

November 6, 2020

Daniel Counahan
Environmental Program Manager, Oil & Gas
Department of Environmental Protection
400 Waterfront Drive
Pittsburgh, PA 15222

Re: Mamont 28 Well Pad Permits: 129-29092 and Shaw Well Pad Permits: 129-29056, 129-28963, 129-28964, 129-28976 at Beaver Run Reservoir

Dear Mr. Counahan,

We are writing on behalf of the members of our organization, Protect PT (Penn-Trafford). Protect PT is a nonprofit citizens group dedicated to ensuring residents' safety, security, and quality of life by engaging in education and advocacy to protect the economic, environmental, and legal rights of the people in Westmoreland and Allegheny counties. We are requesting that you deny any and all current and future permits to CNX Gas Company LLC (CNX) and any other operator in the vicinity of Beaver Run Reservoir on the basis that their operational activity is endangering the vegetation, water quality, and air quality in a Source Water Protection Area (see Appendix A).

The Beaver Run Reservoir serves as the main source of water for roughly 150,000¹ households and businesses in Westmoreland, Armstrong, and Indiana Counties. CNX's newest proposed unconventional well permit near the reservoir is the Mamont 28 Well Pad site with permit number 129-29092 and additional permits on the Shaw Well Pad: 129-29056, 129-28963, 129-28964, 129-28976. These permits are currently in the review process, however, they must be denied on the basis of CNX's inability to respond to incidents properly and their inadequate safety measures that threaten regional drinking water. Given the sensitivity of Beaver Run and the necessary role it plays in providing water for residents of North and South Western PA, these facilities cannot be operated safely.

¹ <https://archive.triblive.com/news/company-cited-after-fracturing-fluid-spill-at-beaver-run-reservoir/>

The Shaw Incident

The newly proposed Mamont 28 Well Pad is roughly $\frac{1}{8}$ of a mile from CNX's infamous Shaw 1G well pad. In January 2019, we observed the true dangers of unconventional fracking in our region, when a pressure anomaly at 5,200 ft below the surface caused the casing in the pipes to fail and nine nearby wells were flared until the situation could be put under control at this site. This incident undoubtedly put the water and air quality of our region at risk. There are many ways that the reservoir may have been contaminated, such as the migration of fracking fluid or natural gas, disturbances from previously settled contaminants in aquifers, or spills of flowback fluid from the fracking activity. Since water moves so slowly through the rock strata, we still do not know the long-term impacts to water quality. What we do know is that records obtained via the Informal File Review process reveals at least one incident of a private water well being impacted by this incident where methane was found in the wellhead (see Appendix B).

CNX's Testing Issues

CNX contracted SLR International Corporation (SLR) to manage air emission monitoring and water quality testing. In SLR's report we found many significant issues or discrepancies that we highlighted in our collaborative report with the Westmoreland Marcellus Citizens' Group². The first issue is the actual time frame of both CNX and IUP's testing of the event. CNX did not begin monitoring the air until January 30th, while IUP was not called upon by MAWC to test the air until February 6th, when the incident occurred on the 26th. By this point, the pressure and intensity within the flaring wells would have decreased drastically, therefore, the results obtained would not be representative of the true effect of the incident. Additionally, SLR based their conclusions off of only one reference site despite EPA standards documenting that there should be three, and this single site was within 1200 feet of the incident, so it could have been affected by the incident, providing inconclusive results. The site was also only sampled no higher than 2m above the ground by CNX's contractor³, thus failing to capture the effect the flaring would have on downhill sites. SLR's report claims that the air and water quality posed no risks to people based on OSHA limits for workers in a 40-hr workplace, which cannot be used to infer standards for full-time residents who may be members of high risk populations. Finally, harmful volatile organic compounds such as methylene chloride and chlorofluorocarbons were dismissed as being not related to CNX's operations, even though several research

² Connell et. al, "Beaver Run Reservoir: Water Quality Data Analysis Technical Report," Westmoreland Marcellus Citizens Group and Protect PT, Aug. 13, 2019.
<https://drive.google.com/file/d/19deXcQTKpa8AexJQTgPkLXzsim55M5HA/view?usp=sharing>

studies report methylene chloride as being detected regularly (73% of the time)³ at oil and gas operations.

