

Are You Interested in Getting Shoestring Bay Cleaned Up?



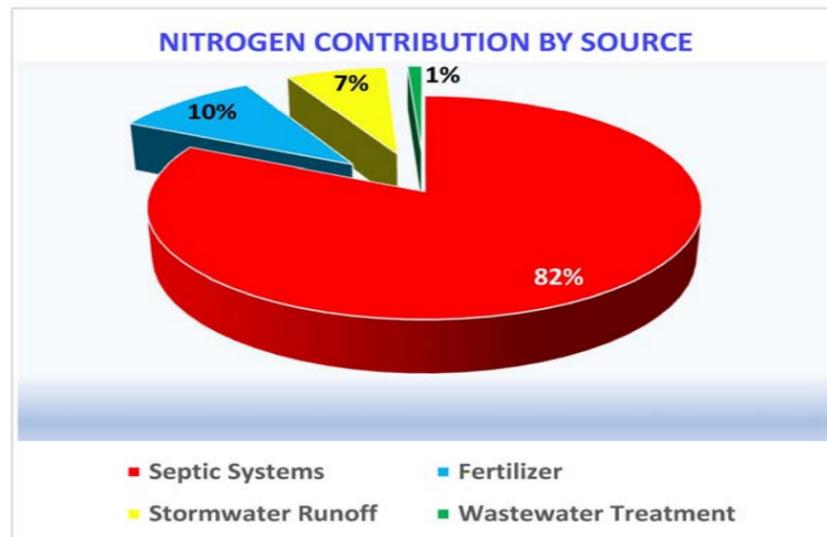
Do you remember (or recall hearing about) Shoestring Bay as a vibrant, healthy estuary, with clear water teeming with fish, crabs, mollusks, and other marine life? Are you frustrated that every year the health of our beautiful bay is under attack? The loss of habitat and those awful algae blooms we see and smell all summer are caused by too many nutrients leaching into the water, thanks to a growing human population.

"[This bay] may be the most polluted in southeastern Massachusetts."
 Brian Howes, Professor of Marine Science and Technology, University of Massachusetts, Dartmouth, July 2019

Who's to Blame? All of Us!

Septic systems alone are responsible for over 80% of the excess nitrogen levels in the Popponesset Bay system. Nitrogen-rich effluent from our septic leaching fields, stormwater runoff from impervious (paved) surfaces, and over-fertilization of our lawns and golf courses are all sources of nitrogen infiltration that's a root-cause of the poor water quality. By 2017, nitrogen levels in the bay already exceeded maximum threshold levels by **56.7%**¹

- Popponesset Bay [of which Shoestring Bay is a tributary] can handle **13,853 kilograms (KG) of nitrogen/year**. Current loading is **31,961 KG-N/Year**. Which means we need to **cut the sources of nitrogen by 56.7%** to give our Bay a chance to recover
- Today, Shoestring Bay's water quality meets **NO** Commonwealth of Massachusetts' standards²
- The water within the Bay is compromised by **100x more than acceptable fecal coliform bacteria counts**³



We All Have a Stake in Cleaning Up the Bay

As a Cotuit resident living on Shoestring Bay, I'm writing to you for a few reasons to:

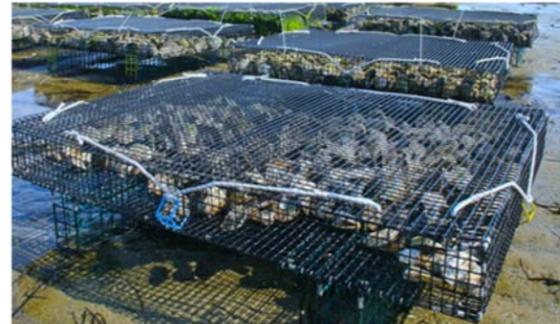
- Raise awareness of the problem
- Advise you of some of the proposed solutions
- Solicit civic engagement in making sure our voices are heard

What's Being Done? Proposed Inter-Municipality Agreements

Several towns are working through a couple of Intermunicipal Agreement (IMA) plans. There are currently two IMAs (a smaller group of 2-3 municipalities, and a larger group of 5) working to find the most cost-effective way to address the excessive nitrogen (from wastewater) impacts on the Bays. Both IMAs are focusing on the installation of partial sewerage along with other innovative technologies, in an effort to reduce 61% or more of wastewater-based nitrogen from entering the bays.

More Details

- One IMA plan includes a cooperative agreement with the U.S. Dept. of Defense's Joint Base Cape Cod (JBCC) to operate and expand the existing water treatment facility. Under that proposal, each town within that IMA would install its own infrastructure including sand-filtration-to-groundwater plus an interconnection to the JBCC facility. The current long-term thinking puts this at 8-10 years before shovels even hit the ground. *This extended timeframe is unacceptable as we're at a tipping point.*
- In addition, targeted aquaculture shellfish farming would be applied to specific areas within the embayments as a catalyst to clean up residual nitrogen and keep our waterways healthy.



