WEST VIRGINIA & PENNSYLVANIA
MONONGAHELA AREA WATERSHEDS COMPACT

January 28, 2011

Open Letter to WV Legislature
Senators and Delegates
WV State Capitol Complex
Charleston, WV 25305

RE: Proposed 500 ppm TDS In-Stream Standard for the State of West Virginia

The WV/PA Monongahela Area Watersheds Compact has had approximately 50 various watershed, conservation, and other organizations participating with concerns about the diverse waters of our entire State as well as the adjacent areas of southwestern Pennsylvania. We all recognize that legislation is urgently needed to achieve adequate protection of our public waters particularly our drinking water and our aquatic life.

We have a crisis in the Monongahela River, which appears to be an "impaired stream" now. And, a number of other streams state-wide have shown quite high total dissolved solids (TDS) values. The Dunkard Creek disaster was possible because of the high TDS values; this resulted in the death of some 22,000 fish and 14 species of mussels in just a short episode during September of 2009. This disaster and its significance to our State as a whole is addressed in Reference 1, from the WV Division of Natural Resources.

The US Army Corp of Engineers has evaluated our watershed streams and concluded that the "Mon River TDS assimilative capacity has been reached". These problems are most severe at conditions of low flow. Similar water quality problems are developing in other watersheds including the Allegheny, Youghiogheny, Cheat etc. The Ohio River is also now under watch. [See Reference 2, below for the US Army Corp presentation].

The public water supply for Morgantown has been near or over 500 ppm a number of times during the past year. We must address these problems just as soon as is possible. We have over 35,000 residents and over 30,000 at WVU that rely upon this water. In Pennsylvania, there are over 350,000 people that depend upon the Monongahela River for their water supply. And, this is feed water to our own Ohio River valley, where low TDS industrial water is essential.

We have given the 500 ppm in-stream proposal of the WV-DEP our consideration. We have determined that the following factual basis exists in support of this proposal:

(1)The 500 ppm in-stream standard proposed by the WV-DEP is already a compromise, given that the threshold for aquatic life impacts is 250 ppm, where the osmotic pressure effects caused by the TDS become hazardous to living things. These effects are due to the full complement of dissolved material (not specific ions), although other impacts can be attributed to a number of individual (or collections of) ions in the water.

(2) A 500 ppm standard for total dissolved solids has been recommended by the US government for drinking water for some years now.

(3)The WV-DEP has studied the TDS issues in West Virginia and has determined that a 500 ppm in-stream standard is needed state-wide, as is described in Reference 3.

(4) The problems caused by high TDS are many and varied throughout the State, including taste and laxative effects, scale accumulation in pipes and valves and other equipment, as well as health effects -- some of which are known and some unknown. Many industrial uses for river water require low levels of TDS. The spread of "golden algae" blooms, as occurred in Dunkard Creek, requires that we limit the TDS values in our streams.

(5) An in-stream standard for the State is necessary, to protect all our people given that our public water supplies are essential to our lives. Perhaps 1.5 million West Virginians use surface water as their main water supply. We need a standard for the long-term that applies at more than a few selected withdrawal points.

(6) A special condition amendment can be justified for those streams having a high natural level of calcium carbonate, for example, as "applicants may propose an alternative standard when certain natural conditions prevail if justification exists and is provided." A similar rule already exists for aquatic life protection under 47CSR2 at Section 7.2.C.4.

Thank you for your attention to these important matters on behalf of our State. We stand ready to assist as much as we can do, and to provide additional input as would be useful in your deliberations in the WV State Legislature.

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cc: WV/PA Watersheds Compact

LIST OF REFERENCES

Reference 1:
WV Division of Natural Resources (WV-DNR), Presentation to the Office of Oil & Gas Program Review, “Impacts of Gas Well Drilling on Aquatic Resources”, www.dep.wv.gov/oil-and-gas/GI/Pages/OOGPRev.aspx

Reference 2:
WV/PA Monongahela Area Watersheds Compact, Presentation, US Army Corps of Engineers – Pittsburgh District, Watersheds Group Meeting, Morgantown, WV, “Monongahela River Watershed – Historical Water Quality Trends”, www.uppermon.org/Mon_Watershed_Group/index.html

Reference 3:
WV Department of Environmental Protection (WV-DEP), 2011 Proposed Rules, Code of State Regulations 47CSR2 – Requirements Governing Water Quality Standards, www.dep.wv.gov/pio/Pages/Rules.aspx