TESTIMONY OF

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BEFORE THE HOUSE COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE'S WATER RESOURCES AND THE ENVIRONMENT SUBCOMMITTEE

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Before the U.S. House of Representatives Subcommittee on Water Resources and Environment

Good morning, Mr. Chairman, and members of the Committee. I am Nancy Stoner, Director of the Clean Water Project at the Natural Resources Defense Council (NRDC), a national environmental group that has a long history of working to protect our nation's waters through the Clean Water Act. NRDC was involved in supporting the BEACH Act in 2000 and appreciates your interest in promoting even more advances in beachwater protection.

Thank you for holding this timely hearing today on reauthorizing the Beaches Environmental Assessment and Coastal Health (BEACH) Act of 2000, to improve beach water quality monitoring programs and processes of notifying the public of health risks from contamination at beaches. This is a tremendous opportunity for the Congress to provide increased funding and essential improvements in these programs.

Our beaches are one of our nation's national treasures, with more than half of all Americans visiting coastal areas each year. Waterborne pathogens contaminate water and sand and pose a threat to the health of beachgoers. Recognizing the need for consistent protection at recreational beaches, Congress passed the BEACH Act, directing the EPA to develop public health based criteria for using in assessing beach water quality and to provide grants to states and local governments to develop water quality monitoring and public notification programs. Since then, progress has been made in improving public health at our nation's beaches. Every coastal state now has a beach water monitoring and public notification program.

Despite this progress, we are still not doing everything possible to protect the public. Pollutants continue to foul our waters, threatening human and ecological health. The more monitoring that is done, the more unhealthy beaches we find. As of 2006, there were more than 20,000 beach closing or advisory days in the U.S. For more than half of the advisories and closings issued, the source of pollution was unknown and underlying causes remain unaddressed.

Our beaches are being contaminated by pathogens derived from fecal mater, including bacteria, viruses and parasites, that enter primarily through storm waters and sewage discharges. Anyone swimming in contaminated water risks being infected by pathogens that can enter through the mouth, nose, eyes, lungs or open wounds. These pathogens cause a wide range of diseases including ear, nose and eye infections; gastroenteritis; hepatitis; encephalitis; skin rashes; and respiratory illnesses. While these illnesses usually pass after several days or weeks, in some cases they can cause serious long-term effects or even death. Certain groups, including children, the elderly, and those with a weakened immune system are particularly vulnerable to these long-term effects.

Experts estimate that as many as 7 million Americans get sick each year from drinking or swimming in water contaminated with bacteria, viruses or parasites.

The EPA was required by Congress under the BEACH Act to conduct the necessary studies to assess the full human health risk from exposure to pathogens in coastal recreation waters by October 2003 and subsequently publish revised water quality criteria for pathogens and pathogen indicators based on those studies by October 2005. Unfortunately, EPA is far behind schedule in doing this essential work and has stated it will not have updated standards in place before 2011. NRDC has sued the EPA to force compliance with the congressionally mandated requirements. NRDC wants the EPA to complete research on illnesses associated with swimming in contaminated water; expand the scope of the studies so all types of pollution sources, all types of pathogens, and the full range of waterborne diseases are examined; set standards that will protect all swimmers; and set testing methods that will allow beaches to make timely decisions about whether to close or issue an advisory.

A scientific panel assembled by EPA this spring evaluated the current water quality criteria and corroborated many of the concerns that NRDC has raised over the years. For example, the panel's report points out the need for new criteria that are protective of the most sensitive subpopulations including children, the elderly and pregnant women. The experts' report mentions the need for effective predictive models for beachwater quality forecasting. The report also notes that criteria need to be based on a suite of illnesses, not only on gastroenteritis.[i] The GAO also released a report this spring evaluating the BEACH Act. The GAO report identified the need for rapid analytical methods to better protect human health, the need for increased funding for federal BEACH Act grants to states, and the need for those funds to be available for pollution source investigation and remediation.[ii]

I will discuss NRDC's recommendations for a comprehensive, national beach protection program that would provide a strong foundation for coastal water quality monitoring and public health protection at our beaches. The EPA's BEACH program and the federal BEACH Act have adopted several elements of NRDC's proposed program, but further progress is needed. We support the 2007 Beach Protection Act, H.R. 2537, which would better protect Americans by strengthening the BEACH act and its provisions to strengthen the BEACH Act.

