



NJ Department of Environmental Protection
Water Monitoring and Standards
Bureau of Marine Water Monitoring

COOPERATIVE COASTAL MONITORING PROGRAM Summary Report for 2011



March 2012

State of New Jersey
Chris Christie, Governor
Kim Guadagno, Lt. Governor

NJ Department of Environmental Protection
Bob Martin, Commissioner

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New Jersey Department of Environmental Protection

Water Resources Management
Michele Siekerka, Assistant Commissioner

Water Monitoring and Standards
Jill Lipoti, Director

Bureau of Marine Water Monitoring
Bruce Friedman, Bureau Chief

March 2012

Report prepared by:

Virginia Loftin, Program Manager
Cooperative Coastal Monitoring Program
Bureau of Marine Water Monitoring

Cover Photo – New Jersey Coastline (photo by Steve Jacobus, NJDEP)

Introduction

The Cooperative Coastal Monitoring Program (CCMP) is coordinated by the New Jersey Department of Environmental Protection's Bureau of Marine Water Monitoring. The CCMP assesses coastal water quality and investigates sources of water pollution. The information collected under the CCMP assists the DEP in responding to immediate public health concerns arising from contamination in coastal recreational bathing areas. Agencies that participate in the CCMP perform sanitary surveys of beach areas and monitor concentrations of bacteria in nearshore ocean and estuarine waters to assess the acceptability of these waters for recreational bathing. These activities and the resulting data are used to respond to immediate public health concerns associated with recreational water quality and to eliminate the sources of fecal contamination that impact coastal waters. Funding for the CCMP comes from the NJ Coastal Protection Trust Fund and the United States Environmental Protection Agency (EPA) Beaches Environmental Assessment and Coastal Health (BEACH) Act grants. BEACH Development and Implementation grants were awarded in the years 2001 through 2011. DEP designs the beach sampling and administers the communication, notification and response portion of the CCMP. A portion of the BEACH grant funds are passed through to the four county health departments participating in the CCMP who perform the weekly sample collection and analysis. The participating agencies are:

Atlantic County Health Department
Cape May County Health Department
Monmouth County Health Department
Ocean County Health Department

Additional assistance is provided by the following agencies:

Atlantic City Health Department
Long Beach Township Health Department
Long Branch Health Department
Middletown Health Department
Monmouth County Regional Health Commission
New Jersey Department of Health and Senior Services

As part of this program, DEP routinely inspects the 17 wastewater treatment facilities that discharge to the ocean (Appendix 1). DEP also performs aerial surveillance of New Jersey nearshore coastal waters and the Hudson-Raritan estuaries six days a week (May to September) to observe changing coastal water quality conditions and potential pollution sources.

CCMP Procedures

Chapter IX of the State Sanitary Code N.J.A.C. 8:26 and the DEP *Field Sampling Procedures Manual* prescribe the sampling techniques and beach opening and closing procedures the agencies use for the CCMP. The agencies perform routine sampling from mid-May through mid-September on Mondays. Samples are analyzed for enterococci concentrations using DEP-certified laboratories for EPA approved methods; analyses provide results within 24 hours of sampling. Counties submit water monitoring data to DEP in electronic format after each sampling event through the use of DEP's web-based Beach Monitoring System. In 2008, DEP began transferring monitoring and beach closing notification data to EPA via the WQX data system.

The CCMP included water quality monitoring at 183 ocean and 43 bay stations in 2011. Station locations coincided with recreational swimming beaches. Recreational stations are sampled to assess trends and to protect recreational bathers from elevated levels of bacteria. Most ocean beach monitoring stations are selected because of their proximity to other similar recreational beaches and the lack of specific pollution sources. The sample results from these beaches are intended to evaluate the water quality at several lifeguarded beaches in an area rather than just one lifeguarded beach. Other ocean beaches are assigned monitoring stations when effects from potential pollution sources are possible. A monitoring station is assigned at each recreational bay

beach because of their noncontiguous locations.

Recreational beaches, both ocean and bay, are subject to opening and closing procedures of the State Sanitary Code and therefore, must be resampled when during routine sampling, bacteria concentrations exceed the primary contact standard. In the years prior to 2004, the primary contact standard was 200 fecal coliforms per 100 mL of sample. Studies performed by EPA determined that enterococci bacteria have a greater correlation with swimming-associated gastrointestinal illness in marine waters than fecal coliform bacteria. In 2004, the State Sanitary Code was amended and the primary contact standard changed to 104 enterococci bacteria per 100 mL of sample. Consecutive samples that exceed the standard require the closing of the beach until a sample is obtained that is within the standard. When high bacteria concentrations are recorded at an ocean station, the sampling is extended linearly along the beach to determine the extent of the problem and the pollution source. This “bracket sampling” can result in an extension of the beach closing to contiguous lifeguarded beaches. Sampling is always performed in conjunction with a sanitary survey, which includes identifying possible pollution sources and observing water and shoreline conditions.

Health or enforcement agencies may close beaches at any time at their discretion to protect the public’s health and safety. Swimming advisories may be issued at any beach with initial sample results exceeding the standard. In 2011, Monmouth County was the only county to issue swimming advisories.

2011 Beach Closings and Actions

The participating health agencies closed 87 ocean and 29 bay beaches in the 2011 summer season, a 29% increase in beach closings over the previous year. The increased number of closings can be attributed to a relatively wet summer with an increase in precautionary “rain provisional” beach closings at beaches with established rainfall thresholds. Beach closings can be based on measured bacteria levels exceeding the standard or as a precautionary measure in response to an environmental condition, including floatables. Of the four coastal counties participating in the CCMP, only Monmouth County issues bathing advisories at beaches when initial sample results exceed the water quality standard. Beach conditions, advisories and beach closings, and the reasons for beach closings were posted on the DEP web page (www.njbeaches.org) and on the DEP Sandline (800-648-SAND) each day. Additionally, when beach closings were necessary, the county or local health agency posted “No Swimming” signs at the beach. Signs remained posted until the swimming ban was lifted. Detailed beach closing and advisory information for 2011, including the specific beaches closed and reasons for the closings for this period, are presented in Appendix 2. Table 1 below presents the numbers of closings and advisories from 2002 through 2011.

Table 1: Numbers of Ocean and Bay Beach Actions

Ocean	<u>2002</u> ¹	<u>2003</u>	<u>2004</u> ²	<u>2005</u>	<u>2006</u>	<u>2007</u> ³	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>
closed for bacteria	0	9	17	7	18	0	1	6	0	3
precautionary closing	16	58	42	50	79	85	45	111	64	84
# Rainfall Provisional Beaches	2	2	2	3	3	4	4	4	4	4
closed for floatables	0	13	0	0	0	4	120 ³	0	0	0
advisories ⁴	n/a	n/a	n/a	n/a	n/a	n/a	n/a	7	17	15
Total ocean beach actions	16	80	59	57	97	89	158	117	81	102
Bay	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>
closings for bacteria	7	82	89	4	27	35	30	32	7	8

precautionary closing	8	26	20	18	10	18	13	24	20	21
# Rainfall Provisional Beaches	1	1	1	1	1	1	2	2	2	2
closed for floatables	0	0	0	0	0	0	0	0	0	0
advisories ⁴	n/a	0	1	1						
Total bay beach actions	15	108	109	22	37	53	43	56	27	30

1 Precautionary rainfall-related beach closing policy implemented for two Spring Lake beaches. Two additional ocean and two bay beaches added to policy in subsequent years.

