



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

COOPERATIVE COASTAL MONITORING PROGRAM Summary Report for 2014



May 2015

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New Jersey Department of Environmental Protection

Water Resources Management

Division of Water Monitoring and Standards

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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 2014. DEP designs the beach sampling and administers the communication, notification and response portion of the CCMP. The majority 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 Island Health Department
Long Branch Health Department
Middletown Health Department
Monmouth County Regional Health Commission
New Jersey Department of Health

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 by DEP-certified laboratories using 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 185 ocean and 31 bay stations in 2014. 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 to require monitoring for enterococci bacteria with a new primary contact standard of 104 colony forming units 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 are issued at a beach when initial sample results exceed the bathing standard.

2014 Beach Actions

The participating health agencies closed 23 ocean and 3 bay beaches in the 2014 summer season, a 70% decrease in beach closings over the previous year. Five of the ocean beach closings in 2014 were caused by an exceedance of the bacteria standard. Fifteen of the closings were precautionary; the majority of the precautionary ocean closings were associated with two significant storm events that caused overflows of stormwater from coastal lakes into the bathing beach waters. Three closings were due to a reported wash-up of floatable trash onto recreational beaches.

Beaches may be closed when bacteria levels exceed the standard or as a precautionary measure in response to an environmental condition, i.e., a heavy rain event or floatables washup. Health agencies also issue advisories to the public on an initial exceedance of the bacteria standard. As of 2014, all four coastal counties participating in the CCMP issued 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) 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 2014, including the specific beaches closed and reasons for the closings for this period can found under the “Data” tab on the www.njbeaches.org webpage. Table 1 below presents the numbers of closings and advisories for the last ten years, from 2005 through 2014.

Table 1: Numbers of Ocean and Bay Beach Actions

<u>Ocean</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u> ²	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
closed for bacteria	7	18	0	1	6	0	3	3	0	5
precautionary closing	50	79	85	45	111	64	84	67	80	15
# Rainfall Provisional Beaches	3	3	4	4	4	4	4	4	4	0
closed for floatables	0	0	4	120 ¹	0	0	0	103 ³	0	3
advisories ³	n/a	n/a	n/a	n/a	7	17	15	10	3	12
Total ocean beach actions	57	97	89	158	117	81	102	183	83	35
<u>Bay</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
closings for bacteria	4	27	35	30	32	7	8	13	8	1
precautionary closing	18	10	18	13	24	20	21	4	0	2
# Rainfall Provisional Beaches	1	1	1	2	2	2	2	2	2	2
closed for floatables	0	0	0	0	0	0	0	0	0	0
Advisories ²	n/a	n/a	n/a	n/a	0	1	3	48	15	19
Total bay beach actions	22	37	53	43	56	27	30	65	23	22

Note: Precautionary rainfall-related beach closing policy implemented for two Spring Lake beaches in 2002. Two additional ocean and two bay beaches added to policy in subsequent years. All ocean beaches removed the policy in 2014.

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

2 Monmouth County health agencies added swimming advisory policies late in the 2009 bathing season. In 2012, Ocean County also began issuing bathing advisories.

3 An unusually heavy rain event in the New York Harbor area the previous week caused combined sewers in New York and northern New Jersey to overflow into shared waters. Trash and debris from this event is the probable cause of the washup on Long Beach Island.

Closings include those required for consecutive high enterococci concentrations and by health agency discretion due to public health concerns. The vast majority of the closings prior to 2014 were precautionary due to concerns of nonpoint pollution transported by stormwater during a rain event. Source trackdown and other investigative work performed around the Wreck Pond outfall in Spring Lake and Sea Girt in recent years (see below) allowed the towns, health departments and NJDEP to agree that the policy was no longer required. Currently, there are two bay beaches that continue to implement the rain-provisional policy.

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 were 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. In 2012, approximately 50 syringes along with other floatable debris washed onto beaches on Long Beach Island closing 12 miles of beaches for one day. In 2014, three ocean beaches were closed on one day due to a reported wash-up of trash. Bay beaches are rarely affected by washups of floatable debris.

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.

In 2002, a precautionary beach closing plan was implemented in Spring Lake Borough, Monmouth County. It required 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 were automatically closed for 24 hours after the end of all rainfalls greater than 0.1 inch or that caused 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 Borough) could prohibit swimming near any parts of these beaches where the stormwater plume was 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. Precautionary beach closings after significant rainfall at these locations were considered more protective of public health since there was no need to wait for laboratory results from water quality sampling. The bathing public was protected from exposure to potentially contaminated stormwater by this approach. Beginning in 2002, a total of four ocean beaches and two bay beaches in Monmouth County were identified as rain provisional beaches, which accounts for the increase in beach closing numbers at ocean and bay beaches.

Intensive 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 contributed to the elevated levels of enterococcus bacteria discharged to the ocean during rain events. The Department is continuing to move 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. The total numbers of beach closings related to bacteria (Figure 1) have been lower since the outfall extension, but the total number of beach closings at the four "rain provisional" beaches varies (Figure 2). These rain closing numbers were dependent on the amount of rainfall in any given summer season. DEP reinstated wet-weather monitoring at the four Wreck Pond beaches during the 2012 beach season and continued sampling in the off season and during the 2013 and 2014 beach seasons. DEP, Spring Lake, Sea Girt, Monmouth County Health Department, Monmouth County Regional Health Commission and Clean Ocean Action have reevaluated the provisional rainfall closure policy at Wreck Pond. It has been determined that the data does not support the rainfall closure policy. From 2006 through 2013, the precautionary rainfall policy at the four Wreck Pond beaches has required 591 beach day closings in Spring Lake and Sea Girt; however, in this same time period only one beach was closed due to an actual exceedance of the bacteria standard (Beacon Blvd. beach in 2009). Infrastructure improvements and analysis of water quality data supported the decision to remove the rain closing policy for the 2014 beach season. In 2014, two large storm events required Spring Lake to open the emergency spillway between Wreck Pond and the ocean, resulting in 12 precautionary beach closings and 5 closings due to an exceedance of the bacteria standard. There were no other closings at the four beaches surrounding the Wreck Pond outfall which, since 2002, had accounted for the majority of NJ's ocean beach closings.

