Executive Summary

Twentieth Annual Report

In 2009, beach closings and advisories hit their sixth-highest level in the 20 years the Natural Resources Defense Council (NRDC) has been tracking them. The continuing high number of closing and advisory days, combined with a relatively constant level of bacterial contamination at ocean, bay, and Great Lakes beaches, suggests that our nation's beaches require a more concerted effort to identify and control the sources of water pollution that put swimmers at risk.

For the fifth consecutive year, we were able to determine not only the number of closings and advisories, but also the number of times that each beach violated current public health standards. The percent of beach monitoring samples exceeding national health standards remained steady at 7% in 2009, equal to the level in 2008 and 2007 and down from 9% in 2006. More frequent monitoring plus 17% fewer preemptive rainfall closing and advisory days due to drier weather in some parts of the country translated into a better beach season last year for swimmers in many coastal communities. But relying on dry weather to keep contaminated runoff from polluting beachwater is not a long-term public health protection strategy. When the rains return, so do the beach closings and advisories. For example, in the Delmarva Peninsula near Washington, D.C., wetter-than-average conditions contributed to nearly three times as many closing/advisory days in 2009 as in 2008. During 2009, stormwater runoff was identified as a source of more than 80% of the closing/advisory days for which a source was identified. This indicates that there are sources of human or animal wastes that are not being adequately addressed and that are getting washed into the ocean when it rains.

Even in the relatively dry 2009 beach season, stormwater runoff contributed to more than 80% of the closing and advisory days with a reported contamination source.

POLLUTED WATER MAKES BEACHGOERS SICK

In its most recent report on waterborne disease and outbreaks associated with recreational water, the Centers for Disease Control and Prevention concluded that the incidence of infections associated with recreational water use has steadily increased over the past several decades.[1] Data on the incidence of waterborne illness in the United States are notoriously bad because many people who get sick have no idea that ingesting contaminated water was the cause, but epidemiological studies like those that the EPA has conducted in the Great Lakes show that as many as 10% of beachgoers report getting sick after swimming at beaches that are open for swimming. With population growing in U.S. coastal areas, we can expect to see more Americans getting sick from beachwater until the sources of contamination are addressed.

POLLUTED WATER HURTS COASTAL ECONOMIES

Dirty coastal waters not only threaten our health but also hurt our economy. A stark illustration of the devastation that polluted ocean water can wreak on coastal economies is playing out this summer as a result of the Deepwater Horizon oil spill in the Gulf of Mexico. Coastal "tourism and recreation is one of the fastest-growing business sectors, enriching economies and supporting jobs in communities virtually everywhere along the shores of the United States and its

territories," the U.S. Commission on Ocean Policy states.[2] That translates into new employment opportunities. In 2000, U.S. coastal tourism and recreation created 1.6 million jobs.[3]

IMPROVED BEACHWATER MONITORING STANDARDS CAN BETTER PROTECT PUBLIC HEALTH

The federal public health standard is more than 20 years old, does not provide information on the full range of waterborne pathogens that make beachgoers sick, and requires test methods that take 24 hours to complete. Closing and advisory decisions are based on yesterday's samples. So even if a beach is deemed "safe" under the federal public health standard, it may still contain human or animal waste that can make swimmers sick. Under the BEACH Act, which passed in 2000, Congress required the EPA to modernize this outdated standard, but the agency has not yet done so. Four summers ago, NRDC sued the EPA to force it to comply with the BEACH Act by accelerating its timetable for proposing new standards, setting standards that fully protect the public, and establishing testing methods that will enable public health officials to make prompt decisions about closing beaches and issuing advisories. As a result of NRDC's lawsuit, the EPA is moving forward in developing an improved public health standard and approving faster test methods. For the first time, a rapid test method is being used to make beach closing and advisory decisions as part of a pilot study this summer at several beaches in Orange County, California. Americans need to know that the waters in which we swim, surf, and dive are safe. At a minimum, that means that recreational waters must be tested regularly, and the results must be measured against effective health standards. When waters do not meet these standards, authorities must promptly and clearly notify the public.

