

EPA's BEACH Watch Program: 1999 Swimming Season

Overview

EPA is releasing data from the third annual National Health Protection Survey of Beaches for the 1999 swimming season. State and local environmental and public health officials voluntarily returned information on water quality at 1,891 beaches, 35 percent more beaches than last year and approximately 50 percent more beaches than two years ago. The survey shows that 459 beaches (24 percent of the reported beaches) were affected by at least one advisory or closing. The 24 percent of beaches affected is essentially the same percentage reported over the last two years, indicating the continuing importance of monitoring and closing beaches when necessary. The leading reasons cited for water quality impairment at beaches were elevated bacteria levels and rain events (stormwater runoff). EPA established the Beaches Environmental Assessment, Closure and Health (BEACH) Program in 1997. The goal of the program is to significantly reduce the risk of waterborne illness to users of the nation's recreational waters through improvements in recreational water protection programs, public communication, and scientific advances in monitoring methods. This information is on the [Beach Standards, Monitoring, & Notification](#) website.

BEACH Watch Survey Findings

In the third year of EPA's BEACH Watch Survey, state and local environmental and public health officials from all coastal and Great Lake states reported on 1,891 beaches for the 1999 swimming season. The geographic participation of the reported beaches included 1,074 coastal beaches, 289 Great Lake beaches, and 528 inland beaches. When the 1999 survey data is compared to previous reporting data, state and local officials reported on 500 and 900 more beaches than the 1998 and 1997 swimming seasons respectively.

Annual Comparison of Survey Participation and Beach Advisory/Closure Data			
	1997	1998	1999
Total Number of beaches reported	1,021	1,403	1,891
Total Number of beaches affected by one or more advisories or closings	230	353	459
Percentage of all beaches affected by one or more advisories or closings	23%	25%	24%

Of the 1,891 beaches that were reported in the 1999 survey, 459 (24 percent) were affected by an advisory or closure. Compared to the previous 2 years, the percent of beaches which have been affected by at least one advisory or closing was approximately the same.

EPA recommends monitoring recreational water five times per month to calculate a five sample geometric mean for E. coli and enterococci. The monitoring data indicates that more uniform and extensive monitoring is needed at the Nation's beaches. The results of the survey showed beach monitoring programs are inconsistent:

- 62 percent of beaches were monitored at least once per week, if not more frequently
- 34 percent of beaches were monitored less than once per week.
- 4 percent of beaches were monitored only after a rain or episodic event (spill).

Sources of Beach Water Pollution

Beaches are polluted by a number of sources. Sewage treatment plant malfunctions, sewage overflows, boating wastes and leaking septic systems contribute to microbial contamination of beach water quality. Runoff containing sewage, animal waste, fertilizer, pesticides, trash and other pollutants from construction sites, farms, and urban sources (lawns and streets) during and after a heavy rain may also contribute to beach water quality impairment.

Human Health Effects of Swimming in Polluted Beach Water

Swimming in unsafe water may result in minor illnesses, such as sore throats or diarrhea or more serious illnesses such as meningitis, encephalitis, or severe gastroenteritis. Children, the elderly, and people with weakened immune systems have a greater chance of getting sick when they come in contact with contaminated water. EPA recommends that state and local officials monitor water quality and issue an advisory or closure when beaches are unsafe for swimming. By issuing beach advisories and closings, state and local officials are reducing swimmer exposure to contaminated water and protecting public health.

How Health Advisories are Issued at a Beach

The majority of U.S. beach advisories or closings are based on bacteria tests that indicate the presence of harmful bacteria, viruses, and other pathogens in beach water. When the test results show levels in excess of state water quality standards, the beach manager or public health official will post an advisory or closing. A beach advisory or closing may also be issued if water quality is expected to be temporarily impaired due to heavy rain or sewage spill.

EPA Programs Working to Improve Beach Water Quality

EPA is helping states set recreational water quality standards, based on EPA-established criteria, and helping states provide better monitoring and information to the public. EPA also funds research and provides technical support to states. This summer, EPA will propose tighter standards to reduce sewer overflows. EPA has recently completed its final storm water regulations to better control storm water runoff. Congress is currently considering a beach bill to provide funding to state and local governments to expand beach monitoring and notification programs.

Additional Beach Information

Information on water quality monitoring at a specific beach can be found on EPA's BEACON website or by contacting the city, county, or state public health or natural resource protection agency listed in a local telephone directory.

Visit the Beach Standards, Monitoring, & Notification website to learn more about other BEACH Program activities.