Update Beach Protection Standards and Contamination Detection Methods and Improve Monitoring and Advisory Requirements

Today's beachwater quality standards, which were set in 1986, are deficient and may leave beachgoers vulnerable to a range of illnesses. The current standards focus on bacteria found in human waste, and may not protect the public from diseases caused by viruses and parasites, such as Cryptosporidium and Giardia, which are also a cause of waterborne illnesses in the United States. Current standards focus on gastroenteritis, and therefore may not protect beachgoers from rashes, ear aches, pink eye or respiratory infections, or from serious illnesses such as hepatitis and encephalitis. The standards were designed to detect sewage pollution and may not be adequately protective against the

various waterborne diseases carried by animal wastes. The standards are insufficient to protect those most likely to die from infectious disease- the elderly, children, and individuals with impaired immune systems. They are not designed to protect in all types of water bodies, including tropical and semi-tropical waters. Finally, current standards are not designed to protect surfers, lifeguards and others with repeated and prolonged exposure to beachwater pollution. The EPA needs to speed up and complete the required epidemiology studies and speed up the time table for proposing new standards. New standards need to be more protective than the EPA's current recommended bacteria standard.

Rapid methods for detecting beachwater contamination need to be approved and mandated. Current methods require a long incubation period, producing results in 24 to 48 hours. This lag time between when pathogen contaminated waters are sampled and when the public is notified creates a dangerous window where swimmers can be infected. We need to direct the EPA to approve rapid testing methods that give results in 2 hours or less so closure or advisory decisions can be made the same day samples are taken. If passed, the 2007 Beach Protection Act would require rapid testing and notification to ensure that beachgoers know whether the water they swim in is safe.

Beachgoers need to know whether the water at the beach is safe, and they need to receive prompt and complete information. There is inconsistency among state beachwater monitoring and public notification programs, and some state programs may be not be adequate for protecting the public. The EPA needs to update its monitoring and public notification guidance to ensure that state programs are sufficiently protective and require states to follow it as a criterion of grant funding. The public should be notified immediately when monitoring reveals that public health standards have been violated. Yet states vary as to whether they issue an advisory, a closure or both. Some states wait until there have been two consecutive standard violations before an advisory is issued. Monitoring frequency also varies among states, with some states monitoring their high priority beaches almost daily and others only once or twice a week.

More intensive monitoring may be needed in areas of chronic pollution and after rain events. Beach advisories should be posted the first time levels exceed the EPA's public health standards, and the closing or advisory should continue until further testing demonstrates that the beachwater is safe. Notification should be easy for the public to receive and include toll-free phone lines, signs posted at beaches, electronic notifications, newspaper notices, and television and radio coverage in conjunction with the weather report.

To further protect public health, preemptive rainfall advisories, in anticipation of elevated bacterial levels, should be issued where a correlation between rainfall and water quality exists or when sewer overflows or catastrophic events jeopardize beachwater safety. Computer modeling systems, which take into account current weather and environmental conditions, should be used to predict bacteria levels and issue advisories in real time.[iii]

Prevent Beachwater Pollution: Provide Assistance for Source Tracking and Remediation

Beachwater contamination threatens coastal economies, where economic activities related to the oceans contribute more than $117 billion a year to U.S. prosperity and support more than two million jobs.[iv] In addition to reducing peoples' exposure to beachwater pollution through better monitoring and public notification, beachwater pollution need to be controlled at the source. As the data show, most beach closures and advisories are due to elevated bacteria levels. However, in most cases the source of bacterial contamination causing beach closures/advisories is not known.

To help prevent future contamination, sanitary surveys should be conducted to identify the source of beachwater pollution when water quality standards designed to protect swimming use are exceeded. State beachwater programs funded under the federal BEACH Act should be required to obtain and report information on potential contamination sources to the EPA, and the EPA should make that information publicly available in searchable databases. Most important, that information should be used to reduce the sources of beachwater pollution.

We support the Beach Protection Act provisions that would increase the amount of BEACH Act funding grants given to states and local governments and allow these grants to be used not only for monitoring and notification programs, but also for pollution source tracking and remediation.

Implement and Enforce Better Controls on Pollution Sources

Preventing beachwater contamination is the best tool for protecting humans and aquatic life. As an aggressive prevention strategy we need stricter controls on stormwater and combined sanitary and sewer overflows. Federal stormwater-permitting requirements for municipal systems, industrial stormwater dischargers, and construction sites are now in place, but these programs need to be implemented and enforced so that discharges do not contribute to beachwater contamination. The EPA needs to require programs to use up-to-date technologies to reduce contaminated stormwater discharges and put additional controls in place where basic technologies are not sufficient to make beachwater safe.

We need to be using effective storm water management approaches, including low impact development (LID). Our goals are not being met by conventional stormwater management, and communities often struggle with the economic burden of repairing or expanding existing stormwater infrastructure. LID offers an approach that is both more economically sustainable and more environmentally sound.[v]

Although the EPA's combined sewer overflow policy has been in place since 1994, as of 2004 only 35 percent of the 828 communities nationwide with combined stormwater and sewage systems had begun implementation of a long-term plan to control combined sewer overflows.[vi] Sanitary sewer overflows are illegal, yet the EPA has

estimated that there are more than 23,000 sanitary sewer overflows every year into rivers, lakes, wetlands, and coastal waters.[vii] A consensus proposal for controlling SSOs was shelved by the White House in January 2001 and has never been finalized. Implementation and enforcement of these programs need to be substantially increased.