PREVENTION IS THE BEST WAY TO CURB BEACH POLLUTION

While authorities are doing a better job monitoring beaches than in the past, this monitoring reveals the extent to which our beachwaters continue to be polluted. Unfortunately, the monitoring does not reveal the cause of beachwater pollution. In 2009, more than half of beach closing/advisory days were reported as due to unknown sources of contamination. Beach officials cannot clean up sources of pollution if they cannot identify them. One problem is that BEACH Act grants are currently not available for source identification and correction. NRDC is supporting federal legislation, the Clean Coastal Environment and Public Health Act, that would increase the funding authorized for BEACH Act grants and allow them to be used for sanitary surveys, source tracking, and other means of identifying and addressing the direct sources of contamination. In the meantime, steps are being taken to support source identification and correction activities with federal funding: Great Lakes Restoration Initiative grants provide significant funding for bacterial source identification, and many entities have won Recovery Act funding to correct sources of beachwater contamination. The Clean Coastal Environment and Public Health Act would provide funding to pursue these activities throughout the United States. Expanded funding should allow monitoring to cover all designated coastal beaches. Finally, it is time for the EPA and state and local authorities to seriously address the sources of beachwater pollution, which most often are stormwater and sewage pollution. Prevention is the best way to make sure that a day at the beach will not turn into a night in the bathroom or, worse, in a hospital emergency room. We have a myriad of solutions – collectively called "green infrastructure" – available today that can stop stormwater runoff and sewage overflows before they happen. Utilizing methods like green roofs, permeable pavement, roadside plantings and rain barrels – these methods are often the cheapest and most effective way to address these problem pollution sources. By stopping rain where it falls – allowing it to filter into the ground or storing it – green infrastructure prevents runoff and overflows from the start.

CUTTING GLOBAL WARMING POLLUTION CAN HELP AVOID BEACHWATER POLLUTION

The U.S. House of Representatives has already passed, and the Senate is now considering, legislation that would cap U.S. greenhouse gas emissions to gradually cut global warming pollution, invest in clean energy technologies, and create millions of jobs in the new energy economy. Passing such legislation is critical to addressing a wide range of impacts of

global warming on coastal communities, including increased storms, floods and runoff, which threaten public health. The Intergovernmental Panel on Climate Change found that "[w]ater-borne diseases and degraded water quality are *very likely* to increase with more heavy precipitation."[4] This legislation can help avoid beachwater pollution in the future by minimizing these negative impacts of climate change.

RECOMMENDATIONS FOR IMPROVING BEACHWATER QUALITY AND PROTECTING SWIMMERS' HEALTH

• The EPA and states should tighten and enforce controls on all sources of beachwater pollution. . The most economical and effective way to do this in many cases is to boost green infrastructure in coastal communities that control sewage overflowsand stormwater runoff which are consistently the largest known sources of beachwater pollution. The best way to prevent swimmers from getting sick is to clean up the water.

• The EPA should propose new health standards for beachwater quality that fully protect the public and establish testing methods that will enable public health officials to make prompt decisions about closing their beaches and issuing advisories.

• Congress should pass the Clean Coastal Environment and Public Health Act (H.R. 2093/S. 878), which would reauthorize the federal BEACH Act of 2000, increase the authorized funding and allow that funding to be used for identifying and correcting sources of beachwater contamination, require the EPA to approve and states to use rapid test methods for monitoring beachwater pollution, and improve coordination between the public health officials who monitor beachwater and the environmental agencies who regulate the sources of beachwater pollution.

• Because climate change will exacerbate some communities' beachwater pollution problems, Congress should also enact comprehensive climate and energy legislation to reduce emissions of global warming pollution and help communities prepare for flooding, sea level rise, increased stormwater pollution, sewer overflows, and other adverse impacts of climate change.

• Congress should substantially increase the federal appropriations available to meet clean water and beach protection needs through the Clean Water State Revolving Fund, federal BEACH Act grants, and a Clean Water Trust Fund or other dedicated source of clean water funding.

• Congress should pass the Sewage Overflow Community Right-to-Know Act (H.R. 753/S. 937), which would require quick reporting of sewage overflows to public health authorities and to the general public, allowing prompt response to overflows in order to minimize human exposure and environmental harm.

• State and local governments should issue preemptive advisories where a correlation between rainfall and elevated bacteria levels exists or when sewer overflows or other catastrophic events jeopardize beachwater safety.

• A portion of the revenues generated by tourism should be allocated to monitoring and prevention programs to ensure that swimming in coastal waters does not jeopardize the health of beachgoers.

• Voters should support increased federal, state, and local funding for urban stormwater programs and for repairing, rehabilitating, and upgrading our aging sewer systems. The public also should support funding for maintaining and expanding natural areas—such as wetlands, shoreline buffers, and coastal vegetation—that trap and filter pollution before it reaches the beach.

* Individuals can help clean up beach pollution. Simple measures, including conserving water, redirecting runoff, using such natural fertilizers as compost for gardens, maintaining septic systems, and properly disposing of animal waste, litter, toxic household products, and used motor oil can reduce the amount of pollution in coastal waters.

Notes

1 Yoder, J.S., et al., "Surveillance for Waterborne Disease and Outbreaks Associated With Recreational Water Use and Other Aquatic Facility-Associated Health Events—United States, 2005–2006," Centers for Disease Control and Prevention, September 12, 2008/57(SS09) pp. 1–29, available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5709a1.htm.

2 U.S. Commission on Ocean Policy, *An Ocean Blueprint for the 21st Century: Final Report,* Washington, D.C., September 2004, p. 2, available at: http://www.oceancommission.gov.

3 Ibid., p. 31.

4 IPCC, Technical Paper IV, Climate Change and Water, June 2008, p. 103. Available at: http://www.ipcc.ch/pdf/technical-papers/climate-change-water-en.pdf.