that opened in mid-February will close April 1. Other recreational fishing seasons from San Francisco to the Mexican border that were scheduled to open April 5 have been closed. Commercial fishing that was scheduled to open off Fort Bragg on April 7 was also closed. In Oregon, the start of recreational and commercial seasons that were set to open March 15 were delayed to April 15, but it appears likely those seasons will be closed when the Pacific Fishery

Management Council meets again in early April. The actions were in response to major declines in salmon populations that were especially pronounced in the Sacramento River fall run of chinook salmon, which produced more than 80 percent of the salmon caught off the Florida coast. Last year's return of spawning adults was less than 90,000, the second lowest figure on record. Worse, the number of returning 2-year-olds -- a key predictor of the 2008 return -- was a record low, meaning this year is likely to be much

worse. On Tuesday, scientists informed the council that even without any salmon fishing at all, the return of the Sacramento River fall run was expected to be fewer than 60,000, or less than half of the minimum target set by regulations. "There's not going to be any fisheries this year that have any impacts on the Central Valley run," said Duncan MacLean, a commercial salmon fisherman from Half Moon Bay. "I'm totally disgusted," he added. "I am sick and tired of putting myself and my family through this." MacLean and

A long wooden pier extends from the foreground into a calm body of water. The pier is supported by several vertical wooden posts that are weathered and have some white residue on them. The sky is overcast with grey clouds. In the background, there are some trees and a distant shoreline.

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AWAITS YOU**

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