2 Indicator changed from fecal coliform to enterococci in 2004

3 A criminal medical waste dumping event was responsible for 120 ocean beach closings

4 Two Monmouth County health agencies added swimming advisory policies late in the 2009 bathing season

Closings include those required for consecutive high fecal coliform or enterococci concentrations and by health agency discretion due to public health concerns. The large majority of the closings in the above-listed years were related to contaminated stormwater (actual or potential). Beach closings due to wash ups of floatable debris have been fairly uncommon. In 1990, floatable debris was responsible for a total of 10 separate beach closings. In the following 12 years, no closings had been due to floatables; however, in 2003, 13 separate closings and in 2007 four closings were due to reported wash ups of trash and debris. In 2008, a criminal medical waste dumping event was responsible for 120 ocean beach closings. Bay beaches are rarely affected by washups of floatable debris.

In 2002, the Monmouth County Health Department implemented a precautionary rainfall beach closing procedure which is in effect at beaches with known and identified sources of potential contamination. Precautionary beach closings after significant rainfall at these locations are more protective of public health since there is no need to wait for laboratory results from water quality sampling. The bathing public is protected from exposure to potentially contaminated stormwater by this approach. Since 2002, a total of four ocean beaches and two bay beaches in Monmouth County have been identified as rain provisional beaches, which accounts for the increase in beach closing numbers at ocean and bay beaches.

The CCMP does not record closings related to rough seas, beach maintenance projects, shark sightings, and fish and clam wash ups. The CCMP also does not include those closings that are briefly in effect during the assessment of water conditions by local officials. Only those beach closings ordered by local health officials are included.

The ocean beaches of Spring Lake have been particularly affected by the stormwater impact on the Wreck Pond discharge. As mentioned above, in 2002, a precautionary beach closing plan was implemented in Spring Lake. It requires that the two beaches north of the Wreck Pond outfall, Brown Avenue and York Avenue, close for a specified time period following a rain event. The bathing areas of these two beaches are automatically closed for 24 hours after the end of all rainfalls greater than 0.1 inch or that cause an increased flow in storm drains; and for 48 hours from the end of all rainfalls greater than 2.8 inches within a 24 hour period. In addition, lifeguards (or staff as designated by Spring Lake) will prohibit swimming near any parts of these beaches where the stormwater plume is observed to be mixing within the swimming area. In 2005, the Terrace beach and in 2007, Beacon Boulevard beach, both beaches in Sea Girt just south of the Wreck Pond outfall, were added to the precautionary beach closing plan.

Intensive source trackdown has identified that sources of pollution to Wreck Pond include stormwater discharges directly to the pond and suspected failing infrastructure in the community surrounding the pond. These factors contribute to the elevated levels of enterococcus bacteria discharged to the ocean during rain events. The Department is moving ahead with steps to alleviate these sources of contamination. In 2006,

DEP completed a 300-foot extension to the Wreck Pond ocean discharge outfall pipe in order to carry contaminated stormwater further out into the ocean and reduce the impact to bathing beaches. In general, the total number of closings related to bacteria (Figure 1) have been lower in the years after 2006, but the total number of beach closings at the four “rain provisional” beaches varies (Figure 2). These rain closing numbers are dependent on the amount of rainfall in any given summer season. DEP continues to monitor ocean water quality at the affected beaches. A recent analysis of monitoring data at beaches near Wreck Pond indicates that there is an increased potential for exceeding the water quality standard after rainfall.⁵

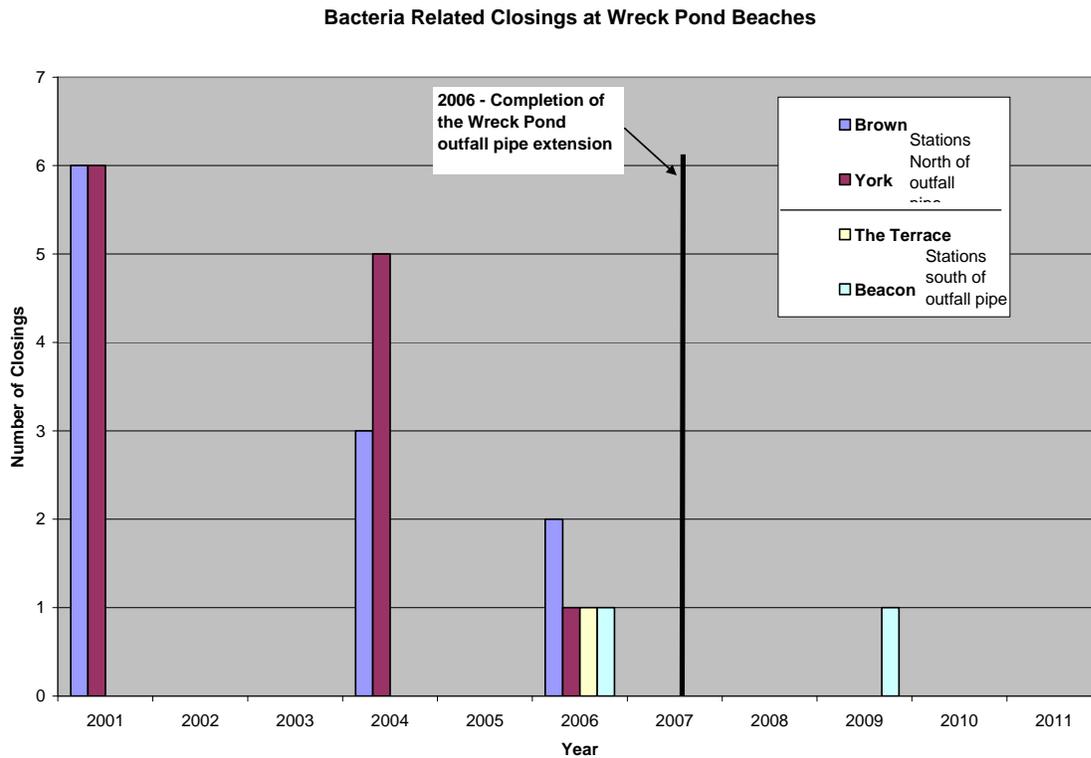


Figure 1. Beach closings caused by bacteria exceeding the standard at the four beaches surrounding the Wreck Pond outfall in the years 2001 - 2011.

⁵ The Effects of Rainfall and Other Factors on Enterococcus Counts at Beaches near Wreck Pond, Spring Lake, New Jersey, Draft Report by Leo R. Korn, Ph.D. New Jersey Department of Environmental Protection, Office of Science, April 28, 2010

