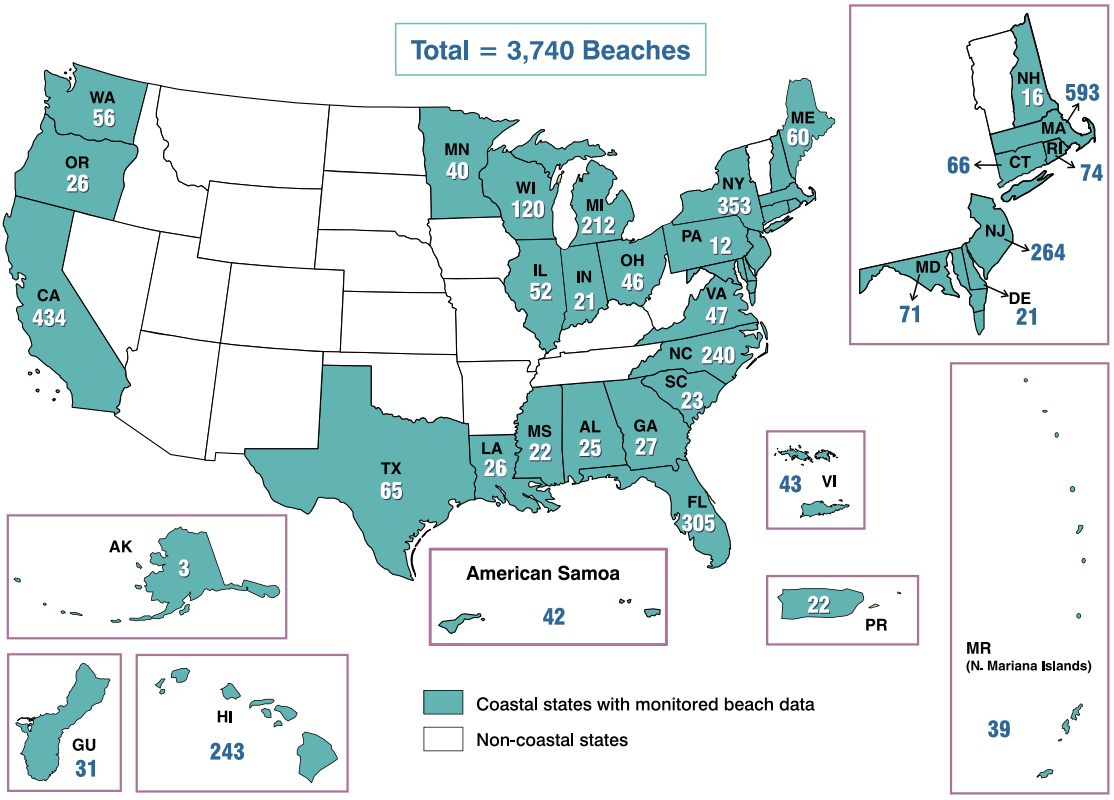
EPA's BEACH Report: 2008 Swimming Season

May 2009 **EPA 823-F-09-005**

Introduction

The Beaches Environmental Assessment and Coastal Health (BEACH) Act of 2000 authorizes EPA to provide grants to coastal and Great Lakes states, territories, and eligible tribes to monitor their coastal beaches for bacteria that indicate the possible presence of disease-causing pathogens, and to notify the public when there is a potential risk to public health. The BEACH Act requires that recipients of those grants report their coastal beach monitoring and notification data to EPA, and that EPA maintain an electronic database of that data, accessible to the public, so that they can make informed choices about where to swim. To further our commitment to reducing the risk of exposure to disease-causing pathogens at recreational beaches, EPA is posting the latest data about beach closings and advisories for the 2008 swimming season. This fact sheet also highlights recent developments in EPA's Beach Program.

Figure 1. Coastal states with 2008 monitored beach data.



