EPA's BEACH Report:
North Carolina 2009 Swimming Season

May 2010

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 North Carolina for the 2009.

The North Carolina Department of Environment and Natural Resources' Division of Environmental Health administers the Recreational Water Quality Program, which monitors the coastal waters along North Carolina. The 320 miles of ocean coastline and 2.2 million acres of estuarine waters consisting of coastal rivers, bays and sounds give residents and visitors many recreational areas for swimming and water play.

North Carolina's coastal recreational waters are known for their pristine water quality; however, frequent monitoring is important to keep the public informed about any localized problems that may occur. The Recreational Water Quality Program monitors 241 sites along the coast and in 2009 collected 6,289 water samples for recreational waters, most of them on a weekly basis during the swimming season, April through October. North Carolina's ocean beaches rarely have swimming advisories and in 2009 only two out of the 24 swimming areas under advisory was an ocean beach. The other 22 swimming areas were located on sounds and rivers where storm water or the lack of tidal exchange often contributes to poor water quality.

Figure 1. North Carolina coastal counties.

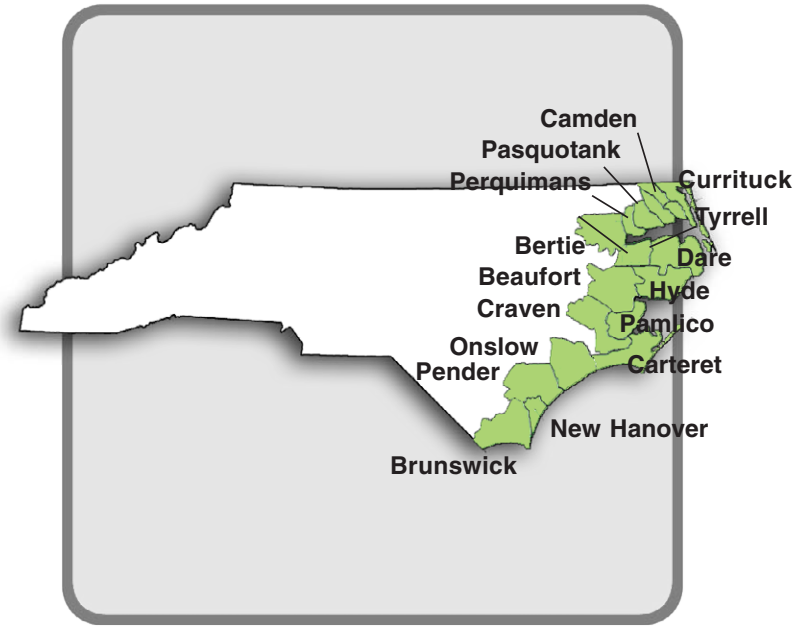

Table 1. Breakdown of monitored and unmonitored coastal beaches by county by 2009.

County	Total Beaches	Monitored	Not Monitored
BEUFORT	11	11	0
BERTIE	1	1	0
BRUNSWICK	39	39	0
CAMDEN	2	2	0
CARTERET	53	53	0
CHOWAN	1	1	0
CRAVEN	8	8	0
CURRITUCK	9	9	0
DARE	57	57	0
HYDE	5	5	0
NEW HANOVER	21	21	0
ONSLOW	16	16	0
PAMLICO	9	9	0
PASQUOTANK	1	1	0
PENDER	6	6	0
PERQUIMANS	1	1	0
TYRRELL	1	1	0
TOTALS	**241**	**241**	**0**

2009 Summary Results

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

When water quality standards are exceeded at a particular beach, North Carolina's approach is to issue a swimming advisory that warns people to avoid contact with the ocean water. A total of 24 monitored beaches had at least one advisory issued during the 2009 swimming season. About 57 percent of North Carolina's 35 notification actions lasted only one day. Figure 2 presents a full breakdown of notification action durations.

What percentage of days were beaches under a notification action?

For North Carolina's 2009 swimming season, actions were reported less than 1 percent of the time (Figure 3).

How do 2009 results compare to previous years?

Table 2 compares 2009 notification action data with monitored beach data from previous years.

What pollution sources possibly affect investigated monitored beaches?

Figure 4 displays the percentage of North Carolina's investigated monitored beaches possibly affected by various pollution sources. In 2009, 63 percent of the sound-side beaches identified storm related runoff as a possible source of pollution.

