

EARTHWORKS

Dedicated to protecting communities and the environment from the adverse impacts of mineral and energy development while promoting sustainable solutions.

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Washington, DC 20006
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Mr. David Balog, New Source Review Chief
Pennsylvania Department of Environmental Protection
Air Quality Program
230 Chestnut Street
Meadville, PA 16335-3481

April 22, 2019

Dear Mr. Balog:

Please accept the following comments on the proposed Plan Approval No. 26-00588B for Laurel Mountain Midstream LLC Shamrock Compressor Station in German Township, Fayette County, on behalf of Earthworks, a national nonprofit organization committed to protecting communities and the environment from the impacts of mining and energy development while seeking sustainable solutions. For more than 25 years, we have fulfilled our mission by working with communities and grassroots groups to reform government policies, improve corporate practices, influence investment decisions and encourage responsible materials sourcing and consumption.

First and foremost, ***we strongly urge the Department of Environmental Protection (DEP) to extend the comment period to a minimum of the standard 30 days typically provided.*** DEP did not finalize the Proposed Draft Permit until April 17, 2019, allowing the public less than one week to review and comment on the 82-page proposal. Secondly, ***we request the opportunity for a public hearing on this proposed permit***, especially considering the facility's location in a DEP-designated Environmental Justice area¹. An extended comment period and public hearing will allow stakeholders to present more comprehensive information that we feel is essential to a complete understanding of existing problems at this facility and the impact it is already having upon the community.

We appreciate the opportunity to offer our expertise in air quality issues and the results of our air sampling, health studies, and optical gas imaging (OGI) research conducted at the Shamrock Compressor Station. Based on this research, our third and final recommendation is for the ***DEP to deny any increase in permitted pollution from this facility.***

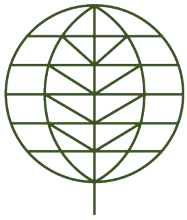
A matter of Environmental Justice

The DEP designates Environmental Justice (EJ) areas as "any census block group where 20% or more individuals live in poverty, and/or 30% or more of the population is minority." The DEP's Environmental Justice Areas Viewer tool (shown below) indicates that German Township--location of the Shamrock Compressor Station--is located in one such designated EJ area². Likewise, the US EPA's Environmental Justice Screening and Mapping Tool shows that German Township falls within an area that was in nonattainment for ozone by 1997 & 2008 standards,³ providing further justification for measures to protect and invite participation from this impacted community.

¹<http://padep-1.maps.arcgis.com/apps/webappviewer/index.html?id=f31a188de122467691cae93c3339469c>

²<http://padep-1.maps.arcgis.com/apps/webappviewer/index.html?id=f31a188de122467691cae93c3339469c>

³ <https://ejscreen.epa.gov/mapper/>



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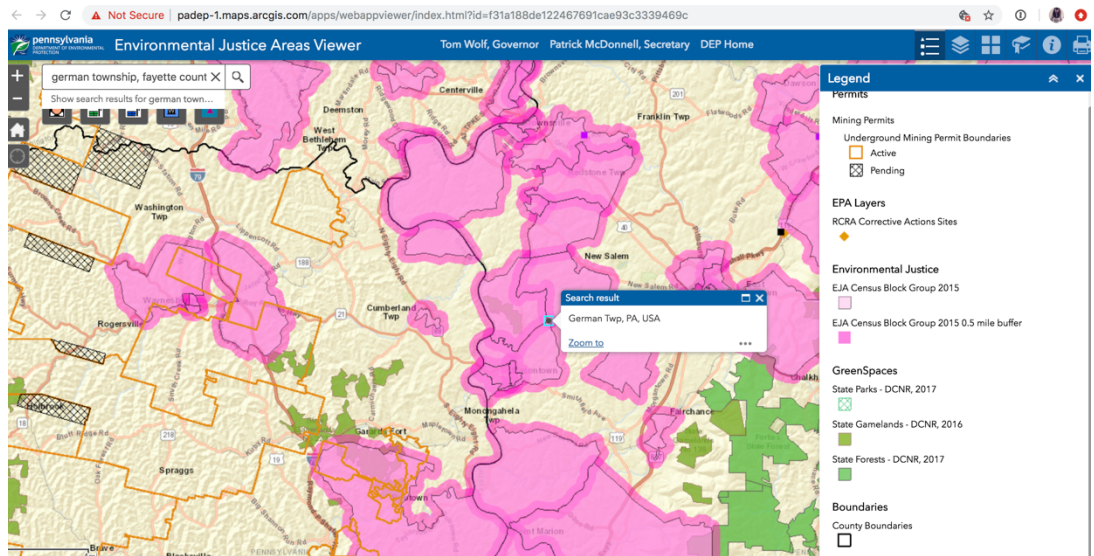
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The DEP's Environmental Justice Public Participation Policy requires "enhanced public participation in Environmental Justice communities," including community outreach, public meetings, and document availability⁴. This policy clearly calls for the provision of an appropriate-length public comment period and necessitates a public hearing as an opportunity for potentially impacted residents to ask questions and voice concerns.