Precautionary Rainfall Closings at Wreck Pond Beaches

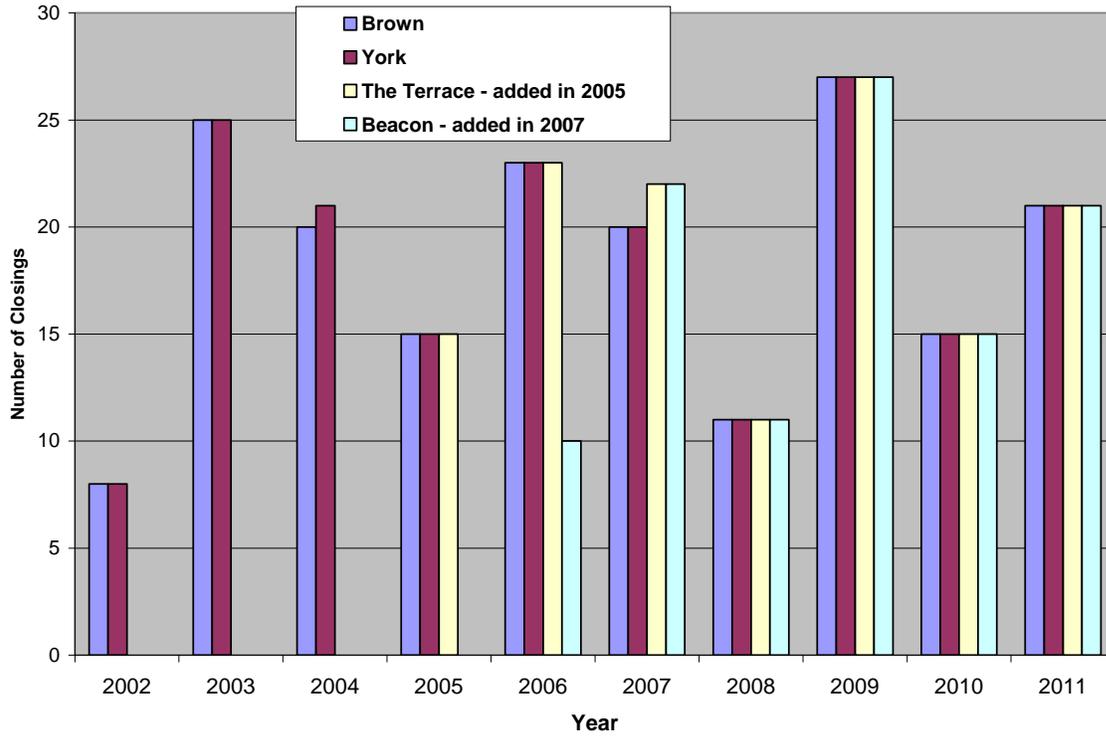


Figure 2. Beach closings at the four "rain provisional" beaches surrounding the Wreck Pond outfall in the years 2002 - 2011. The rainfall closing policy went into effect in 2002. Beacon Beach had rain provisional closings in 2006 but was not officially added to the policy until 2007.

Ocean Beach Closings 1997 - 2011

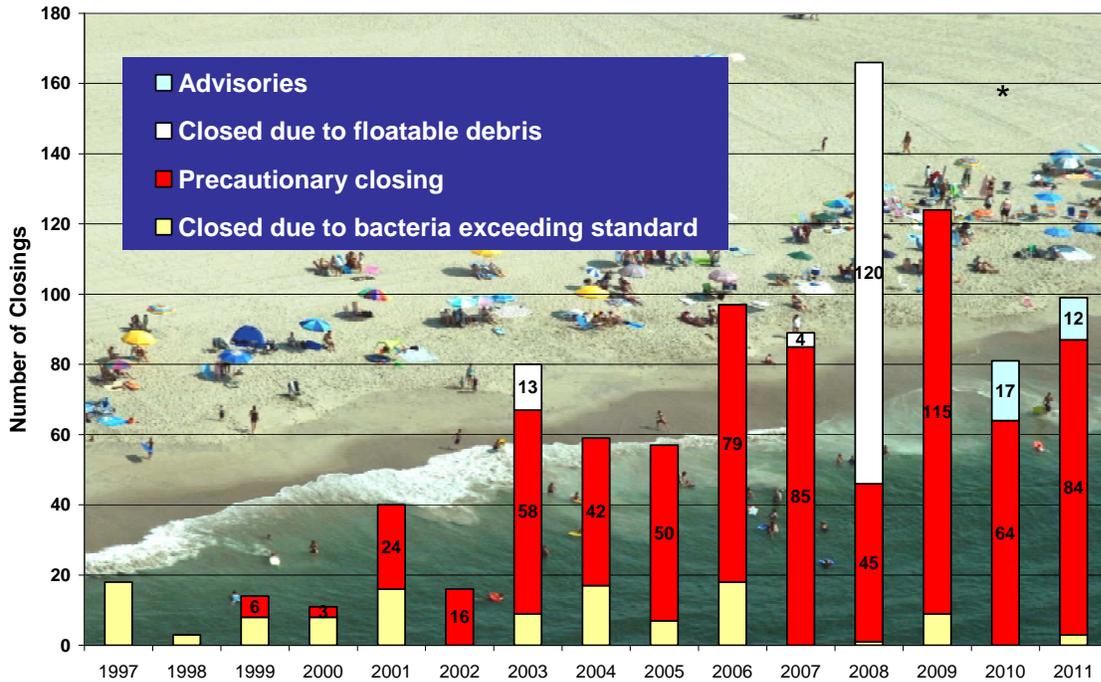


Figure 3. 15-Year Trend in NJ ocean beach closings.

As shown in Figure 3 and Figure 5, closures at New Jersey's ocean and bay beaches due to exceedances of the water quality standard have been down since the 1990's. Figure 4 and Figure 6 show the 2010 ocean and bay closings and the reasons for closure. However, the overall number of closures is up at ocean beaches primarily due to precautionary closures since 2000 and the criminal medical waste dumping event in 2008. These precautionary closures represent an enhanced level of public health protection that has been implemented by county and local health officials with the support of DEP. Even with these additional precautionary closures, New Jersey beaches are open to bathing over 99.8% of the time (Figure 7). The national average was 91% in 2010⁶, the most recent year for which data is available. With 700 ocean and bay beaches, New Jersey has more recreational beaches than any other state in the country.

⁶ National Resources Defense Council, Testing the Waters – A Guide to Water Quality at Vacation Beaches, Twenty-First Annual Report <http://www.nrdc.org/water/oceans/ttw/ttw2011.pdf>

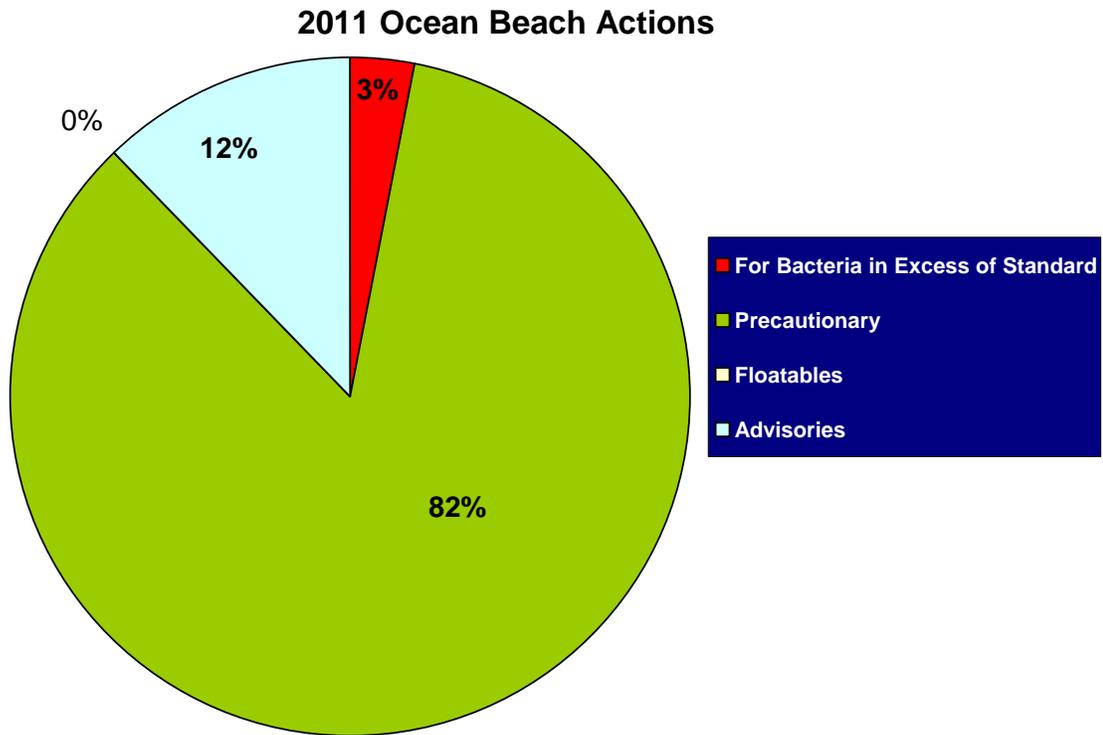


Figure 4. 2011 Ocean beach actions: percentage of total and reason for action.