Bacteria Related Closings at Wreck Pond Beaches

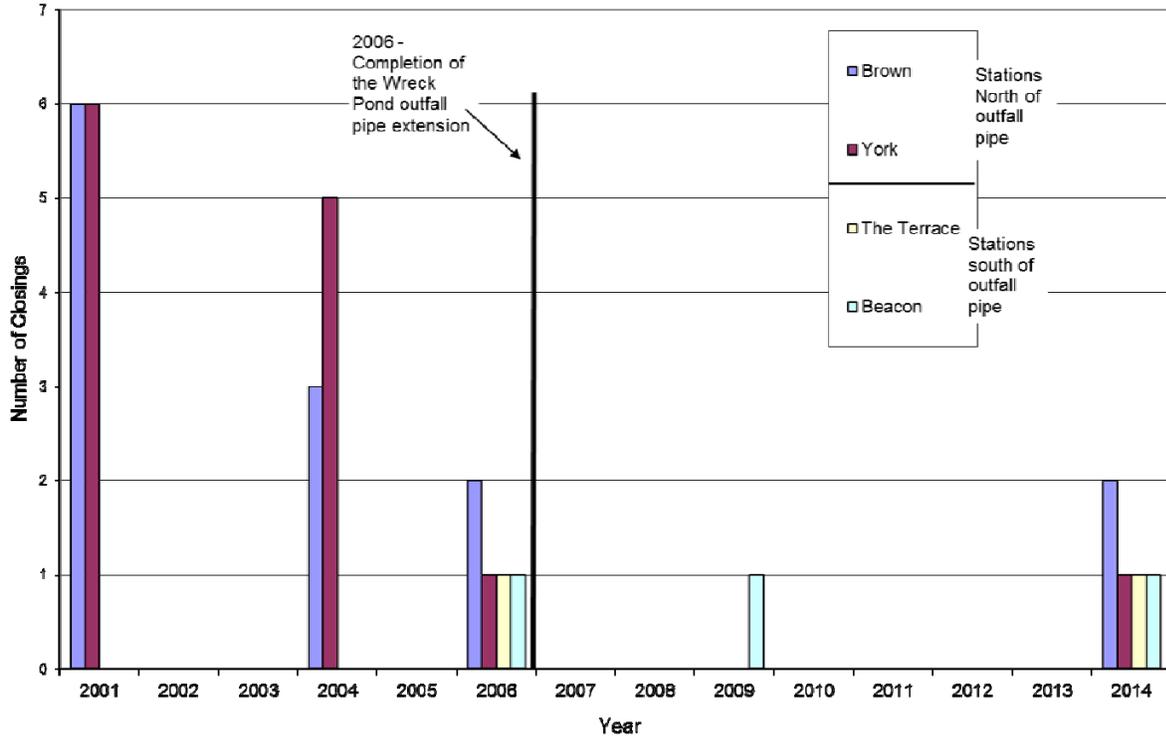


Figure 1. Beach closings caused by bacteria exceeding the standard at the four beaches surrounding the Wreck Pond outfall in the years 2001 - 2014. In 2014, two extreme storm events required opening a spillway between Wreck Pond and the ocean.

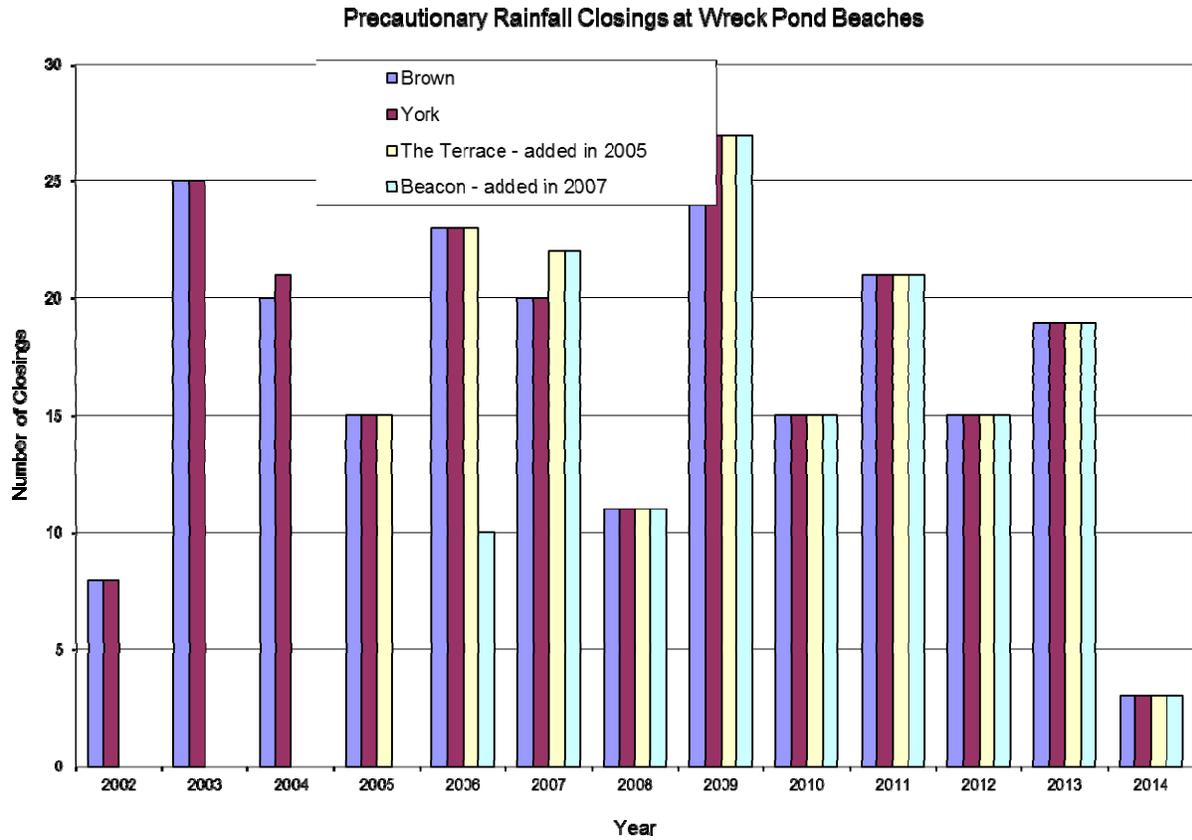


Figure 2. Beach closings at the four "rain provisional" beaches surrounding the Wreck Pond outfall in the years 2002 - 2014. The rainfall closing policy went into effect in 2002. Beacon Beach had rain provisional closings in 2006 but was not officially added to the policy until 2007. The policy was eliminated for the 2014 beach season but the beaches were closed as a precaution following two extreme weather events.