Documented pollution and health concerns near Shamrock Compressor Station

Earthworks' trained and certified thermographers using specialized, industry-standard Optical Gas Imaging (OGI) cameras, have documented numerous instances of pollution being released from the Shamrock Compressor and moving toward nearby homes, including where residents have experienced an onset or worsening of health symptoms since the compressor station was built. This footage can be viewed here:

Williams Laurel Mountain Midstream Shamrock Compressor, Lake Lynn, Fayette County:

April 2015: <https://youtu.be/BEnXCMZARYM>

Compilation of footage from 2015-2016: <https://youtu.be/x7PqQHpuV0>

Our case study⁵ on Lake Lynn residents living near the Shamrock Compressor Station outlines the health symptoms they have experienced more acutely since gas operations began near their homes, including fatigue, congestion, sore throats, coughs, headaches, skin rashes, and neurological disturbances. Our findings, reported in a 2013 peer-reviewed article⁶, are consistent with other scientific studies on the health impacts of oil and gas development.

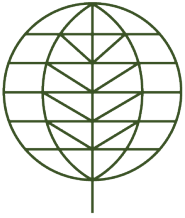
Compressors are a known source of nitrogen oxides (NO_x), carbon monoxide (CO), particulate matter (PM), and other volatile organic compounds (VOCs)--which contribute to smog and its associated lung damage--and carcinogens including formaldehyde, benzene, ethylbenzene, toluene, and xylene⁷.

⁴<http://www.depgreenport.state.pa.us/elibrary/GetDocument?docId=7918&DocName=ENVIRONMENTAL%20JUSTICE%20PUBLIC%20PARTICIPATION%20POLICY.PDF%20>

⁵ https://earthworks.org/publications/blackout_case_study_6_the_carr_family/

⁶ Nadia Steinzor, Wilma Subra, and Lisa Sumi, "Investigating Links Between Shale Gas Development and Health Impacts through a Community Survey Project in Pennsylvania." *NEW SOLUTIONS*, Vol. 23(1), 2013.

⁷<https://www.environmentalhealthproject.org/sites/default/files/assets/downloads/a-brief-review-of-compressor-stations-11.2015.pdf>



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Compressors also release methane, the primary component of natural gas, which is a greenhouse gas 86 times more powerful than carbon dioxide over a 20-year time period. This powerful climate pollutant has been found to leak from fracking wells, equipment like compressor stations, and pipelines at rates that make it worse for the environment than coal.⁸

Oil and gas: A massive and growing contributor of air pollution in Fayette County

Fayette County's 2000 Comprehensive Land Use Plan highlights the importance of the natural environment to the county's character and its future. It positions growth and land use within the context of "preserving the character of this rural county. ... [which] attracts millions of people a year who come to enjoy its rural quality of living, ... natural resources, [and] world-class outdoor recreation." Enjoyment of the natural beauty and outdoor recreation in Fayette County is threatened by air pollution--as well as land clearing and development--from the growing oil and gas sector.

About 58,500 Fayette County residents live within ½ mile of an oil or gas well; 57 of the county's schools are located just as close⁹. The county currently houses over 3,000 active oil and gas wells, almost 300 of which are deep Marcellus Shale wells. Between January and November of this year, the DEP permitted two new conventional wells and 41 unconventional wells¹⁰--a ten-fold increase over recent years. In the two years prior, DEP issued only four total permits per year for Fayette County oil and gas wells.

Earthworks conducted several months of research in Fayette County between 2012-2014 and found significant health and environmental concerns associated with gas facilities. As reported in the reports *Gas Patch Roulette*¹¹, *Blackout in the Gas Patch*¹² and *Permitted to Pollute*¹³, this research included air sampling near compressor stations in Fayette County. We identified the presence of a class of air pollutants called volatile organic compounds (VOCs), which are scientifically known to reduce air quality and cause health symptoms such as those reported to us in health surveys completed by nearby residents.

