

through a cut or sore, they may cause human disease, infections or rashes.¹

Florida's Healthy Beaches Program

The Florida Healthy Beaches Program is located within the DOH.² Beginning with a 1998 pilot program, 11 Florida coastal counties began conducting beach water sampling every two weeks and reporting the results on the DOH website and in local news media. In August 2000, the beach water sampling program was expanded to include the 34 Florida coastal counties.³ In August 2002, the coastal counties began collecting weekly samples. The coastal beach water samples collected by the county health departments are analyzed for *enterococci* and *fecal coliform* bacteria. If bacteria counts exceed standards established by rule through the DEP, county health departments issue health advisories or warnings when these conditions are confirmed.

The DEP's Wastewater Compliance Evaluation Section

The DEP regulates wastewater treatment facilities in accordance with the statutory authority established in chapter 403, F.S., and the administrative rules which are codified in chapter 62 of the Florida Administrative Code. According to the DEP, wastewater facilities regulated by the DEP which collect and treat sewage generally pose the greatest threat of bacteria contamination of water sources. The majority of these types of facilities are owned and operated by municipal governments (utilities). These facilities, as part of their operating permit, are required to monitor and report effluent quality to the DEP on a regular basis.

These facilities are also inspected by the DEP on a routine schedule of generally, once per year. All wastewater facilities are required to immediately report any non-compliance, including any spills from their collection system, to the DEP and provide a written report within 5 days indicating the corrective actions taken to correct the violation. Immediate response to noncompliance by the permittee is essential, along with immediate notification to the appropriate state agencies. Facilities are able to provide this required notification by calling a 24-hour, toll free hotline operated by the State Warning Point (SWP). When a spill directly affects surface waters or if it poses a threat to the public health, then the SWP and/or DEP also notifies the DOH.

In cases where sewage treatment facilities are the source of bacteria contamination, it is most likely due to a non-compliance event of which the DEP is fully aware and is working towards resolution. Once properly resolved, the facility should no longer continue being a significant source of bacteria contamination. Other significant sources of bacteria which do not have nearly the amount of monitoring or oversight as the DEP has over wastewater facilities include privately owned septic tanks, marinas and storm water runoff. According to the DEP, either individually or combined, these minimally regulated sources make up the greater threat to our beach waters.

¹ Florida Healthy Beaches Program. Found at: <http://esetappsdo.h.doh.state.fl.us/irm00beachwater/terms.htm> (last visited on April 4, 2008).

² Florida Healthy Beaches Program. Found at: <http://esetappsdo.h.doh.state.fl.us/irm00beachwater/default.aspx> (last visited on April 4, 2008)

³ These counties include: Bay, Brevard, Broward, Charlotte, Citrus, Collier, Dixie, Duval, Escambia, Flagler, Franklin, Gulf, Hernando, Hillsborough, Indian River, Lee, Levy, Manatee, Martin, Miami-Dade, Monroe, Nassau, Okaloosa, Palm Beach, Pasco, Pinellas, St. Johns, St. Lucie, Santa Rosa, Sarasota, Taylor, Volusia, Wakulla, and Walton.

In terms of beach water contamination, the DEP sets standards for both *fecal coliform* and *enterococci* bacteria levels to determine whether health advisories should be issued. *Fecal coliform* has long been Florida's preferred indicator organism in both fresh and saltwater. The measurement of *fecal coliform* levels is used by the DEP to determine water quality in fresh, brackish and marine water environments. Under the DOH testing program, if a *fecal coliform* result is observed to exceed 399 colony forming units per 100 milliliters of beach water sampled and a resampling result also exceeds this value, then a health "Warning" would be issued for the sampling site.⁴

Based on recommendations by the United States Environmental Protection Agency (EPA), Florida's statewide testing program also includes testing for *enterococci*, which the EPA recommends states adopt as a saltwater quality indicator of water quality. According to studies conducted by the EPA, *enterococci* have a greater correlation with swimming-associated gastrointestinal illness in both marine and fresh waters than other bacterial indicator organisms, and are less likely to "die off" in saltwater. In Florida, if an *enterococci* result were observed to exceed 103 colony forming units per 100 milliliters of beach water sampled and a resampling result also exceeds this value, then an "Advisory" would be issued for the sampling site.

With the collection of weekly samples, the DEP program also calculates the geometric mean for *enterococci*. The geometric mean is a number calculated from five weeks of beach sample results, including any resampling that has taken place. As a result, it is an indication of average water quality conditions over that time period at that particular location. The EPA's increased illness risk estimates for bathers is based on the geometric mean exceeding 34 colony forming units per 100 milliliters of beach water sampled during this time frame.

