Fracking & Water Use in PA

➢ The fracking industry is very water-intensive and the industry’s use of water is unlike other sectors, as it permanently removes the water from the water cycle by locking it deep underground or contaminating the water with hydrocarbons, radionuclides, and high salt content. Disposing of wastewater that returns to Earth’s surface creates considerable sources of air and water pollution.

➢ Water-use per well has increased over the years in many parts of the country. FracTracker’s analysis found that in Pennsylvania, water use increased from 2-7 million gallons of water per well in 2008 to 14-39 million gallons of water per well in 2019. The annual average volume of freshwater consumed in well development has increased at a rate of 1 million additional gallons of water per well, each year in Pennsylvania.

Why it Matters

Fracking’s water use is concerning in water-rich parts of the country, especially considering the impacts of climate change.

➢ In Pennsylvania, the industry relies mostly on surface water withdrawals, which sometimes consume several millions of gallons per day. FracTracker’s analyses found that two-fifths of those withdrawals are from watersheds with small streams, which are more vulnerable to changes in streamflow.

➢ One community in Economy Borough, PA shared their story with FracTracker. These community organizations have been fighting a withdrawal permit from their small creek for 2 years and have been able to reduce the proposed daily withdrawal volumes from their watershed by half.

➢ In a study of water supply projections, we found that over half of the watersheds where fracking activities are occurring are at or above the 75th percentile nationally for projected water yield decline. Similarly, over half of the watersheds containing fracking activities are at or above the 75th percentile for important drinking water sources.

➢ The Ohio River Basin has already been facing flow reductions in over half of the basin’s small watersheds, and will be facing further yield declines across the PA region. This will place 5 million water users at risk of higher concentrations of harmful chemicals in their drinking water, as well as higher water treatment costs. We expect boomtowns in the region to be most heavily affected by this.

Policy and Regulations

➢ Small streams and watersheds must be protected from water withdrawals. Pennsylvania’s new State Water Plan must consider the impact of fracking activities as a form of consumptive water use and require accurate and transparent reporting. The state should also provide clear guidelines around stopping withdrawals during drought warnings.

➢ Further federal and regional investments must be placed into water use reduction regulations, especially focused on consumptive water users like fracking. These should be included in Clean Streams Law Antidegradation requirements.

FracTracker Alliance is a 501(c)(3) nonprofit that maps, analyzes, and communicates the risks of oil, gas, and petrochemical development. To learn more, visit fractracker.org or connect with us @FracTracker.