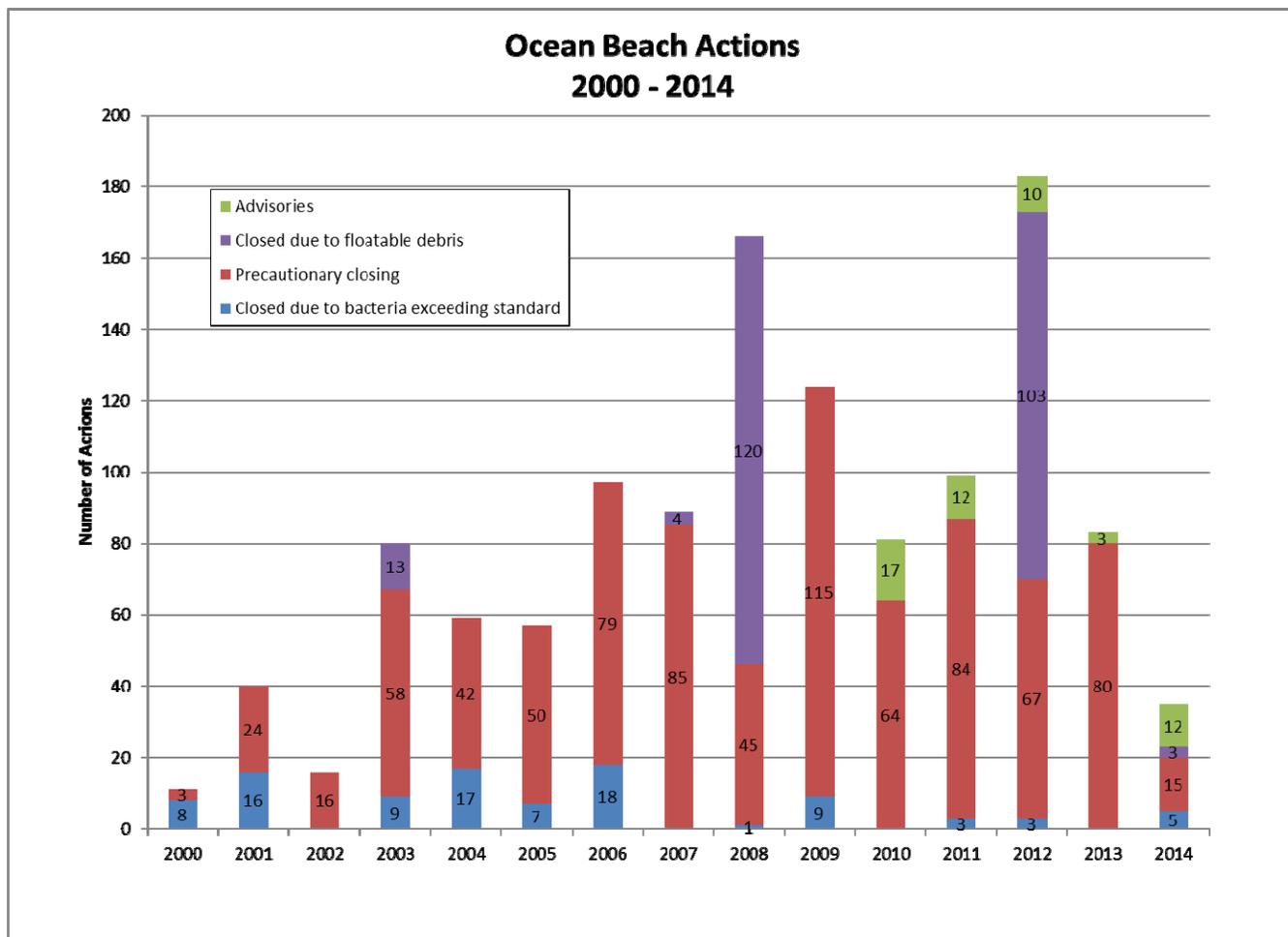


Figure 3. 15-Year Trend in NJ ocean beach actions.

Figure , show that closures at New Jersey's ocean and bay beaches due to exceedances of the water quality standard are low. Figure 5 and Figure 7 show the 2014 ocean and bay closings and the reasons for closure. However, the overall number of closures was up at ocean beaches primarily due to precautionary closures since 2000, the criminal medical waste dumping event in 2008 and the one-day floatable washup in 2012. 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 were open to bathing over 99.9% of the time in 2014 (Figure 8). The national average was 95% in 2012¹, the most recent year for which data is available. With more than 650 ocean and bay beaches (Figure 4), New Jersey has more recreational beaches than any other state on the east coast.

¹ United States Environmental Protection Agency, EPA's Beach Report 2012 Swimming Season June 2013, EPA 820-F-13—014, http://water.epa.gov/type/oceb/beaches/upload/national_facsheet_2012.pdf

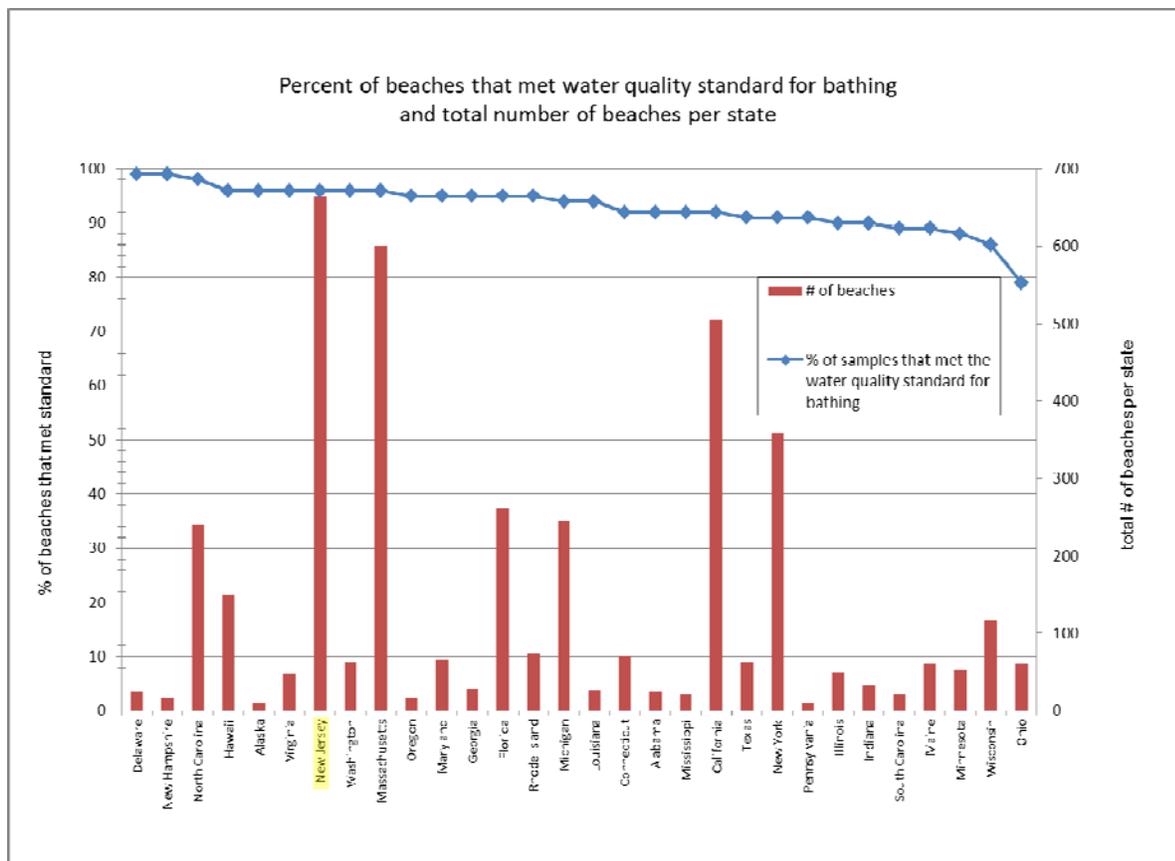


Figure 4. Ranking of states based on percentage of beach water quality samples meeting the bacteria standard.

