

Contact Information

Upcoming Events

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CAPE COD COMMISSION

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Dates and times are subject to change. Please check our website for the latest information: www.capecodcommission.org/initiatives/wastewater



LOSING CAPE COD: OUR WASTEWATER CHALLENGE

Cape Cod Commission Executive Director Paul Niedzwiecki will host informal public 'conversations' in each Cape town this spring, as follows. Please stop by with your comments, complaints, and questions!

MAY 2012

- 5 Wellfleet Library, 10:30 am to 12:30 pm
Eastham Town Hall, 2:00 to 4:00 pm
12 Yarmouth Port Fire Station, 9:30 to 11:30 am
Barnstable/Sturgis Library, 2:00 to 3:45 pm
19 Sandwich Public Library, 10:00 to 12:00 pm
Mashpee Public Library, 2:00 to 4:00 pm

JUNE 2012

- 2 Provincetown Center for Coastal Studies, 10:00 am to 12:00 pm
Truro Public Library, 2:00 to 4:00 pm
9 Chatham/Eldredge Public Library, 10:30 am to 12:30 pm
Brewster Ladies Library, 2:00 to 4:00 pm
16 Dennis Public Library, 10:00 to 12:00 pm
Harwich/Brooks Free Library, 2:00 to 3:30 pm
23 Orleans/Snow Library, 10:30 to 12:30 pm

JULY 2012

- 14 Falmouth Public Library, 10:00 am to 12:00 pm
Bourne Public Library, 2:00 to 4:00 pm

SMARTERCAPE SUMMIT II:

MAY 2012

- 14 Opens at 1:00 pm at the Sea Crest Beach Hotel, Falmouth
15 8:00 am to 4:30 pm at the Sea Crest Beach Hotel, Falmouth

To learn more: www.smartercapesummit.com

BELOW: Ron Shide (right), from the Osterville Men's Club, introduces Cape Cod Commission Executive Director Paul Niedzwiecki, who made a presentation on the "Challenges of Cape Cod Wastewater" to the club on March 13, 2012, in Osterville, Massachusetts.



Clip, complete, & return the form below—or send the same information by email to wastewater@capecodcommission.org—to have your name placed on our mailing list for wastewater news & alerts.



Please add my name to your mailing list for news and alerts about Cape Cod wastewater:

Form fields for name, title, address, town/city, state, zip, email, and phone.



CAPE COD COMMISSION

WASTEWATER Bulletin

Volume 1 | Number 1
Spring 2012

Losing Cape Cod

By Paul Niedzwiecki, Executive Director

My top priority is keeping this special place special. Today that means finding the least costly solution to Cape Cod's greatest environmental threat. It's that simple.

The threat is a reactive form of nitrogen contained in the wastewater leaving our homes every day. It travels through our backyards, seeping into our watersheds. It is polluting our estuaries and bays, choking them to the point that the marine life, once abundant, is now nonexistent.

The bill is finally due for decades of unprecedented residential development on our fragile peninsula—at its widest point no more than 10 miles across. It is undeniable that this development has compromised our marine water quality, the defining resource of our region. Forty-six of our watersheds are being studied for nitrogen impairment.

build and maintain, and unimaginative designs lacking a sustainable connection to the land and marine resources they are intended to protect.

In February, the Special Commission on County Governance, consisting of 27 respected citizens, boldly stepped toward a solution. They recommended a new approach in the form of a regional entity charged to facilitate a better, faster, cheaper solution. The Barnstable County Commissioners, acting on this recommendation, directed the Cape Cod Water Protection Collaborative and the Cape Cod Commission to study and recommend effective options.

By the end of this year, this partnership will produce suggestions for a more efficient solution and a more affordable outcome. These recommendations will promote an innovative and coordinated plan resulting in the smallest possible concrete footprint,

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3 Infrastructure Options: Gray Infrastructure
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For the last decade we have been documenting the deterioration and quietly discussing the problem. The existing regulatory and funding mechanisms encourage a fractured answer to a shared problem. Two thirds of these watersheds cross town boundaries. The uncoordinated results are predictable: projects that will be too costly to

building flexible
dynamic
applications

Smarter Tools,
Better Planning

Exploring land use, water quality, cost data

Commentary, from page 1...

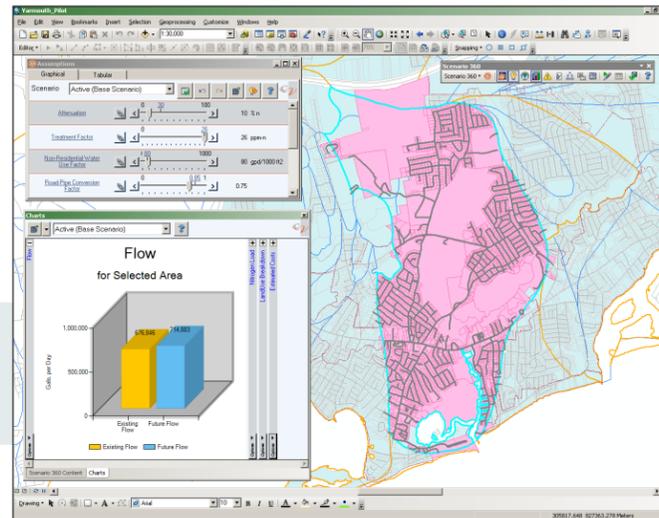
spreading costs equitably, and insisting that our federal and state partners should part of that burden.