CNX also hired Microbac Laboratories to assess the water quality, however the report was not extensive. It reported that wells within a mile of the well pad contained nearly triple the safe amount threshold methane concentration from February 25th - March 6th after the incident. Their report recorded the highest number of radionuclides since 2010, yet CNX claimed that the gas chemistry in the private water wells was “consistent with gas from the Mississippian and Upper Devonian formations in the area of this basin, and not from the Utica Formation”⁴.

Riparian Buffers

In addition to their permit, CNX’s riparian buffer waiver submitted by Civil & Environmental Consultants should be denied accordingly. On August 6th, 2020, CNX requested a chapter §102.14(d)(2)(vi) waiver regarding the riparian buffers at Beaver Run for “projects for which compliance with subsection (a) or (b) is not appropriate or feasible due to site characteristics, or existing structures at the project site”.

Riparian buffers are the natural vegetation on the edges of streams that serve as a buffer to pollutants⁵ entering the a stream from runoff, controls erosion, and provides habitats and nutrient input into the stream. In CNX’s Erosion and Sedimentation Plan (E&S), the company claims to “limit the amount of disturbed area”, however in their Post Construction Stormwater Management and Site Restoration Report (PCSM), this corresponding value is 28.7 acres⁶. The E&S plan also outlines their inspections, which are quite arbitrary. CNX claims that there will be a uniform 70% of perennial vegetated cover over the entire disturbed area, however they do not outline how the contractors will measure this quantity. How can the public trust CNX and its contractors to measure the vegetation every 2-3 weeks and determine what 70% of vegetation looks like? Using a percentage of vegetation as a metric in addition to no guidelines for determining what 70% looks like other than simple observation will lead to a clear disobedience of regulations if there are no technical guidelines. For example, 70% could mean there needs to be 70% vegetation on average across all acres or it could mean each acre should be 70% grown. With the former option, this could lead to

³ Glauser, W. (2014). New legitimacy to concerns about fracking and health. Canadian Medical Association Journal, 186(8). doi: 10.1503/cmaj.109-4725

⁴ Fred Baldassare, P.G.. (2019) Appendix B Echelon Applied Geochemistry Consulting Report. Retrieved via internal file review at the Department of Environmental Protection.

⁵ “The Importance of Riparian Buffers” West Virginia DEP <https://dep.wv.gov/WWE/getinvolved/sos/Pages/RiparianMagic.aspx>

⁶ Civil & Environmental Consultants, Inc. “Erosion and Sedimentation Control Report Mamont 28 Well Pad Prepared for CNX” Aug. 2020 <https://drive.google.com/file/d/1EZwPacddd7nXqHr6WgFDhaTDPJCCFln4/view?usp=sharing>

completely disturbed or destroyed areas that may not be able to recover, especially if they are not being properly monitored.

Additionally, a damaged riparian buffer could allow for more total solids to be deposited within the reservoir, potentially changing the shape of its basin and affecting its normal hydraulics. These solids could affect the alkalinity, acidity, or even toxicity of the water, which would require greater water treatment in the water treatment plants sourced at the Beaver Run Reservoir. In particular, we have seen the highest recorded raw water total organic carbon (TOC) monthly average in April 2019, following the Shaw Incident at 3ppm³. The parallel increase in TOC to increased fracking activity near the reservoir is concerning given impacts to aquatic life and residents whose water supply is the reservoir. High levels of organic carbon in the reservoir fosters a growing environment for bacteria that would deplete the oxygen required by fish and aquatic insects to survive. Additionally, these microorganisms may also produce toxic disinfectant byproducts (DBPs). DBPs are carcinogenic⁷ and can have adverse reproductive outcomes to women who are pregnant or nursing. DBPs are known to cause bladder and colorectal cancer.

Residents with wells near the reservoir do not have their water treated in a water treatment plant, nor would they have been informed of potential hazards. The PCSM plan vaguely mentions well water quality analysis for this project - something which is very concerning. The plan indicates that the "filtering characteristics of the PCSM BMPS, restoring disturbed areas to meadow, good condition, and minimizing disturbed areas will act as a water quality BMPS by filtering the stormwater and reducing the amount of TSS, phosphorus, and nitrates."⁸ Yet harming the riparian buffer and drilling so close to the reservoir directly contradicts this statement. With the water quality of Beaver Run having been affected by the Shaw Well pad just a year ago less than 1/8 of a mile away, any further intentional actions that could create disturbances to the reservoir are inappropriate and must be denied.

