

# **Nitrogen endangers our water**

**M**any of us moved to Cape Cod because of the outdoor recreational opportunities and environmental amenities available in this special place. These are being threatened by reduced water quality in our freshwater ponds and coastal bays from excess nutrients emanating from land-use activities within our watersheds. It will be necessary to act locally and plan regionally to address this challenge.

Excess nitrogen loading to Waquoit Bay has led to periodic fish kills; loss of eelgrass beds and collapse of the bay scallop harvest. The major watershed sources of this excess nitrogen loading is from septic systems and fertilizer usage, with additional nitrogen input from the atmosphere and the sediments within our estuaries.

The Massachusetts Department of Environmental Protection is visiting local towns to explain the needed nutrient load reductions required to restore our coastal water quality. The towns will be required to develop strategies on how to meet these targets. In addition, the Cape Cod Commission is revising its Regional Policy Plan, which will consider the excess nutrient problem as well.

In our freshwater ponds,

the water quality problem comes from excess phosphorus loading. This results in excess growth of plants along the shoreline, which interferes with swimming and boating; changes in the fish community, which affects anglers; and blooms of nuisance microscopic plants, which can result in taste and odor problems. There is no atmospheric input of phosphorus, so that the problem comes from either land uses surrounding the ponds or the sediments within the pond. Some ponds on the Cape have been treated with alum to reduce the sediment loading of phosphorus, but this does not address the basic cause (activities in watershed).

We have the opportunity to become environmental stewards by reducing our use of nitrogen and phosphorus. Addressing these problems will need to be done at the town and Capewide level, which requires an integrated planning approach that will be costly and require a long period of time to accomplish. The failure to act will affect our tourist-based economy and value of our homes. More importantly, it will diminish the qualities that make Cape Cod a special place from which we draw inspiration and strength.

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Club