

# **Dunkard Creek "Fish Kill"**

## **September 2009**

### **A Summary and Some Questions**

22 September 2009

#### **What and Where**

A fish kill on Dunkard Creek was first reported on 1 September 2009, and apparently continues through this date. It is reported that 161 aquatic species have died along Dunkard Creek. The fish started turning belly up on 1 September and by 4 September dead fish were lining the deep pool below the Lower Brave Dam near the Greene County, PA town of Brave and/or the Monongalia County, WV community of Pentress.

The West Virginia and Pennsylvania forks of Dunkard Creek merge in Shamrock, Pennsylvania, to form Dunkard Creek, which meanders nearly 38 miles along the southwest border of the Commonwealth of Pennsylvania and the State of West Virginia, before its confluence with the Monongahela River just downstream of Point Marion, PA.

#### **Who is Involved**

Government agencies involved include, but are not limited to:

- Pennsylvania Fish and Boat Commission's environmental services division, fisheries management, and law enforcement (PAFBC)
- Pennsylvania Department of Environmental Protection (PA-DEP)
- U.S. Environmental Protection Agency (US-EPA)
- US Army Corps of Engineers – hydrology (USA-CE)
- West Virginia Department of Natural Resources, fisheries management, and law enforcement (WV-DNR)
- West Virginia Department of Environmental Protection, Division of Mining and Reclamation (WV-DEP)
- Greene County, Pa Department of Economic Development

Media coverage has been provided by:

- Pittsburgh *Post-Gazette* - reporter Don Hopey [dhopey@post-gazette.com](mailto:dhopey@post-gazette.com) or 412-263-1983 - photographer Bob Donaldson
- Washington, PA *Observer-Reporter* Bob Niedbala, Staff writer, [niedbala@observer-reporter.com](mailto:niedbala@observer-reporter.com)
- Morgantown *Dominion Post* - reporters Tracy Eddy and Alex Lang
- Pittsburgh *Tribune-Review*
- *The State Journal* (Charleston, WV) - reporter Pam Kasey

Not-for-profit organizations involved include:

- Dunkard Creek Watershed Association
- Monongahela River Recreation & Commerce Committee, Morgantown Area Chamber of Commerce (MRRCC)
- Mount Morris (Pa.) Sportsman's Club

- Upper Monongahela River Association (UMRA)
- Water Research Institute at West Virginia University (WRI at WVU)

Possible sources mentioned include:

- Consol Energy's Blacksville No. 2 mine in West Virginia - Longwall production at the mine resumed in late August after being idle for about two months
- Consol Energy's closed Blacksville No. 1 mine in West Virginia
- CNX Gas Co. disposal well at the Morris Run Mine Shaft of Consol Energy's closed Blacksville No. 1 Mine. The well in Greene County was permitted by EPA in 2005 for the disposal of the produced fluid, or brine, from the company's coal bed methane wells
- Unnamed oil and gas drilling operations
- Unnamed water haulers serving oil and gas drilling and production operations

### **Some Specifics Reported**

WV DEP has tested the creek's rust-colored water for several things, including salinity, toxicity, a wide array of metals and chemicals, such as pesticides and polychlorinated biphenyls. The WV DEP is still waiting for the results of those tests

WV DEP analyzed the water on the spot for pH, conductivity and dissolved oxygen, and did not find anything far out of the ordinary.

Chemical analysis shows the creek water near the Blacksville No. 2 Mine treatment facility site contains extremely high total dissolved solids, or TDS, and particularly chlorides -- properties found in wastewater from Marcellus Shale gas well drilling and fracing operations but not mine water. TDS from drilling and fracing may include metals, salts, lubricants, and other components

The water has been described as more like tea than the yellowboy that can appear on the bed of an acid mine drainage-affected stream or like any oily substance floating on top. It did not start at a point source. It wasn't something that could just tracked to a pipe.

Dead fish upstream from the Blacksville discharge indicates the sole cause cannot be Blacksville No. 2

WV Division of Natural Resources (DNR) investigators have taken organ, tissue and blood samples of the dead fish and sent them to a DNR lab.

West Virginia DEP on 18 September sent a helicopter to fly over the creek to look for unauthorized discharges and places where tanker trucks could pull up and dump drilling wastewater

Consol spokesman Tom Hoffman said the CNX Gas Co. disposal well does not accept or treat gas well drilling wastewater

Water samples taken from the creek near the Blacksville mine treatment facility show extremely high levels of total dissolved solids, in the 25,000- to 35,000-milligrams-per-liter range, or about the same as in seawater. The federal safe drinking water standard is 500 milligrams per liter.

Mount Morris (Pa.) Sportsman's Club took water samples from three different areas of the Dunkard Creek and is paying a lab in Pennsylvania to test them.

West Virginia Department of Environmental Protection has said "We are acknowledging the hypothesis that at least part of the problem came from the outlet of the Blacksville No. 2 Mine."

The Pennsylvania Department of Environmental Protection said it was in the process of notifying water treatment plants along the Monongahela River about the possibility of polluted water entering the river, although there are no indications of any health risks because it is believed any polluted water entering the river would be rendered harmless by dilution.

Some residents have reported seeing large orange tanker trucks parked in Brave, Pa., with hoses running into the creek. Pennsylvania DEP has said the trucks were withdrawing water, not dumping into the creek. Inspectors did ask the company to stop withdrawing water from the creek until the fish kill is resolved

### **Questions**

Has a lead investigating agency been established ? If so, which one ?

Are formal meetings involving all investigating agencies being held? If so, where can minutes be viewed?

Is there a central data repository for the investigation? If so, where can the data be viewed?

Has chemical data been mapped using GIS or similar techniques? If so, where can the results be viewed? If not, when and where can such information be expected to be available?

Are lab results from the WV-DNR organ, tissue and blood samples of the dead fish available? If so, where can they be viewed? If not, when and where are they expected to be available?

Are lab results from the Mount Morris (Pa.) Sportsman's Club water samples available? If so, where can they be viewed? If not, when and where are they expected to be available?

Are reports from the WV-DEP 18 September helicopter flight over the creek available? Were aerial photographs taken? If so, where can they be viewed? If not, when and where are they expected to be available?

Have other agencies made aerial surveys or photographs? If so, where can they be viewed?

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The information in this summary is drawn primarily from published media reports, and accuracy of individual statements should be verified before application.

Please send additional information, questions, or corrections to [Wallace.Venable@mail.wvu.edu](mailto:Wallace.Venable@mail.wvu.edu)