Bay Beach Closings 1997 - 2011

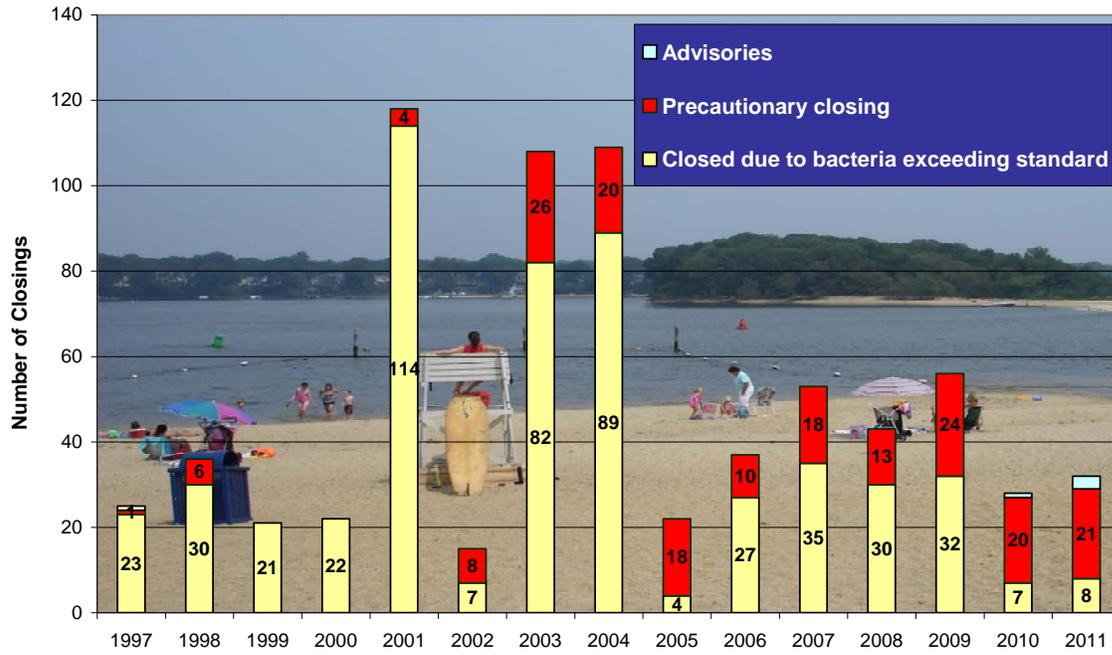


Figure 5. 15-Year Trend in NJ bay beach closings.

2011 Bay Beach Actions

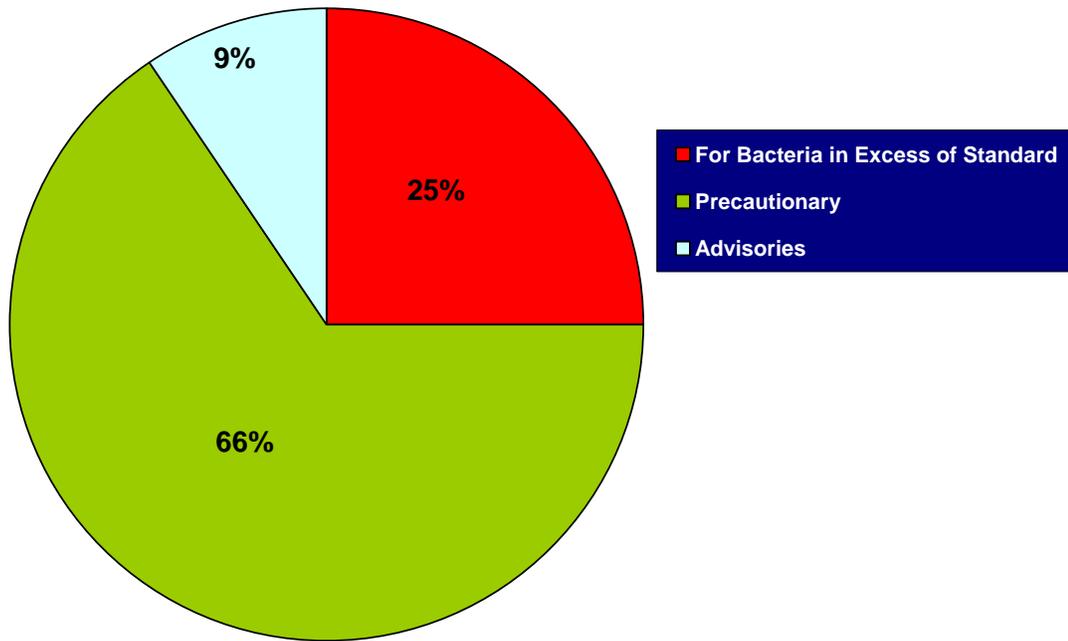


Figure 6. 2011 Bay beach actions: percentage of total and reason for action.

Percent of time New Jersey beaches are open for bathing by year

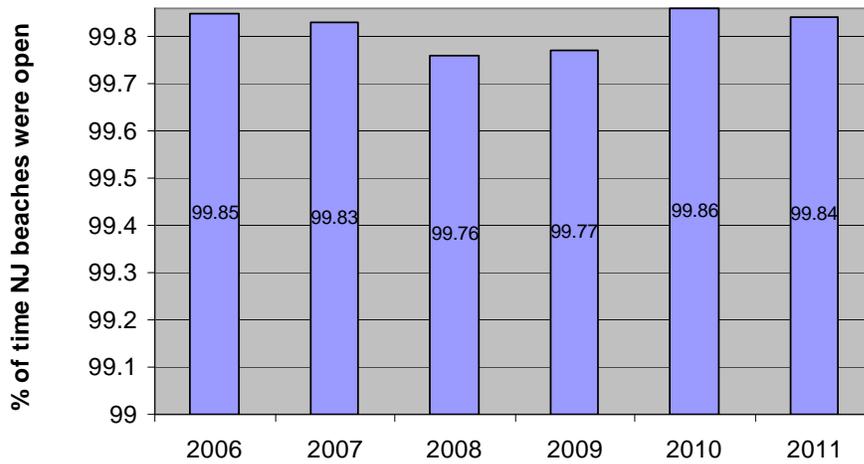


Figure 7. Percent of time NJ ocean and bay beaches are open for bathing by year

Enhancements to CCMP

DEP has joined with the USEPA and others in the private and public sectors to identify and address sources of pollution impacting the State's beaches. This approach will accelerate improvements in the quality of our beaches and coastal waters as a result of the increased coordination and pooling of resources.

