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Dear Commissioners,

As a frequent user of the Delaware River and the surrounding areas the potential for damage and contamination with fracking far outweigh the benefits.

The regulations proposed by the DRBC are setting up an unsustainable cycle of sending clean water out of the basin and bringing highly contaminated water into the basin. If we are to successfully combat climate change, we must stop our unsustainable practices and avoid implementing new ones., Climate changed. We see the evidence of it everywhere. The only hope we have now is to speed the transition to clean, renewable, sustainable energy. If we don't, the impacts will not be limited to our water resources, but will endanger every aspect of our lives and very our survival. The DRBC must not allow any practices that enable more fossil fuel extraction anywhere. Protecting the water resources of the basin with a full fracking ban protects much more.

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., 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., DRBC regulates withdrawals from streams with the use of a "pass-by flow" or "minimum flow limit" that limits the amount of water that can be withdrawn to protect streams from being overdrawn. However, a pass-by flow that is based on using the Q7-10 (the flow which occurs for a period of seven consecutive days one time in 10 years – considered "drought flow") is not adequate to protect waterways and the life that depends on them and can be expected to cause direct harm to the habitats and water quality of the stream. Using the Q7-10 allows the stream's flow to be artificially "flattened" because the natural flow regime and seasonality will be disrupted and potentially eliminated. An ecological flow analysis of the waterway and an inventory of the species and habitats that live there is an essential protection. To set an ecological flow to govern withdrawals regulators must measure the natural variation of the waterway's flows in terms of volume, rate, temperature, stream structure, and quality to understand the needs of species and the effects of flow on habitat and water quality. Setting protections based on a waterway's ecological flow regime is necessary to give needed protection but that is not what DRBC does or is proposing to do. The withdrawal of water under the draft and current regulations will significantly damage the ecosystems and species of the streams and rivers that would be tapped.

After every spill, waste treatment mishap, or agency blunder, there is a potential health tragedy for the lives impacted. When you look at the Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking, 5th edition and see the documentation, know that the numbers, and the toxins involved they are not just statistics they are real people who bear the brunt of an industry that does not care. We have an opportunity in the Delaware Basin to ban fracking and to ban water withdrawals and wastewater containment facilities and waste water treatment and release.

Rather than continually impacting these fragile areas including our drinking water it is more and more important that we stand up for a safe and an environmentally sustainable water shed. Fracking conducted by companies that move into an area like the De

Sincerely,

Robert Routier