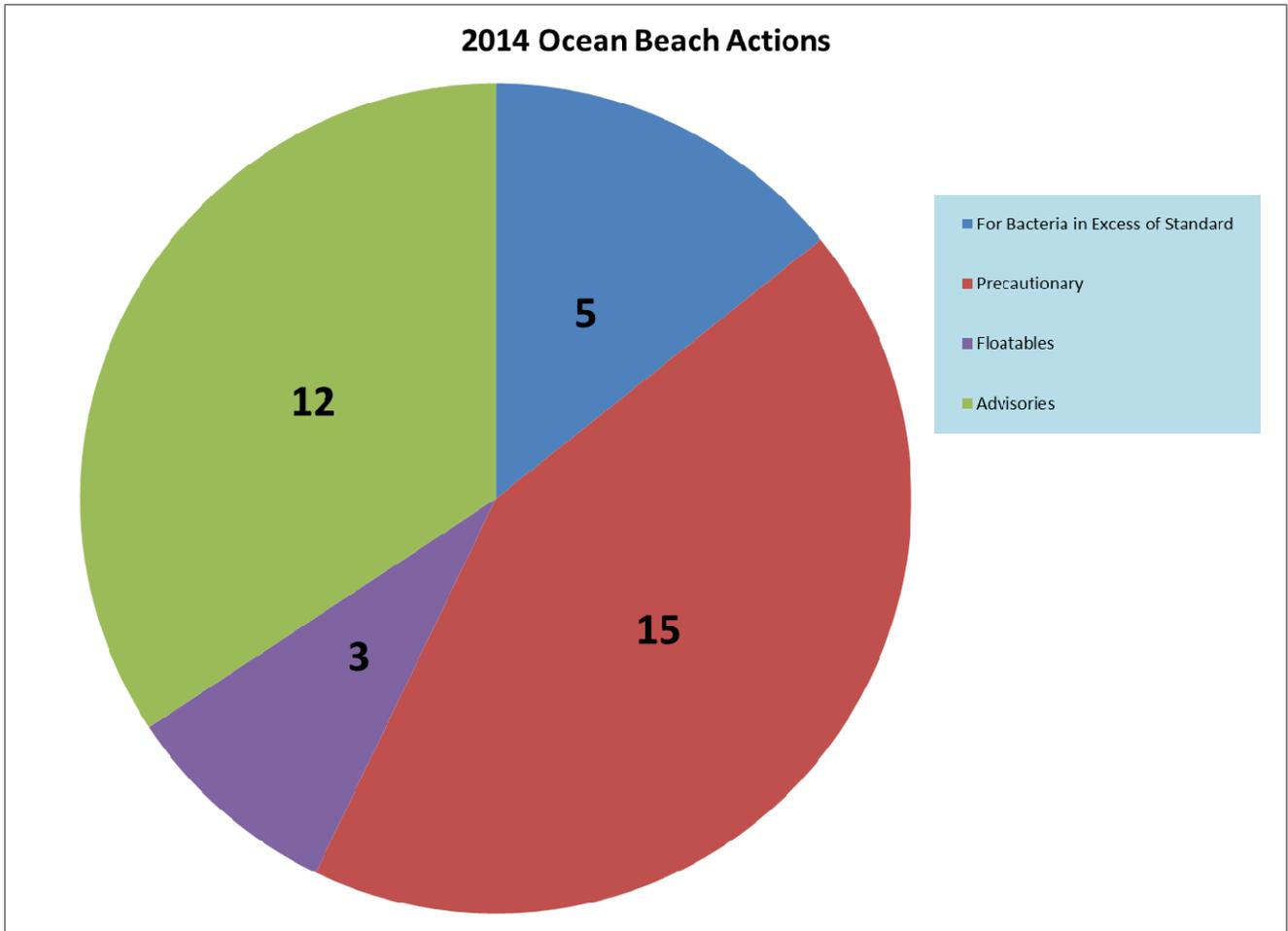


Figure 5. 2014 Ocean beach actions: Total number of actions and reason for action.

