



BEACH

Currents

State and Local Beach Health Innovations and Success Stories

Fall 2003

EPA-823-N-03-001

Beach Currents is designed to promote communication between state, tribal, and local public health officials about beach protection activities. This first edition features the experiences of Maine, Rhode Island, and Wisconsin in developing their Beach Monitoring programs. We encourage all beach management professionals to submit articles sharing their successes and challenges. To submit an article or to get more information about the EPA Beaches Program, call 202-566-0444 or send an e-mail to ost-beaches@epa.gov.

Maine's Coastal Swim Beach Program Helps Keep Beaches Safe

The Coastal Swim Beach Program is part of a larger statewide effort called the Healthy Beaches Program to ensure healthy, informed opportunities for swimming and other recreational water activities along the coast of Maine. Currently, 15 towns and state parks representing 27 beaches participate in the program.

The Coastal Swim Beach Program has several elements including (1) developing a statewide structure to implement standardized quality-assured monitoring and notification protocols; (2) developing regional laboratories and field and lab training; and (3) education and outreach: seeking public input along the way.

An exciting new project will address part of the education and outreach component. It uses marketing expertise to inform visitors to Maine beaches about the risks of waterborne illness, the monitoring program, and the

measures that can be used to ensure a safe beach experience. The Coastal Swim Beach Program is developing educational materials to deliver information that could create concern without also causing a reaction that might deter visitors from going to Maine's beaches.

In creating these materials, the Coastal Swim Beach Program identified two audiences—local residents and the general public. The program is developing a community guide that gives participating towns and state

— continued on page 2



In this issue...

Maine's Coastal Swim Beach Program Helps Keep Beaches Safe	1
Rhode Island's Notification Program Reaches Swimmers Before They Get to the Beach	2
Wisconsin DNR Walks the Coast to Create and Implement a Beach Monitoring Program	3

News from EPA Regions and HQ's Beach Program	6
Surf Zone	7
For Your Beach Bag	7
Calendar of Events	8



parks information from A to Z about their beaches and ways to inform beachgoers about healthy practices at the beach. Materials for a more general audience are informative and sometimes funny. They include a poster that attracts attention, elicits a smile, and gets an important message across quickly. A companion flyer provides more in-depth information about what beach visi-

tors can do to be sure beaches are safe places to recreate. The Coastal Swim Beach Program is using a marketing firm to create brochures, a Web site, and advisory signs.

Maine's Coastal Swim Beach Program gives the public opportunities to get involved in the design, implementation, and evaluation of the program. It has done this by devoting much energy to getting public feedback.

A media campaign and public relations effort will also let beach visitors know about the risks of not using public restrooms and will encourage them to change their behavior for the good of all who use the beaches.

The public relations campaign will tackle broader educational issues of monitoring and the risks of waterborne illnesses. It will also lay the foundation for more communication should a situation arise that needs immediate public attention. The program has also created an educational and public relations radio campaign that covers the entire Maine coast. Again, it uses humor to get the message across. Visit Maine for its beautiful, healthy beaches. While you're driving to your favorite beach, listen to the radio to hear a message from the Coastal Swim Beach Program. Enjoy the beach!

For more information please contact:

Esperanza Stancioff
 University of Maine Cooperative Extension
 and Sea Grant
 Phone: 207-832-0343 or 1-800-244-2104
 e-mail: esp@umext.maine.edu
<http://mainehealthybeaches.org/>

Members of the public have

- ✓ Participated in public meetings in each participating municipality
- ✓ Helped design educational materials on a Web site
- ✓ Served on the Coastal Swim Beach Program Advisory Board
- ✓ Given feedback on notification sign text and design
- ✓ Participated in beach monitoring and lab analysis training
- ✓ Responded to a beach user survey
- ✓ Provided public comment as a result of six news articles published about the program

Rhode Island's Notification Program Reaches Swimmers Before They Get to the Beach

Public notification of beach closures and sampling information are the most important aspect of Rhode Island's Beach Monitoring Program. After all, how successful can a program be if the information doesn't reach the intended audience?