As previously mentioned, DEP is currently working with local stakeholders to develop a comprehensive action plan to address the water quality within the Wreck Pond Watershed and beaches of Spring Lake and Sea Girt. In early 2006, DEP completed a 300-foot extension of the Wreck Pond outfall into the ocean. In 2007, the Bureau of Marine Water Monitoring began an intensive stormwater source track-down study and has identified a number of potential sources of bacteria to the pond and surrounding beaches. DEP is working with the county and local governments to address these sources. A website is being developed to incorporate all research, reports and analytical data for the watershed and will include an interactive map that will display analytical data. Spring Lake and Sea Girt have committed to conducting an infrastructure assessment of their entire sanitary and storm sewer systems, which includes videoing and GIS/GPSing these systems. The Bureau of Marine Water Monitoring is conducting a continuous 48 hour storm event monitoring plan to capture data for an entire storm event. Clean Ocean Action and Rutgers Cooperative Extension have joined as partners with the DEP to facilitate education and public outreach. The DEP has also partnered with the Freehold Soil Conservation District to prioritize stream bank restoration areas, and the United States Army Corps of Engineers to conduct a feasibility study. The study will assess possible modifications to the outfall structure and dredging of channels to restore natural flow and tidal exchange.

In 2007, 2008, 2009 and 2010, DEP joined with EPA, Monmouth and Ocean County Health Departments and the Ocean County Utilities Authority in a joint sampling program to study the correlation between three different methods for the analysis of enterococcus bacteria in marine waters. EPA Method 1600 is the traditional method used by the CCMP and by Monmouth County for this study. Enterolert was used by Ocean County for the 2007 bathing season only and for the 2007 comparative study. Additional samples were collected and analyzed by EPA using quantitative polymerase chain reaction (qPCR) - a method for the rapid detection of enterococcus bacteria in bathing water. Samples were collected at 20 ocean and bay stations in 2007, at two bay beaches in 2008 and at 10 ocean and bay stations in 2009 and 2010. Final results for the 2008 study are available at: http://www.epa.gov/region02/water/oceans/2008Report_QPCR_NJ_Final_Jan2010.pdf.

In 2011, a rapid method demonstration project was conducted at four bay beaches in Ocean County. Samples were collected each Monday and analyzed using qPCR and results were posted "live" on the NJDEP beach website. Swimming advisories were issued based results of rapid method sampling and later compared to the standard membrane filtration result. Results of the project are being reviewed. Information on the project is available at: <http://www.njbeaches.org/qpcr.htm>.

In 2009, 2010 and 2011, ten river beaches in Ocean County were sampled during wet weather conditions to determine whether increased rainfall contributed to increased levels of bacteria at bathing beaches. The data were inconclusive in 2009 and due to the lack of rain events in 2010, the Ocean County Health Department continued the study in 2011 in order to gather additional data. At this time, there is no clear correlation between rainfall and increased bacteria levels at these beaches. Additional water quality monitoring performed in 2011 by the Marine Academy of Technology and Environmental Science (MATES), a magnet public high school in Ocean County, indicated that increased rainfall lead to increased bacteria levels at beaches in Pine Beach and Beachwood. Information from these studies is being used by DEP's Bureau of Marine Water Monitoring in a new source trackdown study at Beachwood Beach in order to identify possible sources of contamination to that beach.

Coastal Incidents of Note – 2011

The following pollution incidents received public, DEP, and local health agency attention in 2011, although the incidents did not always require beach closings:

On May 29, a 29-foot humpback whale washed onto the beach at Island Beach State Park. The whale was approximately three years old and was likely hit by a ship. It was buried in the sand at Island Beach State Park the following day. No beaches were closed.

On July 11, the DEP hotline received a report of a “sewage slick” in the Shore Acres section of Brick Township. The Ocean County Utilities Authority received odor complaints and collected samples in the area. DEP’s Bureau of Marine Water Monitoring and Central Bureau of Water Compliance and Enforcement also investigated the complaint. The slick was identified as decaying sea lettuce most likely ripped from the bay bottom by heavy boat traffic over the weekend.

On July 13, news outlets reported medical waste washing up on Monmouth County beaches. No health authority was notified of this event and the DEP hotline did not receive any reports of trash or syringes. The Monmouth County Health Department staff went to the beach and a lifeguard reported that two syringes had washed up on the beach at 7 Presidents Park. The lifeguards were reminded that all wash-ups must be reported to the DEP hotline.

On July 13, a 57-year-old woman stepped on a syringe as she was leaving the beach in Barnegat Light. She was treated locally by first aid and then went to the hospital for further treatment on the advice of her doctor. No beaches were closed and no other trash or debris washed up on the beach.

On July 20, The North River Wastewater Treatment Plant in New York City was taken offline following a four alarm fire in the engine room. Untreated wastewater was directly discharging into the Hudson River for several days. Water quality modeling and water samples from NJ coastal waters indicated that there was no impact to NJ beaches or shellfish waters. Monitoring of the Hudson River continued two weeks after the initial incident. No beaches were closed.

On July 27, the DEP hotline received a report of trash in the water at Vance Street in Lavallette. The caller said the incident occurred the previous day and debris was mixed with a lot of seaweed and consisted of cellophane and paper wrappers and plastic pieces. The Ocean County Health Department responded to the location. Lifeguards confirmed that there had been trash in the water earlier that week.

On July 28, the Southern Bureau of Water Compliance and Enforcement reported that an earlier repair in a 30” sewer line in the Intracoastal Waterway in the area of Harvard and Fulton Avenues in Ventnor Heights ruptured. On July 30, the Atlantic County Utilities Authority reported another sewer line break near Cambridge and Wellington Avenues in Ventnor Heights. DEP’s Bureau of Marine Water Monitoring issued a shellfish closure for the area from Margate Bridge north to Lakes Bay. Shellfish waters were closed until the leaks were repaired and water quality monitoring indicated that the water was safe for shellfishing. No recreational beaches are in that area; however, signs were posted along the waterway warning recreational water users to stay out of the water.

On August 15, the DEP hotline received a report of at least 47 syringes under the boardwalk between Cornwall and Dorset Avenues in Ventnor. The syringes did not wash onto the beach but were dumped above the high water mark. No syringes were found near the water line. The Ventnor Police Department handled the investigation into the dumping event.

On August 28, Hurricane Irene made landfall near Brigantine in Atlantic County. While there was little storm damage to beaches in the southern part of the state, some beaches in Ocean and Monmouth Counties sustained significant damage to boardwalks or other areas along beachfronts. Aerial surveillance of the coast

reported areas of turbid water and some rafts of woody debris were observed. Water quality samples collected at all beaches were within the water quality standard and no beaches were closed due to increased levels of bacteria after the storm. Some beaches were closed due to storm damage.

Relative Status of New Jersey Beach Water Quality

According to the latest data from an assessment report of the nation's beaches, New Jersey's beach water quality at 700 public recreational bathing beaches is among the best in the country.⁵ In 2010, the most recent year for which data is available, New Jersey ranked 2nd in the nation for beach water quality, behind New Hampshire's 16 public beaches (Figure 9). States are ranked by total number of exceedances of the standard as reported to EPA. The state ranked 1st in the nation had the lowest number of exceedances; the state ranked 30th had the highest number of exceedances. This good water quality is also reflected in the number of days the beaches were open to the public in NJ. With 700 lifeguarded marine beaches in NJ and 15 weeks to the bathing season, NJ has a total of 73,500 beach-days available each summer. In 2011, there were a total of 132 beach closings or advisories, representing 0.18% of the available beach days. In other words, when the public in NJ went to the beach in 2011, they found the beach was open for bathing 99.8 percent of the time. As Figure 8 shows, according to EPA, NJ has among the highest percentage of beaches open on the East Coast in 2010, the most recent year data is available.

