VWMC members: In preparation for your July 4th plans that involve water recreation, please check out the information below and help spread the word about these sources of information by forwarding this announcement to your colleagues and friends. This message is posted on the Virginia Water Monitoring Council website at http://www.vwmc.vwrrc.vt.edu/announcements. Please post this information on your website and other social media platforms! If you forward this information or post it, please let the VWMC know so that we can report it to our funder; to do so, please email: vwmc@vt.edu.

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1.) Virginia Department of Health (VDH): Beach Monitoring Program
2.) Swim Guide
3.) James River Watch Website
4.) U.S. Environmental Protection Agency (EPA):
  a.) Beaches
  b.) Beach Advisory and Closing Online Notification System (BEACON)
5.) "Beaches and Bacteria"
6.) Protect Your Health While Swimming at the Beach

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1.) Virginia Department of Health (VDH): Beach Monitoring Program

-- Bacteria levels in coastal beach water are monitored weekly at 46 public beaches on the Chesapeake Bay and Atlantic Ocean of Virginia during the swimming season (May-September).

Water samples are collected weekly by Local Health Departments and analyzed by local laboratories for enterococci bacteria. If bacteria levels exceed Virginia's Water Quality Standard of 104 colony forming units (cfu)/100 mL of water, a swimming advisory is issued. Enterococci bacteria serve as an indicator for fecal contamination in salt and brackish waters. These organisms are not harmful themselves, but they indicate that other potentially harmful organisms may be present. High levels of enterococci bacteria indicate an increased health risk to recreational water users.

Follow VDH's Beach Monitoring Program on Twitter to receive a notification for swimming advisories https://twitter.com/VDHBeach.

For information about current swimming advisories and monitored beaches, beach advisory and monitoring data, local health department contacts for beach monitoring, frequently asked questions (FAQs) about VDH swimming advisories, links to local beaches, special projects, and Coastal Beach Monitoring brochure visit: http://www.vdh.virginia.gov/environmental-epidemiology/beach-monitoring/. This page also links to an online map of current beach monitoring results and advisories.

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2.) Swim Guide -- https://www.theswimguide.org/guide/get-the-app/ -- Swim Guide is
a website and smartphone app for iPhone® and Android. It is designed to be used in multiple countries and states, including Virginia. The app displays monitoring

information and more:
https://www.theswimguide.org/beaches/virginia. The app was created and is managed by Swim Drink Fish Canada (formerly Lake Ontario Waterkeeper) with information from many affiliates.

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3.) James River Watch Website – This website is designed to give advice on swimming, boating, and fishing conditions at various locations on the James River and includes a map with monitoring sites that are color-coded (green, yellow, red) to help users easily see recent conditions. The information is provided by the James River Rats, who monitor every week throughout the summer for *E. coli* bacteria using Coliscan. The obtained data are for informational purposes only, as the group does not issue closures. To access the website, visit http://jamesriverassociation.org/jrw/. Sponsored by the James River Association.

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4.) U.S. Environmental Protection Agency (EPA):
   a.) Beaches -- https://www.epa.gov/beaches -- This is the main webpage for beach information from EPA. The EPA website provides information such as Beach Basics, Beach Health, Human Health at the Beach, and EPA's Role in Protecting Beaches. The site gives advice on actions to take while At The Beach, At Home, In Your Community, and In The Classroom. It has links to help:
- Find information about beaches, including water monitoring information;
- Learn how to stay healthy at the beach;
- Learn how to protect the beach; and
- Participate in a beach cleanup.

It also links to EPA's Plan a Trip to the Beach page and links to technical resources, such as EPA's website for beach assessment and management tools and other beach data and reports.

   b.) Beach Advisory and Closing Online Notification System (BEACON) – http://watersgeo.epa.gov/beacon2/ -- BEACON is an online database of pollution occurrences for coastal recreation waters. The data available through BEACON have been provided to EPA by the coastal and Great Lakes states, tribes and territories that receive grants under the BEACH Act. For links to state webpages, please see: https://www.epa.gov/beaches/state-and-local-beach-programs.

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5.) "Beaches and Bacteria" – This article was first published August 2004 in *Virginia Water Central*, newsletter of the Virginia Water Resources Research Center. It was updated in January 2014.   This article is designed to help Virginians be more informed about the causes of beach closures, the regulations and legislation behind them, and the role of bacteria in beach water-quality monitoring. The article is available at http://vawatercentralnewsgrouper.wordpress.com/2014/01/29/beaches-and-bacteria-january-2014-update-of-an-august-2004-virginia-water-central-article/ and describes:
- The Beaches Environmental Assessment and Coastal Health (BEACH) Act
- Virginia's bacteria standards
- The types of indicator organisms monitored at Virginia's beaches
- How people responsible for beach closures/advisories decide what is safe

- The difference between a beach advisory and a beach closure
- Microbial Source Tracking

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6.) Protect Your Health While Swimming at the Beach – VDH recommends the following simple steps to protect your health while swimming at the beach (available at http://www.vdh.virginia.gov/environmental-epidemiology/beach-monitoring/).

- **Observe Swimming Advisories;** do not enter the water at a beach under a swimming advisory.
- **Avoid swallowing water when swimming;** natural waters may contain disease-causing organisms that can cause gastrointestinal illness if swallowed.
- **Avoid swimming for a few days after heavy rainfall;** bacteria levels are likely to be high and disease-causing organisms are more likely to be present after rainfall due to pollution from land runoff and other sources.
- **Prevent direct contact of cuts and open wounds with recreational water;** natural waters may contain disease-causing organisms that may cause skin infections.
- **Avoid swimming in areas where dead fish are present;** dead fish may indicate that water conditions are poor or hazardous materials are in the water. Please contact the Department of Environmental Quality (703-583-3800) if you observe a fish kill.
- **Don't swim if you are ill or have a weakened immune system;** some organisms are opportunistic and may only cause illness when you are already ill or your immune system is weakened.
- **Shower with soap after swimming;** showering helps remove potential disease-causing organisms.
- **Swim away from fishing piers, pipes, drains, and water flowing from storm drains onto a beach.**
- **Do not dispose of trash, pet waste, or dirty diapers on the beach.**

To learn more, see VDH's Waterborne Hazards Control page at www.swimhealthyva.com. This page includes links to information about water illnesses, swimming in natural waters, beach monitoring, and harmful algae blooms (HAB; includes HAB hotline: 1-888-238-6154 and an online form to report a HAB).

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This special announcement is sponsored by the U.S. Environmental Protection Agency through the Virginia Department of Health as a grant to the Virginia Water Monitoring Council. To learn more about the Council, see our website at http://www.VirginiaWMC.org or contact Jane Walker at the address below. If someone forwarded this message to you, you can join the VWMC by sending your name, water-monitoring affiliation (if applicable), and contact information (email address, mailing address, and phone number) to vwmc@vt.edu.