2008 Swimming Season Results

When monitoring results at swimming beaches show that levels of certain bacteria in the water exceed standards, states and territories may notify the public by issuing a beach advisory, warning people of possible risks of swimming, or they may close a beach to public swimming. The data reported here consist primarily of precautionary advisories and closures issued as a result of local monitoring. Certain preemptive advisories that apply to large geographical areas are not included in this fact sheet.

How many beaches had notification actions?

For the 2008 swimming season, all 30 coastal states and five territories reported notification actions to EPA (Figure 1). In 2008, of the 3,740 coastal beaches that were monitored, 1,210 (32 percent) had at least one advisory or closure (Figure 2).

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

States and territories reported 5,400 notification actions during the 2008 swimming season. Most (91 percent) lasted a week or less (Figure 3). Sixty percent (3,222 actions) lasted just one or two days. This represents an improvement from 2007 when only 50 percent of the actions were limited to one or two days in length. In 2008, states and territories reported fewer weeklong advisories primarily due to a single state and single territory changing the way they manage their beaches. Instead of posting shorter-duration actions, they opted in 2008 to condense them into longer-term actions, resulting in 1,072 fewer 3–7 day advisories and 92 more advisories lasting longer than 30 days.

What percentage of days were beaches under a notification action?

EPA calculates the total available beach days and the number of beach days with advisories or closures to better track trends over time. To calculate total available beach days, we sum the length of each state's and territory's beach season multiplied by the number of beaches in the state or territory. For 2008, EPA determined there were a total of 714,070 beach days associated with the swimming seasons of 3,740 monitored beaches. Notification actions were reported on 34,296 days (Figure 4), meaning that beaches were under an advisory or closed about 5 percent of the time, similar to the previous two years (Table 1).

Figure 2: No. of beaches with notification actions from 2006 to 2008.

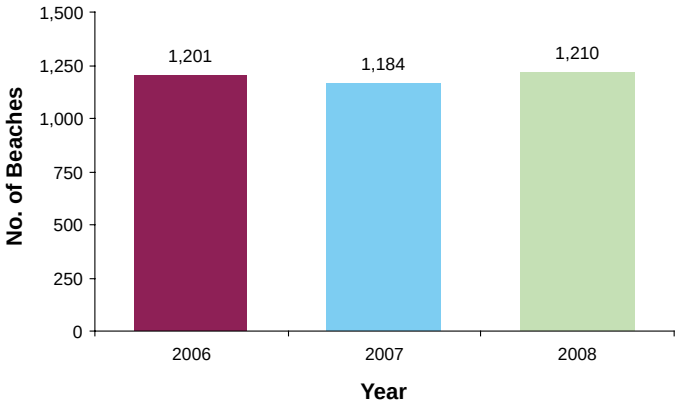


Figure 3: Duration of beach notification actions from 2006 to 2008.

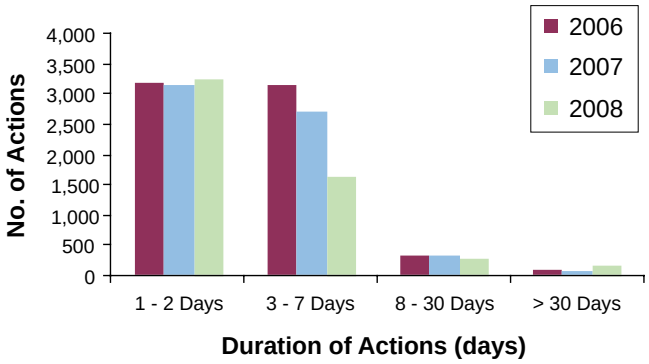


Figure 4: Percentage of beach days under notification actions from 2006 to 2008.

