Natural Resources Defense Council

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FAQs: Testing the Waters 2002
NRDC's Annual Guide to Water Quality at Vacation Beaches

Q: There was a 19 percent increase in the number of beach closings and advisories last year. What is causing the increase?

A: The number of beach closings and advisories in 2001 jumped 19 percent from the previous year, from 11,270 in 2000 to 13,410 in 2001. The number of closures and advisories vary year to year because of the amount of precipitation, the number of beaches monitored, and the number of advisories and closures that are reported. Last year the increase was due to the fact that some states monitored more beaches than they did the previous year, some states monitored more beaches at least once a week, more authorities adopted the Environmental Protection Agency's recommended geometric mean and single sample standards, and rainfall was relatively heavy in some areas.

Q: Why is it important to use EPA-recommended standards for testing beachwater quality? Do all states and localities use this standard?

A: It is important that states and localities utilize a standard at least as strict as EPA's (and preferably stricter) for two reasons: First, studies have shown that the indicator organisms on which the EPA standards are based (*enterococcus* for marine waters and *enterococcus* or *e.coli* for fresh waters) have the highest correlation with the most common swimming-associated illness, gastroenteritis.

Second, EPA's recommended standard for marine waters allows for 19 illnesses per 1,000 swimmers (eight illnesses per 1,000 swimmers in the Great Lakes). In other words, if 1,000 people on one day swam in water that just met the EPA standard, 19 would be expected to become ill with gastroenteritis. NRDC says this risk is too high and that the standard should be more stringent. In any case, no state or locality should use a standard *less* stringent than EPA's.

Unfortunately not all states and localities use this standard. Only approximately 28 percent of the agencies with marine beaches responding to EPA's and NRDC's surveys have adopted EPA's *enterococcus* standards (or one more stringent) for marine waters. Approximately 23 percent of the agencies with freshwater beaches responding to EPA's and NRDC's surveys have adopted EPA's *enterococcus* or *E. coli* standards (or one more stringent) for fresh waters.

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Q: What are the new criteria for the Beach Buddy award and why did NRDC change them?

A: This year, NRDC is awarding responsible authorities that have taken significant steps toward identifying and reducing pollution. While our list is by no means comprehensive, this year's Beach Buddies all demonstrated efforts to clean up pollution either through effective storm water or sewage treatment, or are regulatory agencies that have adopted regulatory measures requiring cities and health authorities to implement management practices to reduce urban runoff. Those beaches affected by these Beach Buddies' efforts also have good monitoring programs and beachwater quality testing protocols.

Q: What constitutes a good beach monitoring and notification program?

A: A good beach monitoring and notification program has several elements to protect beachgoers adequately. States with the best monitoring programs do the following:

- Use the EPA-recommended indicator organism *enterococcus* for monitoring marine waters (*enterococcus* or *E. coli* for fresh waters) and standards at least as strict as EPA's recommended geometric mean and single sample standards;
- Always or usually close beaches or post advisories when the standard is exceeded;
- Notify the public promptly when standards are exceeded;
- Monitor their recreational beaches regularly (at least once a week);
- Have consistent monitoring and closure practices within the state; and
- Issue preemptive rainfall closing announcements or rainfall advisories when there is a correlation between rainfall and high bacteria levels.

NRDC maintains that monitoring and notification are only part of the solution. Once the pollution problem is discovered, the next step is cleaning up the sources of pollution.

Q: Are all states using the same kind of monitoring, testing and notification procedures?

A: While more states and localities are monitoring their beaches, there is still no uniform, regular monitoring across the nation, leaving some beachgoers unaware about water quality at their favorite beaches. Oregon and Louisiana, for example, lack state programs for monitoring beachwater quality regularly and notifying the public. The standards used for testing water quality also vary across the country. Finally, states and municipalities are inconsistent in the way they issue closures and advisories or notify the public when there is a pollution problem. Even if a state regularly tests water quality at its beaches, it may not close a beach when a health standard is exceeded.