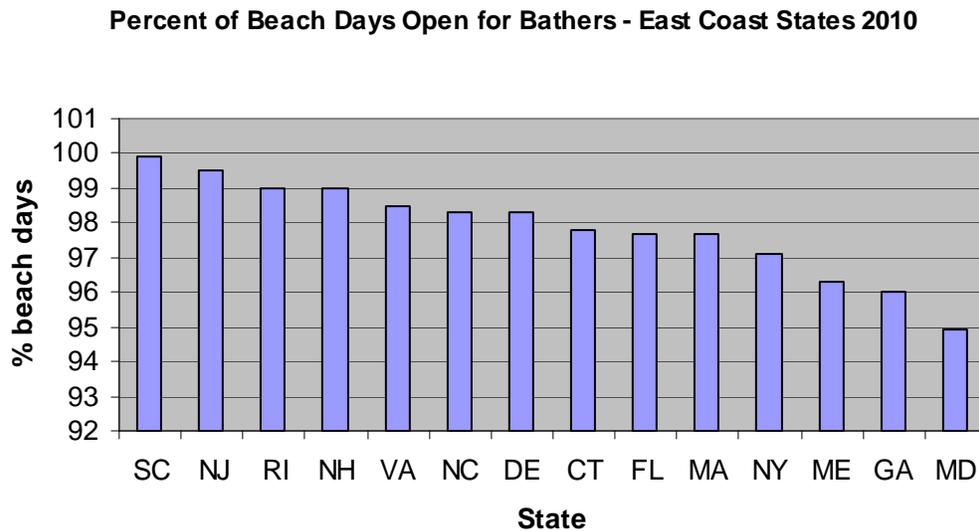


Figure 8. Percent of beach days available to bathers based on USEPA data. Beach days are defined as the # of beaches open multiplied by the # of days in the beach season.

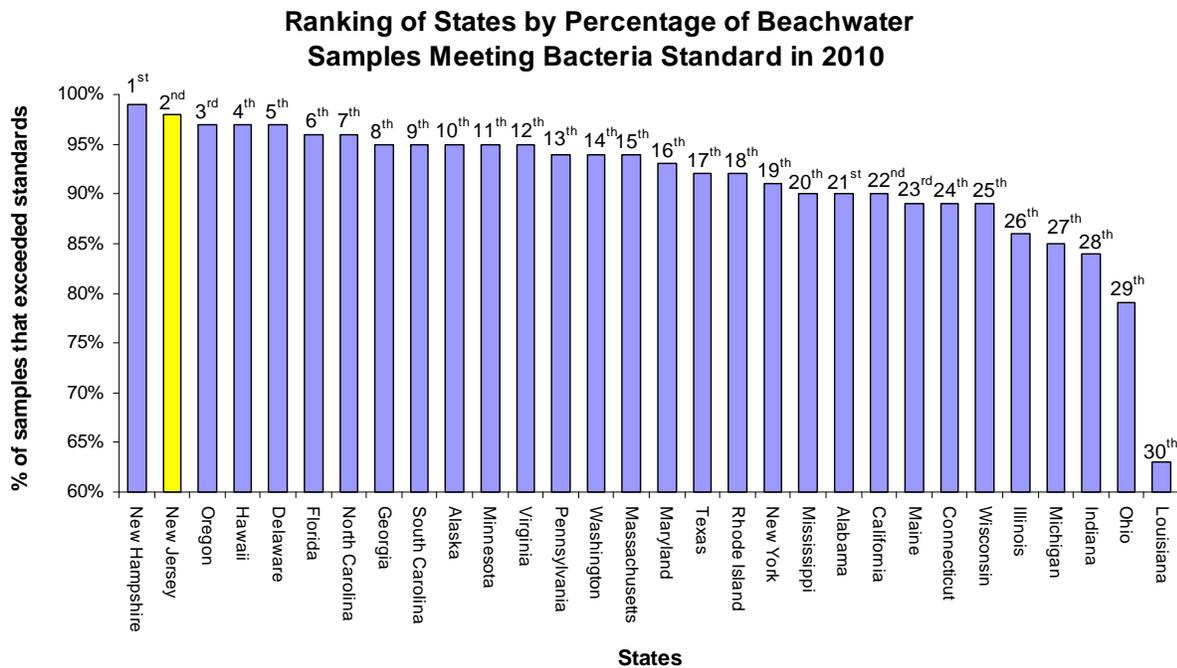


Figure 9. Ranking of states based on percentage of beach water quality samples meeting the bacteria standard.

Related Program:

Clean Shores

Non-recreational shorelines that have been left unattended serve as reservoirs for floatable debris and trash that can be refloated during coastal storms and extreme high tides. This trash and debris can wash up on recreational beaches, become floating hazards to navigation, or impact marine life. DEP has a unique program that uses state correctional facility inmates to remove floatable debris from the shorelines of the Hudson, Raritan, and Delaware estuaries, tidal shorelines and barrier island bays. The Clean Shores Program conducts these shoreline cleanups year-round. The program is entirely funded by the sale of the “Shore to Please” license plates. In January 2010, the Clean Shores Program was suspended for four months due to a shortfall in revenue from the sale of the Shore to Please license plates. The program was reinstated in early May 2010. From May – December 2010, Clean Shores removed 3.96 million pounds of trash and debris from 43.8 miles of shoreline. The reduced mileage is due to a focused effort in the northern area of the state with heavy concentrations of timbers and trash. In 2011, the program removed 3.36 million pounds of trash and debris from 99.5 miles of shoreline (Figure 10). The mileage cleaned and total number of pounds of debris removed changes each year depending on the number and severity of coastal storms and their impact on shorelines. Hurricane Irene impacted some beaches, mostly in the northern area of the state, and the Clean Shores Program provided assistance to towns as requested.

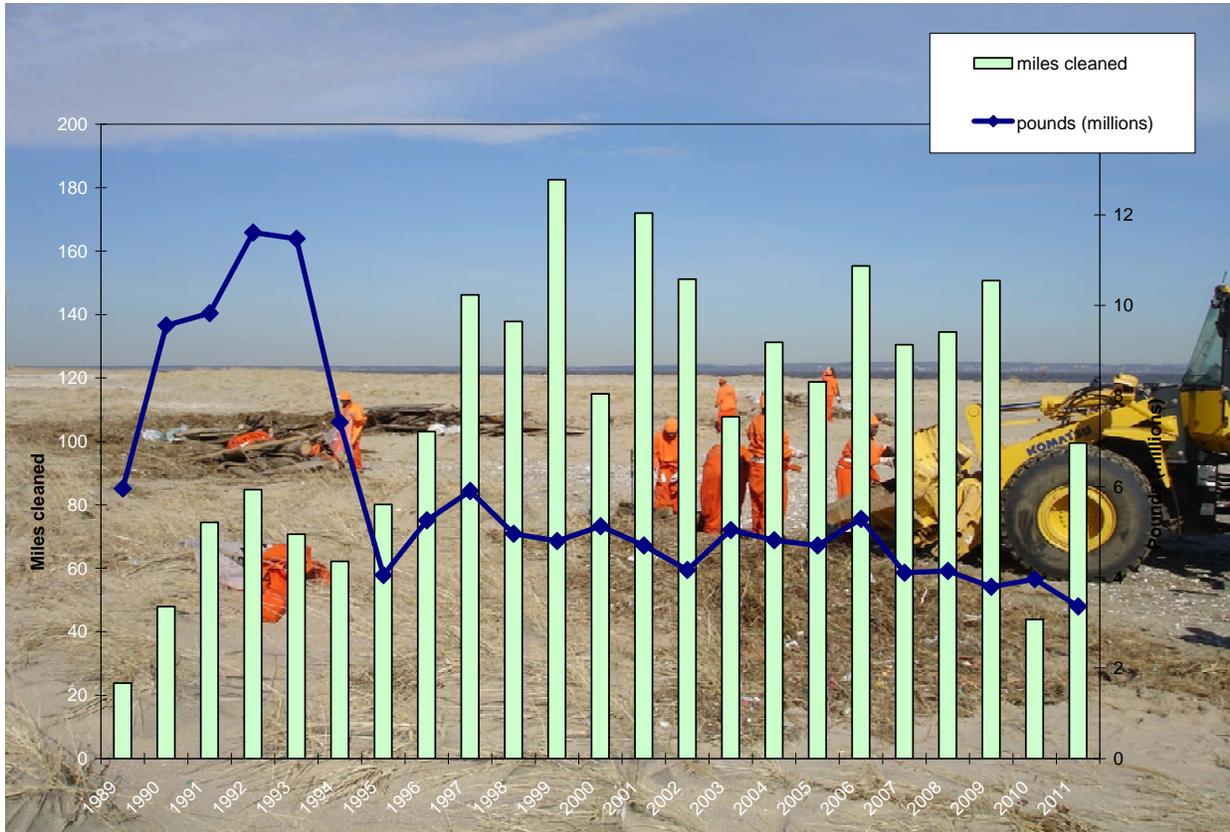


Figure 10: Total amount of debris removed by Clean Shores Program since start of program.