Improve Coordination Between Sanitation and Public Health Officials

Improved monitoring, immediate reporting of overflows to public health authorities and to the general public, and prompt response to overflows to minimize human exposure and environmental harm are critical steps that need to be taken to close the communication gaps between those responsible for sewage and stormwater treatment and those charged with protecting public health. The public has the right to know when there is a sewer overflow or stormwater discharge that threatens beachwater quality, and they should be informed when it happens, not days later when the beachwater monitoring results finally arrive. In response to the need for public notification, The Raw Sewage Overflow Community Right-to-Know Act, H.R. 2452 was introduced in May 2007. If passed, this act will amend the Federal Water Pollution Control Act to direct owners or operators of publicly owned treatment works to: 1) institute an alert system for sewer overflows; 2) notify the public of such overflows in areas where human health is potentially affected within 24 hours; 3) immediately notify public health authorities, such as beachwater manages, and other affected entities; and 4) provide specified reports to the Administrator of the EPA or the State.[viii] NRDC supports H.R. 2452, which would ensure that beachwater monitors and the public know about sewage spills that could endanger public health. We also support the Beach Protection Act provision to require public health officials to inform environmental agencies when beachwater monitoring detects contamination so that it can be promptly addressed.

Close the Funding Gap

The EPA estimates that there will be a funding gap between the costs of sewage and stormwater controls and available resources of between $72 billion and $229 billion over the next 20 years, depending on the growth of the economy.[ix] This funding gap will only grow over time as we continue to defer operations and maintenance and allow our sewer and stormwater systems to deteriorate. Congress needs to assist state and local communities in bridging the funding gap by substantially increasing the federal resources available to meet clean water needs through the creation of a Clean Water Trust Fund or other dedicated source of clean water funding. Communities also need to spend smarter by preserving and enhancing the use of soil and vegetation to reduce beachwater pollution.[x] In watersheds with at least 13.5 percent wetland coverage, periods of rainfall do not substantially increase fecal coliform bacteria counts.[xi] The Water Quality Financing Act, H.R. 720, which is currently pending in the Senate, would authorize $14 billion for the Clean Water State Revolving Fund over the next four years and provide critical assistance for projects that repair and rebuild failing storm water and wastewater infrastructure, including through the use of LID. We feel that this funding increase is crucial.

Finally, the 2007 Beach Protection Act has proposed a doubling of the Federal grants made available to states under the BEACH Act, from $30 million to $60 million. We support this and feel that funding should not only be increased but it needs to be fully appropriated. Currently, only about $10 million has been appropriated annually for BEACH Act grants, leaving state and local governments without the full support they need to tackle beachwater contamination and protect the public and the environment.

In closing, I would like to thank Chairwoman Johnson for providing me with the opportunity to testify today. I would also like to thank Representative Pallone and Representative Bishop and all other cosponsors for their leadership in making public safety and environmental health at our beaches a priority by initiating much needed improvements in the BEACH Act. I would be happy to answer any questions you may have.

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[i] EPA, *Report of the Experts Scientific Workshop on Critical Research Needs for the Development of New or Revised Recreational Water Quality Criteria*, March 2007, available at: http://www.epa.gov/waterscience/criteria/recreation/

[ii] GAO, Report to Congressional Requesters, *Great Lakes: EPA and States Have Made Progress in Implementing the BEACH Act, but Additional Actions Could Improve Public Health Protection*, available at: http://www.gao.gov/new.items/d07591.pdf

[iii] USGS Ohio Water Science Center, "Nowcasting Beach Advisories," June 28, 2006, available at: http://www.ohionowcast.info/index.asp

[iv] U.S. Commission on Ocean Policy, *An Ocean Blueprint for the 21st Century Final Report of the U.S. Commission on Ocean Policy*, Washington, D.C., September 20, 2004, p. 31, available at: http://www.oceancommission.gov.

[v] Low impact development Center, Inc, available at: http://www.lowimpactdevelopment.org/

[vi] EPA, *Report to Congress on Implementation and Enforcement of the Combined Sewer Overflow Control Policy*, p. 7-3, August 2004.

[vii] EPA, *2004 Report to Congress*, p. ES-5.

[viii] 33 U.S.C. 1342, sec. 402(r).

[ix] EPA, *2004 Report to Congress*, p. 9-10.

[x] Christopher Kloss and Crystal Calarusse, *Rooftops to Rivers: Green Strategies for Controlling Stormwater and Combined Sewer Overflows*, NRDC, June 2006.

[xi] Michael A. Mallin, "Wading in Waste," in *Scientific American*, June 2006, pp. 53–59.