

State Summaries

The following pages contain the summaries of state beachwater quality standards, monitoring and closing/advisory practices, and NRDC's 2008 monitoring results and closings and advisories, listed alphabetically by state. *It is impossible to make direct comparisons between states or to assess trends over time on the basis of advisory and closure data.* Standards, monitoring, and closing/advisory practices vary from state to state, making it difficult to know, for example, whether a state with many closings has vigilant health officials or has more coastal pollution. High numbers of closings and advisories, while indicating pollution problems, may also indicate that the state or county is making a good effort to protect the public health by monitoring its waters and informing the public when they are polluted. States with comprehensive programs and closure practices should be commended for their efforts.

High numbers of closings and advisories may indicate that the state or county is making a good effort to protect the public health by monitoring its waters and closing beaches when they are polluted.

A more meaningful way of tracking the beachwater quality between states over time is to compare the percent of monitoring samples taken at each beach that exceed the BEACH Act daily maximum bacterial standard. For the fourth consecutive year, thanks to provisions of the BEACH Act that require the EPA to make beach monitoring data available from all states receiving BEACH Act grants, NRDC was able to provide these values for beaches in all 30 coastal and Great Lakes states. In the state summaries that follow, the state's national ranking in percent exceedances is based on BEACH Act-approved daily maximum standards for bacterial indicators during water-contact recreation. Thus, all monitoring samples were compared to the same standard to arrive at the national ranking. However, each state summary also includes a table listing each reported beach, its monitoring frequency, the total number of samples reported, and the percent of these samples that exceeded bacterial standards. The standards used to determine the percent exceedances in the tables in the state chapters are based on state standards that in some cases are different from the BEACH Act daily maximum bacterial standards.

NRDC included U.S. territories for the purpose of comparing total closing/advisory days with earlier years. However, we did not include them in the more detailed 2008 beach season analysis that follows in this chapter.

SOURCES OF INFORMATION

For the sixth consecutive year, our research for *Testing the Waters* is based primarily on the EPA's electronic reporting system designed to meet the requirements of federal BEACH Act grants given to all 35 coastal and Great Lakes states and territories. Information from the electronic reporting system has been supplemented by NRDC surveys of state and local officials. Beach monitoring coordinators in nearly every state cooperated with NRDC with a great deal of patience and grace and provided interesting and meaningful information for this report. NRDC is thankful for their time and their openness.

Unfortunately, the EPA's electronic data submission system continues to experience technical problems, resulting in delays in data availability and incomplete or inaccurate data. Therefore, NRDC requested 2008 beach season monitoring and closing/advisory data directly from the states. When states provided these data, NRDC used them; otherwise, we used monitoring data downloaded from the EPA's STORET website and closing/advisory data sent to us by the EPA. NRDC received monitoring data from 18 states (Alabama, Alaska, California, Connecticut, Hawaii, Illinois, Indiana, Maine, Maryland, Minnesota, New Hampshire, North Carolina, Oregon, Rhode Island, South Carolina, Texas, Virginia, and Washington) and downloaded data for 12 states from STORET (Delaware, Florida, Georgia, Louisiana, Massachusetts, Michigan, Mississippi, New Jersey, New York, Ohio, Pennsylvania, and Wisconsin). Eight states sent their closing/advisory data (Alabama, California, Illinois, Maine, Massachusetts, New Jersey, Pennsylvania, and Rhode Island) and the EPA sent the data for the remaining 22 states (Alaska, Connecticut, Delaware, Florida, Georgia, Hawaii, Indiana, Louisiana, Maryland, Michigan, Minnesota,

Mississippi, New Hampshire, New York, North Carolina, Ohio, Oregon, South Carolina, Texas, Virginia, Washington, and Wisconsin) and territories (Guam, Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands).

NRDC sent its analysis of these data as well as the narrative material for each state summary to the state for review and comment.

Many states have dedicated and talented individuals that work hard to improve their beachwater quality and to protect public health when beachwater quality is poor. States that do more than monitor their beachwater and issue closings and advisories should be recognized for their extra efforts. For the introduction to each state's program, NRDC asked the state beach program coordinators about additional efforts being taken in their state, such as projects to improve beachwater quality and studies undertaken to determine the sources of contamination at beaches that have ongoing water quality problems.

The state summaries are organized into sections as described below.

Standards

The presence of an indicator organism and the amount of the indicator organism that must be present before the state considers issuing beach closings and/or advisories are two important measures for determining the efficacy of beach monitoring programs.

Indicator Organisms: The EPA recommends, and the federal BEACH Act of 2000 requires, using the enterococcus indicator for marine waters and enterococcus or *E. coli* indicators for the Great Lakes and other freshwaters. These indicators provide the most reliable estimate currently available of the degree to which disease-causing organisms are present in the water. Monitoring programs in all states now test for enterococcus or *E. coli*. Some states test for bacterial indicators in addition to enterococcus and *E. coli*.