Additional Information

For additional information about the CCMP, the Clean Shores Program or New Jersey’s beach monitoring in general, contact Virginia Loftin at 609-984-5599 or Virginia.Loftin@dep.state.nj.us or visit the Program’s website at www.njbeaches.org.

GET BEACH WATER INFO - WWW.NJBEACHES.ORG

Appendix 1

Wastewater Treatment Facilities Discharging to the Nearshore Coastal Waters

- 1 Monmouth County Bayshore Regional Sewage Authority
- 2 Township of Middletown Sewage Authority
- 3 Northeast Monmouth Regional Sewerage Authority
- 4 Long Branch Sewerage Authority
- 5 Township of Ocean Sewerage Authority
- 6 Asbury Park Sewerage Authority
- 7 Township of Neptune Sewerage Authority
- 8 South Monmouth Regional Sewerage Authority
- 9 Ocean County Utilities Authority, Northern
- 10 Ocean County Utilities Authority, Central
- 11 Ocean County Utilities Authority, Southern
- 12 Atlantic County Utilities Authority
- 13 Cape May County Municipal Utilities Authority, Ocean City
- 14 Cape May County Municipal Utilities Authority, Seven Mile Middle
- 15 Cape May County Municipal Utilities Authority, Wildwood
- 16 Cape May County Municipal Utilities Authority, Cape May Point
- 17 Lower Township Municipal Utilities Authority

Appendix 2 –Beach Closings and Advisories

DATE	COUNTY	MUNICIPALITY	BEACH	REASON
OCEAN BEACH CLOSINGS				
5/30/2011	Monmouth	Spring Lake	York Ave.	precautionary due to rain
5/30/2011	Monmouth	Spring Lake	Brown Ave.	precautionary due to rain
5/30/2011	Monmouth	Sea Girt	The Terrace	precautionary due to rain
5/30/2011	Monmouth	Sea Girt	Beacon Blvd.	precautionary due to rain
6/23/2011	Monmouth	Spring Lake	York Ave.	precautionary due to rain
6/23/2011	Monmouth	Spring Lake	Brown Ave.	precautionary due to rain
6/23/2011	Monmouth	Sea Girt	The Terrace	precautionary due to rain
6/23/2011	Monmouth	Sea Girt	Beacon Blvd.	precautionary due to rain
6/24/2011	Monmouth	Spring Lake	York Ave.	precautionary due to rain
6/24/2011	Monmouth	Spring Lake	Brown Ave.	precautionary due to rain
6/24/2011	Monmouth	Sea Girt	The Terrace	precautionary due to rain
6/24/2011	Monmouth	Sea Girt	Beacon Blvd.	precautionary due to rain
6/25/2011	Monmouth	Spring Lake	York Ave.	precautionary due to rain
6/25/2011	Monmouth	Spring Lake	Brown Ave.	precautionary due to rain
6/25/2011	Monmouth	Sea Girt	The Terrace	precautionary due to rain
6/25/2011	Monmouth	Sea Girt	Beacon Blvd.	precautionary due to rain
7/3/2011	Monmouth	Spring Lake	York Ave.	precautionary due to rain
7/3/2011	Monmouth	Spring Lake	Brown Ave.	precautionary due to rain
7/3/2011	Monmouth	Sea Girt	The Terrace	precautionary due to rain
7/3/2011	Monmouth	Sea Girt	Beacon Blvd.	precautionary due to rain
7/4/2011	Monmouth	Spring Lake	York Ave.	precautionary due to rain
7/4/2011	Monmouth	Spring Lake	Brown Ave.	precautionary due to rain
7/4/2011	Monmouth	Sea Girt	The Terrace	precautionary due to rain
7/4/2011	Monmouth	Sea Girt	Beacon Blvd.	precautionary due to rain
7/7/2011	Monmouth	Spring Lake	York Ave.	precautionary due to rain
7/7/2011	Monmouth	Spring Lake	Brown Ave.	precautionary due to rain
7/7/2011	Monmouth	Sea Girt	The Terrace	precautionary due to rain
7/7/2011	Monmouth	Sea Girt	Beacon Blvd.	precautionary due to rain
7/9/2011	Monmouth	Spring Lake	York Ave.	precautionary due to rain
7/9/2011	Monmouth	Spring Lake	Brown Ave.	precautionary due to rain
7/9/2011	Monmouth	Sea Girt	The Terrace	precautionary due to rain
7/9/2011	Monmouth	Sea Girt	Beacon Blvd.	precautionary due to rain
7/30/2011	Monmouth	Spring Lake	York Ave.	precautionary due to rain
7/30/2011	Monmouth	Spring Lake	Brown Ave.	precautionary due to rain
7/30/2011	Monmouth	Sea Girt	The Terrace	precautionary due to rain
7/30/2011	Monmouth	Sea Girt	Beacon Blvd.	precautionary due to rain
8/3/2011	Monmouth	Deal Boro	Deal Casino	high bacteria
8/4/2011	Monmouth	Spring Lake	York Ave.	precautionary due to rain
8/4/2011	Monmouth	Spring Lake	Brown Ave.	precautionary due to rain
8/4/2011	Monmouth	Sea Girt	The Terrace	precautionary due to rain
8/4/2011	Monmouth	Sea Girt	Beacon Blvd.	precautionary due to rain
8/4/2011	Monmouth	Deal Boro	Deal Casino	high bacteria
8/5/2011	Monmouth	Deal Boro	Deal Casino	high bacteria
8/9/2011	Monmouth	Spring Lake	York Ave.	precautionary due to rain
8/9/2011	Monmouth	Spring Lake	Brown Ave.	precautionary due to rain
8/9/2011	Monmouth	Sea Girt	The Terrace	precautionary due to rain
8/9/2011	Monmouth	Sea Girt	Beacon Blvd.	precautionary due to rain
8/14/2011	Monmouth	Spring Lake	York Ave.	precautionary due to rain
8/14/2011	Monmouth	Spring Lake	Brown Ave.	precautionary due to rain

