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Many people are increasingly concerned about levels of potentially harmful bacteria in streams, swimming areas, and drinking water supplies. Oyster reefs are from time to time closed, the Alabama Department of Environmental Management monitors local swimming areas, and there have been instances of human illness from contact with contaminated waters in other areas.

Fecal coliform bacterias, such as *Escherichia coli*, occur naturally in the intestines of warm-blooded animals, including humans. Outside the body they are short-lived: generally, up to 72 hours in freshwater, less in salt water. The presence of these bacteria in a water body is a natural occurrence. However, high concentrations may indicate sanitary sewer overflows, failing septic systems, or runoff from agricultural sources, like a concentrated animal feeding operation.

A study by Tennessee's Metro Nashville-Davidson County Department of Water and Sewerage Services and Vanderbilt University shows that, in urban areas, increases in levels of fecal coliform after a rainfall are most likely from animal sources, indicating that pet wastes are a major source of water contamination. Composting, flushing, or other proper disposal of pet wastes is a first step to decreasing bacteria levels in local waters.

As public concern has grown, citizen volunteers have begun to monitor background levels of bacteria in order to document increases in bacteria counts. Alabama Water Watch, a statewide EPA-approved volunteer water monitoring program based at Auburn University, uses a simple protocol to measure bacteria levels in water bodies. This test uses the *E. coli* bacteria as an indicator of the presence of other fecal contamination, as well as the likelihood that other dangerous bacteria, including *Salmonella* and *Shigella*, may be present.

Volunteers report test results both to AWW and their local monitoring group, such as Dog River Clearwater Revival, Weeks Bay Watershed Project, or the Weeks Bay Watershed Watch. These results serve as a first alert to these groups, who can then contact local authorities, such as the sewer authority or public health department, in order

to correct a problem if it exists. If you are interested in becoming Alabama Water Watch certified to test water quality, including basic chemical parameters, bacteria levels, and macroinvertebrates, you can find a more information on the AWW website at [www.alabamawaterwatch.org](http://www.alabamawaterwatch.org).