

VWMC members:

As you make your Labor Day plans, check out these websites and become educated on beach monitoring and enjoying the beach safely. Also, please help spread the word about these sources of information by forwarding this announcement to your colleagues, family, 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, let the VWMC know so that we can report it to our funder; to do so, please email: [vwmc@vt.edu](mailto:vwmc@vt.edu).

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**1.) Virginia Department of Health (VDH) Waterborne Hazards Control Program:** This website – [www.swimhealthyva.com](http://www.swimhealthyva.com) links to more information about

- **Recreational Water Illnesses**
- **Swimming in Natural Waters**
- **Beach Monitoring**
- **Harmful Algae Blooms**

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**2.) VDH: Beach Monitoring Program** -- Bacteria levels in beach water are monitored at 46 public beaches in Virginia on the Chesapeake Bay and Atlantic Ocean 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.

Follow VDH's Beach Monitoring Program on Twitter to receive weekly results and swimming advisories: <https://twitter.com/VDHBeach>.

The VDH Beach Monitoring website -- <http://www.vdh.virginia.gov/environmental-epidemiology/beach-monitoring/> -- contains:

- Current Swimming Advisories and Monitored Beaches Map (uses Google Maps)
  - Frequently Asked Questions: VDH-Issued Swimming Advisories
  - Microbial Source Tracking Report – 2017 Report
  - Local Beaches Information
  - Brochure -- *Safely Enjoy Virginia's Natural Waters* (also available *en Español*)
  - Brochure -- *Coastal Beach Monitoring Program: Tips for a Safe Day at the Beach*
- And more.

The VDH Beach Monitoring Program webpage also offers the following simple steps to protect your health while swimming at the beach:

- **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.**

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**3.) Virginia Harmful Algal Bloom (HAB) Task Force** -- Algae are naturally occurring, microscopic floating plants that use sunlight and nutrients to reproduce. They are an important food source for aquatic organisms. There are many different species of algae and most are harmless. Some species, cyanobacteria, can produce toxins or irritating chemicals during blooms. A bloom occurs when sunlight, nutrients, and warm temperatures create an environment where the algae grow at a rapid rate and often become visible to the eye. Algae blooms may produce a change in water color, typically brown/red in coastal waters and green or greenish-blue in freshwater and brackish waters.

The Virginia Department of Health and Department of Environmental Quality co-lead the HAB Task Force to provide response during harmful algal bloom events in order to protect human health. The group initially formed 20 years ago and focused on marine blooms in coastal waters. The fresh water HAB program began in 2010 and has since expanded to support the response necessary for blooms that have occurred in ponds, lakes, and rivers across the state. Information resources are available on the VDH HAB webpage: <http://www.vdh.virginia.gov/environmental-epidemiology/harmful-algal-blooms-habs/>.

An algal bloom is considered harmful by the Task Force when it has the capacity to cause human-health effects. Sometimes blooms can cause fish kills due to the depletion of dissolved oxygen in the water column. Fish kills can occur when bacteria in the water break down dead algae cells and thereby use up oxygen needed by the fish to survive.

To stay safe while swimming in natural waters, keep the following information in mind with respect to algae blooms:

- NEVER drink water from a natural waterbody.
- WHEN IN DOUBT – STAY OUT! Never swim in water that is discolored, has an odor, or if there are dead fish or other animals present.
- If you get algae on your skin, rinse well with clean fresh water. This goes for pets too! Pets will lick their fur after swimming which can increase their exposure.
- Symptoms from harmful algae exposure can include upset stomach (nausea, vomiting, and diarrhea), skin rash, tingling or burning and coughing. Children and pets are most vulnerable because they are more likely to swallow the water; even a small amount can cause illness. If you have health concerns from algae exposure, contact your medical provider.
- Harvesting fish from within an algae bloom should not pose a health risk provided the fillets are properly cleaned and cooked and the organs and skin are discarded. Research suggests that algal toxins can accumulate in the fillet of fish living in waterbodies that have recurrent, long-duration blooms of high toxicity.
- If you see a bloom or a fish kill, submit an online report with the form at <http://www.vdh.virginia.gov/environmental-epidemiology/harmful-algal-bloom-online-report-form/>.
- Report suspected health effects of harmful algal blooms to the HAB Hotline 888-238-6154.

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#### **4.) EPA Beaches Website** -- <https://www.epa.gov/beaches> -- The U.S.

Environmental Protection Agency (EPA) has created webpages that can help you learn about beaches (including human health at the beach) and actions to take to protect beaches (including actions to take while at the beach, at home, and in your community).

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**5.) "Beaches and Bacteria"** -- The Virginia Water Resources Research Center updated its popular "[Beaches and Bacteria](#)" article in January 2014. The article 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.) 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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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 [www.VirginiaWMC.org](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](mailto:vwmc@vt.edu). If you have water-monitoring related news of regional or statewide interest, send it to Jane Walker and ask that it be distributed to the VWMC membership.

Tax-deductible contributions can be made to the VWMC to support our information updates and other VWMC activities. Make checks payable to: "Virginia Tech Foundation" and on the memo portion of the check, include "Fund #872802." Mail contributions to the Virginia Water Resources Research Center (0444, Attn: Jane Walker) at 210 Cheatham Hall, Virginia Tech; 310 West Campus Drive; Blacksburg, VA 24061.