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Earthworks Oil & Gas Accountability Project
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August 28, 2018

John Brakeall, Technical Guidance Coordinator
Department of Environmental Protection, Policy Office
Rachel Carson State Office Building
P.O. Box 2063
Harrisburg, PA 17105-2063

RE: *DEP ID: 012-0501-002. Title: Environmental Justice Public Participation Policy*

Dear Mr. Brakeall:

Thank you in advance for taking the following concerns regarding the Department's Environmental Justice Participation Policy (EJPP) into consideration. We request a response from the Department about whether the following recommendations will be applied to any of DEP's environmental justice policies or procedures in the future.

To begin, we feel the substantive revision of the Environmental Justice Public Participation Policy (EJPP) lacks several key elements that, without which, make it inherently unjust and prohibitively difficult for residents to have meaningful involvement in decision-making processes. The National Environmental Justice Advisory Council's (NEJAC) criteria for "meaningful involvement" are:

1. People have an opportunity to participate in decisions about activities that may affect their environment and/or health;
2. The public's contribution can influence the regulatory agency's decision;
3. Community concerns will be considered in the decision-making process; and
4. Decision makers will seek out and facilitate the involvement of those potentially affected.

With regard to criteria #1, there is currently no opportunity in your policy for residents living near oil and gas extraction, production, processing or distribution sites to "participate in decisions...that may affect their environment and/or health."

With regard to criteria #2 and #3, it appears DEP is under no obligation to adopt any of the public's contributions or concerns into the agency's decision-making process. In fact, the EJPP explicitly states that the "policies and procedures herein are not an adjudication or a regulation. There is no intent on the part of the Department to give these rules that weight or deference."

With regard to criteria #4, we are including a list of cultural and/or socioeconomic barriers to accessing DEP or industry personnel, comprehending DEP- or industry-provided information, and attending meetings. These barriers prohibit meaningful involvement in the environmental justice process for our most vulnerable residents and communities.

These and other concerns are elaborated below.

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Trigger Permits

To attain a fair and meaningful environmental justice policy in the Commonwealth, the following must be included in a list of “trigger” permits, at the very least:

- Oil & Gas - Include production sites, pipelines and other shale oil and gas infrastructure.

Oil and gas extraction is a process well known to cause water, soil and air pollution – including blowouts and explosions that require evacuation of residents – as well as health impacts. Yet permits for these facilities are entirely excluded from the EJPP. To give the oil and gas industry special exemption from the Environmental Justice Participation Policy is simply unacceptable.

A June 2018 review of scientific research by The Endocrine Disruption Exchange regarding the health effects of unconventional oil and gas operations (enclosed herein) found that “As of yet, there is no scientific basis for a gradient of safe distances. Significant health effects have been demonstrated at distances of 500 feet, 2,640 feet, and 3,280 feet.”

The exclusion of oil and gas permits is also in direct conflict with the Department’s trustee obligation under Article I, Section 27 of the Constitution of the Commonwealth, the Environmental Rights Amendment (ERA), to protect the public’s “clean air, pure water” and preserve “the natural, scenic, historic and esthetic values of the environment.” The Environmental Hearing Board and courts of Pennsylvania, most recently on August 3rd,¹ have all found that the various environmental statutes of the Commonwealth must comply with Article I, Section 27 – therefore, all policies implemented by the Department should embrace the agency’s trustee obligations under the ERA.

- Water - Include NPDES permits for facilities discharging less than 50,000 gpd.

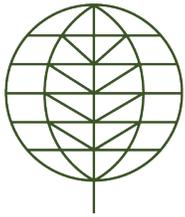
NPDES permits for facilities treating oil and gas waste and discharging LESS than 50,000 gallons per day of wastewater effluent should be included. A facility that discharges 42,000 gpd is no less a risk for the accumulation of NORM/TENORM in the environment, particularly river sediments. The discharge of even minute amounts of radionuclides from treated conventional oil and gas drilling waste has already led to the accumulation of Radium-226 in Pennsylvania streams.² Radium-226 is a carcinogen.

- Air - Include “minor” source permits and modifications.

From an air pollution perspective, both major and minor sources and modifications should be considered trigger permits. As shown in case studies in Earthworks’ 2017 report, *Permitted to Pollute* (enclosed herein), operators can avoid major source designation by dispersing numerous minor sources over a region, or by installing modifications over time that result in emissions equivalent to major sources. This industry

¹ [Petition for Allowance of Appeal from the Unpublished Memorandum Opinion and Order of the Commonwealth Court, No. 2609 CD 2015](#), August 3, 2018

² [“Sources of Radium Accumulation in Stream Sediments Near Disposal Sites in Pennsylvania: Implications for Disposal of Conventional Oil and Gas Wastewater,”](#) Nancy Lauer, N. Warner, A. Vengosh, Environmental Science and Technology, January 4, 2018



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strategy would also enable operators to confound the establishment of an Area of Concern, as called for in this version of the EJPP.

