

# Saving Little Narragansett Bay: A CALL TO ACTION

SAVE THE BAY®

NARRAGANSETT BAY

Since 2008, Save The Bay has been testing our local waters to help understand the connection between human impacts (wastewater, stormwater runoff) and changing climatic conditions (intense storms, increasing water temperatures).

## LITTLE NARRAGANSETT BAY IS STRESSED BY:

- Elevated bacteria levels
- High nutrient loads
- Large, thick mats of macroalgae
- Poor flushing in shallow coves
- Decreased dissolved oxygen levels

We call on local communities and citizens to take actions to mitigate pollution effects and enforce environmental regulations to protect the delicate and extraordinary natural resources of Little Narragansett Bay.

## OUR CALL TO ACTION to the Towns of Westerly, Stonington and Communities Upstream

- 1 **Develop comprehensive stormwater management** plans that prioritize projects to filter polluted stormwater runoff from downtown areas and use green infrastructure.
- 2 **Develop enforceable regulations** to ensure that existing septic systems are properly operated and maintained.
- 3 **Promote personal responsibility** programs to encourage community members to reduce use of lawn fertilizers and pesticides, stop waterfowl feeding and encourage pet waste cleanup.
- 4 **Advocate** for local and state enforcement of water pollution laws and no-discharge zones on the Pawcatuck River and Little Narragansett Bay.
- 5 **Develop a water circulation model** to inform management decisions that affect Little Narragansett Bay.
- 6 **Protect, restore and improve** the health and resilience of coastal and freshwater wetlands, coastal barriers and eelgrass beds that help filter pollutants and act as nurseries for marine life.
- 7 **Invest in monitoring** nutrient and bacterial loads on the freshwater section of the Pawcatuck River.



# WHAT'S IN THE WATERS OF THE PAWCATUCK RIVER AND LITTLE NARRAGANSETT BAY?

**Nitrogen:** Nitrogen from fertilizer and animal waste enters waterways from septic systems, cesspools, wastewater treatment plants and stormwater pollution. Excess nitrogen causes algae to grow and decompose rapidly, using up oxygen vital to fish and shellfish.

**Dissolved Oxygen:** Marine life needs oxygen to survive. Low dissolved oxygen levels are often lethal to creatures that cannot move to areas with more oxygen, such as oysters, clams and schooling fish.

**Chlorophyll:** This green pigment is an indicator of how much algae is present in local waters. High volumes of algae mean high nitrogen levels, which deplete oxygen and threaten fish and shellfish.

**Bacteria:** Bacteria from failing septic systems, cesspools, illegal sewage discharges, pet waste, waterfowl waste and stormwater runoff is the most important measurement for human health along the river and Bay. Fecal bacteria endangers human health.



**Wastewater Treatment Facilities:** Two discharge points exist in the Pawcatuck River estuary—one in Westerly and one in Pawcatuck. About 45-50% of Westerly residents are serviced by the Westerly wastewater treatment plant.

**Septic Systems and Cesspools:** Effluent from septic systems and cesspools makes its way to the river and Bay through groundwater.