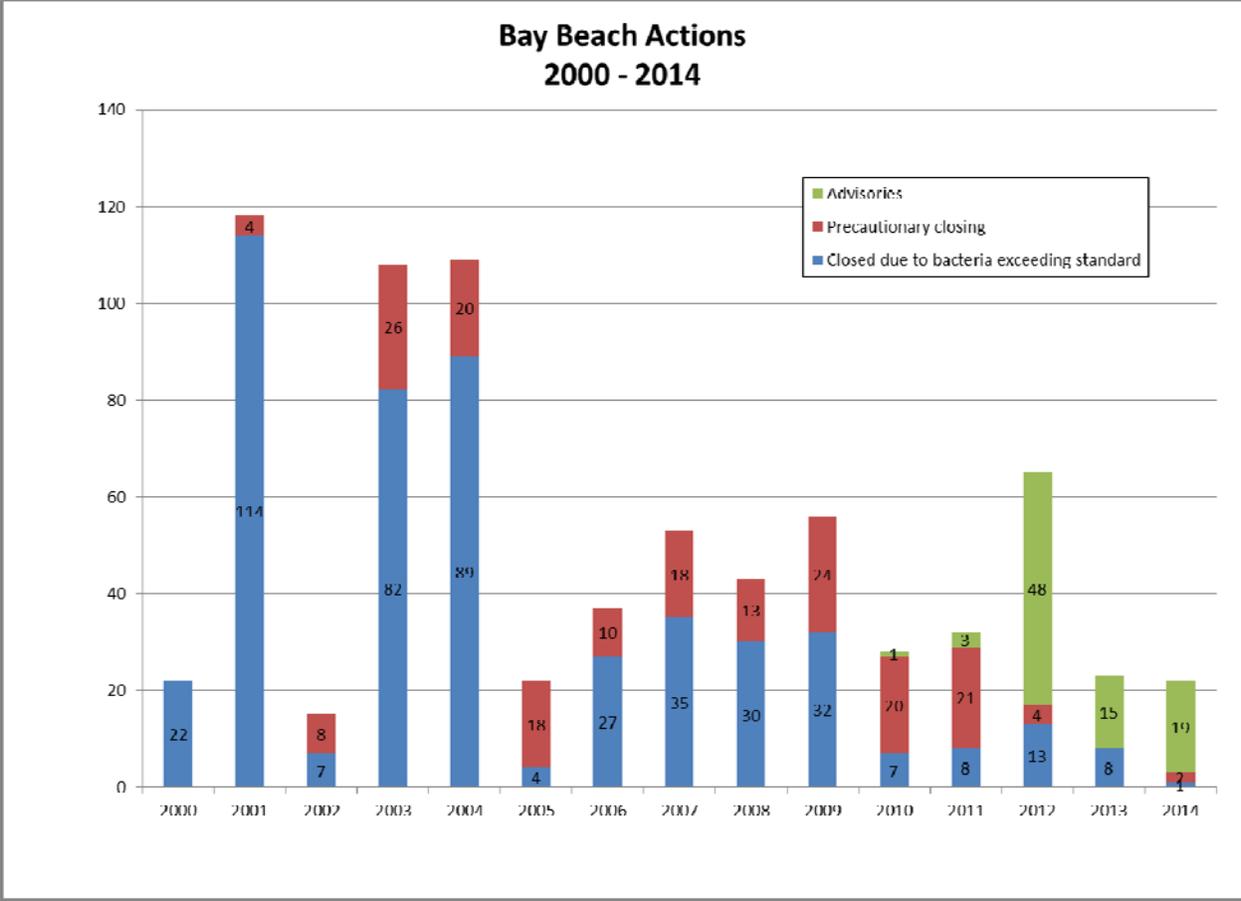


Figure 6. 15-Year Trend in NJ bay beach actions.

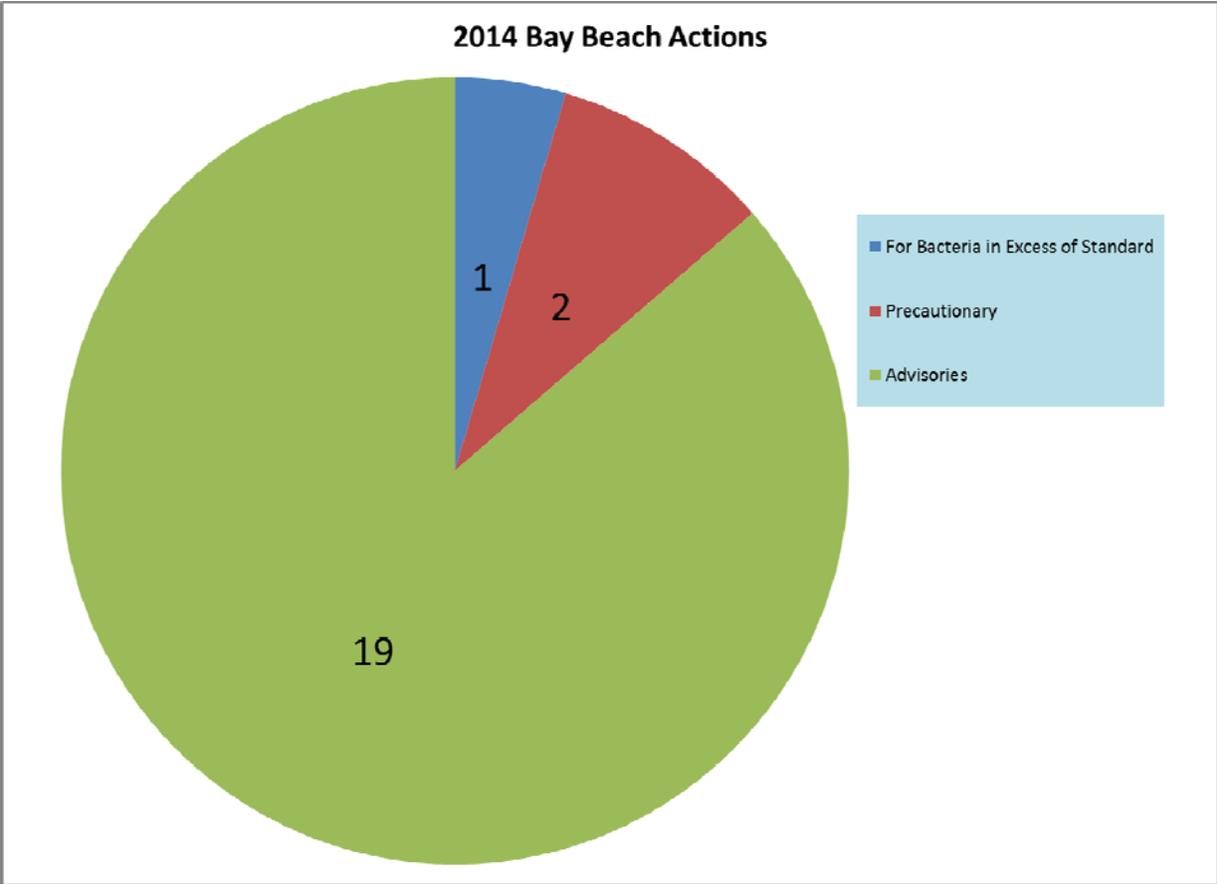


Figure 7. 2014 Bay beach actions: Total number of actions and reason for action.

