

RESOLUTION
TO PROTECT THE DRINKING WATER SUPPLY AND PREVENT ADVERSE
EFFECTS ON INDUSTRIAL USE OF WATER IN THE MORGANTOWN AREA
BY CONTROLLING THE AMOUNT OF TOTAL DISSOLVED SOLIDS
ENTERING THE MONONGAHELA RIVER

Whereas, the Morgantown Municipal Green Team expressed concern about possible hazards to water supplies due to drilling for natural gas in Marcellus shale in September and October, 2008, and the Upper Mon River Association and Chamber of Commerce Vision 2020 Mon River Recreation and Commerce Committee held three forums regarding the same concerns in November and December 2008 and in January 2009 with over 50 organizations attending including the US Army Corps of Engineers, the WV Department of Environmental Protection, the WV Division of Natural Resources, the WV Water Research Institute, Allegheny Energy, Inc., and Chesapeake Energy, Inc., and

Whereas, there are approximately 40 municipal water systems and 20 waste water systems, including Morgantown's, which depend on the sufficient quality and quantities of upper Monongahela River water for drinking water supplies and for numerous commercial, transportation, power generation, and recreation investment uses, and

Whereas, the Monongahela River basin in West Virginia continues to have Total Dissolved Solids (TDS) from acid mine drainage which in low-flow periods reach levels of 500 mg/l which may be hazardous to aquatic life, water supplies, and commercial operations, and

Whereas, there are now increasing numbers of active gas wells in the United States with increasing reports of court evidence of water contamination relating to gas well sites and drilling processes, and

Whereas, in West Virginia approximately 1,500 active gas well were permitted in West Virginia in 2007, of which 35 are reported to utilize injection drilling into the Marcellus Shale formation, and

Whereas, the injection drilling techniques developed by the Halliburton Corporation for natural gas utilizing horizontal borings at mile deep levels now involve the use of fracturing chemicals being placed in a pressurized brine solution while utilizing one to six million gallons of water for each well, and

Whereas, the Scientific American (11/17/08), Business Week (11/13/08) and numerous other publications (see references and resources for this resolution) report that the chemicals used in fracturing include 300-odd compounds including benzene, methanol and hazardous concentrations of

fluoride among the 65 substances listed as known hazardous substances by the federal government, and

Whereas, *high concentrations of brine water are also problematic for drinking water and municipal water treatment plants because as according to a 2004 EPA report, the brine “can be very damaging to the environment and public health if it is discharged to surface water or the land surface” as well as to commercial operations, and*

Whereas, *levels of Total Dissolved Solids (TDS) are regulated in Pennsylvania not to exceed the 500 milligrams per liter (mg/l), and in times of low-flow the water quality in the Monongahela River in West Virginia already reaches 500 mg/l largely due to acid mine drainage, and now with TDS levels from gas drilling, some reported Pennsylvania TDS levels have more than doubled creating a reported need for bottled water use in some Monongahela River communities, causing potentially expensive multi-million dollar operational and air and water emission problems for power plants (and commensurate increases in power rates), cited damage to residential hot water heaters, dishwashers, and washing machines, and expressions of concern by industry, transportation and government agencies such as the US Army Corps of Engineers, and*

Whereas, *action taken by the U.S. Army Corps of Engineers to dilute high concentration of TDS has involved potentially significant releases of water from the Tygart and Stonewall dams during low-flow periods and exacerbation of concerns for aquatic life and other wildlife, water supplies for individual and municipal water systems, commerce, industry, river transportation, and recreation, and*

Whereas, *the West Virginia Department of Environmental Protection (DEP), unlike environmental departments in states such as New York and Pennsylvania, does not have legislative guidelines nor a comprehensive plan to address water source protection, composition of fracturing fluids, TDS/brine levels in West Virginia rivers nor requirements relating to the disposal of fracturing solutions nor the permit scheduling control to address the impact of collective drilling operations during low-flow periods nor legislative means in a time of change to increase protection of the vital natural capital of a safe, environmentally sound and economically sustaining water supply for Morgantown and surrounding communities, West Virginia University, other municipal areas on the river and commercial interests, and*

Whereas, *the states of New York, Pennsylvania, Colorado, New Mexico have taken the lead to limit or control the potentially hazardous impact of gas drilling within their states to protect the health, economic investments, employment, and social interests of their citizens, and*

Whereas, the Commonwealth of Pennsylvania has even created a regional watershed commission for its Susquehanna River to address water quality and quantity control,

NOW, THEREFORE, BE IT RESOLVED, *the City of Morgantown urges the state legislative delegation in Monongalia County and other members of the West Virginia State Legislature to enable the development of comprehensive standards by the State and the DEP controlling TDS levels within the Monongahela River basin in West Virginia which will require:*

- 1) Control of source, schedule, and conditions for water withdrawal;*
- 2) Disclosure of the exact make-up of fracturing fluids and limitation of hazardous chemicals such as benzene and the other hazardous chemicals used in drilling operations;*
- 3) Specification of a water discharge plan detailing treatment, location, schedule, and conditions for discharge;*
- 4) Penalties for non-compliance including revocation of drilling permit;*
- 5) Establishment of TDS in-stream water quality standards at or below the Pennsylvania standard of 500 mg/l for the Monongahela River;*
- 6) Control of the total of all mining, drilling, and other discharges within the Monongahela River basin to ensure compliance with the TDS standard throughout the year, even in periods of low-flow water.*

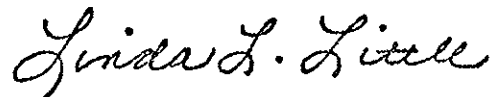
LET IT BE FURTHER RESOLVED, *that the legislators work to require the DEP take emergency measures during this 2009 legislative session to protect the water supplies from individual and/or collective gas well drilling operations, acid mine drainage and any other source of high concentration of TDS or brine in 2009 and until permanent legislation is activated.*

LET IT BE FURTHER RESOLVED, *that the legislators work with the City of Morgantown and other cities to petition Congressional leaders to amend the federal Safe Drinking Water Act which as of 2004 exempts hazardous chemicals used in hydraulic fracturing - even diesel fuel - from limitation.*

Adopted this 3rd day of February, 2009.



Mayor



City Clerk