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Dear Commissioners,

I've lived along the Delaware River my entire life: I grew up in Delaware Water Gap, and moved down river to Easton for the past six years. I care deeply about the state of my home and our wildlife. Fracking has been a scourge in our area and our country for years. It's a dangerous practice, with unknown chemicals used, the potential to induce earth quakes, not to mention methane emissions being burnt off at the wells... and possible accident like pipeline bursts. I urge you to look at the job growth and environmental health of renewable energy and drop the allowance of fracking in my home.

A 2017 study by researchers at the Northeast Climate Science Center and Climate System Research Center at U. Mass Amherst found that the Northeastern U.S. is the fastest-warming region in the lower 48 states, heating at a rate 50 percent faster than the global average. According to the Union of Concerned Scientists, "Records from the mid-twentieth century through 2000 show that the number of snow-covered days across the Northeast has decreased significantly." The shrinking snowpack and increased runoff will worsen as temperatures continue to rise. Further reducing our water supply by moving water out of the basin and exposing our remaining water to fracking waste contamination should not be permitted, especially when those practices support the fossil fuel production that is exacerbating warming in the first place., Duke University researchers announced in January that they are finding radioactivity in Pennsylvania sediment from a Pennsylvania stream near a plant where fracking waste is treated. Science is still catching up with the damage fracking has done everywhere it's been done. Meanwhile, the Intergovernmental Panel on Climate Change has said, "Climate change challenges the traditional assumption that past hydrological experience provides a good guide to future conditions." Michael Mann says that it would be a mistake to see extreme weather events as the 'new normal'. What we are dealing with is an "ever-shifting baseline." "So, there isn't a new normal," he explains. "Things get continually worse if we go down this highway." We are dealing with many unknowns and when we do learn something, it's never good news. There are no bases except political expedience and greed that advocate for doing anything but banning all fracking related activities.

The DRBC is considering fracking regulations it is not capable of enforcing. The Commission relies on the watershed states' environmental regulators to carry out enforcement of the rules it sets. State regulatory agencies are chronically understaffed and underfunded. It is unreasonable for the DRBC to place on state regulators the burden of enforcement of dangerous practices like fracking waste processing and extraction of water for fracking operations outside of the basin., DRBC's draft regulations do not specifically propose that injection wells that would hold frack wastewater be allowed in the Delaware River Watershed. However, they do propose to allow wastewater from fracking to be brought into the Watershed for storage, treatment and discharge so "storage" could mean long-term storage of wastewater in underground wells within the Basin. This is a practice that threatens public health and the environment. Injection of wastewater does not "treat" waste or remove contaminants, it simply moves the toxic wastewater produced by fracking from one place and time to another. It risks the migration of untreated toxic and radioactive frack wastewater to aquifers and surface water through leaks from the injection well and spills and accidental releases while being handled. Injection wells are causing earthquakes in Ohio and Oklahoma as well as other locations, as documented by USGS and other scientific institutions. Injection wells are not leak-proof and can exposing groundwater and aquifers to contamination from the toxic mix that constitutes untreated frack wastewater when seals are broken and fractures occur as a result of seismic activity., When a site is developed for gas well development, the change is dramatic, essentially transforming the land to an industrial landscape. The result is destruction of acres of vegetation (8.8 acres per well pad in 2011 with 30 acres of forest impacts due to edge effects, more than double that is the trend today), soil compaction and destruction of the natural land contours, alterations to watershed drainage patterns, and hydrologically connected systems such as wetlands and vernal pools. Habitats and complex ecosystems are disrupted or lost. 85% of the Upper Delaware where the Marcellus Shale is located is forested. Forest destruction and fragmentation in turn destroys the ability of the forest ecosystem to capture, clean, and infiltrate precipitation, removes the trees that sequester carbon, reduces biodiversity, encourages invasive species, and destroys vital habitat., Changes to stream water quality occur where gas drilling and related activities are located. For instance, a publication of the Proceedings of the National Academy of Sciences found streams adjacent to gas wells are negatively impacted by runoff and sedimentation (Total Suspended Solids), harming benthic life, fish and wildlife and causing streams to be eroded and destabilized. DRBC follows the state's stormwater rules where a project is located, leaving loopholes in current nonpoint source laws that allow fracking activities to escape strict oversight. This would be a recipe for disaster if fracking were to occur, which is why it must be banned in the Delaware River Watershed.

The Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking's authors cite a 2017 study which found that "fracking wastewater discharged into rivers and streams through treatment plants created dozens of brominated and iodinated disinfection byproducts that are particularly toxic and "raise concerns regarding human health" (pg 18).

Thank you for considering our wellness and pride in our area.

Sincerely,

Miranda Wilcha