Percent of Beach Days Available

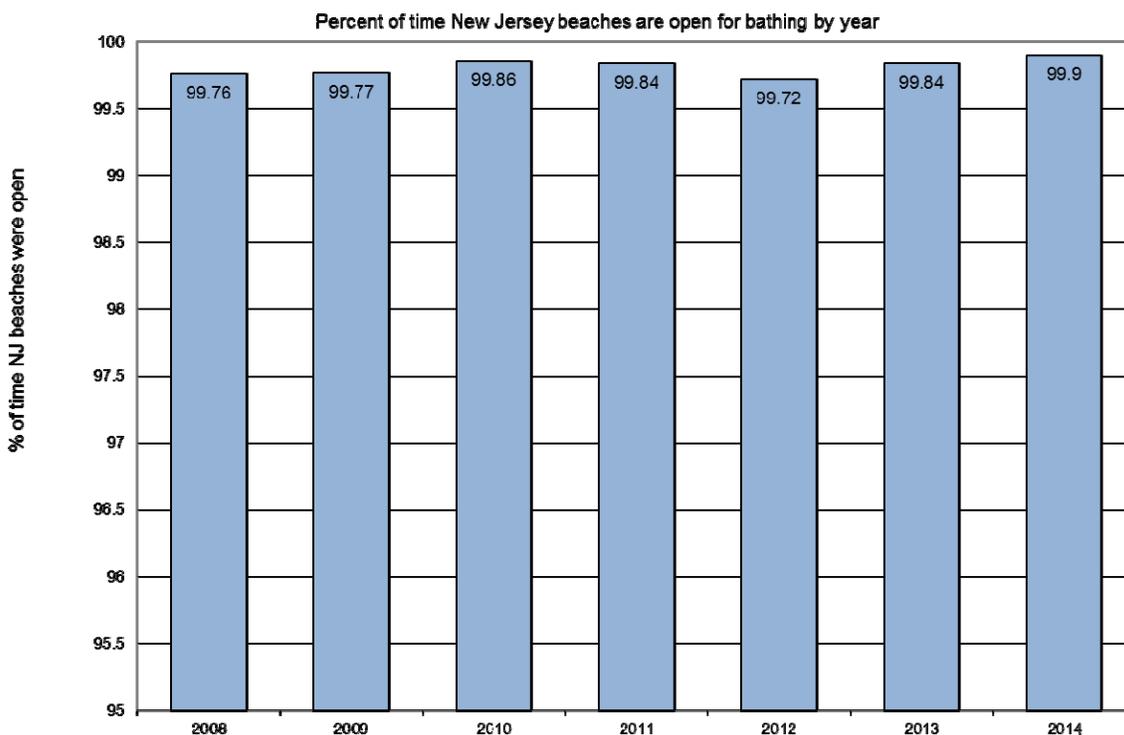


Figure 8. Percent of time NJ ocean and bay beaches are open for bathing by year

Enhancements to CCMP

DEP has joined with the EPA 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 leveraging of resources.

Wreck Pond

Beaches surrounding the Wreck Pond outfall have experienced significant numbers of precautionary beach closings due to potential contamination from the pond reaching bathing beaches (Figure 2). NJDEP has been working with local stakeholders to look at sources of contamination to the pond, flooding around the pond, and options for addressing these problems. In 2011, the Wreck Pond Restoration Action Plan was developed to focus efforts to remediate sources of bacteria and reduce flooding. A website was developed incorporating all research studies, reports and information about ongoing efforts around Wreck Pond including an interactive map that displays all analytical data. For more information about Wreck Pond and the progress of the restoration, go to: <http://www.nj.gov/dep/wreckpond/>. Updated project activities include:

- The US Fish & Wildlife (USF&W) received a \$2 Million Department of Interior Hurricane Sandy grant to improve aquatic conductivity in Wreck Pond. The primary project will install a secondary outfall pipe to address a number of concerns in the pond. The new pipe will more than double the

capacity of water discharging from Wreck Pond during flood conditions minimizing flood risk to the surrounding community; improve water quality by increasing natural tidal flow resulting in increased tidal flushing; and improve aquatic conductivity. Construction is anticipated between September 2015 and March 2016.

- The US Army Corps of Engineers received \$2.5 million in Hurricane Sandy funding to conduct a flood risk reduction and ecological restoration feasibility study for Wreck Pond in order to improve natural tidal flow.
- In February 2015, the Borough of Spring Lake was awarded a \$130,000 DOI/NFWF Hurricane Sandy grant to create 900 linear feet of living shoreline.
- In 2013, a Hurricane Irene FEMA grant was used to install a sluice gate on the existing outfall pipe and reconstruct a berm to inhibit a coastal storm surge.
- The Borough of Spring Lake used an EPA grant to conduct an infrastructure assessment in 2013. The assessment revealed an illicit connection that was immediately terminated. They also received a \$525k Environmental Infrastructure Trust principal forgiveness loan to conduct needed repairs revealed during the assessment. Improvements are expected to start in March with completion by May 2015.
- The Monmouth County Department of Public Works and Engineering installed 14 stormwater manufactured treatment devices in the Wreck Pond watershed using Corporate Business Tax and 1985 Wastewater Treatment grants. The funding has also supported the Wreck Pond Watershed Restoration Implementation Plan (submitted on February 3, 2015 and awaiting final approval), a conceptual design and feasibility study for a living shoreline and berm at Wreck Pond (presented in August 2014), and a fish study conducted in the Spring and Fall of 2014.
- Monmouth County has completed two phases of dredging at Wreck Pond and is permitted to begin the third phase to remove an additional 37,000 cubic yards of sediment.

Beachwood

Wet Weather Monitoring

In order to address repeated exceedances of the water quality standard at the Beachwood Beach bathing beach, DEP has been working closely with partners at NJ Department of Transportation (DOT), Ocean County Health, Engineering, Roads and Planning Departments as well as Beachwood Borough to clean and assess the storm water infrastructure, replace compromised storm sewer systems, and combine and relocate the county and borough owned outfall away from the recreational bathing beach area. All partners are confident that these actions will improve the water quality at Beachwood Beach and reduce future beach water quality exceedances. Work planned and completed to date includes:

- DEP's Bureau of Marine Water Monitoring conducted three flood tide ambient studies, three ebb tide ambient studies, and three storm event studies along the Toms River including Beachwood.
- Ocean County Roads Department cleaned Beachwood Borough and the County's storm sewer system in the Beachwood Beach drainage area twice prior to Beach Season 2014. They also televised the system, which revealed a portion of Beachwood Beach Borough's storm sewer system was compromised and infiltrated with tree roots on Spring Street. The storm sewer line was replaced in July 2014.
- Beachwood was awarded a 50% principal forgiveness Environmental Infrastructure Trust loan to combine and relocate the County and Borough outfalls away from the recreational bathing beach.
- In March and April 2014, DEP's Bureau of Marine Water Monitoring worked with FDA to conduct a dye study which confirmed that the proposed new outfall location (to the east of the parking lot) will have a greater dilution rate, thereby reducing the potential for contamination at the bathing beach. The discharge of stormwater at the proposed location is expected to dissipate and flush out through the channel within hours after a storm.

- In January 2015, construction began at Beachwood Beach to combine and relocate the County and Borough outfalls away from the bathing beach. The new outfall is currently connected and discharging stormwater from the Borough and the County storm sewer system. The curb, paving and final site restoration will be completed by the end of May 2015.
- The Ocean County Engineering Department is installing 6 stormwater manufactured treatment devices in spring 2015; 4 in Beachwood, 1 in Pine Beach and 1 in South Toms River.

The combined efforts of DEP, Ocean County and DOT are expected to result in fewer exceedances of the water quality standard and improved beach conditions. In 2014, following replacement of the storm sewer line, Beachwood Beach had only 5 swimming advisories and no beach closings were required; a significant improvement over previous years.

Coastal Incidents of Note – 2014

The following incidents received public, DEP, and local health agency attention in 2014, although the incidents did not always require beach closings:

In mid-May a major fish kill occurred in Shark River, Monmouth County. A large school of menhaden moved into the river and, as is common to large schools of menhaden, used up most of the dissolved oxygen in the river causing the fish to die. Officials from numerous municipalities and agencies were involved bringing resources to the towns affected by the kill. More than 300 tons of dead menhaden were removed from river shorelines during a massive cleanup operation. Very few dead fish washed up on ocean beaches. No beaches were closed during this incident.

