TESTIMONY IN OPPOSITION TO SENATE BILL 219

Ohio 136th General Assembly

Chair Chavez, Vice Chair Landis, Ranking Member Smith, and Members of the Senate Energy Committee:

Thank you for the opportunity to submit testimony in strong opposition to Senate Bill 219. My name is Harry Lader. I am a resident of Northeast Ohio and a co-leader of the Greater Cleveland Dayenu Circle—a Jewish environmental justice organization. Additionally, I hold a PhD in Physical Chemistry, which gives me the scientific background to understand the chemical processes, contamination pathways, and long-term environmental consequences associated with hydraulic fracturing operations.

Beyond my professional qualifications, I speak as an Ohio resident who, along with my family, spends considerable time in Ohio's state parks and natural areas. These places provide us with opportunities for relaxation, connection with nature, and respite from daily life. They are where we hike, observe wildlife, breathe clean air, and enjoy clean water. The protection of these spaces is not an abstract policy question for my family—it is deeply personal.

Senate Bill 219 poses unacceptable risks to Ohio's environment, public health, and the natural resources that families like mine treasure. The bill accelerates fracking operations while simultaneously weakening environmental protections and diverting critical funding away from regulatory oversight and environmental remediation. As both a scientist and a concerned citizen, I urge you to reject this legislation.

As a physical chemist, I understand the processes that make fracking so dangerous to water supplies. Water contamination from fracking operations presents the most immediate and scientifically documented threat to Ohioans:

- Multiple contamination pathways: Fracking introduces thousands of gallons of chemical mixtures under high pressure into underground formations. These chemicals—including benzene, toluene, ethylbenzene, and xylene (BTEX compounds), along with proprietary formulations—can migrate through fractured rock, faulty well casings, and along drill pathways. The contamination includes salts, heavy metals (including arsenic, lead, and mercury), hydrocarbons, and naturally occurring radioactive materials (NORM) such as radium-226 and radium-228.

- Documented migration and persistence: In Athens County, fracking-produced brine has been documented migrating over a mile away from its source since 2019, moving progressively toward groundwater drinking wells. This is not theoretical—it is measurable, ongoing contamination. The chemical and radioactive components of this brine do not break down on human timescales. Once an aquifer is contaminated, the damage is effectively permanent. A single poisoned aquifer could affect tens of thousands of people who rely on well water.

- Radioactive contamination confirmed by state testing: Ohio Department of Health testing found drilling mud contaminated with radium at levels over 100 times the safety limits for disposal at local landfills. Under federal law, this material would be classified as low-level radioactive waste requiring specialized disposal. Yet in Ohio, weak regulations allow this material to remain in the state with inadequate oversight. Watersheds surrounding frack well pads test positive for radioactive substances, creating long-term public health hazards.

- Statewide vulnerability through aquifer systems: Because the majority of Ohioans rely on groundwater for drinking water, and because aquifer systems are interconnected, contamination in one location can spread through the hydrologic system. This is a statewide threat to public water supplies, not a localized concern. The Great Miami Buried Valley Aquifer, which serves Southwest Ohio, is known to be susceptible to contamination despite being far from current fracking sites.

Senate Bill 219 accelerates the approval timeline for these operations from two quarters to just 90 days. This shortened timeframe is scientifically inadequate for proper hydrogeological assessment, baseline water quality testing, and evaluation of contamination risks. The bill prioritizes speed over safety.

The health consequences of fracking operations are well-documented in peer-reviewed scientific literature. As a chemist, I can confirm that the compounds used and released during fracking are not benign:

- Toxic chemical cocktail: Of the hundreds of chemicals used in fracking fluids, more than 75% are known to affect the respiratory and gastrointestinal systems. Between 40-50% impact the kidneys and nervous, immune, and cardiovascular systems. Approximately 37% are endocrine disruptors that interfere with hormone systems, and 25% are linked to cancer or genetic mutations. Many of these chemicals are volatile organic compounds (VOCs) that evaporate from wastewater ponds and well sites, creating airborne exposure routes.

- Growing epidemiological evidence: Multiple peer-reviewed studies show correlations between proximity to fracking operations and increased rates of asthma, childhood leukemia and other cancers, low birth weights, preterm births, and other adverse health outcomes. The evidence base continues to strengthen as more long-term studies are completed.

- Air quality degradation: Fracking operations release significant quantities of methane, hydrogen sulfide, and volatile organic compounds into the air. These emissions degrade local air quality, creating respiratory hazards. For families like mine who visit state parks to breathe clean air and enjoy nature, the industrialization of these spaces with fracking operations represents a fundamental betrayal of their intended purpose.

- Ecosystem-wide impacts: These same chemicals affect wildlife and aquatic species. The bioaccumulation of toxic compounds through food chains means

that the fish people catch in contaminated areas, the game they hunt, and the ecosystems they depend on for recreation are all compromised.