To get the information to the public, the Rhode Island Department of Health (HEALTH) uses several notification methods. When the decision to close a beach is made, the facility must post a conspicuous sign or

————— continued on page 3

flag to alert the public that the beach is currently not safe for swimming. This method is effective, but it requires the public to actually go to the beach to learn it is closed. Imagine how frustrating it is to load kids, coolers, chairs, and toys into the car and fight traffic, only to reach a beach that's closed to swimming. HEALTH's mission is to inform beach users of a closure before they make that trip.

To better reach beach users, HEALTH uses a Web site, a hotline, and press releases. The beach Web site (www.health.ri.gov/environment/beaches/index.html) displays sampling results for all 123 licensed beaches in Rhode Island. It also includes information on closures/advisories and swimming-related illnesses, recent publications, and a downloadable illness complaint form. Logging more than 3,000 hits during the first month of the summer season, the Web site is one of HEALTH's most popular and informative tools for raising public awareness. HEALTH will expand the Web site to include interactive features like maps.

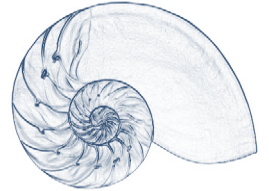
For those who don't have Internet access, HEALTH has a 24-hour hotline (401-222-2751) that lists all current closures and advi-

sories, provides contact information, and gives HEALTH's after-hours emergency phone number.

Press releases are a very effective way to get information to the public. HEALTH uses a standard press release that can be faxed to the major print, radio, and television outlets in Rhode Island. Press releases are issued almost daily to publicize the status of beaches.

When the decision to close a beach is made, HEALTH notifies the beach and updates the hotline and Web site. It also distributes the press release within an hour of receiving the sample results. Over time, the media have become accustomed to checking HEALTH's Web site and hotline for beach closures. Several times they've called for more information about a closure before the press release was distributed.

For more information about the Rhode Island Department of Health's Beach Monitoring Program, visit the Web site (www.health.ri.gov/environment/beaches) or contact David Burnett (401-222-7727).



Wisconsin DNR Walks the Coast to Create and Implement a Beach Monitoring Program

Lake Michigan and Lake Superior offer the state of Wisconsin valuable natural resources for aquatic recreational activities. There are important social and economic benefits to providing safe and healthy aquatic recreational activities to the public.

The 2003 beach season marked the first comprehensive beach monitoring program in Wisconsin. Funded by a grant from the U.S. Environmental Protection Agency (EPA) the Wisconsin Department of Natural Resources (DNR) is directing the monitoring program at the Great Lakes coastal waters of Lake

Michigan and Lake Superior. The program allows for prompt public notification whenever bacteria levels exceed EPA's established criteria. It also helps communities along the lakeshore improve their ability to monitor and notify beach users of the risks associated with high bacteria levels.

In March 2001, the DNR solicited the assistance of a 12-member BEACH Act Workgroup with local health department officials and interested parties. The goal of the Workgroup

— continued on page 4

was to assist the Department in developing a consistently implemented beach monitoring and public notification program. To develop a program that meets EPA's published guidance and performance criteria DNR had to:

- Identify all public beaches along Lake Michigan and Lake Superior.
- Evaluate and classify each beach as "high," "medium," or "low" priority.
- Develop a monitoring scheme for each category.
- Standardize testing and sampling methods.
- Develop methods to notify the public of health risks.
- Develop methods to notify EPA.
- Secure public input.

What Beaches?

Because there were no maps, files, or other information listing public beaches and their locations all the public beaches had to be located. After many phone calls and Internet searches, 60 beaches were identified.

The first step in the process of identifying the public beaches was to define "beach". In keeping with the BEACH Act, the Department defined *beach* as

A publicly owned shoreline or land area, not contained in a man-made structure, located on the shore of Lake Michigan or Lake Superior, that is used for swimming, recreational bathing or other water contact recreational activity.



Next, the DNR hired field staff who drove the entire coast of Lake Michigan and Lake Superior searching visiting beaches. They identified 173 public beaches along the two lakes, and staff literally walked the coast using global positioning system (GPS) and geographic information system (GIS) technologies to geo-locate each beach. County maps showing the location of each beach were developed. The maps identify coastal recreation waters, points of access by the public, length of beach, and possible sources of pollution.

In addition to collecting the GIS data, DNR assessed the effectiveness of current notification procedures and identified the audience. Field staff conducted a random survey of 164 beach users, asking for general information about who they are, how they use the beach, and what they know (and want to know) about using their beaches.

