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blogpost: <https://mcdwater.wordpress.com/2016/07/12/great-miami-river-is-the-water-safe-for-recreation/>

## GREAT MIAMI RIVER: IS THE WATER SAFE FOR RECREATION?

*By Mike Ekberg, Manager for Water Resources Monitoring and Analysis*

Do you like to canoe, kayak, or row on the Great Miami River? Have you ever flipped your boat and ended up soaked with a mouthful of river water? Did you worry about getting sick?

River users frequently ask me, "Is the water safe?"

The answer is yes, in most cases.

### **Bacteria levels can be a problem**

Just like in most lakes and rivers, bacteria can be a problem. Bacteria levels from fecal contamination in the Great Miami River are a bad news/good news situation. The bad news is the levels tend to spike after it rains. The good news is the bacteria tend to die off quickly. Keep in mind that even after a good rain, the risk of exposure to bacteria is likely to be low unless you swim in or drink the river water. For most people, paddling or rowing is a relatively low-risk activity.

Bacteria can get into the river from a variety of sources including poorly functioning septic systems, pet waste, streets, sidewalks, storm sewers, and farm fields. In the Great Miami River and its tributaries, Ohio EPA sets water-quality standards and measures recreation water quality based on a group of bacteria known as *Escherichia coli* (*E. coli*).

Ohio EPA evaluated bacteria levels in the Great Miami River in 2009 and 2010. The results showed average bacteria concentrations exceeded state standards at more than half of the sampling sites. MCD evaluated *E. coli* levels in the Great Miami River in 2012 and also found frequent occurrences of the bacteria.

### **Elevated *E. coli* levels and rainfall are related**

As little as 0.30 inches of rain can raise *E. coli* levels in the Great Miami River, according to MCD's study. But bacteria levels can return to safe levels in as little as 48 to 72 hours after a

rainfall. Water samples collected 72 or more hours after rain often showed very low levels of *E. coli* and met state standards.

### **Dry weather minimizes risk**

The best way to minimize your exposure to bacteria in the Great Miami River is to enjoy it during days of dry weather. If, however, you have open wounds, skin infections, or have a compromised immune system, consult your physician before taking part in any river recreation, and use caution.

### **Forecasting safety**

Using the relationship among rainfall, river flow, turbidity and *E. coli*, it's possible to predict safe or unsafe river recreation conditions. Technology now allows for water-quality forecasting. Check out [Ohio Nowcast](#), a web forecasting service for beaches on Lake Erie. Preliminary planning is under way for MCD to develop a forecasting app for the Great Miami River. Two years of sampling will be needed before the app can be up and running.

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