# EPA's BEACH Report:
## Maryland 2010 Swimming Season

**May 2011**

## Introduction

The BEACH Act of 2000 requires that coastal and Great Lakes states and territories report to EPA on beach monitoring and notification data for their coastal recreation waters. The BEACH Act defines coastal recreation waters as the Great Lakes and coastal waters (including coastal estuaries) that states, territories, and authorized tribes officially recognize or designate for swimming, bathing, surfing, or similar activities in the water.

This fact sheet summarizes beach monitoring and notification data submitted to EPA by the State of Maryland for the 2010 swimming season.

Maryland Department of the Environment (MDE) works with local health departments and the Maryland Department of Health and Mental Hygiene (DHMH) Laboratory to enhance beach water quality monitoring and improve the public notification process for beach water quality in Maryland. MarylandHealthyBeaches.com provides location and notification information for each beach. This website also provides information to beachgoers about Maryland's Beaches Program and environmentally healthy practices at Maryland's beaches.

Water quality assessment begins prior to the beach season when local health departments collect water samples from beaches and perform beach Pollution Source Surveys to ensure that there are no nearby pollution sources that may adversely impact water quality. MDE provides local health departments with a recently developed technology-based data collection system to conduct beach Pollution Source Surveys.

Local health departments collect water quality samples from beaches before and during the beach season. These samples are sent to the DHMH Laboratory for analysis. Water quality results that exceed Maryland's water quality standards are immediately reported to local health departments so that beach managers can issue a notification if needed. MDE assembles and submits the monitoring and notification data to EPA.

In 2010, MDE worked with Salisbury University and Delaware Department of Natural Resources and Environmental Control to conduct a study to address questions about the degree to which populations of fecal indicator organisms found in sediment contribute to those found in beach water, and the length of time fecal indicator organisms found in sand can survive. The study also looked at the possibility for regrowth. The findings should be final by the summer of 2011.

**Figure 1. Maryland coastal counties.**

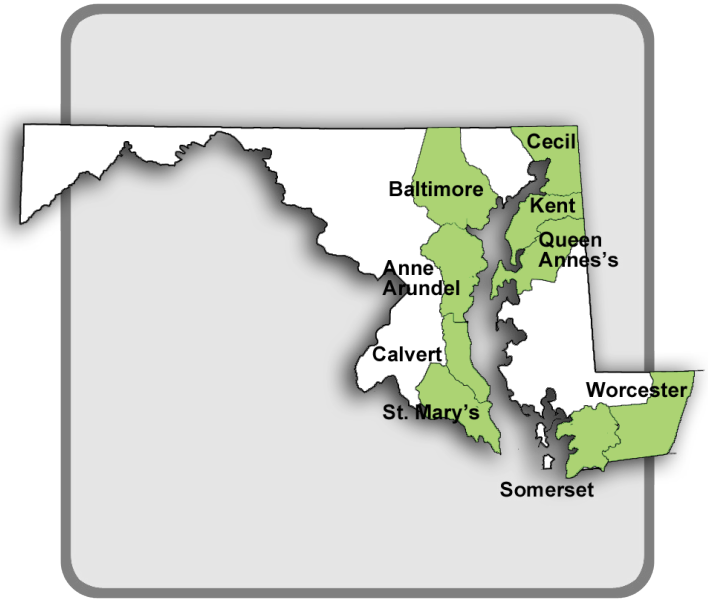


**Table 1. Breakdown of monitored and unmonitored coastal beaches by county for 2010.**

| County | Total Beaches | Monitored | Not Monitored |
|---|---|---|---|
| ANNE ARUNDEL | 28 | 28 | 0 |
| BALTIMORE | 4 | 4 | 0 |
| CALVERT | 10 | 10 | 0 |
| CECIL | 5 | 5 | 0 |
| KENT | 6 | 6 | 0 |
| QUEEN ANNE'S | 2 | 2 | 0 |
| SOMERSET | 2 | 2 | 0 |
| ST. MARY'S | 3 | 3 | 0 |
| WORCESTER | 10 | 10 | 0 |
| **TOTALS** | **70** | **70** | **0** |

## 2010 Summary Results

### *How many notification actions were reported and how long were they?*

When water quality standards are exceeded at a particular beach, Maryland issues a beach advisory that warns people to avoid contact with the beach water. A total of 16 monitored beaches had at least one advisory issued during the 2010 swimming season. Figure 2 presents a full breakdown of notification action durations.

### *What percentage of days were beaches under a notification action?*

For Maryland's 2010 swimming season, there were notifications reported about five percent of the time (Figure 3).

### *How do 2010 results compare to previous years?*

Table 2 compares 2010 notification action data with monitored beach data from previous years.

### *What pollution sources possibly affect investigated monitored beaches?*

Figure 4 displays the percentage of Maryland's investigated monitored beaches possibly affected by various pollution sources. In 2010, 100 percent of the beaches had unknown sources. When there is a known source of fecal indicator bacteria, such as septic tank leakage, local health departments are required to investigate and remediate these sources. The MDE Beach Program encourages people to pick up pet waste and to not feed birds or wildlife. If there is a sewer link leak or break, the beach is closed until water quality criteria are met.

## For More Information

For general information about beaches:
www.epa.gov/beaches/

For information about beaches in Maryland:
MarylandHealthyBeaches.com or http://www.mde.state.md.us/programs/Water/Beaches/Pages/BeachesHome.aspx

**Figure 2: Beach notification actions by duration.**

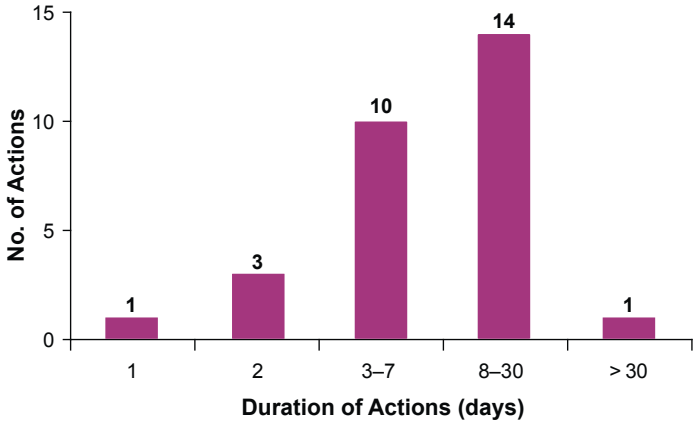


**Figure 3: Beach days with and without notification actions.**

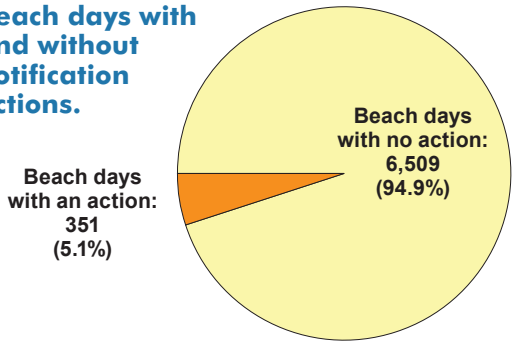


**Table 2. Beach notification actions, 2008–2010.**

| | 2008 | 2009 | 2010 |
|---|---|---|---|
| Number of monitored beaches | 71 | 70 | 70 |
| Number of beaches affected by notification actions | 10 | 9 | 16 |
| Percentage of beaches affected by notification actions | 14% | 13% | 23% |
| Percentage of beach days affected by notification actions | 1% | 2% | 5% |

**Figure 4: Percent of investigated monitored beaches affected by possible pollution sources (70 beaches).**