What Did the Public Have to Say?

In December 2002 and January 2003, public meetings were held around the state to present the BEACH Act Workgroup's proposals and get comments from the public. Public comment was instrumental in beach ranking decisions. The locals were more familiar with the beaches in their areas and gave correct names, locations, and information on beach popularity. While they were generally very positive and excited about the program the public was concerned that more wasn't being done to eliminate sources of fecal contamination to beaches.

The Beach Monitoring Plan

Beaches will be evaluated and classified as "high," "medium," or "low" priority (based primarily on the number of

— continued on page 5

people who frequent the beach and, secondarily, the potential for fecal contamination). The general monitoring plan includes:

- Monitoring for all beaches beginning 1 week before the swim season
- Samples collected from the middle of the typical bathing area. For longer beaches, one sample for every 500 meters of beach.
- Samples will also be collected whenever there is a heavy rainfall, when the potential exists for fecal contamination, and immediately following any exceedance of water quality criteria.

High-priority beaches will be monitored at least 5 days each week, medium-priority beaches will be monitored at least twice a week, and low-priority beaches will be monitored on a case-by-case basis.

The Public Notification Plan

Information from the social survey and the public meetings was used to help determine the best ways to notify the public.

Signs

Wisconsin has a standard format for state-wide beach advisory, beach closure, and beach opening signs. The signs distributed to all beaches along the Great Lakes involved in the monitoring program were developed in English, Spanish, and the Hmong languages.

Brochures

Wisconsin has a brochure that addresses concerns expressed by survey respondents describing in detail when advisories will be posted and removed and when beaches will be closed.

Web Sites

Wisconsin has partnered with the US Geological Survey (USGS) and the Southeast Beach Task Force to develop the Great Lakes Beach Health Web site. The public can get

real-time data and advisory information for all beaches monitored along the Great Lakes.

Media Partnering

Beach status reports in several languages will be aired regularly with the weather reports during the beach season on newspapers, radio, and television.

What's Next?

A follow-up survey of beach users will be administered in late August to evaluate the effectiveness of the public notification process. DNR will meet with local officials in the fall to talk about how to improve the program for the 2004 beach season.

For more information please contact:

Toni Glymph
Wisconsin Department of Natural Resources
Phone: 608-850-3873
E-mail: Toni.Glymph@dnr.state.wi.us

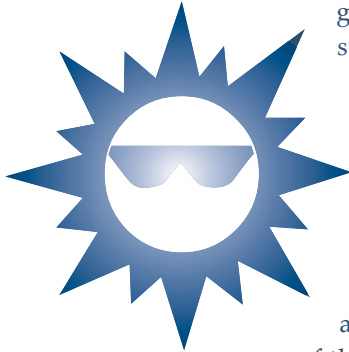


News from EPA Regions and HQ's Beach Program

2003 Beach Act Grants

In June 2003, EPA estimated that Americans make a total of 910 million trips to coastal areas each year, spending about \$44 billion.

EPA announced that nearly \$10 million in grants is available to 35 eligible states and territories to protect public health at the Nation's beaches. Targeted at improving monitoring at beaches and notifying the public of beach warnings or closings, the beach grants vary from \$149,025 to \$544,552. Grant amounts are based on the length of the beach season, the miles of shoreline, and the number of people living near the shoreline.



These grant funds are designed to ensure that the public is more informed and receives better protection when traveling to various beaches across the country.

2002 National Health Protection Survey of Beaches

The results of the National Health Protection Survey of Beaches for the 2002 swim season are now available. The 2002 survey includes information on 2,823 beaches (2,031 coastal and 792 inland). A beach advisory or closing typically occurs when levels of pathogen indicators exceed a water quality standard. One-fourth of the beaches had at least one advisory or area closed during the 2003 swimming season. The main reason for an advisory or closing was elevated bacteria levels. The second largest source identified was storm water runoff. Generally respondents didn't know what the source of pollution was. Review individual state results at <http://yosemite.epa.gov/water/beach2003.nsf>.

Beach Info Listserve

EPA headquarters has begun a "beachinfo" listserve to provide a forum for discussing various recreational beach program issues. To become a member, send an email to beachinfo-subscribe@lists.epa.gov.