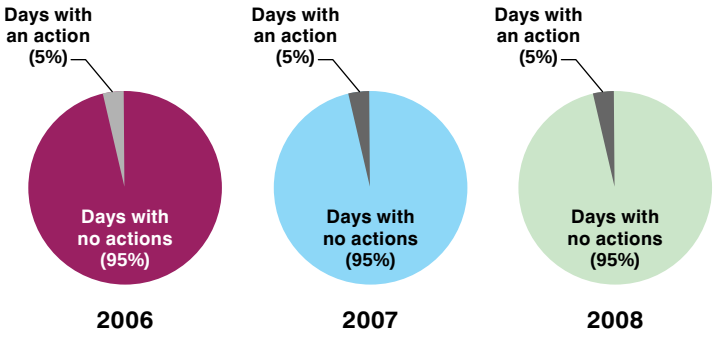


Table 1. Data collected on beaches, advisories, and closings.

	2003	2004	2005	2006	2007	2008
Number of monitored beaches	1,857*	3,574**	4,067	3,771	3,647	3,740
Number of beaches affected by advisories or closings	395*	942**	1,109	1,201	1,184	1,210
Percentage of beaches affected by advisories or closings	21%*	26%**	27%	32%	32%	32%
Percentage of beach days affected by advisories or closings	N/A	4%**	4%	5%	5%	5%

**Incomplete data from 11 states.*
***Incomplete data from 4 territories.*

EPA Beach Program Activities

Funding to State Programs

Since 2001, EPA has made available nearly $82 million in grants to 35 coastal and Great Lakes states and territories. For the last two years EPA has also made grants available to two tribes. 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 indicators of pathogens are at unsafe levels and to help identify actions needed to reduce pollution.

The Agency encourages eligible tribes to contact their Regional EPA beach coordinators to learn more about BEACH Act grants. For a list of Regional beach coordinators visit: **www.epa.gov/waterscience/beaches/contact.html**

Great Lakes Beach Sanitary Survey Tool

EPA finalized the Great Lakes Beach Sanitary Survey Tool in May 2008. The Tool helps beach managers in the Great Lakes identify sources of bacterial contamination at their beaches so that these sources can be corrected or cleaned up, and so that beach closures can be reduced or eliminated. Although the Beach Sanitary Survey Tool was developed for the Great Lakes, the concept is generally applicable in any beach environment, and has been successfully modified by some for use in marine waters (e.g., by the South Carolina beach program).

The Great Lakes Beach Sanitary Survey Tool includes two types of beach sanitary surveys—the Routine On-site Sanitary Survey and the Annual Sanitary Survey—to assist with short- and long-term beach assessments, respectively. The Routine On-site Sanitary Survey is performed at the same time that water quality samples are taken. The Annual Sanitary Survey records information about factors in the surrounding watershed that might affect water quality at the beach. Both surveys include forms to help document the information collected during the survey, and thus create for the first time a consistent and comparable data structure to diagnose the sources of fecal contamination that can impact public health at beaches.

For more information on the Tool visit: **www.epa.gov/waterscience/beaches/sanitarysurvey/**

For more information on South Carolina's Beach Program visit: **www.scdhec.gov/environment/water/beachmon.htm**

Development of New or Revised Water Quality Criteria for Recreational Waters

EPA is conducting critical science and research in order to publish new or revised recreational water quality criteria by October 2012. Of particular note, in the summer of 2009 EPA will be conducting two beach epidemiological studies, one in tropical waters and the other in marine waters impacted by urban runoff. EPA is also researching improved monitoring techniques such as rapid testing methods, compiling available predictive models, and investigating effective uses of sanitary surveys to diagnose and improve the health of beaches. The new or revised criteria recommendations EPA develops would replace the criteria recommendations issued in 1986 and will be used by states, tribes and territories in their adoption of new water quality standards to protect people from illness associated with fecal contamination in water.

Future Directions

EPA's Beach Program strives to ensure public health protection at beaches and to improve the accuracy and timeliness of notification actions. To support this goal, EPA sponsored the 2009 National Beach Conference April 20–22, 2009, in Huntington Beach, California. This three-day conference, *Riding the Wave of Emerging Science*, brought together researchers, practitioners, and policymakers from around the world to discuss water quality at beaches. Conference proceedings will be posted on our Web site, **www.epa.gov/waterscience/beaches/meetings/2009/**.

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/