

## LONG ISLAND

# Suffolk's shrinking sea grass

- **Climate, nitrogen** threaten diminishing vegetation
- **Report eyed coastal areas** including Huntington

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Excessive nitrogen levels and climate change are keeping sea grass from rebounding in waters off Suffolk County, shrinking an important wave buffer and fish habitat, according to a study by The Nature Conservancy.

The report, completed in April and released this week, examined coastal areas off Fishers Island, Wading River, Northport and Huntington, and the Nissequogue River and Pe-

conic Bay.

Researchers found that excessive amounts of nitrogen from sources such as septic systems and cesspools, effluent from wastewater-treatment plants, fertilizer runoff and the atmosphere have kept sea grass from growing in many areas.

The rooted vegetation lives underwater and provides critical habitat for some shellfish and fin fish.

The report found it would be difficult to reduce nitrogen levels enough to re-establish sea grass beds in harder-hit areas

including Wading River and parts of the Nissequogue River. Chances were better in waters off Fishers Island and Lloyd Harbor, and Northport and Huntington bays, researchers said.

Rising water temperatures due to climate change also threaten sea grass, even in areas where beds are relatively healthy, the report said.

Chris Clapp, a marine scientist with The Nature Conservancy on Long Island, said sea grass contributes to coastal resiliency.

"It's not going to stop a 10-foot storm surge, but it does cut down on the amount of energy from your everyday wind chop," he said.

New York State has lost 90

percent of its sea grass since 1930, mostly due to human activities, according to a 2009 state report.

Excessive nitrogen has reduced the amount of sea grass growth, in addition to fueling harmful algal blooms that block out the light for sea grass and add to soil toxicity, Clapp said.

"You add these stresses up, and you end up losing the plants," he said.

Several of the areas studied, such as Wading River and Nissequogue River, haven't had sea grass since the 1940s, while the grass is doing well off Fishers Island, Clapp said.

The study was funded by a grant from the National Oceanic and Atmospheric Administra-

tion.

Suffolk County Executive Steve Bellone, who has been pushing to reduce the amount of nitrogen in local waters, said the report "really underscores the fact that nitrogen is causing the loss of our sea grass and coastal vegetation — a critical defense against storms."

But Chris Pickerell, marine program director with the Cornell Cooperative Extension of Suffolk County, said that even if nitrogen levels were reduced, other factors — such as higher water temperatures — could keep sea grass from rebounding.

Field studies should be done to verify the findings of the report, which relied on modeling, he said.