



## Baby steps toward clean waterways

By **BOB DORFMAN**

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The July meeting of the Cotuit Civic Association, featuring a presentation and discussion led by Lindsey Counsell, executive director of Three Bays Preservation Inc., has invigorated my thinking about water quality and the three bays. To dramatically improve water quality in the three bays, I'd like to initiate a doable project, one that the ordinary citizen in our community can participate in between now and Columbus Day.

As a concerned citizen who actively uses the beaches and the waters, I asked Lindsey a number of questions that I believe need addressing, and Lindsey provided the following answers:

**Bob:** I was shocked to learn that the reason we had to close our beaches last summer was because several septic systems in Prince's Cove were not maintained properly. How can we make sure everyone's septic system is functioning? I don't think it is sufficient to wait for property to be sold.

**LC:** Something that is doable is for folks to have their septic system inspected and pumped as soon as possible — say, by Columbus Day.

**Bob:** If urine is a major culprit, is it from leaking septic systems or from people and pets peeing in or near the ocean? My first question and your response above covers septic systems. People and pets require common-sense education.

**LC:** Urine contains nitrogen. Inorganic fertilizers contain phosphorus-based chemicals. Nitrogen acts as a fertilizer in the estuaries, and phosphorus does the same in freshwater ecosystems. When Title 5 septic systems discharge wastewater, nutrients such as nitrogen and phosphorus, as well as fecal coliform bacteria, pollute groundwater and ultimately estuaries and the ocean. Folks should pick up after their animals to help eliminate fecal coliform from our waterways. Urination in any water body pollutes that water.

**Bob:** Are boats with toilets on board a cause? If so, what can be done?

**LC:** Boats can be a problem if they discharge their tanks in the bays; there is a pump-out boat and shore facilities in the Three Bays area for the proper disposal of this waste.

**Bob:** What is the impact of gas and oil residual from boats with motors? Can there be higher standards?

**LC:** Oil and gas can be a problem; the new requirement for four-stroke engines will help. More could be done.

**Bob:** Are the local drain systems working properly? I heard the drains near Ropes Beach are clogged. What can we do about this?

**LC:** There are a variety of drains that are in the watershed; they need to all be looked at and be evaluated. The Department of Public Works would be the group to do that.

**Bob:** What difference would using organic versus inorganic fertilizer make?

**LC:** Using organic or slow-release fertilizers is a better alternative than fast-release types. A goal should be a 50 percent reduction in overall fertilizer use to meet the total maximum daily load ("TMDL").

**Bob:** How often are we measuring water quality? Is it enough?

**LC:** We measure water quality four times a season. That is sufficient at this time.

**Bob:** What is the muck on the ocean floor of Ropes Beach? I've heard my girls say it is infested with mites. Is that true, and what can we do about it?

**LC:** Much of the bays are covered with fine sediments from the deposition of organic matter. Reducing the nitrogen

will help the muck problem considerably. Regarding the mite, we have nothing confirmed, just anecdotal accounts.

Bob: What is the role of the town's board of health, and is it doing its job? What can citizens do to provide support?

LC: The board of health has been active in reducing fecal coliform contamination and has recently enacted a bylaw aimed at limiting new inputs of nitrogen from homes.

Bob: Where should we consider sewers as the best solution?

LC: Sewers will be a key component of the nutrient reduction planning; the exact location for them has yet to be determined and will come out of the nutrient management planning that is now ongoing.

Bob Dorfman lives in Cotuit.

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