City of Lambertville RESOLUTION NUMBER 54-2018 RESOLUTION TO BAN FRACKING IN THE DELAWARE RIVER BASIN Lambertville, NJ

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

WHEREAS, there is significant evidence that shale gas development, and its related operations which include all the phases of the hydraulic fracturing ("fracking") process from the first stage of industrial land preparation; to the storage, handling and use of chemicals and additives for extraction and stimulation; to drilling and fracking; to the withdrawal of and degradation of large volumes of water and its discharge and disposal as waste, has adverse effects has an adverse effect on public health, property interests, agriculture and on our air, water, and land¹; and

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 health²; and

WHEREAS, the negative impacts of shale gas development are documented in neighboring Pennsylvania's active shale field by Pennsylvania Department of Environmental Protection certification of 292 private water well contamination cases that were determined by the agency to have been caused by oil and gas operations³; and

WHEREAS, the EPA's most recently 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 Dimock⁴; and

WHEREAS, neither (*New Jersey nor Delaware, in NY just mention DRBC*) 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; and

 $\underline{http://www.delawareriverkeeper.org/Documents/DRN_Report_Unsafe+Unsustainable_fr.pdf}$

Delaware Riverkeeper Network, "Unsafe and Unsustainable,"

http://www.delawareriverkeeper.org/Documents/DRN_Report_Unsafe+Unsustainable_fr.pdf

¹See Delaware Riverkeeper Network, "Unsafe and Unsustainable,"

² PSE Healthy Energy Library, https://www.zotero.org/groups/pse_study_citation_database/items; See Compendium, http://concernedhealthny.org/compendium/

³http://files.dep.state.pa.us/OilGas/BOGM/BOGMPortalFiles/OilGasReports/Determination_Letters/Regional_Determination_Letters.pdf

⁴ 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

WHEREAS, the absence of such an assessment makes it impossible to determine whether shale gas development can proceed safely and prevents the appropriate management of 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 depend⁵; and

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; and

WHEREAS, after exhaustive study, New York has prohibited high-volume hydraulic fracturing and Maryland has prohibited all hydraulic fracturing in their states⁶; and New York and Maryland have prohibited high-volume hydraulic fracturing in their states⁷; and

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 frame⁸ and its effects persist for

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.")

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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 and 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,

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://thinkprogress.org/climate/2015/05/29/3664098/larry-hogan-maryland-fracking-ban/
http://mgaleg.maryland.gov/webmga/frmMain.aspx?pid=narrowsubjpage&tab=subject3&id=hydrfrac&stab=01&ys=2017rs

⁷ 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/ http://thinkprogress.org/climate/2015/05/29/3664098/larry-hogan-maryland-fracking-ban/

⁸ 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.

hundreds of years⁹. 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 are so great that it is projected that their release from the build out of Marcellus shale will prevent the achievement of global warming goals in Pennsylvania, accelerating climate change.¹⁰ 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 rise¹¹; and

WHEREAS, the Delaware River Basin Commission has in place a moratorium that currently prohibits natural gas development, including drilling, fracking, wastewater processing and discharges from and water withdrawals for drilling and fracking operations, in the Delaware River Basin; and

WHEREAS, the City of Lambertville supports the continuation of these prohibitions; and

WHEREAS, the Delaware River Basin Commission is actively considering draft regulations that include "prohibitions related to the production of natural gas utilizing horizontal drilling and hydraulic fracturing within the Basin", but also the allowance for "...storage, treatment, disposal and/or discharge of wastewater within the basin associated with horizontal drilling and hydraulic fracturing for the production of natural gas where permitted" and "...the inter-basin transfer of water and wastewater for purposes of natural gas development where permitted";

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

NOW, THEREFORE, BE IT RESOLVED that:

- 1. The City of Lambertville calls upon the Delaware River Basin Commission to enact a complete and permanent ban on natural gas development and hydraulic fracturing and related activities throughout the Basin.
- 2. That a copy of this resolution be filed with the Delaware River Basin Commission, 25 Cosey Road, P.O. Box 7360, West Trenton, NJ 08628-0360

ADOPTED: March 19, 2018

⁹ http://www.pnas.org/content/early/2017/01/03/1612066114.full

¹⁰ PSE Healthy Energy, "Lifecycle Greenhouse Gas Emissions Associated with Projected Future Marcellus Development", 2017.

¹¹ https://www.epa.gov/climate-impacts/climate-impacts-water-resources