New Test Methods

In *Guidelines Establishing Test Procedures for the Analysis of Pollutants: Analytical Methods for Biological Pollutants in Ambient Water* (USEPA, 2003), EPA approved test methods for the analysis of *E. coli*, enterococci, *Cryptosporidium*, and *Giardia* in fresh ambient water. In addition, EPA approved test methods for the analysis of enterococci in marine ambient water. States and local regulators use these test methods to assess the public health risks from ambient concentrations of microbial contaminants in recreational waters. The methods include "most probable number" and membrane filtration methods for enumerating *E. coli* and enterococci in ambient water. For *Giardia* and *Cryptosporidium*, the tests involve improved filtration, immunomagnetic separation, and fluorescent antibody methods.





SURE Zone

Resources for Local Beach Health Information

The following resources are just a few that report local beach water quality conditions. Several resources will be highlighted in each issue.

Surfrider's State of the Beach

The Surfrider Foundation's *State of the Beach* report is an annual update on the health of the Nation's beaches. It empowers concerned citizens and coastal managers by giving them the information they need to take action. For 21 coastal states and territories, Surfrider offers beach descriptions and reviews topics like beach access, water quality, beach erosion, and beach nourishment. www.beach.com/stateofthebeach/

Earth 911

A partnership effort between Earth 911, Oceana, and participating states and communities provide specific information generated and uploaded directly by local government agencies regarding the most recent water quality conditions at local beaches. Through their Web site, you can also sign up to receive an email containing information on your beaches current conditions, news, events and activities. www.earth911.org/WaterQuality/index.asp

NRDC Report

Each year, NRDC's Testing the Waters, details beachwater monitoring practices, standards and testing methods in 37 states and territories, and also reports on whether local authorities notify the public when beachwater pollution is discovered. This years survey, published in August 2003, is based on information reported for 2002 and finds that beach closings and advisories in 2002 reached the second highest level in 13 years. Across the country, pollution caused more than 12,000 closings and advisories at surveyed beaches in 2002. Maps providing beach-by-beach ratings are a web-only feature of the report. www.nrdc.org/water/oceans/ttw/tifinx.asp

New Jersey Ocean Beach Information

A state-run Web site provides information on to New Jersey's ocean beach water quality and public access. The New Jersey Department of Environmental Protection administers the Cooperative Coastal Monitoring Program with the New Jersey Department of Health and Senior Services and local environmental health agencies. Recreational beach water quality is monitored routinely on Mondays and through the week as necessary at 187 ocean monitoring stations. You can find monitoring results for each beach and maps of sampling locations on the Web site. www.njbeaches.org/



FOR YOUR Beach Bag

New Publications and Resources

EPA Status Report: Bacterial Water Quality Standards for Recreational Waters (USEPA, 2003) is a brief overview of the bacterial water quality standards for state marine and fresh recreational waters. www.epa.gov/waterscience/beaches

Time-Relevant Beach and Recreational Water Quality Monitoring and Reporting (USEPA, 2002) tells how to design and implement a time-relevant water quality monitoring program for beaches and other recreational waters. www.epa.gov/ord/NRMRL/Pubs

Calendar of Events

The National Beach Conference in fall 2004. This 2-day conference will focus on key issues involved in implementing a recreational beach program. Topics include BEACH Act grants, components of a beach program (including monitoring and public notification), and updates to new research (such as rapid methods). Stay tuned for more details.

The Region 5 annual conference on recreational water quality will be held in Muskegon, Michigan, October 21–22, in conjunction with the State of Lake Michigan 2003 conference.

First Annual Sustainable Beaches Summit

The Clean Beaches Council (CBC) is pleased to announce the convening of the first annual “Sustainable Beaches Summit.” The Summit is scheduled to meet March 29–31, 2004, in Walton County, Florida. The Sustainable Beaches Summit (The Summit) is an effort to bring together a diverse cross-section of beach professionals and coastal educators from federal agencies, state and local governments, non-governmental organizations, academia, and industry. The Summit will facilitate and enhance the body of knowledge encompassing beach and natural resource management, coastal tourism and development, recreation, and conservation. For further information on the Summit, please contact Michelle Pilliod at CBC (pilliodmp@aol.com).

The material in this document has been subjected to Agency technical and policy review and approved for publication as an EPA report. The views expressed by individual authors, however, are their own and do not necessarily reflect those of the U.S. Environmental Protection Agency.