RESOLUTION - PA

WHEREAS, a fundamental purpose of government is to protect the health, safety, and welfare of citizens;

WHEREAS, Article I, Section 27 of the Pennsylvania Constitution affirms that, "The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment;"

WHEREAS, Article I, Section 27 further declares, "Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people;"

WHEREAS, in the most recent statistical analysis of the body of scientific literature by the Concerned Health Professionals of New York and Physicians for Social Responsibility, 685 peer-reviewed papers examining gas drilling and/or fracking were reviewed and the overwhelming majority of studies found evidence of or potential adverse impacts on water, air, and human health.[1]

WHEREAS, the negative impacts of shale gas development are documented by Pennsylvania Department of Environmental Protection's accounting of 284 private water well contamination cases that were determined by the agency to have been caused by oil and gas operations through 2016[2].

WHEREAS, the EPA's newly released hydraulic fracturing study provides scientific evidence that hydraulic fracturing activities can impact drinking water resources and includes water impacts from shale gas in the Pennsylvania community of Dimock.[3]

WHEREAS, there is significant evidence that shale gas development has an adverse effect on public health, property interests, agriculture and on our air, water, and land;[4]

WHEREAS, neither Pennsylvania nor the Delaware River Basin Commission has conducted a comprehensive assessment of the cumulative and long-term impacts of hydraulic fracturing and related shale gas development activities on the water resources of the Basin;

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[1] PSE Healthy Energy Library, https://www.zotero.org/groups/pse_study_citation_database/items; See Compendium, http://concernedhealthny.org/compendium/
Delaware Riverkeeper Network, "Unsafe and Unsustainable,"
http://www.delawareriverkeeper.org/Documents/DRN_Report_Unsafe+Unsustainable_fr.pdf

[2] http://files.dep.state.pa.us/OilGas/BOGM/BOGMPortalFiles/OilGasReports/Determination_Letters/Regional_Determination_Letters.pdf accessed by DRN 12.27.2016
http://publicherald.org/to-hell-with-us-records-of-misconduct-found-inside-pa-drinking-water-investigations/
http://publicherald.org/hidden-data-suggests-fracking-created-widespread-systemic-impact-in-pennsylvania/

[3] Environmental Protection Agency (EPA). 2015. Assessment of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources – External Review Draft. June 2015. Available at: www.epa.gov/hfstudy; Hein 2012, p. 2. https://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=332990

[4] Delaware Riverkeeper Network, "Unsafe and Unsustainable,"
http://www.delawareriverkeeper.org/Documents/DRN_Report_Unsafe+Unsustainable_fr.pdf

WHEREAS, the absence of such an assessment prevents the appropriate management of and avoidance of degradation from the harms associated with shale gas development, including risks to public health, property values and the clean air and water upon which all citizens and businesses depend;[5]

WHEREAS, the shale gas industry has received unprecedented exemptions from our nation's most important environmental and public health laws including the Safe Drinking Water Act, Clean Air Act, and the Clean Water Act;

WHEREAS, after exhaustive study, New York has enacted a ban on high-volume hydraulic fracturing in the state;[6]

WHEREAS, a vitally important cumulative impact is the climate effects of shale development in the Watershed. Natural gas is primarily methane, a greenhouse gas 86 times more efficient at trapping heat than carbon over a 20 year time frame[7] and its effects persist for hundreds of years[8]. The well documented vented and fugitive losses from natural gas systems contribute to atmospheric warming; current technology and practices have not controlled these releases. The emissions from shale gas development are so great that it is projected that their

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[5] For examples of risks not considered, see E.L. Rowan, et al., Radium Content of Oil- and Gas-Field Produced Waters in the Northern Appalachian Basin (USA): Summary and Discussion of Data, United States Geological Survey ("USGS") Scientific Investigations Report 2011-5135 (2011); "NIOSH Field Effort to Assess Chemical Exposure Risks to Gas an d Oil Workers," http://www.cdc.gov/niosh/docs/2010-130/pdfs/2010-130.pdf; "CDC scientist: tests needed on gas drilling impact," Wall Street Journal, January 4, 2012, http://online.wsj.com/article/AP8338b702930849f49d22a5d96b7d1b2d.html; OSHA-NIOSH, "Worker Hazard Alert: Worker Exposure to Silica during Hydraulic Fracturing," http://www.osha.gov/dts/hazardalerts/hydraulic_frac_hazard_alert.pdf ("Recent NIOSH field studies identified overexposure to airborne silica as a health hazard to workers."); E.T. Slonecker, et al., Landscape Consequences of Natural Gas Extraction in Bradford and Washington Counties, Pennsylvania, 2004-2010, USGS Open File Report 2012-1154 (2012); E.T. Slonecker, et al., Landscape Consequences of Natural Gas Extraction in Allegheny and Susquehanna Counties, Pennsylvania, 2004-2010; USGS Open File Report 2013-1025 (2012); P.J. Drohan, M. Brittingham, J. Bishop, and K. Yoder, Early Trends in Landcover Change and Forest Fragmentation Due to Shale-Gas Development in Pennsylvania: A Potential Outcome for the Northcentral Appalachians, Environmental Management, (2012) at 1, 4-6, 9-13; American Water Works Ass'n, "Water and Hydraulic Fracturing: A White Paper from the American Water Works Association" (2013) at 4 (describing degradation of well casing over time); Michelle Bamberger & Robert E. Oswald, Impacts of Gas Drilling on Human and Animal Health , New Solutions, 2012, at 54-61; U.S. Geological Survey Powell Center for Analysis and Synthesis, "Water Quality Studied in Areas of Unconventional Oil and Gas Development, Including Areas Where Hydraulic Fracturing Techniques are Used, in the United States," April 2012, http://pubs.usgs.gov/fs/2012/3049/FS12-3049_508.pdf ("The effects of unconventional oil and gas development and production on regional water quality have not been previously described despite the fact that oil and gas development in the United States began nearly 150 years ago, and more than 4 million oil- and gas-related wells . . . have been drilled with an increasing trend in the use of hydraulic fracturing.")

[6] http://www.dec.ny.gov/docs/materials_minerals_pdf/findingstatehvhf62015.pdf; http://www.health.ny.gov/press/reports/docs/high_volume_hydraulic_fracturing.pdf; http://mdehn.org/resources/public-health-study-of-fracking/

[7] Intergovernmental Panel on Climate Change (IPCC). 2013. *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.*

[8] http://www.pnas.org/content/early/2017/01/03/1612066114.full

release from the build out of Pennsylvania's Marcellus shale will prevent the achievement of global warming goals in the state, accelerating climate change.[9] Climate change impacts on the basin's water resources include changes in precipitation and runoff that increase flooding and drought, impairment of habitats and water quality (including salt water intrusion to Delaware Estuary water supplies) and sea level rise.[10]

WHEREAS, the Delaware River Basin Commission has in place a moratorium that currently prohibits natural gas development in the Delaware River Basin;

WHEREAS, the Township supports the continuation of these prohibitions; and

WHEREAS, the township considers that the weight of evidence shows that natural gas development cannot be done safely and/or without degrading the exceptional water quality of the Delaware River;

NOW, THEREFORE, BE IT RESOLVED that:

1. The Township calls upon the Delaware River Basin Commission to enact a complete and permanent ban on natural gas development and hydraulic fracturing in the Basin.

[9] PSE Healthy Energy, "Lifecycle Greenhouse Gas Emissions Associated with Projected Future Marcellus Development", 2017.

[10] https://www.epa.gov/climate-impacts/climate-impacts-water-resources