



EPA's BEACH Report: 2006 Swimming Season

May 2007

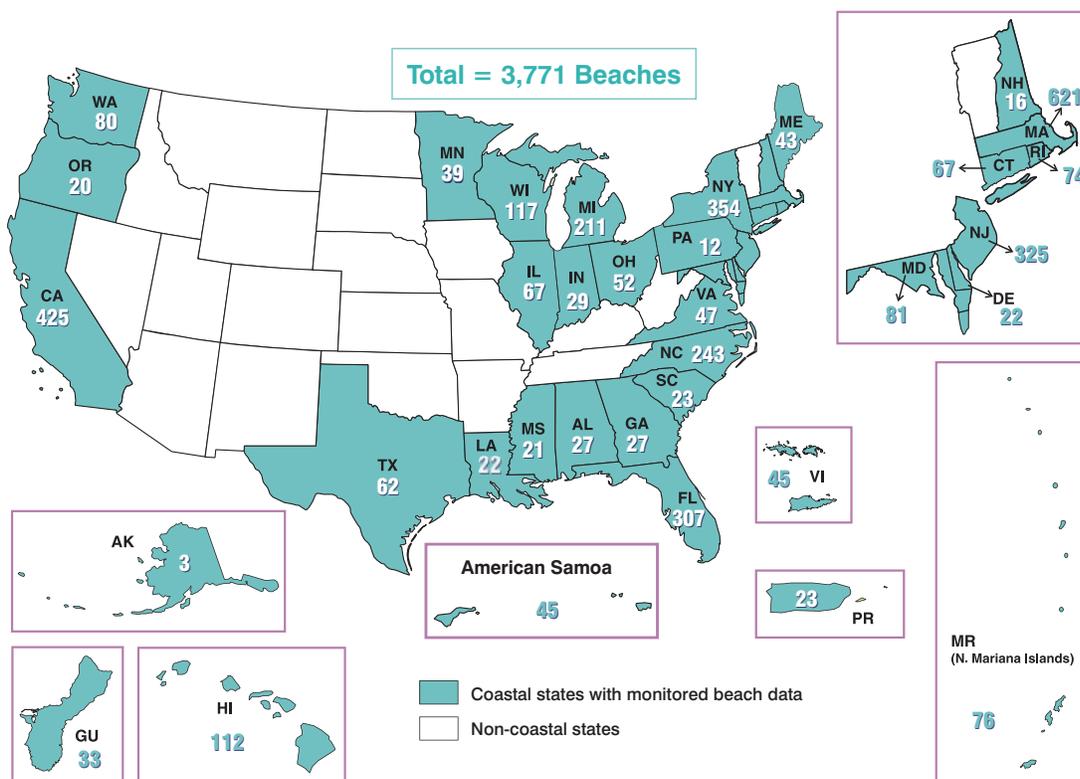
EPA 823-R-07-005

Introduction

To further its commitment to reducing the risk of exposure to disease-causing bacteria at recreational beaches, EPA is posting its latest data about beach closings and advisories for the 2006 swimming season. Congress passed the BEACH Act of 2000 (BEACH Act), requiring that coastal and Great Lakes states and territories report to EPA on beach monitoring and notification data for their coastal recreation waters. To help protect the public, the BEACH Act also requires EPA to maintain an electronic monitoring and notification database of that data.

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.

Figure 1. Coastal states with 2006 monitored beach data.



Results

When monitoring of water at swimming beaches shows that levels of certain indicator bacteria exceed standards, states or local agencies notify the public of potential health risks. These beach notification actions are usually either a beach advisory, warning people of possible risks of swimming, or closing a beach for public swimming. The data reported in this section consist primarily of actions issued as a result of local monitoring and localized precautionary advisories. Certain preemptive advisories that apply to large areas are not included in this presentation.

How many beaches had notification actions?

For the 2006 swimming season, all thirty coastal states and all five territories reported notification actions to EPA. Of the 3,771 coastal beaches that were monitored in 2006, 1,201 (32 percent) had at least one advisory or closing during the 2006 season (Figure 2). The increase from 27 percent of the beaches reporting notification actions in 2005 is partly a result of beach consolidation by several states. In re-evaluating their beach programs, several states combined small beaches into larger beaches, reducing the total number of beaches monitored, but maintaining the scope of their programs.

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

The majority of beach notification actions reported during the 2006 swimming season were of relatively short duration (Figure 3). Of the 6,786 notification actions reported, 47 percent (3,186 actions) were only one or two days long. This represents an improvement over 2005 when only 43 percent of the actions were just one or two days long.

What percentage of days were beaches under a notification action?

EPA calculates beach-days to get a better sense of the extent of beach notification action information. We do this by multiplying the number of beaches by the number of days in the swimming season. For 2006, EPA determined there were a total of 709,168 beach-days associated with the swimming seasons of 3,771 monitored beaches. Notification actions were reported on 34,358 days (Figure 4), meaning that beaches were under an advisory or closed about 5 percent of the time, similar to the previous two years.

Figure 2: No. of beaches with notification actions from 2004 to 2006.

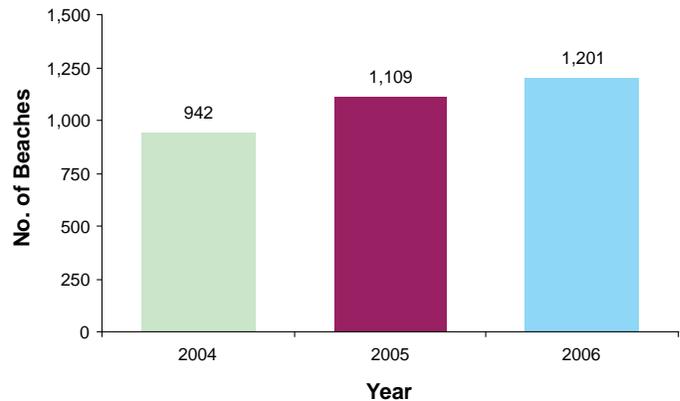


Figure 3: Duration of beach notification actions from 2004 to 2006.