In fact, our report showed that the spatial arrangement of three oil and gas facilities operating concurrently in Butler County, considered typical and allowable by the DEP, have produced situations in which the combined facilities emit *more* pollution than a major source. By avoiding major source designation, those operators avoided more stringent air pollution control review, and local residents were denied the additional protections such a review might have afforded.

Adding to this problem, Pennsylvania's current air monitoring network (and modifications proposed in the 2018 Annual Ambient Air Monitoring Network Plan) is insufficient to adequately assess the air quality impacts of numerous areas of heavy shale gas development within the Commonwealth. Earthworks submitted comments to the DEP on July 16, 2018 (enclosed herein) that detail several regions lacking appropriate coverage by the network. Areas without sufficient monitoring may be inaccurately labeled as "in attainment" of National Ambient Air Quality Standards (NAAQS), again facilitating DEP's approval of additional gas facilities while reducing crucial consideration of their contribution to ozone and other pollutants.

While the environmental health research on exposures to shale gas pollution already clearly demonstrates "public health hazards, elevated risks, or adverse health outcomes,"³ those exposed to airborne pollution may face further risks that have yet to be quantified. Health standards have not been established for some air pollutants associated with the shale gas industry,⁴ meaning no one can determine what level of exposure, if any, is safe.

Expanded Definition of "Environmental Justice Area"

We urge the DEP to expand its current definition of environmental justice areas (EJA) beyond the narrow criteria of a "30 percent or greater minority population or 20 percent or greater at or below the poverty level." This constrained interpretation of populations does not address many of the factors that may make a population more vulnerable to the incursions of environmental injustice, and which may limit meaningful participation in environmental decision-making.

DEP's Environmental Justice Work Group uses fair treatment and meaningful involvement as the pillars of environmental justice and states:

"The EJWG defines environmental justice as the fair treatment and meaningful involvement of all people with respect to the identification of environmental issues, and the development, implementation and enforcement of environmental policies, regulations, and laws. Fair treatment means that **no group of people including racial, ethnic, or socioeconomic groups, will bear a disproportionate share of the negative environmental impacts** resulting from industrial, municipal, and commercial activities or from the execution of federal, state, and local

³ Shonkoff, Seth, PHD, MPH; Hayes, J., MA. "[The Science on Shale Gas Development.](#)" Physicians, Scientists and Engineers for Healthy Energy, April 20, 2016.

⁴ Petition to US EPA for Listing and Rulemaking Under Section 112 of the Clean Air Act..., EarthJustice, May 13, 2014. <https://earthjustice.org/sites/default/files/files/OilGasToxicWellsPetition51314.pdf>



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programs and policies.”⁵

The distribution of shale gas development in the state highlights the need for a broader definition. The vast majority of gas wells are sited in rural areas, and rural populations are indeed bearing a “disproportionate share” of the impacts. Yet, as a group, rural populations face special challenges not addressed in the current definition of EJA, such as significantly lower rates of advanced education,⁶ and may have less access to technology like internet access. These circumstances can interfere with meaningful involvement.

Moreover, the geographic isolation of rural areas can mean that these populations do not receive information and self-organize around community concerns in the same way as other populations. They also face additional difficulty in gathering for meetings and hearings due to travel distances and lack of public transportation in rural areas.

Aging populations are doubly vulnerable, in that, on average, they are less likely to have reliable transportation or access to technology, and by nature they “experience higher risk of chronic disease,”⁷ making toxic exposures a greater threat. The median age of adults tends to be higher in rural areas than urban,⁸ and as already acknowledged, the majority of Pennsylvania’s shale gas development is in rural areas. The top five Pennsylvania counties for active shale gas wells⁹ all have a higher percentage population over age 65 than the state’s average of 17.8%. In Susquehanna County, which has the second-greatest number of unconventional wells in the state (1,448), a considerable 22.9% of the population is over age 65,¹⁰ more than five percentage points over the state average.

The DEP EJ policy should include consideration of education and literacy levels, geographic technological isolation, and percentage of aging populations as “group[s] of people ... bear[ing] a disproportionate share of the negative environmental impact” associated with shale oil and gas development.

Barriers to Involvement

In addition to broadening the definition of EJA, we call upon the DEP to recognize and address the barriers that may prohibit members of a community from receiving information, participating in the decision-making process, and filing complaints. While the proposed policy recognizes a number of these barriers, they have not been sufficiently addressed to ensure they do not inhibit meaningful participation. For each, we suggest possible remedies:

- **Barrier: Education and literacy levels** – The average reading level of an adult American is 8th grade. The importance of accessible language is codified in

⁵ [“Report to The Pennsylvania Department of Environmental Protection,”](#) Environmental Justice Working Group, June 2011.