Oyster Aquaculture

- ◇ Two demonstration projects (overseen by the Barnstable Clean Water Coalition) are already showing this approach has merit. There are good locations within Shoestring Bay for aquaculture which should be included within either IMA plan.
- ◇ Finally, advanced technologies such as "Innovative/Alternative (I/A)" septic system designs may be applied to further aid in removing nitrogen from the septic leaching groundwater cycle. These systems are being tested by several municipalities with mixed results thus far.

These multi-pronged approaches may be the best, most cost-effective plan to rectify most of the issues within Shoestring and Popponesset Bays. But you ought to know that we're not alone in this effort to clean up the estuaries within Cape Cod; the proposed IMA plans are just part of a larger effort to clean up all estuarial waterways for Barnstable County [the entire Cape south of the canal]. The MA Department of Environmental Protection estimates the cost of the Barnstable County waterways mitigation project (all 15 towns) to be \$4 - \$5 billion⁴.

What We Can Do...Become Involved Citizens

Contact your local and state representatives and tell them that "cleaning up the nitrogen overload and high bacterial counts in Shoestring and Popponesset Bays are an immediate priority; we can't wait another 8-10 years! I support the cleanup effort and expect my town government to protect our waterways and wildlife, and provide its residents with a healthy environment!"

Local Town of Mashpee Selectmen (508) 539-1401	Town of Barnstable Selectmen (508) 862-4738
Andrew Gottlieb- Chairman	Cynthia Lovell-Administrator
John J. Cotton- Vice Chair	Jessica Rapp Grassetti-Precinct 7 (Cotuit)
Thomas F. O'Hara-Clerk	
Carol A. Sherman- Selectman	

State
 State Rep. Randy Hunt—randy.hunt@mahouse.gov, 617-722-2396; x-5

Support local shellfish aquaculture projects & proposals:
 Oysters and quahogs naturally remove nitrogen from the water. Please be supportive when proposals for aquaculture are put forward through the public comment process. Having a thriving shellfish population in Shoestring Bay is imperative to establishing a healthy estuarial habitat and returning water quality to its original pristine condition.

Please attend nitrogen management meetings & encourage your town to move with the IMA Plans to restore our waterways!

All Towns within either of the IMAs will hold periodic public meetings on their nitrogen mitigation plans. When they ask how to pay for the improvements, tell them to seek funding for these projects through non-traditional (Cape Cod Water Protection Fund, Commonwealth of Massachusetts Revolving Fund, private and federal grants) and traditional (bonds, tax assessments and fees) sources.

Read-up on the status of Popponesset Bay and proposals to reverse its decline. Some good sources are:

Barnstable Clean Water Coalition: BCleanWater.Org
 Follow the Cape Cod Times for frequent updates on this story
 Town of Barnstable: town.barnstable.ma.us/Departments/waterpollution/
 Town of Mashpee: mashpeema.gov/sewer-commission

Let's Get Organized!

If you're interested in learning more about water quality problems on Shoestring Bay, or have ideas about how we can improve the habitat, please email Gary Markowitz at kilojots1@gmail.com

I live on Shoestring Bay and hope to build a residents' coalition to lobby for remediation of our Bays. Please join us in cleaning up Shoestring Bay!

Thank you.

Footnotes:

1. Watershed Report: Upper Cape, Popponesset Bay, Mashpee, Barnstable & Sandwich, Cape Cod Commission, 2017.
2. Biological assay by Horsley Witten Group, 2019
3. Office of Water 820-F-12-058, Recreational Water Quality Criteria, Health and Ecological Criteria Division, Office of Science and Technology, US EPA
4. August 2019 interview-Brian Dudley, Section Chief, Massachusetts Dept. of Env. Protection-Southeast

Other Organizations That Deserve Our Support



Barnstable Clean Water Coalition
864 Main St, Osterville, MA 02655
(508) 420-0780
bcleanwater.org



Association to Preserve Cape Cod
482 Main St, Dennis, MA 02638
(508) 619-3185
apcc.org



Conservation Law Foundation
62 Summer St, Boston, MA 02110
(617) 350-0990
Clf.org



Environmental Defense Fund
18 Tremont St, Ste 850
Boston, Massachusetts 02108
(617) 723-2996
Edf.org

Stay in touch with us at: SaveOurShoestring.com

An aerial photograph of a sandy beach with a large, circular footprint in the sand. The footprint is a dark, irregular shape, possibly a shadow or a mark left by a person or object. The text "Save Our Shoestring!" is overlaid in large white letters, and "An Urgent Call to Our Neighbors" is overlaid in smaller white letters below it.

**Save
Our
Shoestring!**

**An Urgent Call to Our
Neighbors**