Standards: NRDC contacted the state beach coordinator in each of the 30 coastal and Great Lakes states to obtain updated information on bacterial standards that are applied when making beach closing and advisory decisions. Not all states apply the EPA-recommended standards for water-contact recreation at all of their beaches. Information about any use of predictive models and preemptive standards is included in this section.

Monitoring

Determination of Sampling Locations and Frequency: States were asked to verify the factors they used in determining which beaches to monitor and which beaches, if any, to monitor more frequently. They were also asked if any special efforts were made to sample near stormwater outfalls or other potential sources of contamination.

Practice: Each state was asked about their sampling practices: what depth of water, what time of day, what days of the week, and how much time elapses before sampling results are known.

Results: This section describes the number of beaches monitored at each monitoring frequency and gives the state's rationale for determining monitoring frequency. For the fourth year in a row, NRDC was able to provide the percent of samples that exceeded state standards. Information on monitoring frequency and percent exceedance are organized by county and beaches in decreasing order of percent exceedance. For this section, NRDC calculated percent exceedance by taking the number of samples exceeding the state's daily maximum standards and divided that number by the total number of samples collected during the calendar year (replicate samples on the same day are each counted as an individual sample). These exceedance determinations are used for tracking water quality over time; NRDC does not compare these calculations with specific beach closings or advisories..

Closings and Advisories

Closing and advisory issuance: This section describes how the state determines whether to issue a closing or advisory. Some states resample before issuing a closing or advisory, or take other factors, such as the presence of wildlife, into

account before issuing a closing or advisory when a sample exceeds standards. This section also contains information about how the public is notified when a closing or advisory is issued.

Reopening procedures: Information in this section includes whether the monitoring frequency is increased after a beach is closed or placed under advisory.

Number of closings and advisories: A complete picture of beach closings/advisories for all 30 U.S. coastal and Great Lakes states is provided in the state summaries and tables included in the following pages. Information on beach closings and advisories is organized alphabetically by county and beach name.

In an effort to be consistent in tabulating closings and advisories, NRDC used the following guidelines:

- Closings or advisories issued for an individual beach for one day are counted as one closing/advisory day.
- Extended closings/advisories are those lasting more than 6 to 13 consecutive weeks.
- Permanent closings/advisories include those lasting longer than 13 consecutive weeks, as well as standing advisories that warn against swimming whenever certain conditions occur, such as a heavy rainfall or stormdrain flow.
- If a reported advisory at a specific beach overlapped with a general rain advisory that applied to all beaches within the same jurisdiction, the overlapping days were subtracted from the advisory for that specific beach to avoid double counting. However, if a specific beach was closed during a general rain advisory, NRDC did not modify the reported duration. Individual and total beach closing and advisory information is included in each state summary.
- Reported closing/advisory days include only events lasting six consecutive weeks or less.

Example: 2008 Beach Closings/Advisories

County	Beach Name	Start Date	End Date	Reason	Source
Jones	East Beach	6/6	6/7	Preempt-rain	Combined-sew-over
Jones	Long Beach	5/5	5/9	Bacteria	Unknown
Smith	North Beach	5/11	6/30	Preempt-sew	Sew-break
Smith	West Beach	1/1	12/31	Bacteria	Septic, Stormwater, Wildlife

Explanation of Frequently Used Terms: *Combined-sew-over*, combined sewer overflow; *Preempt-rain*, preemptive due to heavy rainfall; *Preempt-sew*, preemptive due to sewage discharge or spill; *Sew-break*, sewer line blockage/break.

Causes of closings and advisories: The EPA asks states to report a cause and a source for each closing and advisory event. This information is given in this section. In 2008, some states began systematically reporting factors important in diagnosing sources of contamination at some of their monitored beaches to the EPA based on sanitary surveys. Results from this initial reporting effort are not included in the state summaries in this chapter as they are incomplete.

Explanation of Frequently Used Terms in Beach Closing/Advisory Tables

Causes	Sources
<p>Preempt-other: Preemptive due to reasons not listed here</p> <p>Preempt-rain: Preemptive due to rainfall</p> <p>Preempt-model: Preemptive due to results of predictive computer model</p> <p>Preempt-sew: Preemptive due to sewage discharge or spill</p> <p>Preempt-sick: Preemptive due to illness outbreak</p>	<p>Boat: Boat discharge</p> <p>Comb-sew-overflow: Combined sewer overflow</p> <p>POTW: Publicly owned treatment works</p> <p>RivCrk: Rivers, creeks, and lagoons opening onto beaches</p> <p>Sanitary-sew-over: Sanitary sewer overflow</p> <p>Sew-break: Sewer line blockage/break</p> <p>Sew-discharge: Sewage discharge</p> <p>Sew-pump: Sewage pump station failure</p> <p>Other: Strong waves or wind, chemical spills, no lifeguard, jellyfish, etc.</p>