⁶ [“New Census Data Show Differences Between Urban and Rural Populations,”](#) U.S. Census Bureau, December 8, 2016.

⁷ [“2020 Topics & Objectives: Older Adults,”](#) Office of Disease Prevention and Health Promotion (US Dept. of Health), accessed August 24, 2018.

⁸ [“New Census Data Show Differences Between Urban and Rural Populations”](#) (see footnote #7)

⁹ [“PA Dept. of Environmental Protection Oil and Gas Reporting Database,”](#) accessed August 24, 2018.

¹⁰ [“QuickFacts: Washington County, Pennsylvania,”](#) U.S. Census Bureau, accessed August 24, 2018.



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federal law as the Plain Writing Act of 2010.¹¹ Yet, the subject proposal does not mandate readability of applications and other public materials.

- *Remedy* – Specify reading level of all materials. Mandate the inclusion of visual materials wherever possible. At a minimum, all project proposals for trigger and “opt-in” permits should include a map of the project location that clearly identifies local landmarks and offers community members a full understanding of the geographic impact relative to where they live, work, attend school, or recreate.
- **Barrier: Language** – The policy as currently written only requires alternative language materials “[i]n areas where the predominant language spoken or read is not English.” However, even if a majority of a community speaks English, the community may be home to significant populations for whom English-language materials are inaccessible.
 - *Remedy* – The policy should require an assessment of languages spoken and supply alternative language materials for all numerically significant language communities, determined in consultation with appropriate Departments of the Commonwealth or other agencies. Securing DEP translators to communicate in residents’ native languages is another option.
- **Barrier: Geographic isolation** – Rural isolation limits the ability to travel and may make it less likely that residents will routinely interact with one another. This isolation may prohibit attendance at public meetings and hearings, limit “word of mouth” communication between residents, and hamper access to publicly-posted information.
 - *Remedy* – Provide travel assistance to meetings, and/or use additional methods of notification and distribution of public information, e.g., phone calls, direct mail or door-to-door canvassing.
- **Barrier: Technological isolation** – Not all areas have equal access to internet service, limiting the ability to learn about proposed projects and provide comments. The current EJPP offers some provisions, but should ensure all people have the ability to access information and participate.
 - *Remedy* – Consider offering an option for residents to submit comments via phone and designating a phone line that residents can call for information about a project and their right to participate.
- **Barrier: Fear of retaliation & lack of anonymity** – This policy hinges on public comments and hearings, which preclude anonymity. This may limit participation of those who might experience intimidation or retaliation for opposing a development project or lack citizenship status.
 - *Remedy* – Offer the option of anonymous participation in all parts of the permitting process, from submission of written comments to testimony at public hearings, e.g., allow participants to submit a written testimony to be read aloud by a proxy.
- **Barrier: Economic disadvantage** – DEP’s current definition of an Environmental Justice Area (EJA) recognizes poverty, yet the proposed policy requires substantial time and resources on the part of community members, e.g.,

¹¹ [Public Law 111-274](#), 111th Congress, October 13, 2010.



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the cost of obtaining child care or elder care to attend meetings and the cost of transportation.

- *Remedy* – Provide transportation assistance for meetings and hearings and require the provision of dependent care for attendees, such as onsite childcare or free in-home care services for homebound dependents.
- **Barrier: Procedural complexity** – Community members must not only grapple with the complexity of a proposed project, replete with highly technical information, but with the complexity of the permit review process itself. The layperson is likely to struggle to negotiate the many steps and stages described in this policy. For example, those contemplating engagement in the complaint process may be unsure of the resources needed to file a complaint (legal representation, cost to file, etc.), systems for tracking or remedying a complaint, or their rights under the law when filing a complaint or having it investigated and resolved. This uncertainty makes participation less likely.
 - *Remedy* – For a community that has not previously or recently engaged in the permitting process, education is needed so that residents are informed, aware of, and comfortable with the processes. DEP should make available a hotline for responding to community questions. DEP should also provide a handbook or worksheet with scaffolded and literacy-level appropriate language and visuals, available both online and distributed in hard-copy.

Scientifically-Determined “Area of Concern”

The policy as currently written uses an arbitrary standard of .5 miles to delineate the Area of Concern. This standard is inadequate to some types of development, especially those in the oil and gas sector. Universal safe set-back distances for oil and gas development have yet to be scientifically established. However, an abundance of peer-reviewed research provides scientific bases for delineating an Area of Concern greater than .5 miles. This includes a recent and well-publicized study of infant birth weights in Pennsylvania relative to proximity to oil and gas,¹² which showed “evidence for negative health effects of in-utero exposure to fracking sites within 3 km [1.86 miles] of a mother’s residence.”

