



## Cape Cod, Massachusetts

Cape Cod, Massachusetts is currently suffering from poor sanitation treatment. Citizens of Cape Cod towns can see wastewater and its effects in their waterways. Scientists have traced the problem primarily to the local septic systems and their incompatibility with Cape Cod's sandy soils, however storm water systems and wastewater treatment systems are also contributors to the issue. The sandy soil of Cape Cod allows for polluted wastewater to flow through the porous soil and bubble into surface estuaries. The high nitrogen content of this polluting wastewater causes severe algal blooms, which results in an oxygen depleted water column. The result of these conditions have been responsible for large fish kills of striped bass in Flamouth, whose sport fishing is a large contributor to tourism in Cape Cod (tourism accounts for 43% of the Cape's economy). The fish kill in July of 2012 has been one of the largest fish kills in the town of Flamouth's recent history.

The Conservation Law Foundation and the Buzzards Bay Coalition filed a federal Clean Water Act lawsuit in 2011 against the EPA for failure to fulfill its obligation to oversee the Areawide Water Quality Management Plan, which could have averted Cape Cod's nitrogen pollution crisis. The lawsuit seeks to establish a schedule for the EPA to take the legally necessary steps to control nitrogen pollution and clean up Cape Cod's bays. A year later, a settlement has not been reached but a joint litigation schedule is currently being formulated.

East Flamouth Elementary School hosted the Cape Cod Eco-toilet Summit in 2011 where manufacturer presentations consisted of Clivus Multrum, Ecovita and Phoenix Composting Systems. The community responded with enthusiasm and agreed that composting human waste could be a potential solution to the wastewater problem in Flamouth.

***"I don't call it waste, I call it a resource"***

-Abe Noe-Hays, Phoenix Composting Systems

***"All of these processes require people to do them. These are jobs, these are professions"***

-Earl Barnhart

***"You can judge a culture by how they treat their soil"***

-Don Mills, Clivus Multrum

The US Geological Survey conducted a study that connected fish tumors and cancer in Cape Cod's lakes to the presence of chemotherapy drugs present in the water. Both Rhode Island and Massachusetts have introduced bills into legislation in 2012 to regulate the discharge of human waste from chemotherapy patients to prevent the appearance of these drugs in state waters. Both bills have been redrafted and currently are requiring public health officials to study public health threats of human waste and specifically chemotherapy drugs in state water.

According to Maria Warmbold, a US distributor of the Dubbletten WC urine-diverting composting toilet systems, Cape Cod is considering installing the Dubbletten system in many places in Cape Cod as a step to reduce wastewater effluent from reaching estuaries and waterways.

References:

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