On May 20, television news reported medical waste washing up on beaches in Middletown, Monmouth County and Perth Amboy, Middlesex County. What was shown in the report did not appear to be a medical waste dumping incident but rather syringes and other plastics that were consistent with a combined sewer overflow event. NJDEP Office of Emergency Management inspected beaches on the Raritan Bayshore and did not find any syringes or medical waste. DEP Compliance and Enforcement inspected CSOs in the northern area of the state to make sure that control devices were working properly. County and local health departments surveyed beaches in Monmouth County. Three syringes were found in Sea Bright. No beaches were closed following the report.

On June 5, one syringe was found on the beach in Brigantine. The beach was surveyed and no additional trash or debris was found. No beaches were closed.

On June 6, a small washup of dead menhaden was reported along the beaches from Cape May Point to Villas, Cape May County. The number of dead fish was consistent with a lost catch from a bait boat. DEP investigated the fish kill but the source could not be confirmed.

On June 11, a dead dolphin washed up on the beach in Wildwood Crest. The Marine Mammal Stranding Center retrieved the animal and performed a necropsy. The cause of death could not be determined and the dolphin was buried on the beach in Brigantine with the permission of the town.

On June 13, the DEP hotline received a report from the Stone Harbor Public Works Department. Approximately 8 syringes were discovered in the beach rake after cleaning the beach in the morning. Public Works crews combed the beach again and did not find any additional syringes. No beaches were closed.

On June 23, a citizen reported a fish wash up on the beach at Leonardo, Monmouth County. DEP's Fish & Wildlife and Monmouth County Health Department Hazmat investigated, and discovered the fish had net marks on them. Conservation officers investigated fishing operations in the area. Middletown Public Works removed fish from the beach. No beaches were closed.

On July 10, news outlets reported a "massive" phytoplankton bloom off the New Jersey coast. DEP's Bureau of Marine Water Monitoring collected samples along the coast and results showed only a low to moderate level of phytoplankton. The NJDEP chlorophyll sensor installed on the NJ Forest Fire Service plane showed only slightly elevated levels in Raritan Bay and low levels along the coast. No beaches were affected.

On July 15, a strong coastal storm hit New Jersey. In order to prevent flooding in the residential neighborhood near Wreck Pond, the emergency spillway was opened between the pond and the ocean. Contaminated stormwater was discharged to the ocean and water quality samples confirmed that bacteria levels were above the standard. The four recreational beaches surrounding the pond outfall were closed. The beaches were closed for two days following the storm. The new beach policy will be to close the four beaches automatically any time an emergency spillway is opened.

On July 20, several syringes washed up on beaches in Monmouth and Ocean Counties. There had been very heavy rain earlier in the week and rain combined with a persistent northeast wind likely caused the syringes and other plastics from combined sewers to wash up on beaches. No beaches were closed.

On August 9, the Long Branch Health Officer closed three beaches at 7 Presidents Park, a beachfront park in the Monmouth County park system, due to 11 syringes found at the tide line. A 5-gallon bucket was also found. The entire Long Branch beachfront was surveyed and no other trash or debris was found. The beaches were reopened the next day.

On August 10, a dead bottlenose dolphin was found floating in the surf in Normandy Beach, Ocean County. The Marine Mammal Stranding Center was notified of the dolphin but decided not to collect samples due to the advanced state of decomposition. The dolphin was removed from the beach. No beaches were closed.

On August 13, the emergency spillway was again opened between Wreck Pond and the ocean in order to relieve flooding after heavy rain. The four beaches surrounding the pond outfall were closed as a precaution. Beaches remained closed until water quality sample results showed bacteria concentrations below the standard.

On August 14, a pump installed at the collapsed Lake Como ocean outfall pipe was turned on to relieve flooding in the neighborhood near the lake. The lake water discharged into the surf at the border of Spring Lake and Belmar. The Monmouth County Regional Health Commission closed Remsen and Pitney Avenue beaches at the north end of Spring Lake and the Monmouth County Health Department closed 20th Avenue beach at the south end of Belmar as a precaution due to the lake discharge. The beaches were reopened the following day.

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 more than 650 public recreational bathing beaches is among the best in the country.² In 2013, the most recent year for which data is available, New Jersey ranked 3rd in the nation for beach water quality (Figure 8). New for 2013, states were ranked by total number of exceedances of EPA's new Beach Action Value (BAV) and exceedances of the Single Sample Maximum (SSM). The BAV used was 60 colony forming units/100 ml of sample. The single sample maximum was 104 cfu/100 ml. The state ranked 1st in the nation

² National Resources Defense Council: Testing the Waters 2014, A Guide to Water Quality at Vacation Beaches

had the lowest number of exceedances; the state ranked 30th had the highest number of exceedances. As shown in Figure 8, New Jersey has more public recreational bathing beaches than any other east coast state and the lowest percentage of exceedances of the BAV. Only Delaware, with its relatively few bathing beaches, has fewer exceedances of the SSM.

This good water quality is also reflected in the number of days New Jersey beaches were open to the public in 2014. With 665 lifeguarded marine beaches in New Jersey and 15 weeks to the bathing season, New Jersey had a total of 69,825 beach-days available in 2014. In 2014, there were a total of 26 beach closings, representing 0.04% of the available beach days. In other words, when the public in New Jersey went to the beach in 2014, they found the beach was open for bathing more than 99.9 percent of the time.

