

NEWS RELEASE COMMONWEALTH OF PENNSYLVANIA

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DEP INVESTIGATES SOURCE OF ELEVATED TOTAL DISSOLVED SOLIDS IN MONONGAHELA RIVER

*Preliminary Investigation Identifies Multiple Sources; DEP to Take Immediate
Measures to Reduce Levels*

HARRISBURG – The Department of Environmental Protection is investigating the source of unusually high levels of total dissolved solids, or TDS, detected at points along approximately 70 stream miles on the Monongahela River beginning at the West Virginia border to the confluence with the Youghigheny River.

Elevated TDS levels may affect the taste and odor of water. To control for this, a state and federal standard, or Secondary Maximum Contaminant Level, of 500 milligrams per liter of TDS has been established. Test results indicate levels of up to 852 milligrams per liter. Secondary contaminants are those which affect taste and odor, as opposed to primary contaminants which affect human health. The department has no results indicating any exceedences of primary contaminants.

Elevated TDS levels are not considered a major human health risk. The department now has no information indicating that the water is unsafe. But under the circumstances, if consumers have concerns, DEP recommends consumers use bottled water for drinking and preparing food until the exceedance is eliminated. The department will be constantly monitoring and continue testing.

Water supply treatment plants are not equipped to remove TDS from the raw water. DEP staff is sampling the finished water from water supplies along the Monongahela River and expects results within one week. DEP is working with these water suppliers in the affected area.

The department is investigating four possible reasons for the elevated TDS levels. Samples taken from the river at the West Virginia border show levels to be already at the standard. This level is well above the condition that normally exists at that point on the river. Any subsequent discharge of TDS will cause an immediate exceedance.

Secondly, the Monongahela basin is experiencing low-flow conditions, which means less water is available to dilute TDS. Low-flow conditions result in higher concentrations of TDS.

Third, abandoned mine drainage has been discharging to the Monongahela at a fairly constant rate for decades. And finally, increases in conventional, non-conventional and coal bed methane drilling have led to greater volumes of drilling wastewater being delivered to sewage treatment plants. Mine drainage and gas well drilling wastewater contain high concentrations of TDS.

To immediately address elevated TDS levels, DEP is directing all sewage treatment plants accepting gas well drilling wastewater, and which discharge to the Monongahela River or its tributaries, to drastically reduce the volume of gas well drilling wastewater they accept to one percent of their daily flow. Currently gas well drilling wastewater constitutes up to 20 percent of those plants daily flow. The restrictions will reduce the volume of drilling wastewater treated by 90 to 95 percent. The restrictions will remain in place until the levels of TDS fall below the 500 milligram per liter standard.

In addition, the department will step up monitoring and compliance activities and coordinate its efforts with the Pennsylvania Fish and Boat Commission in the Monongahela River basin area.

DEP is also consulting with the Army Corps of Engineers to investigate if supplemental discharges of water from several dams will aid with diluting the TDS. The department also will continue to monitor the situation closely and pursue with West Virginia options available to reduce TDS levels at the border.

Elevated TDS levels can result in scale formation and adversely impact the operation of industrial equipment which uses river water in its processes. DEP has received several reports from industry of equipment problems created by the high TDS levels.

TDS is a measure of all elements dissolved in water and can include carbonates, chlorides, sulfates, nitrates, sodium, potassium, calcium and magnesium. Sources of TDS can include, abandoned mine drainage, agricultural runoff, wastewater from gas

well drilling and discharges from industrial or sewage treatment plants.

Preliminary lab analysis detected TDS in the Monongahela River near the town of Millsboro as high as 852 parts per million. The department's complete laboratory analysis results will be available this week and will include sample results for chlorides, sulfates and metals.

Data collection points located along the Monongahela River beginning at the West Virginia border and points located on Dunkard, Whitley and 10 Mile creeks show elevated levels of TDS. However, data points along the Casselman and the Youghiogheny and Cheat Rivers show TDS levels below the limits set by DEP.

TDS levels on the Ohio and Allegheny Rivers and the Monongahela River below the confluence below the Youghiogheny River are also below the TDS standard

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EDITOR'S NOTE: Following is a list of public water supplies which draw raw water from the Monongahela River in the affected area.

- East Dunkard Water Association
- Dunkard Valley Joint Municipal Authority
- Masontown Water Works
- Carmichaels Municipal Authority
- Southwestern Pennsylvania Water Authority
- Tri County Joint Municipal Authority
- Pennsylvania- American Water Company Brownsville Plant
- Newell Municipal Authority
- Washington Township Municipal Authority
- Belle Vernon Municipal Authority
- Charleroi Municipal Authority
- Pennsylvania-American Water Company Aldrich Station

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