



Detroiters Working for Environmental Justice (DWEJ) organized a group of youth to monitor water quality at the Belle Isle beach this summer, through the Great Lakes Alliance's Adopt-a-beach program. Although the Detroit Health Dept. does take samples at Belle Isle beach, the *E. coli* levels are not made public. The youth checked for coliform bacteria, *E. coli* and shoreline currents – three factors that are used to determine whether bacteria levels are safe for swimming.

Coliform is a bacteria that is commonly found in our environment, and its presence in swimming water will not necessarily make you ill. However, fecal coliform, which comes from the intestinal tracts of warm-blooded animals, are an indicator for other disease-causing organisms such as *E. coli*. (Note that coliform should not be found in drinking water.)

*E. coli* bacteria, found in the lower intestine of warm-blooded animals, can be harmful. Most strains will not hurt you, but some pose a serious health threat if ingested. Various strains of *E. coli* can cause diarrhea, kidney failure, pneumonia, urinary tract infections, and so on. The most vulnerable populations are children under the age of five, the elderly, and people who have long-term illnesses such as cancer or AIDS – these groups are at higher risk of serious disease from *E. coli*.

Shoreline currents – the speed and direction of the river water - are crucial in controlling bacteria spread, determining whether bacteria will multiply or be dispersed. Bacteria levels often increase after large rainfalls, when fecal bacteria wash into creeks, rivers, streams, lakes, or ground water systems. Municipal water systems can also overload and dispel raw sewage into the river to release the strain on the system. In Detroit, several temporary storage facilities hold overflow sewage and stormwater, screening and disinfecting before releasing it into the river (DWSD).

The Michigan Public Health standards for public beaches recommend a limit of 300 colonies per 100 mL (MDEQ) – on a 3M petrifilm water test, that's 3 blue dots. Any higher, and the beach should be closed for health risks. DWEJ youth took three 1 mL samples twice a week for five weeks, and found that *E. coli* levels exceeded the recommended limit at least twice (geometric averages of 493 and 509 colonies) – however, the beach was never closed. Any other public beach in Wayne County would be closed in order to protect the public from the risk of getting sick because of high levels of fecal bacteria in the water. Considering how many families use the Belle Isle beach, the public should be aware that the water quality is not tested. It may be a pain to have the public beach closed when you want to use it, but wouldn't you rather keep your family safe? Don't Detroiters deserve the same standards of public health and safety at their only public beach?