I look forward to public input and discussion during this process. The Cape Cod Commission is creating a new software tool designed to support this community engagement, not to shape any particular outcome. I understand that an incredible diversity of opinion exists, but certain facts remain immutable and every option should be available for taxpayer consideration.

Change is difficult. Our hesitancy as a community is both understandable and inexcusable. As one community we have arrived at the crossroads of our environment and our economy. The cost of doing nothing is economically devastating to every homeowner on the Cape. The result of a court-ordered cleanup could cause an economic dislocation that would tear the fabric of this community permanently. The window is closing on our opportunity to solve this problem on our terms, sensitive to the concerns of the individual villages that populate this peninsula.

We can fix this. Our formerly pristine environment, ruined over the course of one generation, can be restored over the course of the next. We can make it affordable, and at the same time we can improve our economy and our quality of life. But we can do it only if we stand together and act as one community, one Cape.

A screenshot of the new application created by the Cape Cod Commission to accurately explore possible solutions—and their impacts on land use, water quality, and costs—to achieve successful wastewater management in any given area of Cape Cod.



A new application that combines GIS mapping, land use, water use, costs, and rate projection models will soon allow municipal users to pose “what if” questions about small-scale, large-scale, and green infrastructure approaches to improving water quality in watersheds throughout Cape Cod.

The Cape Cod Commission unveils its new web-based tool, which will be available to municipal officials and planners by the end of the year, at the SmarterCape Summit (May 14–15, 2012). When finished, the application will be able to compare wastewater management options, predict their

relative costs, and demonstrate differences between an individual town’s approach and any possible regional approach to a range of appropriate solutions.

“We’re interested in letting the facts not only speak for themselves, but also demonstrate the many possibilities. We want to find solutions that are both good for the environment and good for taxpayers,” Cape Cod Commission Executive Director Niedzwiecki notes.

“There is no ONE answer,” he adds. “The solution will be as diverse as the problem is complicated.”

Did you know?

The single highest contributor to the eutrophication of coastal embayments on Cape Cod is nitrogen-containing compounds in the water that drains from on-site septic systems.

exploring
sustainable
solutions

Infrastructure Options

The Cape Cod Commission is currently looking at an array of wastewater solutions including gray infrastructure (highlighted in this issue) and green infrastructure (to be highlighted in future issues). Both options can achieve varying levels of water quality improvement, which we will evaluate, along with effectiveness and cost.

Centralized systems—a collection of sewer lines and a treatment plant for wastewater flows of 300,000 gallons or more a day—can answer most or all of one town’s wastewater management needs and could serve portions of neighboring towns.

Satellite systems for wastewater flows from 10,000 to 300,000 gallons a day can treat and dispose of wastewater from 30 to 1,000 homes in one area. In Massachusetts, these systems require a groundwater discharge permit.

Cluster systems can serve about 30 homes with combined wastewater flows less than 10,000 gallons a day. These systems are regulated in Massachusetts under Title 5, the state environmental code that protects public health, safety, and the environment.

Individual on-site septic systems serve only one property and are located on the parcel where the wastewater is generated. They are also regulated in Massachusetts under Title 5. These systems manage wastewater from about 85 percent of the residences and businesses on Cape Cod. The systems range from simple, older leaching pits and cesspools to conventional, newer Title 5 and innovative/alternative (IA) systems.

All of these systems discharge wastewater into the environment.

Cesspools are porous stone or cement cylinders surrounded by gravel. Solid wastes are partially digested by microorganisms at the bottom of the pit or cylinder, and the effluent leaches out through the gravel into the soil. For leaching pit systems, all wastewater enters a septic tank first and then flows to a pit with porous walls. Leaching pit and cesspool systems dispose of wastewater but remove neither pathogens nor nutrients.

Conventional individual Title 5 septic systems have a pre-cast tank for wastewater separation, a distribution box, and a subsurface leaching area for effluent disposal. Title 5 systems remove pathogens but not nutrients.

In Massachusetts, I/A on-site systems may be used for remedial measures, irrigation, composting, or nitrogen removal. According to the state Department of Environmental Protection, I/A systems can perform as well as or better than Title 5 systems but are more expensive to install, operate, and maintain.

Funding Update

GRANTS RECEIVED;
WORK IN PROGRESS:

\$150,000 grant to the Cape Cod Commission from the Massachusetts Department of Environmental Protection for a Cape-wide buildout analysis to support regional wastewater management planning

\$40,000 grant to the Cape Cod Commission from the Cape Cod Economic Development Council for development of a regional wastewater management web-based tool

\$50,000 to the Association to Preserve Cape Cod from the Prospect Hill Foundation to support the buildout analysis and wastewater management planning

GRANT APPLICATIONS SUBMITTED;
PENDING NOTICES:

\$50,000 application submitted in March 2012 to the Massachusetts Department of Environmental Protection for a Federal 604(b) Water Quality Management Planning Grant to support the presentation of a conference on alternative wastewater solutions for Cape Cod; pending notice of award in June 2012

\$75,000 application submitted in April 2012 to the US Environmental Protection Agency for a “green infrastructure” project in the Lewis Bay and Parkers River watersheds (Barnstable and Yarmouth); pending notice of award in Summer 2012

GOAL: To recommend the best combination of approaches to restore the quality of Cape Cod’s waters in a way that contains costs to homeowners to the best extent feasible.