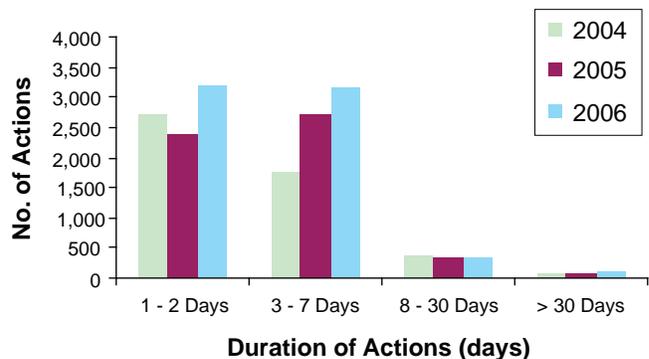
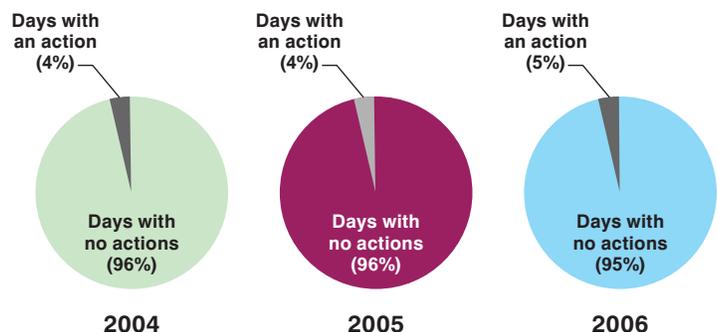


Figure 4: Percentage of beach days under notification actions from 2004 to 2006.



State Reporting Data

Data trends over the longer term are difficult to establish due to the new reporting requirements that began in 2003. The data from 2003 to 2006 cannot easily be compared to data gathered from 1997 to 2002. From 1997-2002 beach monitoring data was collected and submitted to EPA on a voluntary basis and included coastal, Great Lakes, and some inland waters. Beginning with the 2003 season, states are required to submit data to EPA under the BEACH Act for beaches which are in coastal and Great Lakes waters (Table 1). EPA is working to complete the data sets.

Table 1. Data collected on beaches, advisories, and closings.

	Voluntary Survey						Required Reporting			
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Number of monitored beaches	1,021	1,403	1,891	2,354	2,445	2,823	1,857*	3,574**	4,067	3,771
Number of beaches affected by advisories or closings	230	353	459	633	672	709	395*	942**	1,109	1,201
Percentage of beaches affected by advisories or closings	23	25	24	27	27	25	21*	26**	27	32

*Incomplete data from 11 states.

**Incomplete data from 4 territories.

Uniform Water Quality Standards

The BEACH Act of 2000 required coastal states and states bordering the Great Lakes to adopt EPA's most current recommended bacteria criteria to better protect beach bathers from harmful pathogens. On November 8, 2004, EPA finalized more protective bacteria standards for *E. coli* and enterococci for coastal and Great Lakes recreational waters for those states that had not yet complied with the BEACH Act of 2000. Twenty-one states and territories were affected by this rule; the other 14 had standards in place that were as protective of human health as EPA's most current bacteria criteria.

Funding to State Programs

For the past seven years, EPA has made available nearly \$62 million in grants to 35 coastal and Great Lakes states and territories. The funds are designed to help improve water monitoring and public information programs to alert beachgoers about the health of their beaches.

Beach water monitoring helps to ensure that the public receives information on how to protect their health when visiting beaches; results are used to issue warnings and closures if bacteria levels are at unsafe levels and to help identify actions needed to reduce pollution.

Report to Congress: Implementing the BEACH Act of 2000

In October 2006, EPA published its first Report to Congress detailing the Agency's efforts to implement the BEACH Act of 2000. The Report documents the significant progress that EPA and its federal, state, and local partners have made in implementing the BEACH Act. The Report to Congress is available on EPA's website, at <http://www.epa.gov/waterscience/beaches/report/>.

EPA's Efforts to Develop New or Revised Water Quality Criteria for Recreational Waters

EPA is working to develop new or revised water quality criteria for recreational waters. In March 2007, EPA held an Experts' Scientific Workshop on Critical Research Needs for Developing New or Revised Recreational Water Quality Criteria. EPA brought together 42 U.S. experts from EPA, other federal agencies, state and local governments, academia, industry, and environmental groups, along with several prominent international experts. They were asked to provide their individual expert input on the state of the science and the critical path research and science needs for developing new or revised 304(a) recreational water quality criteria in the near term (e.g., 5 years). An Experts' Report will be available in Summer 2007 detailing their recommendations for critical path research. The final report will be available on the EPA website at www.epa.gov/waterscience.

Planned Improvements

EPA is working proactively to improve the delivery of its beach advisory information to the public. BEACON (BEach Advisory and Closing Online Notification system) is part of EPA's overall "eBeaches" effort to provide the public with monitoring and notification information by electronic means. EPA is working to improve eBeaches to enable faster, easier, and more secure transmittal of information about beach water quality, including improved public access to information about beach conditions and the health risks associated with swimming in waters that exceed EPA's recommended criteria. EPA's goal is to improve the beach mapping functions by incorporating beach lengths.

For More Information

For general information about beaches visit:

<http://www.epa.gov/beaches/>

For information about a specific beach:

<http://www.epa.gov/waterscience/beacon/>