

**HOLDEN BEACH HOLDS WORKSHOP**

# Soil Scientist Says Septic Tanks Can Be Long-Term Solution

BY DOUG RUTTER

Holden Beach officials heard last week that the septic tank systems used extensively on the island can be a long-term solution to wastewater management if they are properly maintained.

That's what an N.C. State University soil science professor said at a July 23 workshop attended by commissioners, planning board members and other residents.

Dr. Michael Hoover said the wastewater management program which Holden Beach officials are considering could help ensure that septic tanks continue to function in an environmentally sound manner.

A management program also could open the door to alternative wastewater systems that require more monitoring and maintenance, which would allow more landowners to build on lots that aren't suitable for septic tanks.

Holden Beach Commissioners agreed earlier this year to set up a wastewater management entity to oversee sewage disposal and treatment.

Town officials haven't decided how the program would work, what it would cost or how it would be funded. Hoover said the town could run the program, cooperate with the county or contract with a company.

In the last five years, Holden Beach has hired two different engineering firms to study the town's wastewater treatment needs.

Both of the studies, which cost a total of \$50,000, indicated that the island has very few problems with bacterial pollution that would be associated with faulty septic tanks.

However, engineers recommended in both studies that the town move away from the use of septic tanks toward an area- or island-wide sewer system.

Although the engineering studies didn't show failing septic tanks, Hoover said Holden Beach's unde-

*"An ounce of prevention is worth a ton of cure with a septic system."*

—Dr. Michael T. Hoover  
NCSU Soil Scientist

veloped lots probably have poorer soils than the lots that have already been built on.

More than half of North Carolina's six million people use septic tanks, he said, and Brunswick County probably installs more tanks than any other county in the state.

Hoover predicts that North Carolinians will depend just as much on septic tanks in the future, partly due to the increasing costs of sewer systems. The federal government stopped making sewer system grants in 1988.

For that reason, Hoover said conventional septic systems should be viewed as a permanent solution to the problem of wastewater management.

As the state continues to develop, Hoover said people will be using more "marginal soils" which will require the use of costlier alternative systems and more maintenance.

That's where local governments will have to take a more active role in monitoring and managing all types of wastewater systems.

Hoover said Holden Beach would be "ahead of the game" and taking "a big step forward" if it set up a management program. Town officials don't know of any others in the country.

Hoover said a management entity could track the performance of septic tanks and other systems and give town officials a good indication of when they should consider a central sewer system.

**Septic Tanks & Maintenance**  
Conventional septic tanks have

two parts—tank and drain field. Waste from a house goes to the tank, where solids settle to the bottom and liquids are fed to the soil drain field.

As the liquid flows down through the sand, it is purified. Hoover said it takes three or four feet of unsaturated soil to purify the liquids, but the state rules only requires 12 to 18 inches because of "economics realities".

To ensure the system functions properly, solids must be pumped out of the septic tank. Hoover said the frequency of pumping depends on the size of the tank and the number of people who use it.

A 1,000-gallon septic tank being used by two people should be pumped every six years. If eight people are using the same tank, however, it needs to be pumped every year.

"An ounce of prevention is worth a ton of cure with a septic system," he said. "We like to see those honey wagons coming in to pump out the tanks."

Because many tanks on Holden Beach are overloaded during the summer and used very little the rest of the year, Hoover said the frequency of pumping varies for each residence.

Besides pumping, Hoover said homeowners should restrict use of garbage disposals and avoid pouring grease and cooking oil down drains or driving vehicles over the system.

Generally speaking, Hoover said soils must be able to absorb and purify the liquids to make a good septic tank site. All wastewater eventually ends up in groundwater and surface waters.

"Don't be surprised that the wastewater that goes into the ground here ends up somewhere else." The key, he said, is that the liquid is purified as it flows through the soil.

If wastewater isn't purified and ends up in groundwater or surface waters, it can cause disease in humans and other environmental problems.

In recent years, septic tanks have been pinpointed as a likely source of bacterial pollution in Lockwood Folly River near Holden Beach. The pollution has forced state officials to frequently close the river to shellfishing.

Hoover said he believes dense development and shellfishing don't mix. But he noted that there many sources of pollution besides septic tanks in densely developed areas.

**Alternatives**  
Most of the septic tank systems on Holden Beach are gravity-fed systems, which are easier to install and maintain and cheaper than alternative systems.

Other options include low-pressure pipe systems, some of which are in use at Holden Beach.

