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The only course of action for which it is possible to preserve the waters, lands and air of our National Scenic Recreational Area in healthy condition for the benefit of Public users and all living things is that the DRBC must ban fracking in the river basin and ban all water exchanges such as water withdrawal for frack operations and/or processed wastewater deposition into the Delaware River. To inform Commissioners of the DRBC, I'm submitting this data from the PADEP: Between 2004 and November 2016, the PADEP lists 9,443 public complaints about environmental problems in shale gas drilling areas

(<https://stateimpact.npr.org/pennsylvania/2017/01/31/data-trove-offers-new-details-on-complaints-to-dep-during-shale-boom/> and https://docs.google.com/spreadsheets/d/1_tg1zTCA-).

It is imperative that DRBC not take a risk of accumulating such a volume of complaints about fracking activities and then have hindsight regrets. In March 2018, the Concerned Health Professionals of New York and the Nobel Peace Prize-winning group, Physicians for Social Responsibility stated "There is no evidence that fracking can operate without threatening public health directly or without imperiling climate stability upon which public health depends" (Concerned Health Professionals of New York & Physicians for Social Responsibility. (2018, March). Compendium of scientific, medical, and media findings demonstrating risks and harms of fracking (unconventional gas and oil extraction) (5th ed.). <http://concernedhealthny.org/compendium/>).

In today's fracking technology, the volume of liquids used to frack one well has increased 2-fold to 10 million gallons of water plus additives compared to initial industry methods, and tons of sand are being added to fracking drilling agent at the rate of one ton per foot of fracking distance. Dr. Anthony Ingraffea wrote these metrics in a March 2018 personal communication to people including me. The old estimates of 4-5 million gallons, used by DRBC, are no longer valid. Technology used today can lengthen horizontal well bores up to 4 miles, so the volumes of liquids being exchanged from and to a gas operation would be up to 2-4 times greater than it was during earlier fracking operations

(<http://www.post-gazette.com/powersource/companies/2018/01/15/These-days-oil-and-gas-companies-are-super-sizing-their-well-pads/stories/201801140023>). The sand in frack fluid is silica sand and poses health risks including cancer to its miners and workers (Wisconsin Center for Investigative Journalism;

<https://www.wisconsinwatch.org/series/frac-sand/>). If fracking drilling agent or waste is transported by trucks within Delaware River basin communities, residents could be exposed to air emissions and water pollution. People who live, work or go to school within approximately 2 miles of a gas operation have greater adverse health impacts.

People who encounter trucks transporting drilling liquids or waste liquids have a higher risk of being harmed by truck accident and truck cargo

(http://www.delawareriverkeeper.org/sites/default/files/resources/Reports/CNA_Impacts_in_DRB.8.15.pdf;

http://www.delawareriverkeeper.org/sites/default/files/MarcellusPA_FullReport.pdf).

The fracking industry is having trouble finding places to dump its frack wastewater. So much so, that industry is targeting the valuable National Scenic and Recreational Delaware River. The DRBC should make no allowance for industry to deposit frack waste in this river basin. Please enact a complete ban now.