Air pollution from compressor stations, for another example, is known to travel far beyond the site of release. A study¹³ which concluded that “a substantial fraction of natural gas is escaping uncombusted” also observed that “the signal is detectable hundreds of kilometers downwind.” In fact, research indicates that “the transport of these emissions to downwind regions is also a major issue, especially for major metropolitan areas already struggling to attain current [air quality] standards,” and that Pennsylvania’s Marcellus shale pollution has already negatively impacted air quality *in other states*.

Documented cases of groundwater contamination in Pennsylvania DEP complaint investigations also indicate that oil and gas pollutants can travel more than .5 miles underground and impact drinking water supplies. In 2015, chemicals used during a drilling operation traveled over 2 miles before surfacing in a pond along Route 6 outside

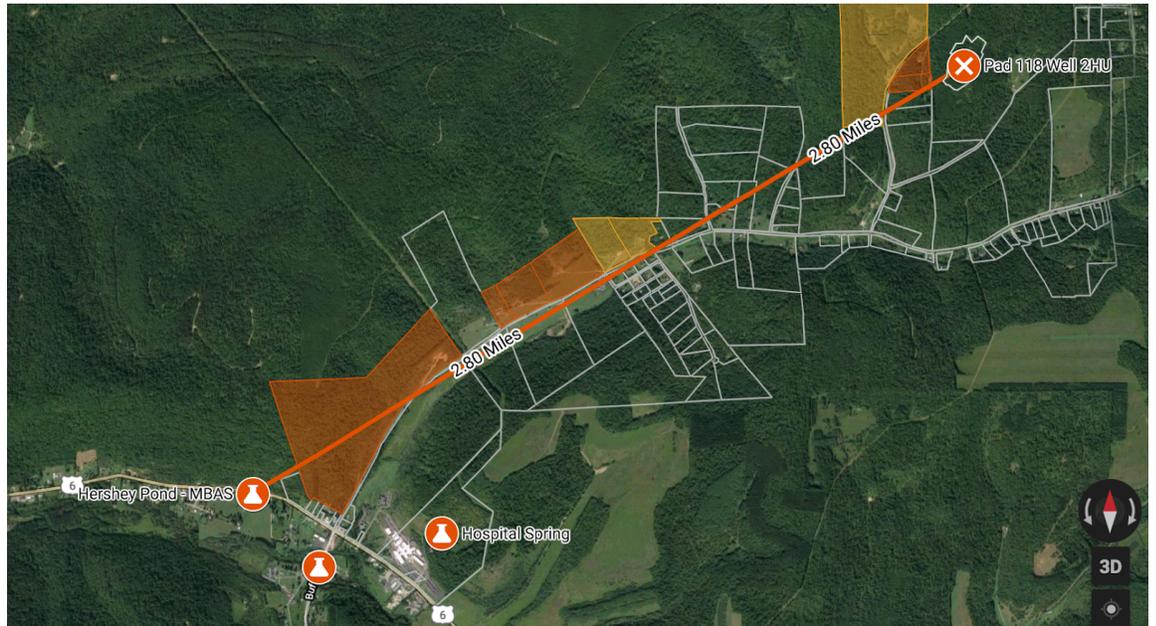
¹² Currie, J., Greenstone, M., Meckel, K., “Hydraulic fracturing and infant health: New evidence from Pennsylvania.” *Science Advances*, December 13, 2017.

¹³ Vinciguerra, T., et al., “[Regional air quality impacts of hydraulic fracturing and shale natural gas activity](#)” *Atmospheric Environment*, (2015) 144-150.



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of Coudersport, Potter County. (See attached [PADEP Consent Order & Agreement with JKLM Energy, October 21 – 2016, page 2, section K.](#))



Map based on GPS coordinates from DEP permits, Google Maps & community data.

Therefore, we urge the DEP to give further consideration to defining the area of concern for all trigger permits, including establishing greater than .5 mile distances for projects that pose environmental and health risks such as air and water contamination, and to clearly provide the scientific basis for the distance(s) used.

In conclusion, we would appreciate a response from DEP or EJAB regarding the exclusion of oil and gas permits from the environmental justice provisions, the seemingly arbitrary and unscientific Area of Concern radius, and the many barriers to accessibility and participation that we have enumerated above.

Respectfully submitted,

Melissa Troutman, Research and Policy Analyst
Leann Leiter, Pennsylvania and Ohio Field Advocate
Priscilla Villa, South Texas Organizer

Enclosed:

1. [TedX review of scientific literature RE: health effect of UOG](#), June 29, 2018.
2. [Permitted To Pollute](#), Earthworks, 2017.
3. [Earthworks' comments on Pennsylvania's 2018 Annual Ambient Air Monitoring Network Plan](#), July 16, 2018.
4. [PADEP Consent Order & Agreement with JKLM Energy](#), October 21, 2016.

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