



This Green Life

A Journal of Sorts



SAFER SHORES

April 2005

With Earth Day coming on, I wanted to talk about one of our bigger, more diffuse problems -- the kind that feels beyond our control -- just to show how it isn't.

I picked beach water quality. There were other contenders, but given that 180 million Americans visit the beach each year, I knew it would be of general interest. Besides, the beach is my own favorite landscape -- as soul-satisfying as it is fun.



If you've read any of NRDC's "Testing the Waters" reports, you already know about the problem. There were at least 18,284 days of beach closings and advisories in 2003 because the water wasn't safe. (NRDC's new report, due out this summer, will provide data for 2004.) In the vast majority of cases, the reason was excessive levels of bacteria that can make people sick, which is all most coastal

communities test for (if they test at all, which many don't). A wider range of tests -- for viruses, parasites and chemical pollutants -- would doubtless paint a more disturbing picture.

Thirty years ago, before the Clean Water Act was passed, our waters were in even worse shape. Yet even now, 45 percent of waters assessed by the states (including lakes and rivers, many of which drain to the sea) are still not clean enough to support "basic" uses such as swimming and fishing. I know you know, but I can't help emphasizing -- that's virtually half.

So where do the pathogens come from? One major source is sewage. It's not that untreated sewage is being dumped on purpose into our waterways -- not usually, anyway. But it ends up there when rains cause sewage overflows, which overwhelm and bypass treatment plants (a common occurrence), or when treatment plants and septic systems malfunction.

Stormwater is the other main source. As rain or snowmelt runs over the land and paved surfaces, it picks up pollutants from everything it touches -- the fertilizer on your lawn, motor oil in your neighbor's driveway or dog poop and litter left on the street. In rural areas, rain carries animal wastes and agricultural residues with it.

Swimming in water with high levels of pathogens can give you a sore throat or gastroenteritis -- mild ailments, which can nevertheless keep you home in bed. However, it's also possible you could contract a more serious disease, such as meningitis or encephalitis. While healthy adults aren't at much risk, children, the elderly and people with compromised immune systems are.

As to other pollutants, excessive "nutrients" from fertilizer runoff can cause harmful algal blooms and fish kills and may be responsible for an



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What about your beach? It's not enough to know whether it's open, you also need to know if it's monitored, how often, what standards are used and whether the community bothers to close the beach when standards are violated.

To find out, call the local (city, county or state) health department or environmental protection agency or try looking up the beach online:

NRDC's Testing the Waters
www.nrdc.org/water/oceans/ttw/titinx.asp

EPA's Find Your Beach
oaspub.epa.gov/beacon/beacon_national_page.main

Earth 911
www.earth911.org/master.asp

Surfrider's State of the Beach
www.surfrider.org/stateofthebeach/home.asp



apparent increase in jellyfish populations. In the Gulf of Mexico, nutrient pollution causes a dead zone the size of Massachusetts to form each summer. Basically, the extra nutrients feed huge algal blooms that rob the water of oxygen and make it uninhabitable for other sea life.

Now, here's the good part. There are a variety of things you can do to help improve water quality:

- 1) Reduce the use of fertilizers and pesticides on your lawn.
- 2) Keep your driveway clean by sweeping rather than hosing it down.
- 3) Direct stormwater from your roof leaders onto vegetation which can filter it and let it seep into the soil.
- 4) Fix oil leaks in your car and dispose of used motor oil properly (never in storm sewers!).
- 5) If you buy toxic cleansers, use them up, don't pour the remainder down the drain.
- 6) Put your trash in proper receptacles, at the beach and in your hometown.
- 7) Clean up after your pets.
- 8) Maintain your septic system.
- 9) Dispose of boat sewage in onshore sanitary facilities, not by dumping in the water.
- 10) Buy organic food.

More generally, try not to drip, drop or toss things outside or down the drain. Remember, most of what goes around really does come around...at the beach.

Happy Earth Day to you and yours.

—Sheryl Eisenberg

Sheryl Eisenberg is a web developer and writer. With her firm, Mixit Productions (<http://www.mixitproductions.com>), she brought NRDC online in 1996, designed NRDC's first websites, and continues to develop special web features for NRDC. She created and, for several years, wrote the Union of Concerned Scientists' green living column, *Greentips*, and has designed and contributed content to many non-profit sites.

ONLINE RESOURCES

NRDC: Beach Pollution FAQ - www.nrdc.org/water/oceans/qtw.asp
NRDC: How to Clean Up Our Water - www.nrdc.org/water/pollution/gsteps.asp
EPA: The Beach and Your Coastal Watershed - www.epa.gov/owow/oceans/factsheets/fact2.html
UNIVERSITY OF WISCONSIN: Storm Sewers - commerce.uwex.edu/pdfs/GWQ004.PDF
SURFRIDER FOUNDATION: What Can You Do? - www.surfrider.org/20_ways.pdf
EPA: Before You Go to the Beach... - www.epa.gov/waterscience/beaches/30cwabeach.pdf
THE SIERRA CLUB: The Dead Zone - www.sierraclub.org/cleanwater/waterquality/deadzone.asp
ENVIRONMENTAL INTEGRITY PROJECT: Clean Water Act Enforcement - www.environmentalintegrity.org/page27.cfm

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To send your comments, write to: thisgreenlife@nrdc.org

Protect yourself. Here's what to do if the beaches near you aren't monitored adequately, or information on them is unavailable:

- Choose a beach near open waters and far from urban areas.
- Avoid beaches where you observe pipes that might be used to expel stormwater runoff.
- Keep your head out of the water when you swim.
- Don't swim for at least a day after heavy rains.

The draw of the water (at left). Whether at home or on vacation, my family loves a day at the beach. In the top picture, taken in Ocracoke, NC, my daughter is swimming in waters stirred up by an approaching hurricane. The storm was still 500 miles out to sea, so not yet dangerous, but it hit a day or two later and we were evacuated. The bottom picture shows my son at Coney Island, where sewage overflows can be a problem.

A little history. In 1969, 60-70 percent of our waters were unfit for fishing or swimming and Cleveland's Cuyahoga River famously burst into flames. NRDC was founded the following year, and immediately focused on winning passage of the Clean Water Act. This landmark legislation led to billions in investment in sewage treatment plants and brought many waterways back to life. But while it dealt effectively with point pollution (the kind that comes from a pipe or single, identifiable source), it did not adequately address the problem of polluted runoff. This is now our primary source of water pollution, which again appears to be on the rise.