Q: Isn't there a law now requiring uniform testing of beachwater quality

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nationwide? When will it take effect and are all states required to comply?

A: There is a new national law, the BEACH Act, which encourages states to establish monitoring programs for water quality at their ocean, bay or Great Lakes beaches and to promptly warn the public if bacterial levels exceed health standards. Under the law, states are required by 2004 to either adopt EPA's health standard for monitoring beachwater quality or adopt a standard that is as protective of public health as EPA's.

Q: If urban runoff is a primary culprit for beachwater pollution, what is being done about it?

There is a federal permitting program to control polluted stormwater runoff from cities, construction sites and industrial sites. Unfortunately, EPA has not effectively implemented or enforced the program. A number of states have more protective storm-water controls than are currently required at the federal level because they recognize that controlling stormwater pollution is a sound economic as well as environmental investment. Last month, EPA missed a huge opportunity to reduce stormwater pollution by failing to propose minimum technology standards for controlling runoff from new construction and development. EPA's abdication of its legal responsibility to set minimum technology standards for stormwater controls is both illegal and environmentally irresponsible.

Q: A large number of the beaches that responded to the EPA survey indicated that the source of pollution that forced closures or advisories is unknown. How is that possible?

A: A majority (87 percent) of closings and advisories in 2001 were due to monitoring that revealed the presence of bacteria associated with fecal contamination. While the testing procedure can indicate that contamination has occurred, it cannot identify the contamination source. The pollution sources that cause or contribute to more than half of the closings and advisories are listed as "unknown." Local and state agencies must do more to identify sources of beachwater contamination and take steps to clean them up.

Q: What evidence is there that swimming in polluted water can make people sick? How dangerous is it?

A: Several reputable studies, including a 1996 epidemiological study in Santa Monica, have confirmed that swimming in polluted waters can result in illness. EPA has estimated that *1.8 million to 3.5 million Americans* get sick every year by swimming in waters polluted by raw sewage discharges from sanitary sewer overflows. The most common illness they contract is gastroenteritis. Although swimming-related illnesses usually are not severe or life-threatening, they are inconvenient, uncomfortable, and can keep people home from work or school. Moreover, the risks are avoidable, and the public is often exposed unwittingly.

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Q: What are the primary pollution sources known to contribute to beach closings or advisories?

The most frequent known pollution sources that cause or contribute to closings and advisories are: 1) polluted runoff and stormwater, which led to more than 3,715 closings and advisories in 2001; and 2) sewage spills and overflows, which accounted for more than 1,880 closings and advisories.

Q: How much does beachwater monitoring cost?

A: The cost of beachwater monitoring varies by state, ranging from an annual cost of about $11,000 in Maine, which has seven beaches, to $1.4 million in California, which has nearly 300 beaches. But the cost of monitoring pales in comparison to the revenue generated by coastal tourism, which is measured in billions of dollars per year. Illnesses caused by polluted beach water can result in short-term losses for businesses in coastal areas, but it also means that those who get sick will incur medical costs and lost workdays. Cleaning up pollution sources so that beach water does not pose a health risk is the optimal solution. In the meantime, it makes sense from a public health perspective for authorities to monitor beach water and close beaches with contaminated waters instead of allowing people to swim and get sick.

Q: If states close beaches, won't coastal economies be adversely affected?

A: The primary purpose of beach closings is to protect public health. Although beach closures may have a short-term negative impact on local economies, public confidence is enhanced by the knowledge that authorities have effective beach protection and cleanup programs in place.

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The Natural Resources Defense Council is a national, non-profit organization of scientists, lawyers and environmental specialists dedicated to protecting public health and the environment. Founded in 1970, NRDC has more than 500,000 members nationwide served from offices in New York, Washington, D.C., Los Angeles and San Francisco. More information about NRDC is available through its Web site: www.nrdc.org.

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