

TOXIC, RADIOACTIVE FRACK WASTEWATER BARGING THREATENS OUR OHIO RIVER.

WHAT IS FRACKING WASTEWATER?

Fracking wastewater, also known as “produced water,” is a **refuse liquid** produced during the hydraulic fracturing process. To help extract natural gas from shale deposits, fracking companies inject water combined with a host of chemicals deep underground. The liquid that returns to the surface—wastewater—is **tainted** with **hazardous additives, heavy metals, carcinogens, and radioactive materials.**

THAT’S RIGHT—FRACKING WASTEWATER IS FULL OF TOXIC, RADIOACTIVE CHEMICALS.

These pollutants can be **radioactive** and pose **serious danger** to human health and the environment. They can **damage ecosystem health** by depleting oxygen and causing algal blooms. Radium-226 and radium-228, found in wastewater, are **known carcinogens** and can lead to bone, liver, and breast cancer at high concentrations, **according** to the CDC. Ramping up waste transport means **more toxic chemicals in our community**—granulated wastewater is even spread on our roads as a de-icer. Here are a few of the many harmful substances found in fracking wastewater:

Compound	Concentration
Ammonia Nitrogen	3.7-359 mg/L
Nitrate	<0.1-0.92 mg/L
Chloride	1,670-181,000 mg/L
Bromide	15.8-1,600 mg/L
Sodium	26,900-95,500 mg/L
Sulfate	<10-89.3 mg/L
Oil and Grease	<4.6-103 mg/L
Benzene, Toluene, Ethylbenzene, Xylene (BETL)	0-5,460 ug/L
Volatile Organic Compounds (VOC)	0-7,260 ug/L
Naturally Occurring Radioactive Materials (NORM)	0-18,000 pCi/L
Barium	43.9-13,600 mg/L
Strontium	163-3,580 mg/L
Lead	0-0.349 mg/L
Iron	13.8-242 mg/L
Manganese	1.76-18.6 mg/L

Note: Concentrations were measured 14 days post hydraulic fracturing.
Source: “In Fracking’s Wake: New Rules are Needed to Protect Our Health and Environment from Contaminated Wastewater,” Natural Resources Defense Council

OIL & GAS COMPANIES WANT TO BARGE FRACKING WASTE ALONG THE OHIO RIVER.

As many as **seven** wastewater processing facilities have been proposed for development along the Ohio River, opening the door for **high-volume wastewater transportation** via barge. A single barge can carry 24,000 barrels of wastewater, the equivalent of more than 220 truckloads.



PREVENTION IS PARAMOUNT.

Spills are an unavoidable possibility at any point along the barging transportation chain. The process of loading and unloading thousands of gallons of wastewater across a network of barging facilities generates runoff contamination that could quickly compound to hazardous levels. And transporting waste across the Ohio River is **prone to accidents**. In 2014, a barge **spilled** 5,000 gallons of oil into the Ohio River 20 miles southeast of Cincinnati, closing a 15-mile stretch of the river to traffic and generating a noxious odor. In 2017, a barge holding more than 300,000 gallons of liquid fertilizer **broke in half** just south of Cincinnati, threatening the city’s water supply downstream. A year later, seven coal-carrying barges **hit** the Clark Memorial Bridge near downtown Louisville, releasing thousands of tons of coal into local drinking water supplies. The river would only become more difficult to traverse with ramped-up wastewater production and transport and increasingly frequent climate-related **extreme weather events**. Just last year, a bomb was dismantled on a barge on the Ohio River.

And unlike coal or oil, the radioactive chemicals in fracking waste likely **cannot** be filtered out with the technology and equipment currently available to regional water treatment facilities in the Ohio River Valley. Is barging fracking waste along the Ohio River, a drinking water source for more than five million people, **worth jeopardizing our health, environment, and access to clean, fresh water?**

PROTECTION TAKES CONSTANT VIGILANCE. CONTACT THESE GROUPS TO GET INVOLVED:



Protect Penn-Trafford
 Westmoreland County and Allegheny County, PA
www.protectpt.org | (724) 392-7023



Three Rivers Waterkeeper
 Pittsburgh, PA
www.threeriverswaterkeeper.org | (412) 589-9411



FreshWater Accountability Project
 Southeast OH
wewantcleanwater@gmail.com | (419) 450-7042



Center for Coalfield Justice
 Washington County and Greene County, PA
<https://centerforcoalfieldjustice.org/fracking-petrochemical/>
 (724) 229-3550