



PINELANDS PRESERVATION ALLIANCE

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To the Delaware River Basin Commission:

I am writing on behalf of the Pinelands Preservation Alliance, a nonprofit organization focused on the preservation and protection of the New Jersey Pinelands with regard to the proposed new 18 CFR Part 440, Subchapter B Special Regulations on Hydraulic Fracturing. We represent approximately 5,000 members who love the Pinelands, its wildlife, and the many benefits it brings to residents, visitors, and the region. Approximately 70% of the Rancocas Creek Basin, part of the Delaware River watershed, lies within the Pinelands National Reserve.

Hydraulic fracturing, resulting waste, and export of water for the same pose serious risks to the Delaware River watershed. It is encouraging to see the inclusion of a ban on high-volume hydraulic fracturing in the proposed regulations. This will prevent some of the major environmental and health risks, including methane leakage from the well pad, runoff and sedimentation, and leaks from casing failure, among many others.

The proposed regulations fail to establish a ban on export of water from the Delaware River watershed or on import and treatment of hydraulic fracturing waste. Instead, the regulations discourage the practice of these actions. To protect the Delaware River watershed from these activities and the additional harms brought, the Delaware River Basin Commission must ban both export of water for hydraulic fracturing and import of hydraulic fracturing waste water. DRBC already discourages both the export of water and the import of waste water. The boom in hydraulic fracturing in the Marcellus Shale region merely accelerates the need for the DRBC to take swift and complete action on these items.

The Delaware River provides water for drinking, irrigation, and industrial uses to over 15 million residents in the watershed and surrounding areas. Because of these demands, it is critical that the Delaware River Basin Commission carefully weigh what uses are acceptable for the available water. Export of water for hydraulic fracturing fails to rise to the importance of, for instance, potable drinking water. On average, hydraulically fracturing a horizontal natural gas well requires over 5 million gallons of water, most of which is permanently removed from the hydrologic cycle (Gallegos et al. 2015). This presents a huge danger to the Delaware River. Just last year, the region experienced severe rainfall shortages, and the most recent drought watch was only lifted in mid-January. Currently, any proposed withdrawals are based on the Q7-10 flow, which is considered drought flow. This standard is inadequate to protect the wetlands, plants, and wildlife in the region. A ban on export of water for hydraulic fracturing would ensure that no large withdrawals would further exacerbate existing stress, and an ecological flow analysis should be used when considering any withdrawals.

One of the earliest and most dangerous threats to the New Jersey Pinelands was Joseph Wharton's idea of exporting water from the Kirkwood-Cohansey aquifer to Philadelphia for drinking water. This concept would have devastated the Pinelands, but the state legislature stepped in and prevented its implementation. Now, the Comprehensive Management Plan explicitly prohibits export of water more than ten miles outside the boundary of the Pinelands (NJAC 7:50-6.86). This has been integral to the protection of the Pinelands, and its feasibility and success demonstrates that it is possible and practical for DRBC to prohibit export of water outside the Basin for hydraulic fracturing.

The Delaware River's importance as a source of potable drinking water also necessitates the prohibition of treatment and acceptance of hydraulic fracturing wastewater. The Delaware River is protected by the Special Protection Waters regulations, which requires no measurable degradation in water quality. By allowing the acceptance of hydraulic fracturing wastewater, DRBC runs the risk that the watershed will not meet this standard. Hydraulic fracturing wastewater contains high concentrations of total dissolved solids and salts, and can contain unknown amounts and types of compounds. In a 2015 study, the Environmental Protection Agency found that well operators claimed confidentiality on at least one chemical at over 70% of wells (US EPA 2015). Of the chemicals that are reported, so much of the information surrounding hydraulic fracturing wastewater is dramatically incomplete. In a national study of hydraulic fracturing water, the Environmental Protection Agency found 1,606 chemicals. Of these, only 173 had toxicity values from sources that met the criteria for inclusion in the report (US EPA 2016). With all of this uncertainty, it would be irresponsible to accept hydraulic fracturing wastewater in the Delaware River watershed.

For the foregoing reasons, the Pinelands Preservation Alliance urges DRBC to amend the proposed regulations to include a ban on export of water for hydraulic fracturing and a ban on import of hydraulic fracturing wastewater.

Sincerely,

A handwritten signature in black ink, appearing to read "Katherine Smith". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Katherine Smith
Policy Advocate

Gallegos, T.J., Varela, B. A., Haines, S.S., and M.A. Engle, Hydraulic fracturing water use variability in the United States and potential environmental implications, *Water Resources Research*, 51, 5839-5485.

United States Environmental Protection Agency, 2015, Analysis of hydraulic fracturing fluid data from the FracFocus chemical disclosure registry 1.0.

United States Environmental Protection Agency, 2016, Hydraulic fracturing for oil and gas: Impacts from the hydraulic fracturing water cycle on drinking water resources in the United States.