III. Effect of Proposed Changes:

Section 1. Amends s. 514.023, F.S., to provide that when a health advisory that prohibits swimming in beach waters is issued by the DOH on the basis of the results of bacteriological sampling of waters or when the DOH rules or another law requires issuance of a health advisory that prohibits swimming in beach waters on the basis of such results, the Wastewater Compliance Evaluation Section of the DEP shall identify the source of the sewage contaminants.

Section 2. Creates an undesignated section of law that requires the DEP, within 5 days after discovering that a wastewater facility is in violation of part I of chapter 403, F.S., (relating to pollution control) to notify each county and municipality within a 5-mile radius of the facility. The notice must be provided in writing for each violation discovered.

Section 3. Provides that this act takes effect July 1, 2008.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

The provisions of this bill have no impact on municipalities and the counties under the requirements of Article VII, Section 18 of the Florida Constitution.

⁴ 100 milliliters is about 7 tablespoons of water.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

If sources of sewage are located, they can be corrected, and beach patrons would no longer be exposed to infectious disease organisms.

C. Government Sector Impact:

Department of Health

The DOH reports no fiscal effect.

Department of Environmental Protection

The bill would require the DEP to notify all municipalities and counties within a 5-mile radius of a wastewater facility when they report a violation of part 1 of chapter 403, F.S. This proposed language would result in a significant burden on DEP staff resources.

There are currently over 4,000 permitted wastewater facilities in the state of Florida. Potential violations are not restricted to just exceeding effluent quality standards, but may also be related to the permitting, operation and/or reporting requirements of chapter 403, F.S., and the rules promulgated by the DEP. The DEP has rules and mechanisms in place to receive notification from permittees about violations, and also to coordinate with other agencies, including the DOH, and local counties/municipalities when discharges from wastewater treatment plants may pose a threat to public health or the environment.

Based on the number of possible inspection sites, the DEP estimates total staffing needs for source identification are 16 FTEs (1 Environmental Administrator, 2 Environmental Managers, 1 Attorney, and 12 Environmental Specialist IIIs) and 1 OPS Database Architect for 1 year. Total estimated staffing needs for violation notification are 9 FTEs (1 Environmental Manager, 1 Data System Analyst, 1 GIS Data System Analyst, and 6 Data Entry Operators) and 3 OPS (1 Data Systems Programmer, 1 Database Architect and 1 Project Manager). Total staffing costs would be \$2,725,736.

<u>Staffing for Source Identification</u>	<u>Non-recurring</u>	<u>Recurring</u>
16 FTEs and 1 OPS (1 year)	\$528,208	\$1,482,420

<u>Staffing for Violation Notification</u> 9 FTEs and 3 OPS (1 year)	<u>Non-recurring</u> \$278,492	<u>Recurring</u> \$436,616
Totals:	\$806,700	\$1,919,036

VI. Technical Deficiencies:

None.

VII. Related Issues:

Page 1, line 29. The bill states that “when a health advisory that prohibits swimming” is issued by the DOH, the DEP must identify the source of the pollution. According to the DOH, the department’s Healthy Beaches program issues advisories that only alert the beach patrons that poor water quality has been found in bacteria tests and *swimming is not advised* to prevent contracting an illness. The advisories do not “prohibit swimming.” However, some local governments have taken the next step and prohibited swimming when the DOH posts an advisory, and this practice is reflected in this bill. The DOH program is modeled after and implemented using the U.S. Environmental Protection Agency’s national healthy beaches program protocols that require an advisory issuance, but not swimming prohibition.

VIII. Additional Information:

A. Committee Substitute – Statement of Substantial Changes:
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.

B. Amendments:

Barcode 959626 by Health Regulation on April 8, 2008:

Requires the Wastewater Compliance Evaluation Section of the DEP to investigate wastewater treatment facilities within 1 mile of a beach where the DOH issues a health advisory against swimming in beach waters on the basis of finding elevated levels of fecal coliform or enterococci bacteria in a water sample, to determine if the facility experienced an incident that may have contributed to the contamination. The DOH shall also notify the municipality or county in which the affected beach is located of the health advisory, and the DEP shall notify the municipality or county in which the affected beach is located of the results of such investigation.

Barcode 763372 by Environmental Preservation on April 17, 2008:

This amendment is, effectively, a strike-all to the previous amendment replacing the above language.

When a health advisory is issued against swimming in beach water on the basis of elevated levels of fecal coliform or enterococci bacteria, the Department of Health shall contemporaneously notify the relevant local government and the local office of the

Department of Environmental Protection. The DEP shall promptly investigate wastewater treatment facilities located within 1 mile of the affected beach to determine if the facility experienced an incident that contributed to the contamination. Following the investigation, the DEP shall notify the local government of the findings.

This Senate Bill Analysis does not reflect the intent or official position of the bill's introducer or the Florida Senate.
