

***E. coli* Bacteria Monitoring Information**

1) Avoid contact with water at least 48 hours after a rain event. Rainfall and high stream flows elevate bacteria levels.

2) The following table provides the USEPA recommended maximum allowable levels of *E. coli* bacteria for primary contact recreation and associated water quality color designation.

Single sample maximum *E. coli* concentrations recommended by USEPA for recreational waters has a standard of 235 MPN.

	EPA Designation
Green Suitable for All Recreation	Acceptable: < 235 MPN
Yellow May Not Be Suitable For Activities Involving Direct Contact With The Water	Moderately High: 235- 1021 MPN
Red Not Suitable For Activities Involving Direct Contact With Water	No Swimming Advisory: > 1021 MPN

EPS staff test for *E. coli* because it is one of the most common species of fecal coliform bacteria and is the best indicator of health risk from water contact in recreational waters. It is a normal component of the large intestines in humans and other warm-blooded animals, and it's found in human sewage in high numbers. *E. coli* is used as an indicator organism for fecal contamination because it is easily cultured. Enterococci are another type of fecal bacteria which have the ability to survive in saltwater and therefore are the chosen indicator organism for tidal beaches and shellfish harvesting areas. EHS staff test for Enterococci in tidal waters in accordance with the Bathing Beach Criteria set forth by the USEPA and MDE.

It is the experience of EPS that bacteria samples associated with sewer leaks typically have *E. coli* reading of 3,500 MPN to upwards of 80,000 MPN or higher. Apart from sewage, other potential sources of *E. coli* contribute to elevated levels during high flow conditions. These sources can be from agriculture, domestic pets, wildlife, septic systems and even contaminated soils. For this reason, the process of tracking bacteria sources is done during low flow conditions. EPS continues to monitor bacteria levels on a monthly basis throughout the County to meet requirements of our NPDES MS4 permit and bacteria TMDL Implementation Plans.