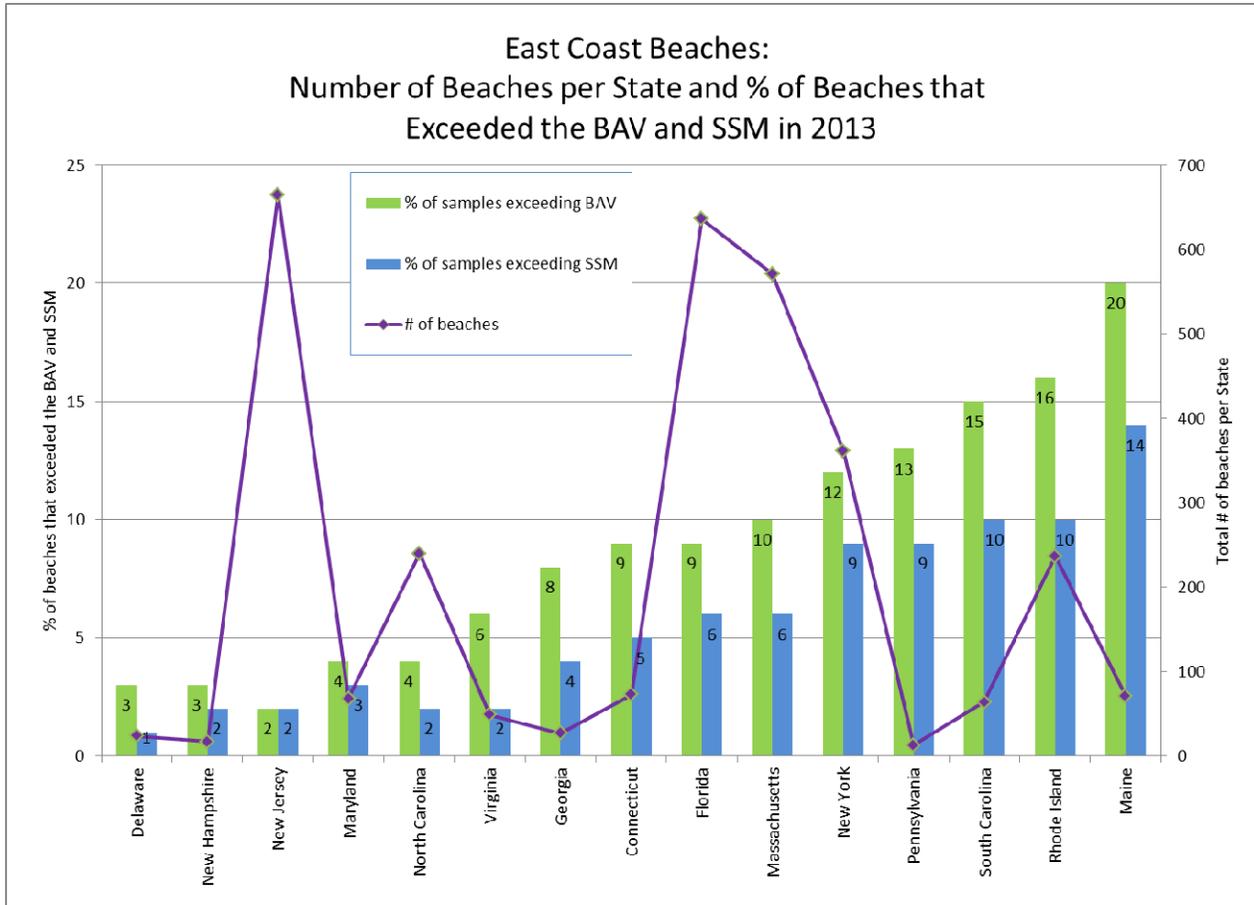


Figure 9. East Coast beaches. Shows percent of samples that exceeded EPA’s new Beach Action Value (BAV) and the percent of samples that exceeded the Single Sample Maximum. New Jersey ranked #3 in the United States for beach water quality in 2013.

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 2014, the program removed 2.62 million pounds of trash and debris from 138.7 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 tidal shorelines.

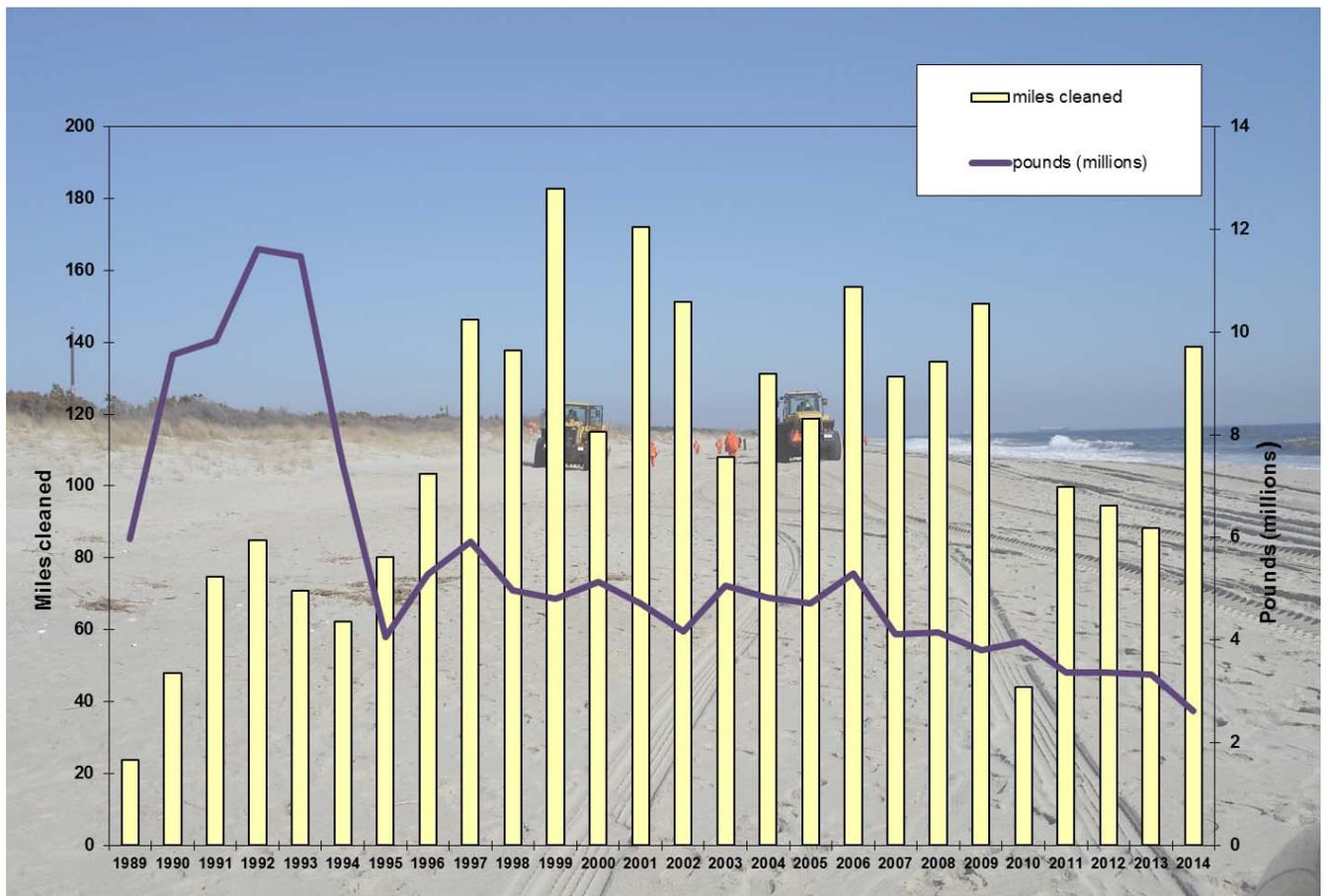


Figure 10: Total amount of debris removed by Clean Shores Program since start of program.

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.



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