Finally, CNX's PCSM also fails to properly outline the disposal of harmful substances, fuels, or containers. Outlined in this plan, it is stated that [garbage, fuels, or any substances which may be harmful to human, aquatic, or fish life] will "be disposed of properly."⁸ However, there are no specifications of where and how these harmful fluids, oils, and fuels will be disposed of and how the operator will mitigate the effects that

⁷ Richardson, S. et al. "Occurrence, Genotoxicity, and Carcinogenicity of Regulated and Emerging Disinfection by-Products in Drinking Water: a Review and Roadmap for Research." *Mutation Research*, U.S. National Library of Medicine, pubmed.ncbi.nlm.nih.gov/17980649/.

⁸ Civil & Environmental Consultants, Inc. "Post Construction Stormwater Management and Site Restoration Report: Mamont Well 28 Well Pad" CNX Gas Company, LLC, Aug. 2020

these dangerous chemicals will have on the environment in the event they are spilled or contaminate the water.

History of Violations

In addition to the Shaw Well incident, CNX poses additional public safety concerns. Several hazardous chemicals are stored and used in high volumes at Beaver Run and have been spilled before. Nearby private water wells have tested for elevated levels of methane, showing that CNX has failed to properly control and dispose of industrial waste. CNX has denied that harmful volatile organic compounds present near their fracking operations were due to their own drilling and mistakes, often dismissing the detection or placing blame on consumer use. CNX has also been issued 15 violations between March 2013 and September 2018 for inadequate water management plans, failing to control, store, and dispose of production fluids properly, and for lacking an emergency response plan. These violations arose from CNX's failure to have temporary Best Management Practices (BMPs) in place, not obtaining approved water management plans for withdrawing or using water during the drilling of an unconventional well, and for not collecting brine and other fluids as a result of their fracking activity as reported by DEP oil and gas reports⁹. Ultimately, CNX is jeopardizing drinking water quality and is in direct violation of the rights outlined in Article I § 27 of the Pennsylvania Constitution which states, "the people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and aesthetic values of the environment. 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 people".

By allowing the drilling of the Mamont 28 and Shaw Well Pads and other future wells by CNX or other operators near the reservoir, the health and wellness of the aquatic life within Beaver Run is diminished. Additionally, local businesses who depend upon the water, such as breweries, will be threatened at unprecedented levels as contaminated water becomes a new obstacle for maintaining their craft. Finally, the 150,000 residents who depend on Beaver Run will also have their health negatively impacted by CNX operations near the reservoir.

Protect PT urges you to immediately deny CNX's Mamont 28 Well Pad permit 129-29092 and additional Shaw permits 129-29056, 129-28963, 129-28964, 129-28976. We also ask you to revoke their E&S permit (CEC Project 300-590) for the

⁹ Pennsylvania Department of Environmental Protection. (2019, 7 July). Oil and gas reports. Retrieved from <https://www.dep.pa.gov/DataandTools/Reports/Oil%20and%20Gas%20Reports/Pages/default.aspx>

drilling of the Mamont 28 Well Pad site in addition to their Riparian Buffer Waiver due to their recurring negligence near valuable sources of water. With CNX's underperforming response to their largest failure at the reservoir, we urge that you do not approve CNX for additional permits in this Source Water Protection Area, as they have affected the water and air quality of a vast number of people due to negligence. The choices we make today with our water resources affect current and future generations. As the enforcement agency for our Commonwealth, it is your duty to prioritize the health and safety of the environment and people of Pennsylvania.