8/14/2011	Monmouth	Sea Girt	The Terrace	precautionary due to rain
8/14/2011	Monmouth	Sea Girt	Beacon Blvd.	precautionary due to rain
8/15/2011	Monmouth	Spring Lake	York Ave.	precautionary due to rain
8/15/2011	Monmouth	Spring Lake	Brown Ave.	precautionary due to rain
8/15/2011	Monmouth	Sea Girt	The Terrace	precautionary due to rain
8/15/2011	Monmouth	Sea Girt	Beacon Blvd.	precautionary due to rain
8/16/2011	Monmouth	Spring Lake	York Ave.	precautionary due to rain
8/16/2011	Monmouth	Spring Lake	Brown Ave.	precautionary due to rain
8/16/2011	Monmouth	Sea Girt	The Terrace	precautionary due to rain
8/16/2011	Monmouth	Sea Girt	Beacon Blvd.	precautionary due to rain
8/19/2011	Monmouth	Spring Lake	York Ave.	precautionary due to rain
8/19/2011	Monmouth	Spring Lake	Brown Ave.	precautionary due to rain
8/19/2011	Monmouth	Sea Girt	The Terrace	precautionary due to rain
8/19/2011	Monmouth	Sea Girt	Beacon Blvd.	precautionary due to rain
8/22/2011	Monmouth	Spring Lake	York Ave.	precautionary due to rain
8/22/2011	Monmouth	Spring Lake	Brown Ave.	precautionary due to rain
8/22/2011	Monmouth	Sea Girt	The Terrace	precautionary due to rain
8/22/2011	Monmouth	Sea Girt	Beacon Blvd.	precautionary due to rain
8/23/2011	Monmouth	Spring Lake	York Ave.	precautionary due to rain
8/23/2011	Monmouth	Spring Lake	Brown Ave.	precautionary due to rain
8/23/2011	Monmouth	Sea Girt	The Terrace	precautionary due to rain
8/23/2011	Monmouth	Sea Girt	Beacon Blvd.	precautionary due to rain
8/26/2011	Monmouth	Spring Lake	York Ave.	precautionary due to rain
8/26/2011	Monmouth	Spring Lake	Brown Ave.	precautionary due to rain
8/26/2011	Monmouth	Sea Girt	The Terrace	precautionary due to rain
8/26/2011	Monmouth	Sea Girt	Beacon Blvd.	precautionary due to rain
8/27/2011	Monmouth	Spring Lake	York Ave.	precautionary due to rain
8/27/2011	Monmouth	Spring Lake	Brown Ave.	precautionary due to rain
8/27/2011	Monmouth	Sea Girt	The Terrace	precautionary due to rain
8/27/2011	Monmouth	Sea Girt	Beacon Blvd.	precautionary due to rain
8/28/2011	Monmouth	Spring Lake	York Ave.	precautionary due to rain
8/28/2011	Monmouth	Spring Lake	Brown Ave.	precautionary due to rain
8/28/2011	Monmouth	Sea Girt	The Terrace	precautionary due to rain
8/28/2011	Monmouth	Sea Girt	Beacon Blvd.	precautionary due to rain
8/29/2011	Monmouth	Spring Lake	York Ave.	precautionary due to rain
8/29/2011	Monmouth	Spring Lake	Brown Ave.	precautionary due to rain
8/29/2011	Monmouth	Sea Girt	The Terrace	precautionary due to rain
8/29/2011	Monmouth	Sea Girt	Beacon Blvd.	precautionary due to rain

BAY BEACH CLOSINGS

7/9/2011	Monmouth	Neptune Twp	Shark River Beach and Yacht	precautionary due to rain
7/29/2011	Ocean	Pt. Pleasant	Maxon Ave.	high bacteria
7/30/2011	Monmouth	Neptune Twp	Shark River Beach and Yacht	precautionary due to rain
7/30/2011	Monmouth	Belmar Boro	L Street Beach	precautionary due to rain
8/4//2011	Monmouth	Belmar Boro	L Street Beach	precautionary due to rain
8/9//2011	Monmouth	Belmar Boro	L Street Beach	precautionary due to rain
8/14//2011	Monmouth	Belmar Boro	L Street Beach	precautionary due to rain
8/14/2011	Monmouth	Neptune Twp	Shark River Beach and Yacht	precautionary due to rain
8/15/2011	Monmouth	Belmar Boro	L Street Beach	precautionary due to rain
8/15/2011	Monmouth	Neptune Twp	Shark River Beach and Yacht	precautionary due to rain
8/16/2011	Monmouth	Belmar Boro	L Street Beach	precautionary due to rain
8/17/2011	Ocean	Beachwood	Beachwood Beach West	high bacteria
8/17/2011	Ocean	Pt. Pleasant	River Ave.	high bacteria

8/17/2011	Ocean	Brick Twp	Windward Beach	high bacteria
8/22/2011	Monmouth	Neptune Twp	Shark River Beach and Yacht	precautionary due to rain
8/22/2011	Monmouth	Belmar Boro	L Street Beach	precautionary due to rain
8/23/2011	Monmouth	Neptune Twp	Shark River Beach and Yacht	precautionary due to rain
8/23/2011	Monmouth	Belmar Boro	L Street Beach	precautionary due to rain
8/24/2011	Ocean	Brick Twp	Windward Beach	high bacteria
8/24/2011	Ocean	Pt. Pleasant	Maxon Ave.	high bacteria
8/24/2011	Ocean	Long Beach Twp	New Jersey	high bacteria
8/27/2011	Monmouth	Neptune Twp	Shark River Beach and Yacht	precautionary due to rain
8/27/2011	Monmouth	Belmar Boro	L Street Beach	precautionary due to rain
8/28/2011	Monmouth	Neptune Twp	Shark River Beach and Yacht	precautionary due to rain
8/28/2011	Monmouth	Belmar Boro	L Street Beach	precautionary due to rain
8/29/2011	Monmouth	Belmar Boro	L Street Beach	precautionary due to rain
8/30/2011	Monmouth	Belmar Boro	L Street Beach	Overflowing manholes
8/31/2011	Ocean	Pt. Pleasant	River Ave.	high bacteria
8/31/2011	Monmouth	Belmar Boro	L Street Beach	Overflowing manholes

ADVISORIES

Sample Date	Advisory DATE	COUNTY	MUNICIPALITY	BEACH	REASON
5/23/2011	5/24/2011	Monmouth	Neptune Twp	SRB&YC	first exceedance of standard
7/5/2011	7/6/2011	Monmouth	Spring Lake	Worthington	first exceedance of standard
7/11/2011	7/12/2011	Monmouth	Spring Lake	Brown Ave.	first exceedance of standard
7/18/2011	7/19/2011	Monmouth	Long Branch	Elberon Beach Club	first exceedance of standard
8/1/2011	8/2/2011	Monmouth	Avon by the sea	Sylvania Ave	first exceedance of standard
8/1/2011	8/2/2011	Monmouth	Long Branch	Ocean Beach Club	first exceedance of standard
8/1/2011	8/2/2011	Monmouth	Deal Boro	Deal Casino	first exceedance of standard
8/1/2011	8/2/2011	Monmouth	Allenhurst Boro	Cedar	first exceedance of standard
8/15/2011	8/16/2011	Monmouth	Spring Lake	York Ave.	first exceedance of standard
8/29/2011	8/30/2011	Monmouth	Loch Arbour	Village Beach Club	first exceedance of standard
n/a	8/29/2011	Monmouth	Ocean Grove	Spray Ave.	precautionary due to sewage spill to Wesley Lake
n/a	8/29/2011	Monmouth	Asbury Park	1st Ave.	precautionary due to sewage spill to Wesley Lake
n/a	8/30/2011	Monmouth	Ocean Grove	Spray Ave.	precautionary due to sewage spill to Wesley Lake
n/a	8/30/2011	Monmouth	Asbury Park	1st Ave.	precautionary due to sewage spill to Wesley Lake
8/30/2011	8/31/2011	Monmouth	Middletown Twp	Thompson Ave.	first exceedance of standard
8/30/2011	8/31/2011	Monmouth	Middletown Twp	Ideal Beach	first exceedance of standard