



Have you noticed green slime around Casco Bay?

- Nitrogen pollution is a problem along the coast of Casco Bay.
- Nitrogen runoff makes the water less healthy for marine life.
- Nitrogen fertilizes algae blooms that choke out clams and other intertidal creatures.

Excess nitrogen comes from:

- Sewage treatment plants and sewage overflows
- Stormwater runoff carrying fertilizers from lawns and gardens
- Air pollution from tailpipes and smokestacks

Background: Nitrogen

Nitrogen is essential for growing things, but too much nitrogen is bad!

In the ocean, nitrogen provides a feast for seaweeds and microscopic phytoplankton, making them multiply like crazy. When these plants die, decomposing bacteria consume oxygen. This process also releases carbon dioxide, making coastal waters and nearshore sediments more acidic.

Water quality sampling by Friends of Casco Bay has shown that nitrogen pollution is most severe in areas that are close to shore, near river mouths, at sewer overflow pipes, and other locations where stormwater runoff reaches the Bay. The further you go offshore, the better the water quality.

What does this mean for those of us who live, work, and play around the Bay? We have a lot of work to do! Fortunately, unlike some environmental problems, there is a lot each person can do to fight nitrogen pollution.



These footprints show algae smothering a mudflat near Falmouth. This "rise of slime" is caused by nitrogen pollution in our coastal waters.

Fighting Nitrogen Pollution

A Bay Paper from Friends of Casco Bay

Friends of Casco Bay is working with residents, communities, sewage treatment plant operators, and the State of Maine to reduce the amount of nitrogen flowing into Casco Bay.

In 2007, we helped persuade the Maine Legislature to pass a law requiring the Maine Department of Environmental Protection (DEP) to set a limit on nitrogen discharges into coastal waters.

To establish that limit, we continue to collaborate with and put pressure on the DEP. We share much needed data about nitrogen pollution in our waters, as well as our expertise on how best to collect nitrogen data. Not only has the state agreed to use our Casco Bay data, DEP has adopted and is using our methodology and our EPA-approved Quality Assurance Project Plan to collect nitrogen data in Penobscot and Cobscook bays.

Our staff collects and analyzes a broad range of nitrogen samples to continue to provide the state

with more of the scientific data it needs to make an informed decision about nitrogen limits.

We use our water quality data, as well as information from other scientists, to educate stakeholders about nitrogen pollution and how to control it. We present our findings and experience in our publications, on our website, through the news media, and at scientific conferences. Our “neighborhood socials” educate homeowners about growing healthy lawns without relying on fertilizers and pesticides.

We are working with the City of Portland on projects that reduce nitrogen-laden sewage overflows into the Bay.

We successfully campaigned to make Casco Bay Maine’s first No Discharge Area for vessel sewage.

Our pumpout boat removes raw sewage from the holding tanks of recreational boats.

We ask boaters and beachgoers to report “green slime” sightings along the Maine coast.

What is Friends of Casco Bay doing about it?

Friends of Casco Bay is working with the Maine Department of Environmental Protection to set a responsible limit on nitrogen discharges into coastal waters.

Friends of Casco Bay is testing the waters throughout Casco Bay to document nitrogen levels.

Friends of Casco Bay is educating homeowners and lawn care providers on how to grow healthy lawns without applying nitrogen-rich fertilizers.

Friends of Casco Bay is a community-based nonprofit organization founded in 1989, to improve and protect the environmental health of Casco Bay. Home to the Casco **BAYKEEPER**®, we are a founding member of the international **WATERKEEPER**® ALLIANCE.

What can I do about it?

- Use fertilizers sparingly
- Capture stormwater runoff with rain barrels, create rain gardens, and plant buffer strips of trees and shrubs
- Keep cars tuned up
- Burn less oil, wood, and coal
- Pump out the holding tank on your boat at a shoreside disposal facility

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