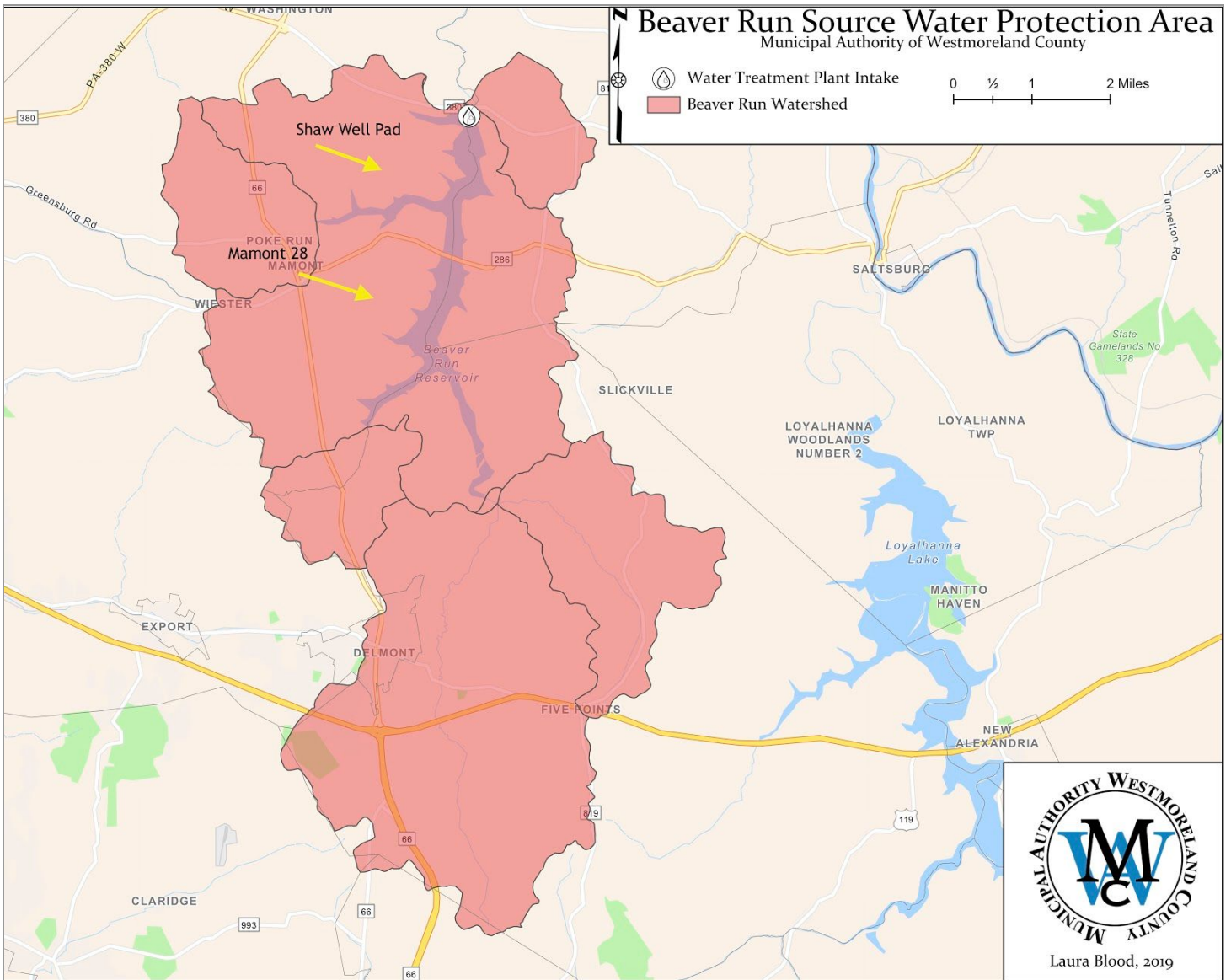
Sincerely,

A handwritten signature in blue ink, appearing to read "Gillian Graber". The signature is fluid and cursive, with the first name being more prominent.

Gillian Graber
Executive Director

CC: Tom Donohue - Environmental Engineer Manager, PA DEP
CC: Laura Blood - Source Water Supervisor, MAWC
CC: Michael Kukura - Resident Manager, MAWC

Appendix A



Appendix B



February 15, 2019

CERTIFIED MAIL NO. [REDACTED]

[REDACTED]

Dear [REDACTED]

On February 8, 2019, the Department received a 24-hour water supply complaint notification in accordance with 25 PA CODE § 78a.51(h) from CNX Gas Co LLC that gas well activities may have influenced your water supply listed in Exhibit A.

In response to this notification, the Department contacted you via telephone [REDACTED] on February 8, 2019 to inquire on whether you would like the Department to conduct a water supply investigation at this location.

This letter is to confirm that per the Department's conversation with you on February 8, 2019, you do not wish to have the Department pursue any further action in relation to the February 8, 2019 complaint notification filed on your behalf for your water supply. If this is incorrect and you wish to file a formal complaint with the Department to conduct a water supply investigation, please contact Cynthia Witham, Water Quality Specialist, by email at cwitham@pa.gov or by phone at 814.472.1903 within 14 days upon receipt of this correspondence.

If you do not respond within 14 days of the receipt of this correspondence, the Department will consider this as a decline to have the Department conduct a water supply investigation and the complaint will be closed.

Sincerely,

A handwritten signature in black ink, appearing to read "C Witham".

Cynthia Witham
Water Quality Specialist
District Oil and Gas Operations

cc: April Weiland
Complaint File 339729