



**FOR RELEASE:** August 12, 2010  
**MEDIA CONTACT:** Erin Strouse, (614) 644-2160  
**CITIZEN CONTACT:** Jed Thorp, (614) 644-2160

## **Ohio EPA Announces Results of McMahon Creek Watershed Study**

Ohio EPA is announcing the results of its 2009 study of the McMahon Creek watershed in northern Belmont County. While the Agency found streams with poor water quality resulting from historic mining operations, landfill runoff and failing home septic systems, Ohio EPA also found streams with excellent fish and aquatic insect populations, which is a significant improvement from the poor/fair fish and insect populations found when Ohio EPA first started monitoring McMahon Creek in 1983.

### **Sampling Protocol and Purpose**

Ohio EPA collected biological, chemical and sediment samples from 15 sites in the watershed. Seven sites on the McMahon Creek mainstem were sampled as well as four sites on McMahon tributaries (Little McMahon Creek, Kings Run and Williams Creek). Four sites also were sampled on direct tributaries to the Ohio River (Big Run, Wegee Creek and Pipe Creek).

Ohio EPA has one of the most advanced water quality monitoring programs in the U.S., determining river and stream health by sampling stream biology and habitat in addition to water chemistry. The abundance and diversity of fish, aquatic insects and mussels, especially those sensitive to pollution, and the presence of bacteria, metals and nutrients provides Ohio EPA this vital information.

The Agency collects, analyzes and shares this data with local governments, landowners and citizens so they can develop plans to maintain, restore and protect waterways impacted by identified sources of pollution (e.g., sewage treatment plants, industrial facilities, home sewage treatment systems, livestock production, urban/rural runoff). Stakeholders can use the information to request assistance from Ohio EPA and other funding sources to implement projects that help alleviate water quality problems and protect water resources for drinking water and recreational enjoyment.

### **McMahon Creek Watershed Study and Sampling Results**

Ohio EPA found more than 15,350 fish representing 36 species in the McMahon Creek watershed. Nearly 14 percent of these species are pollution-intolerant. The presence of these highly sensitive fish (i.e., black redhorse, river chub, stonecat madtom and banded darter) indicates good water quality. Half a dozen sites, particularly in the upper section of McMahon Creek, had very good to exceptional biological scores and nine sites were fully meeting designated or recommended aquatic life attainment uses. Williams Creek also had excellent biology and aquatic habitat scores.

Chemistry samples revealed good water quality in the McMahon mainstem. Poor water quality in Kings Run, Little McMahon Creek, Wegee Creek and Big Run is due to acid mine drainage from historic coal mining. Extremely high levels of iron were found in Kings Run, causing the stream to turn orange-red. One sample from Kings Run resulted in Ohio EPA's highest iron detection in a decade. The iron level was four times the highest iron level found at other streams affected by acid mine drainage.

### **Other Pollution Issues and Ohio EPA Recommendations**

Ohio EPA believes Little McMahon Creek may be affected by Buckeye Reclamation Landfill leachate (i.e., the water that comes into contact with buried landfill wastes). Located near St. Clairsville off Country Road 214, the landfill was used for deep coal mining until about 1950 and first licensed as a solid waste landfill in 1971. Between 1976 and 1980, hazardous wastes (industrial sludge/liquids) were deposited in and near an impoundment on the landfill. In 1983, U.S. EPA designated it a Superfund site and worked with Ohio EPA and the responsible parties to clean up contamination. A 2009 report indicates the contamination is being substantially controlled and monitored. To ensure long-term protectiveness of human health and the environment, U.S. EPA, Ohio EPA and Ohio Department of Natural Resources (ODNR) are currently creating a plan that may include land use, ground water and development restrictions at the site to address ongoing issues stemming from historic mining and landfill operations. Additionally, an ongoing operation and maintenance plan includes regular inspections and reporting requirements.

To address the effects of acid mine drainage, ODNR's Division of Mineral Resources Management has completed numerous reclamation projects in the McMahon Creek watershed, resulting in water quality improvements and upstream fish migration and colonization. Other reclamation projects are planned for Wegee Creek and Big Run to remove large gob piles and coal mine waste. These piles and wastes can contribute high levels of acidity and metals (i.e., iron, aluminum, manganese, nickel and zinc). Fortunately, the limestone geology of the McMahon Creek watershed buffers these acidic contributions and keeps pH levels in an acceptable range for supporting aquatic life for most of the mined areas on the McMahon mainstem. A reclamation project on Kings Run would benefit Little McMahon Creek and may improve the fish population in lower McMahon Creek.

Ohio EPA tested six sites in the watershed for *E. coli* bacteria to determine recreation use attainment status. All of the sites were in full attainment except the one below the village of Warnock, an unsewered community. Elevated bacteria levels are likely the result of poorly treated or untreated sewage from failing home septic systems. To address unsanitary conditions, Ohio EPA recommends centralized sanitary sewage collection and treatment systems for Warnock as well as Glencoe and Neffs, two other large unsewered communities along McMahon Creek.

Ohio EPA expects to address impairments in the McMahon Creek watershed in a forthcoming Ohio EPA restoration report, known as a Total Maximum Daily Load (TMDL) report.

### **More Information**

Ohio EPA's 2007 McMahon Creek and Selected Tributaries Technical Support Document:

[www.epa.ohio.gov/portals/35/documents/McMahonCreekTSD2009.pdf](http://www.epa.ohio.gov/portals/35/documents/McMahonCreekTSD2009.pdf)

Ohio EPA's Total Maximum Daily Load (TMDL) Program:

<http://epa.ohio.gov/dsw/tmdl/index.aspx>

U.S. EPA's Web Page on Buckeye Reclamation Landfill:

[www.epa.gov/R5Super/npl/ohio/OHD980509657.htm](http://www.epa.gov/R5Super/npl/ohio/OHD980509657.htm)