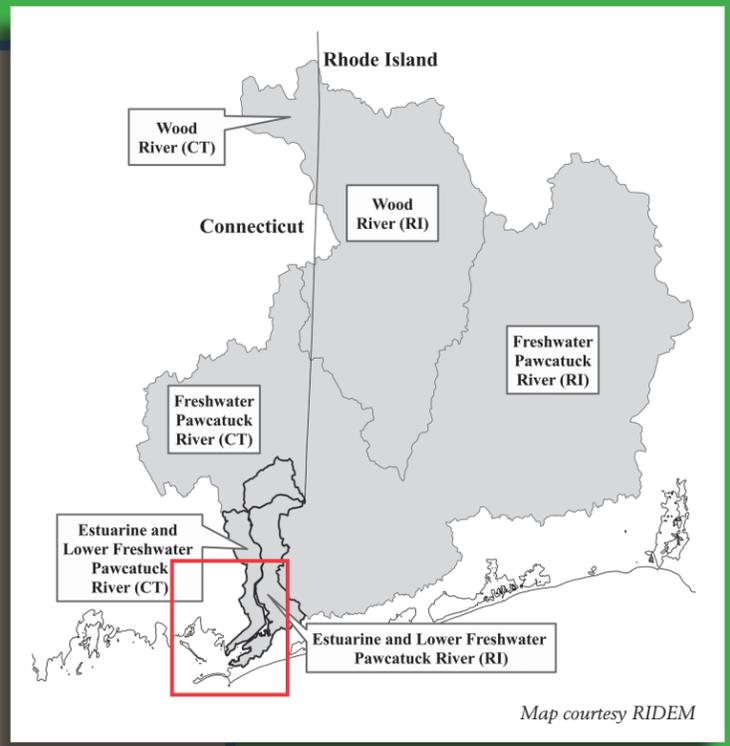
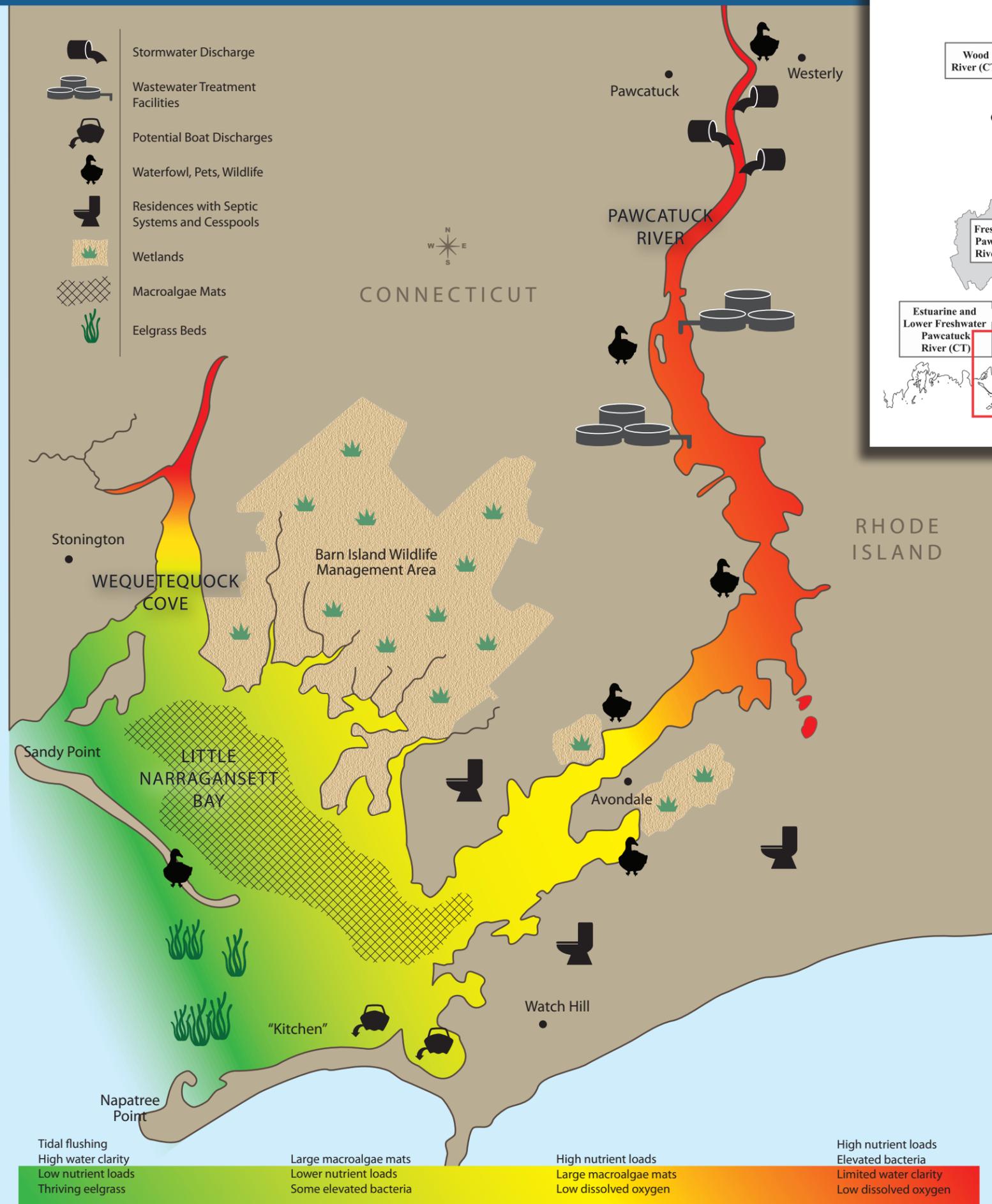
**Stormwater Runoff:** When it rains, animal waste, oil, grease, gasoline, fertilizer, litter, sand, salting chemicals and metals from lawns, farms and roadways wash into the river and Bay.

