

# Why do the Bacteria Monitoring Thresholds Vary Per Watershed?

# Federal/ Beach Action Value (BAV)

- Key Terms:**
- CFU = Colony Forming Units
  - STV = Statistical Threshold Value
  - MPN = Most Probable Number

Fresh water

Marine water

# State (Maryland and Virginia)

**E. Coli**  
235 CFU or MPN/ 100 mL  
(EPA 1986 & 2012)

**Enterococci**  
104 CFU or MPN/ 100 mL  
(EPA 1986)

**Enterococci**  
61 CFU or MPN/ 100 mL  
(EPA 1986)

Fresh water  
**Enterococci**  
130 CFU or MPN/ 100 mL

Marine water  
**Enterococci**  
130 STV/ 100 mL

**E. Coli**  
410 CFU or MPN/ 100 mL

## Which bacteria monitoring threshold does your organization use?

<p><b>Federal or BAV (Marine)</b></p>			<p><b>Beach Action Value</b></p>
<p><b>State (Marine &amp; fresh)</b></p>			<p><b>GUNPOWDER RIVERKEEPER®</b></p>

**Resources:**

- **Federal and Beach Action Value**  
 EPA (1986): <https://www.epa.gov/sites/default/files/2019-03/documents/ambient-wqc-bacteria-1986.pdf>  
 EPA (2012): <https://www.epa.gov/sites/default/files/2015-10/documents/rwqbc2012.pdf>  
 MDE Fact Sheet: [https://mde.maryland.gov/programs/water/Beaches/Documents/factsheete\\_pawqbeaches\\_jan2013rev0613.pdf](https://mde.maryland.gov/programs/water/Beaches/Documents/factsheete_pawqbeaches_jan2013rev0613.pdf)
- **State (Maryland & Virginia)**  
 Virginia DEQ: <https://law.lis.virginia.gov/admincode/title9/agency25/chapter260/section170/>  
 MD Department of the Environment: <https://dsd.maryland.gov/regulations/Pages/26.08.02.03-3.aspx>

# Key Terms and Definitions



**E. Coli** - A type of bacteria found in a healthy intestinal tract. Some E. coli can make people sick through contaminated food, water, contact with animals and other people.

**Enterococcus** - A type of bacteria that lives in the intestinal tracts of warm-blooded animals, including humans, and indicates possible fecal contamination.

**MPN** - "Most Probable Number" is a laboratory method used to estimate the number of living bacteria in water. It relies on a serial dilution process rather than counting individual bacteria colonies on a plate.

**STV** - "Statistical Threshold Value" represents a value covering the top 10% of the dirtiest or highest bacterial samples (the 90th percentile).

**CFU** - "Colony Forming Unit" is used to estimate the # of viable bacteria in a sample. A colony is a cluster of bacteria growing together.

**BAV** - "Beach Action Value" is the value an approving authority uses to issue beach notifications for E. coli and Enterococcus.