Hoover said aerobic treatment units, which were just added to the state regulations May 1, could help canal lot owners who have been denied septic tanks permits.

Although they require more maintenance and are more expensive than septic tanks, Hoover said they take up less space and could be put to use on small canal lots.

Despite the higher cost and maintenance needs of alternative systems, Hoover said he expects more will be used on barrier islands such as Holden Beach. The value of island property makes the expense worthwhile.

Hoover said some alternatives such as low-pressure pipe systems will not be permitted in North Carolina after July 1, 1992, unless a local management program is in place.



STAFF PHOTO BY DOUG RUTTER

## Alligator Killed

William Manning found this dead alligator in a section of Royal Oak Creek near his home north of Shallotte last Wednesday. Manning said it appeared that the eight-foot-long female alligator had been shot. Wildlife Resources Commission enforcement officer Fred Taylor said alligators are federally protected. Anyone convicted of killing an alligator can be fined up to \$2,000.

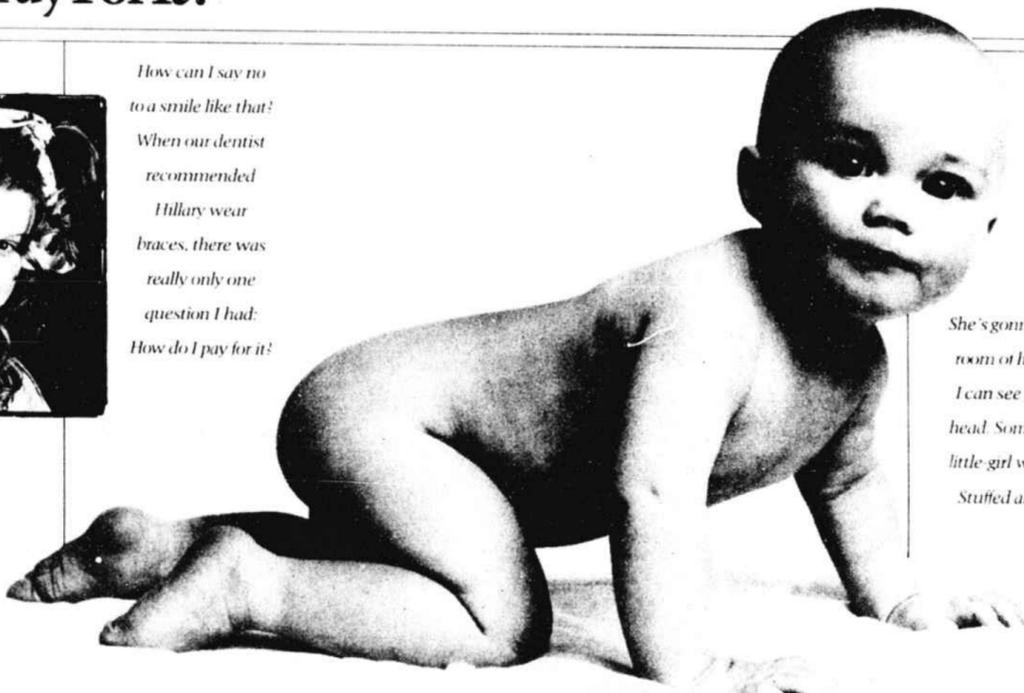
## Holden Beach Board To Discuss Salaries At Special Meeting Today

Holden Beach Commissioners are scheduled to hold a special meeting today (Thursday) at 10 a.m. for an executive session on a personnel matter. Mayor John Tandy said the board plans to discuss pay raises for town employees based on job performance. The closed-door session is the only item on the meeting agenda.

## So How Do I Pay For It?



How can I say no to a smile like that? When our dentist recommended Hillary wear braces, there was really only one question I had: How do I pay for it?



I think we can add on over the garage. Maybe we'll need another bath there, too. The neighbors recommended a good contractor. Only thing is, how do I pay for it?



I started with a travel agent. Looked at all the brochures. I asked questions. And finally picked out the spot for my dream vacation. The question now is, how do I pay for it?

**Just Ask.**

Definitely red instead of blue. I think stick, not automatic. Probably go with the optional stereo package and leather seats. There's only one thing I haven't figured out. How do I pay for it?



We started with a list of almost 50 schools. Narrowed it down to a dozen or so. Then my son was accepted by a couple of his top picks. Now I just have one question: How do I pay for it?



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