For More Information

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

For more information concerning North Carolina's beaches, please visit:
www.deh.enr.state.nc.us/shellfish/Water_Monitoring/RWQweb/home.htm.

Figure 2: Beach notification actions by duration.

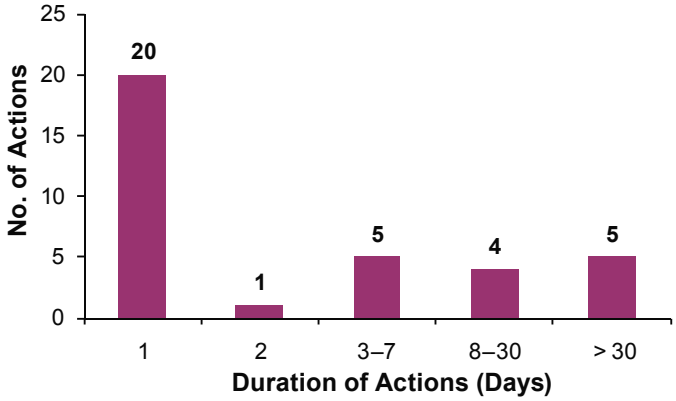

Figure 3: Beach days with and without notification actions.

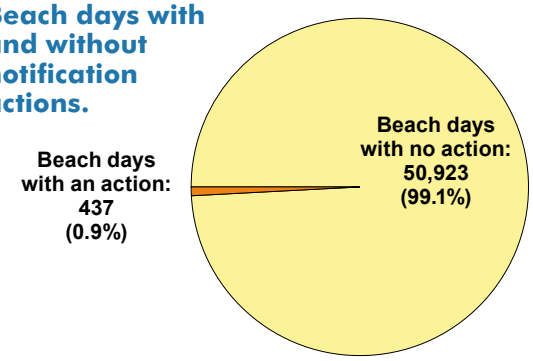

Table 2. Beach notification actions, 2007–2009.

	2007	2008	2009
Number of monitored beaches	243	240	241
Number of beaches affected by notification actions	13	19	24
Percentage of beaches affected by notification actions	5%	8%	10%
Percentage of beach days affected by notification actions	0.4%	0.3%	0.9%
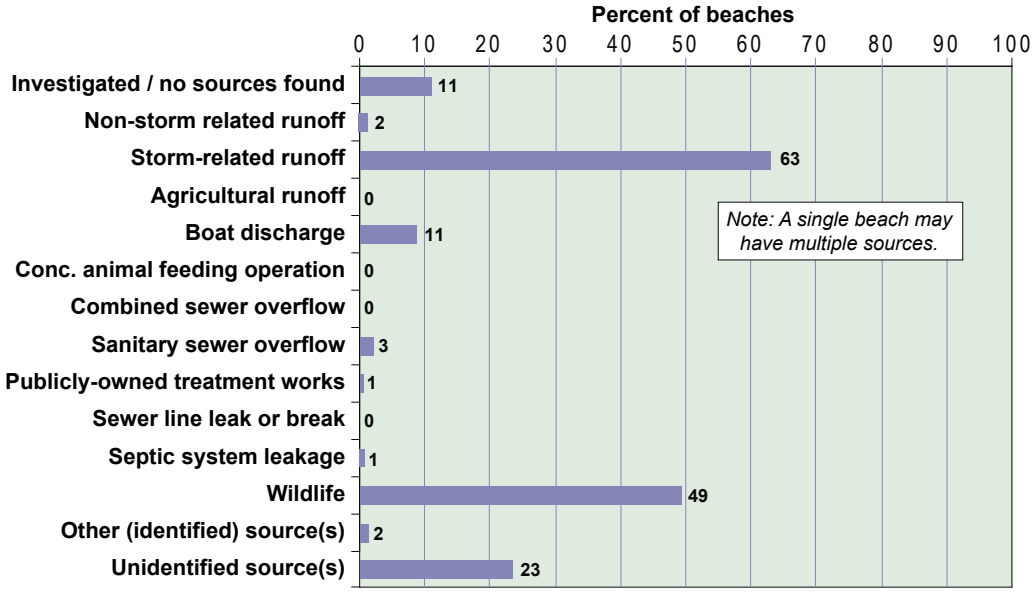
Figure 4: Percent of investigated monitored beaches affected by possible pollution sources (241 beaches).