Earthworks is not alone in our concern over the impact of oil and gas pollution on Fayette County. The Pennsylvania Department of Environmental Protection (DEP) has singled out Fayette as one of four Pennsylvania counties to receive new air monitors expressly for the purpose of monitoring the growing pollution from the shale gas industry. According to the DEP's draft 2018 Annual Ambient Air Monitoring Network Plan¹⁴, "The extraction and processing of natural gas from shale gas involves many stages and *provides many opportunities for the release of air pollutants during the process.*" It acknowledges public "*concern over short-term exposure to pollutants in relation to shale gas activities and the effect on susceptible populations including children, or those with respiratory difficulties*" and "*an increase in the number of complaints to PA DEP's regional offices concerning shale gas operations*" (emphasis added). Furthermore, "as a result of these comments and complaints, PA DEP has begun to establish new monitoring sites and install PM2.5 [fine particulate matter] monitors in shale gas producing counties across the Commonwealth," such as Fayette County.

Based on the industry's own data, Fayette County already bears a heavy burden of toxic air pollution every year. Operators of compressor stations in Fayette county reported a massive

⁸ Barbara Gottlieb & Larysa Dyrszka, MD, "Too Dirty, Too Dangerous." Physicians for Social Responsibility, February 2017.

⁹ <https://oilandgasthreatmap.com/threat-map/pennsylvania/>

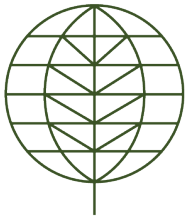
¹⁰ http://www.depreportingservices.state.pa.us/ReportServer/Pages/ReportViewer.aspx?/Oil_Gas/Permits_Issued_Detail

¹¹ https://earthworks.org/publications/gas_patch_roulette_full_report/

¹² <https://earthworks.org/publications/blackout/>

¹³ https://earthworks.org/publications/permitted_to_pollute/

¹⁴ [http://www.depgreenport.state.pa.us/elibrary/GetDocument?docId=29432&DocName=DRAFT%202018%20ANNUAL%20AMBIENT%20AIR%20MONITORING%20NETWORK%20PLAN.PDF%20%20%3Cspan%20style%3D%22color%3Ablue%3B%22%3E\(NEW\)%3C%2Fspan%3E](http://www.depgreenport.state.pa.us/elibrary/GetDocument?docId=29432&DocName=DRAFT%202018%20ANNUAL%20AMBIENT%20AIR%20MONITORING%20NETWORK%20PLAN.PDF%20%20%3Cspan%20style%3D%22color%3Ablue%3B%22%3E(NEW)%3C%2Fspan%3E)



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134,120 tons of air pollution (including large volumes of 2,2,4-Trimethylpentane, Benzene, Toluene, Carbon Monoxide, Ethyl Benzene, Formaldehyde, and n-Hexane) in 2016 alone.

However, the total pollution may be significantly worse than reported. Data compiled in an independent analysis by Environmental Defense Fund (EDF) indicates that oil and gas operators in Fayette, as in the rest of Pennsylvania, grossly underestimate and underreport their emissions¹⁵. In 2015, operators of Fayette County facilities reported only 184 tons of a class of pollutants called volatile organic compounds (VOCs). The analysis by EDF, however, estimates the actual amounts were about *6.5 times greater* at 1200 tons.

Public input on harms is essential

It is Earthworks opinion that the DEP should deny any request for increased pollution limits at this facility. In part, because this region already experiences significant and growing concerns from the air pollution attributable to oil and gas development. Moreover, the Shamrock Compressor Station is a documented, significant source of this pollution and a real health concern for nearby residents. These impacted residents, air quality experts, and environmental advocates and other interested parties must be given sufficient opportunity to voice their concerns through a minimum 30-day public comment period on the proposed plan approval, and via a public hearing.

Thank you for your thoughtful consideration of this matter, and for your shared commitment to protecting our Commonwealth.

Sincerely,

Leann Leiter

Pennsylvania & Ohio Field Advocate

Earthworks' Community Empowerment Project

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¹⁵https://www.edf.org/pa-oil-gas/?_ga=2.24714492.795955620.1542486598-1494669206.1539866639#/inventory