**Waterfowl Waste:** Swans, geese and ducks flock to areas where they know they'll be fed by humans, and their waste contributes significant nitrogen and bacteria to the river and Bay.

**Illegal Boat Discharges:** Despite Westerly and Stonington No-Discharge areas, illegal wastewater discharges from boats pollute the Bay.

**Pets/Wildlife:** Fecal waste from dogs, cats and livestock are a major source of bacteria and nitrogen in the water.

**Macroalgae:** Due to excess nutrients, the area north of Sandy Point into the mouth of the Pawcatuck River contains a buildup of large, gooey mats of macroalgae smothering the Bay bottom. Beneath them, black mayonnaise-like sediment supports very few marine species.



## WE ALL LIVE IN A WATERSHED

A watershed is an area of land where all water drains into the same place. The Pawcatuck River watershed spans 317 square miles to become Little Narragansett Bay between Westerly, R.I. and Stonington, Conn. The river is home to several migratory fish species that spawn there, including herring, trout and smelt. Together, the river and the Bay support a tremendously productive living system that connects Long Island Sound with coastal Rhode Island.

At the bottom of the watershed, Little Narragansett Bay is shallow and partially enclosed, making it very susceptible to human effects. Population growth, poorly-planned development, recreational use, pollution from wastewater and runoff, and changing climate conditions have created serious water quality problems that must be addressed to ensure a healthy river and Bay.

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# OUR CALL TO ACTION for Individuals to Improve Water Quality in Little Narragansett Bay

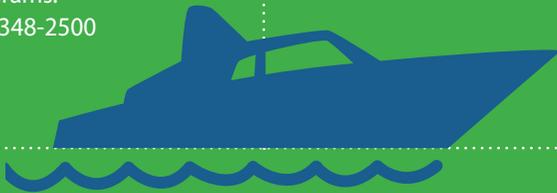
## CLEAN UP AFTER YOUR PET.

Dog and cat waste is a prime source of bacteria and nitrogen in the water.



## DON'T DISCHARGE BOAT SEWAGE INTO THE WATER.

Use Westerly and Stonington pumpout boat programs. 401-348-2500



## FERTILIZE LESS. MOW LESS.

Slow-release fertilizer reduces the amount of nitrogen entering the water. Longer grass and grass clippings left on the ground reduce the need for fertilizer.



## MAINTAIN YOUR SEPTIC SYSTEM.

Septic systems should be checked and pumped regularly. Replace cesspools—they are a direct conduit for waste entering the water.



## CAPTURE STORMWATER RUNOFF.

Rain barrels and rain gardens reduce costs by providing free water for your landscaping.

## GROW A WIDE COASTAL BUFFER.

Long grasses along the shoreline keep geese off your lawn and help filter pollutants before runoff enters the water.



## DON'T FEED THE BIRDS.

Birds go wherever food is easiest to get. Waterfowl waste is a prime source of bacteria and nitrogen in the water.



## URGE YOUR TOWN COUNCIL TO ACT.

Write letters.  
Make phone calls.  
Send emails.

Made possible by the generous support of the Forrest and Frances Lattner Foundation.

Additional sources of local water quality data: Watch Hill Conservancy, Wood-Pawcatuck Watershed Association, Clean Up Sounds and Harbors, Salt Pond Coalition, Rhode Island Department of Environmental Management and Connecticut Department of Energy and Environmental Protection.

All water samples are processed and analyzed by the University of Rhode Island Watershed Watch Program.

*Founded in 1970, Save The Bay's mission is to protect and improve Narragansett Bay. We envision a fully swimmable, fishable, healthy Narragansett Bay, accessible to all, and globally recognized as a natural treasure.*

DESIGN: DonnaDeForbesCreates.com



## REPORT POLLUTION

Save The Bay's Coastkeeper serves as the eyes and ears of southern Rhode Island's coastal region. Water quality testing in the lower Pawcatuck River and Little Narragansett Bay has been the cornerstone of our advocacy there.

To report pollution, a fish kill, illegal dumping, or if you are concerned about threats to the Little Narragansett Bay watershed, contact Coastkeeper David Prescott at 401-315-2709.

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