



GEORGIA

8th in Beachwater Quality

5% of samples exceeded national standards in 2010

Polluted urban and suburban runoff is a major threat to water quality at the nation's coastal beaches. Runoff from storms and irrigation carries pollution from parking lots, yards, and streets directly to waterways. In some parts of the country, stormwater routinely causes overflows from sewage systems. Innovative solutions known as green infrastructure enable communities to naturally absorb or use runoff before it causes problems. The U.S. Environmental Protection Agency is modernizing its national rules for sources of runoff pollution and should develop strong, green infrastructure-based requirements.

Georgia has 41 public beaches along 118 miles of Atlantic Coast and barrier islands. The Coastal Resources Division of the Georgia Department of Natural Resources administers Georgia's beach monitoring and notification program.

Oyster reefs, which once covered the Georgia coastline, have been devastated by pollution, overharvesting, and disease. It's difficult to estimate the previous extent of the reefs, but information on commercial harvesting rates offers an idea of how much has been lost. In 1908 Georgia harvested 3.6 million kg of oyster meat; a century later less than 6,000 kg were harvested.¹ Oyster reefs play an important role in the health of estuaries, providing erosion control, water filtration, food production, and spawning and breeding habitat for many fish species, and Georgia is conducting projects to restore the reefs. These efforts are at present focused on existing boat ramps and are motivated largely by the need to reduce coastal erosion and provide bank stability, but they are expected to have beneficial effects on beachwater quality as well. Oyster reef restoration is accomplished by providing hard surfaces in the intertidal zone where oyster spat can attach and mature.

Monitoring Results

In 2010 Georgia reported 41 coastal beaches. Of these, 17 (41%) were monitored once a week, 9 (22%) once a month, and 1 (2%) less than once a month; 14 (34%) were not monitored. For this section of the report, NRDC looked at the percent of monitoring samples that exceeded the state's daily maximum bacterial standards (all reported samples were used to calculate the 2010 percent exceedance rates, including duplicate samples and samples taken outside the official beach season, if any). In 2010, 5% of all reported beach monitoring samples exceeded the state's daily maximum bacterial standards. The beaches with the highest percent exceedance rates in 2010 were St. Andrews Picnic Area (Jekyll) (22%) and Jekyll Clam Creek (19%) in Glynn County, and Tybee Island Polk Street in Chatham County (12%).

Glynn County had the highest exceedance rate (6%) in 2010, followed by Chatham County (3%); there were no exceedances in McIntosh County. No beaches in Liberty or Camden counties were monitored.

Sampling Practices: Most of the monitored beaches are sampled year-round. In 2010, beaches that were monitored, but not year-round, were sampled from April through October.

The Coastal Resources Division determines sampling practices, locations, standards, and notification protocols and practices throughout the state. Samples are taken in about 3 feet of water (measured from wavetop) at a depth of 15 to 30 centimeters. Beaches that have large populations nearby, have tourist accommodations, are easily accessible, and have the most amenities are monitored the most frequently.

KEY FINDINGS IN GEORGIA

Beachwater Contamination

(% of samples exceeding state standards in 2010)

- St. Andrews Picnic Area (Jekyll) in Glynn County (22%)
- Jekyll Clam Creek in Glynn County (19%)
- Tybee Island Polk Street in Chatham County (12%)

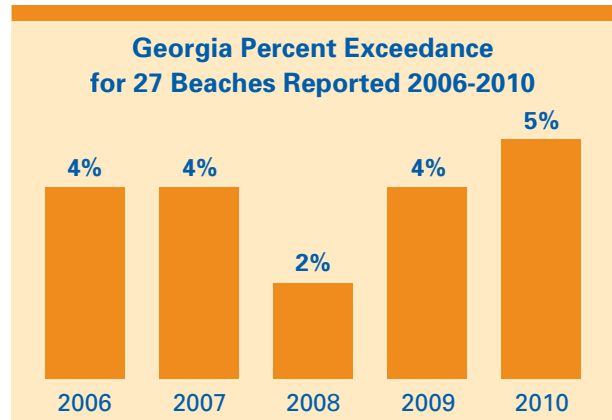
Reported Sources of Beachwater Contamination Statewide (number of closing/advisory days)

- 217 days (100%) unknown sources of contamination

The monitoring frequency for a beach increases when an exceedance occurs. States that monitor more frequently after an exceedance is found will tend to have higher percent exceedance rates and lower closing/advisory days than they would if their sampling frequency did not increase after an exceedance was found.

Advisories

Total advisory days for 32 events lasting six consecutive weeks or less increased 4% in 2010, to 217 from 209 days in 2009. For prior years, there were 72 advisory days in 2008, 181 days in 2007, 203 days in 2006, and 528 days in 2005. In addition, there were 2 extended events (105 days total) and 1 permanent event (365 days) in 2010. Extended events are those in effect more than six weeks but not more than 13 consecutive weeks; permanent events are in effect for more than 13 consecutive weeks. All advisory days in 2010 were due to monitoring that revealed elevated bacteria levels.



