



## Towns must lead on water quality

By **ANDREW GOTTLIEB**  
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Fish kills, toxic algae, dead mussels, ponds too contaminated to swim in and floating algae in our bays — all have one thing in common. They are caused, in large part, by excess nutrients. Septic systems, even brand-new ones functioning as designed, are the primary source of the nitrogen and phosphorus fouling our waterways. Like the canary in the coal mine, the dead fish and algae are signs the Cape ignores at its own economic and environmental peril.

While Cape Cod remains a remarkable place to live, visit and enjoy the beauty and tranquillity of the water, the threats to water quality must be dealt with. Unlike many complex and difficult environmental problems, the nature of the Cape's water quality threat is well-known and understood. Simply put, we overfertilize our waters.

While not dumping bags of fertilizer in the water, we are doing the next worst thing. Most of the Cape disposes of its wastewater through backyard septic systems, which are designed to protect public health by limiting the possibility of bacteria reaching drinking water and ponds. They were not designed to, and do not, provide meaningful removal of the nitrogen produced by human waste and the phosphorus found in detergents.

What septic systems do provide is a direct path for these nutrients to enter the groundwater. Once in the groundwater, nitrogen and phosphorus travel to our waters. Nitrogen degrades water quality in the marine environment, while phosphorus has the greatest impact on fresh water.

There is little disagreement that the solution to the water quality problem is to reduce the amount of nutrients reaching the waters. Continued use of conventional septic systems as the primary means of wastewater disposal guarantees continued degradation of our waterways.

One definition of madness is doing the same thing and expecting different results. Continuation of our current wastewater management methods is indeed madness.

The Cape needs wastewater treatment and disposal options that radically reduce the nutrient inputs to the groundwater. It is in selecting and implementing new wastewater management strategies that things get messy, expensive and politically charged. The variety of opinions about what to do next range widely and have created a paralysis that prevents solutions from being developed.

To move forward, we need a political consensus with the following elements:

Acceptance of the scientific fact that excess nutrients impair water quality. The questions about the validity of the science supporting this conclusion do not have credence. Towns do not have the time or funds to reprove the obvious. The science provided by the University of Massachusetts is valid and should be used by the towns as a basis for their wastewater plans. Town, county and state officials need to step forward and defend the science or nothing will ever get done.

Recognition that collection and treatment are essential parts of any wastewater plan. Some infrastructure will have to be built if the Cape is serious about maintaining water quality. This does not mean every home must be on a sewer, nor does it mean that there is no place on the Cape for septic systems. What it does mean is that any municipal plan that does not include an advanced treatment facility is not a serious plan and should be rejected.

A growing chorus claims alternative systems provide the silver bullet that will solve the water quality problems, avoiding the need for sewerage and costing very little. While that sounds good and provides the prospect of financial relief to residential, business and municipal budgets, there is no approved, independently tested and verified system that can deliver on the promise.

Affordability. Building wastewater infrastructure will be expensive, so towns must actively manage costs. The best

ways to limit costs are to build only what needs to be built, to look aggressively at regionalization and to take advantage of state funding opportunities. Some see maintaining water quality as an excuse to sewer the entire Cape. In fact, the UMass science proves that only a fraction of the Cape needs to be sewered. Towns must ensure that their sewer plans result in the least amount of sewerage required to solve their water quality problem.

Costs can be further reduced if the Cape can set aside its long-held tendency for each town to go it alone. Wastewater infrastructure and related costs can be minimized if towns share facilities. The state offers interest-free loans for the types of projects needed on the Cape. The state funds are available for only nine more years and there is competition for the money from other communities. The Cape should not squander the opportunity to build needed infrastructure at a great savings.

Leadership. Now is the time for town leaders to make a stand. Elected leaders must step forward and grab control of their wastewater planning efforts. Without leadership, we have seen that many long-term planning efforts flounder over cost concerns. Each town's elected leaders must make the case for wastewater management and guide the process to completion. Public input is important in such a major undertaking, but this issue is too important and expensive to be left to citizen volunteers. Towns must own the problems and their solutions.

The wastewater problems facing the Cape are complex and difficult, but they can be solved if taken seriously and acted upon with urgency. The choice is ours.

Andrew Gottlieb is executive director of the Cape Cod Water Protection Collaborative, a Barnstable County agency created to help towns solve their water problems.