

Measuring Bacteria in our Streams

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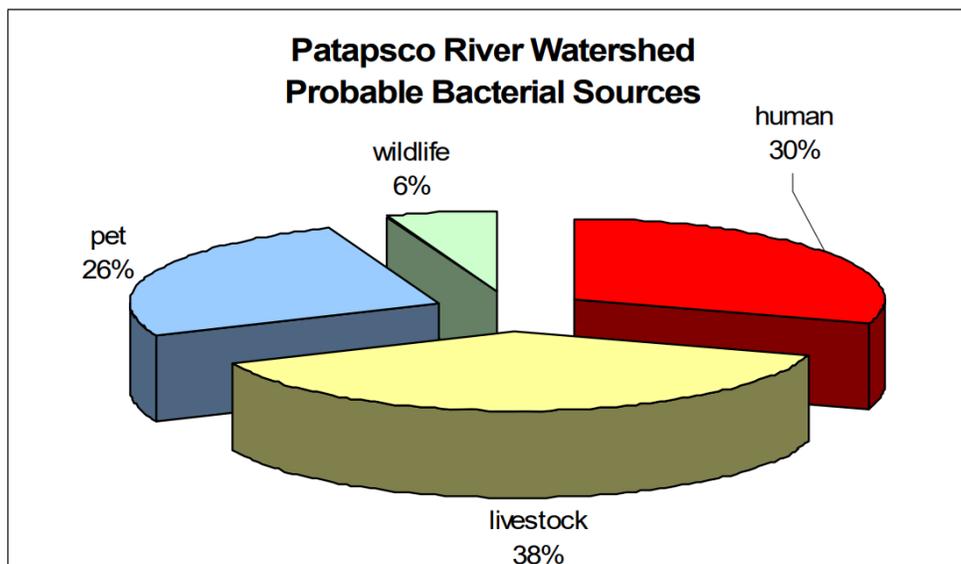
Water, like everything else on Earth, including you, is full of bacteria. Bacteria are common single-celled organisms and are a natural component of lakes, rivers, and streams. Most of these bacteria are harmless to humans; however, certain bacteria, some of which normally inhabit the intestinal tract of warm-blooded animals, have the potential to cause sickness and disease in humans. *Escherichia coli* (*E. coli*) bacteria, found in the digestive tract of animals, can get into the environment, and if contacted by people, can cause health problems and sickness.

The EPA recommends *E. coli* as the best indicator of health risk from water contact in recreational waters.

This summer, the GPCA SWCC started measuring *E. coli* in our streams once a month. We also plan to measure after heavy rains, since there has been found to be a pronounced increase in bacteria levels following any rainfall significant enough to cause run-off. We are using the Coliscan method to measure *E. coli*, which is the method used by Patapsco Heritage Greenway and accepted by the Chesapeake Monitoring Cooperative.

Where does the bacteria come from?

Sources of fecal contamination to surface waters include wastewater treatment plants, on-site septic systems, domestic and wild animal manure, and storm runoff. Most likely, bacteria enter the streams from animal waste carried by surface water, especially in places with large areas of impervious surface which can include paved driveways, the roofs of buildings, and repeatedly mowed lawns.



Source: Maryland Department of the Environment (2009)

What can we do to reduce bacteria in our waters?

If you have a septic system, be sure to perform regular maintenance on it to ensure that it is working properly.

Another way to reduce E. coli levels in local streams is always to pick up after your dog, even in your yard. Remember stormwater runoff flowing from your yard eventually winds up in a water body.