Standards and Procedures: Georgia’s beachwater monitoring program issues advisories only. Georgia applies the EPA standard for enterococcus of a single-sample maximum of 104 cfu/100 ml and a 30-day five-sample geometric mean of 35 cfu/100 ml.

When either the single-sample or geometric mean standard is exceeded, the Coastal Resources Division notifies the Georgia Department of Health and the local beach management entity. Upon receiving this notification, the local beach management entity issues an advisory. There is no protocol for forgoing an advisory when an exceedance is found, and resampling to confirm an exceedance is not done before an advisory is issued.

The state has concluded that its beachwater quality does not appear to correlate strongly with any measured parameters, including rainfall.² Therefore, Georgia has no preemptive rainfall advisory standards and does not make use of predictive models for issuing beach advisories. However, permanent advisories are issued for beaches that have ongoing water quality issues. For example, Kings Ferry has been under permanent advisory since 2006.¹



An oyster reef in the making after only two growing seasons in Belleville, Georgia.

The Health Department can issue a closing in the case of an immediate threat to public health, such as a sewage spill.

A volunteer network monitors phytoplankton in Georgia’s estuaries, providing information necessary in the event of a harmful algal bloom.

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Georgia 2010 Monitoring Results and Closing or Advisory Days					
Beach	Tier	Assigned Monitoring Frequency	Total Samples	% of Samples Exceeding State Standards	Closing or Advisory Days
Camden County					
Cumberland	3	none	0	NA	0
Little Cumberland	3	none	0	NA	0
Chatham County					
Bradley (Ossabaw)	2	1/mo	7	0%	0
Kings Ferry	2	4/yr	4	75%	0 (364)*
Little Tybee Island	3	none	0	NA	0
Middle Ossabaw	3	none	0	NA	0
Skidaway Narrows	2	1/mo	7	0%	0
South Ossabaw	2	1/mo	7	0%	0
Tybee Island Middle	1	1/wk	51	0%	0
Tybee Island North	1	1/wk	51	0%	0
Tybee Island Polk Street	1	1/wk	58	12%	23
Tybee Island South	1	1/wk	51	0%	0
Tybee Island Strand	1	1/wk	51	0%	0
Wassaw Island	3	none	0	NA	0
Williamson Island	3	none	0	NA	0
Glynn County					
12 Street Goulds Inlet (Ssi)	1	1/wk	53	4%	4
4H Camp (Jekyll)	1	1/wk	52	2%	2
5th Street Crossover (Ssi)	1	1/wk	51	0%	0
Blythe Island Regional Park Sandbar	2	1/mo	8	13%	7
Capt. Wylly (Jekyll) Near Beachview	1	1/wk	52	2%	2
Convention Center (Jekyll)	1	1/wk	51	0%	0
East Beach Old Coast Guard (Ssi)	1	1/wk	52	4%	7
Jekyll Clam Creek	1	1/wk	68	19%	32 (105)*
Jekyll North At Dexter Lane	1	1/wk	52	2%	2
Little Street Simons	3	none	0	NA	0
Massengale (Ssi)	1	1/wk	52	2%	2
Pelican Spit (Off Sea Island)	3	none	0	NA	0
Rainbow Bar (Little Ssi)	3	none	0	NA	0
Reimolds Pasture (Little Ssi)	2	1/mo	8	25%	15
Sea Island North	2	1/mo	7	0%	0
Sea Island South	2	1/mo	7	0%	0
South Dunes (Jekyll)	1	1/wk	51	2%	7
St. Andrews Picnic Area (Jekyll)	1	1/wk	69	22%	114
St. Simons Island Lighthouse	1	1/wk	51	0%	0
Liberty County					
St. Catherines Island	3	none	0	NA	0

Beach	Tier	Assigned Monitoring Frequency	Total Samples	% of Samples Exceeding State Standards	Closing or Advisory Days
McIntosh County					
Blackbeard Island	3	none	0	NA	0
Cabretta (Sapelo)	3	none	0	NA	0
Contentment Bluff Sandbar	2	1/mo	7	0%	0
Dallas Bluff Sandbar	2	1/mo	7	0%	0
Nanny Goat (Sapelo)	3	none	0	NA	0
Wolf Island	3	none	0	NA	0

*Reported closing or advisory days are for events lasting six consecutive weeks or less. Number of days in parentheses are for events lasting more than six consecutive weeks.

NOTES

- 1 Power, A., B. Corley, D. Atkinson, R. Walker, D. Harris, J. Manley, T. Johnson. "A Caution Against Interpreting and Quantifying Oyster Habitat Loss From Historical Surveys." *J of Shellfisheries Res.* Dec. 2010.
- 2 Elizabeth Cheney, Beach Water Quality Manager, Georgia Department of Natural Resources, personal communication, April 2011.

Testing the Waters 2011 reflects data as of June 27, 2011.