

Executive Summary

The purpose of this document is to increase your understanding of microbial pollution and water quality; and to provide you with the tools needed to control microbial pollution. Water quality is important to all North Carolinians but especially to those in our coastal region. The health of our waters is not only important for human safety but also for our two greatest coastal industries: fishing and tourism. Without healthy water neither can function well.

One of the greatest threats to coastal water quality in North Carolina is a problem of local origin-microbial pollution. Some microbes (i.e. bacteria, viruses and protozoa) can cause illness in humans through bodily contact with polluted water or through ingestion of microbes found in contaminated seafood. These microbes come from the digestive tracts of warm-blooded animals, including humans, and are carried into our waters mainly by stormwater runoff. When it rains feces and associated microbes from pets, livestock, wildlife and failing sewer and septic systems are flushed into our surface waters.

The good news is that there are many things that can be done to prevent or reduce microbial pollution. Finding possible sources of microbes in your community is the first step. The next step is determining what control strategies will work best for your community. Education and outreach, land use planning, stormwater control structures, and microbial source tracking are just some of the available measures to combat microbial pollution. Lastly, communities should be aware of new information and technology as the science of microbial source tracking and control is rapidly evolving.

While state and federal governments test water quality and try to control microbial pollution across the nation, it is local governments and organizations that have the greatest chance of protecting their own waters from this localized threat. As a leader in your community you can do something to prevent or reduce microbial pollution in our coastal waters. Let this document serve as a starting point for planning wisely with water quality in mind, for educating and motivating your constituents, and for controlling stormwater runoff.

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