Hundreds of scientific studies and expert analyses document these harms. This is not speculation or fear-mongering—it is established science. Yet Senate Bill 219 ignores this evidence and instead prioritizes industry convenience and profit over public health.

From a scientific perspective, expanding fracking at this moment in history is unconscionable. At a time when Ohio should be reducing greenhouse gas emissions to mitigate climate change, this bill dramatically expands fossil fuel extraction:

- Methane: a potent greenhouse gas: Fracking operations leak substantial quantities of methane (CH_4) into the atmosphere through equipment, well venting, and flaring. Methane has a global warming potential 84-87 times greater than CO_2 over a 20-year timeframe. These fugitive emissions can negate any claimed climate benefits of natural gas over coal.

- Industrialization incompatible with ecosystems: My family visits Ohio's state parks specifically to experience natural environments. The infrastructure required for fracking—well pads, access roads, pipeline networks, compressor stations, wastewater disposal facilities, and truck traffic—fundamentally transforms these landscapes. The notion that industrial-scale extraction can coexist with healthy forest ecosystems is scientifically untenable. These activities fragment habitat, disrupt wildlife, increase erosion, and destroy the quiet, natural character that makes these places valuable.

- Massive water consumption: Each fracked well requires millions of gallons of freshwater—water that is permanently removed from the hydrologic cycle. The resulting toxic wastewater cannot be treated by conventional methods and cannot be safely returned to surface waters or groundwater systems. In a time of increasing water scarcity and extreme weather events, this represents extraordinarily poor resource management.

- Stream and watershed degradation: Research demonstrates direct correlation between oil and gas well density and increased sediment loads in streams, degraded water quality, and ecosystem disruption. This affects fishing, aquatic wildlife, and water-based recreation throughout affected watersheds.

The oil and gas industry's performance in Ohio demonstrates why we need stronger regulations, not the weakened oversight this bill provides:

- One incident every 1.5 days: Since 2015, Ohio has averaged 250 oil and gas-related incidents annually—one incident every 1.5 days. This alarming frequency reveals a systemic failure of safety protocols and oversight.

- Explosion near Salt Fork State Park: A recent explosion at a well pad near Ohio's largest state park underscores the dangers of these operations near public lands and residential areas. When my family visits these parks, we should not have to worry about industrial explosions, toxic releases, or evacuation orders.

- Documented waste disposal violations: There are confirmed cases of produced water being discharged directly into streams and rivers, and toxic wastewater being stored in unlined ponds. These ponds contaminate groundwater and have killed birds who mistake them for safe water sources.

Rather than addressing this abysmal safety record, Senate Bill 219 removes protections and accelerates approvals, virtually guaranteeing that incidents will increase.

Senate Bill 219 weakens environmental safeguards in multiple ways:

- Raiding environmental protection funds: The bill redirects injection well fees from the Oil and Gas Well Fund—which is dedicated to environmental protection, regulatory oversight, and orphan well cleanup—directly to county general funds where they can be spent on anything. This removes critical dedicated funding precisely when increased drilling operations demand more robust regulation and monitoring. This is fiscally irresponsible and environmentally reckless.

- Scientifically inadequate review timeline: Reducing the review and approval period from up to two quarters to just 90 days does not allow sufficient time for proper hydrogeological assessment, baseline environmental monitoring, independent scientific review, meaningful public comment, or evaluation of cumulative impacts. Science cannot be rushed to accommodate industry demands.

- Weakened infrastructure protections: Making road use and maintenance agreements with local governments voluntary rather than mandatory shifts the burden of infrastructure damage from private companies to taxpayers, while allowing drilling operations to proceed without accountability for the damage their heavy truck traffic causes to local roads.

- Payment deferrals and extended leases: New provisions allowing companies to defer payments and extend leases during litigation or federal grant restrictions prioritize industry cash flow over environmental protection, public revenue, and timely remediation of problems.

As a Northeast Ohio resident and frequent visitor to our state parks, I can tell you that my family's perspective is not unusual. The overwhelming majority of Ohioans oppose fracking in state parks and on public lands. When the Ohio Oil and Gas Land Management Commission recently received public comments about fracking in Salt Fork State Park, approximately 98% of the nearly 600 citizens who commented opposed the drilling. This represents nearly universal opposition.

My family, like millions of other Ohio families, visits state parks and natural areas precisely to escape industrial activity—to hike in forests, to see wildlife, to breathe clean air, to drink from clear streams, and to experience the peace that only natural places can provide. These spaces represent only 3% of Ohio's land mass. They are our shared natural heritage. They should be refuges from industrial extraction, not sites for fracking operations, toxic waste disposal, methane flaring, and heavy truck traffic.

When we take our children to these parks, we are teaching them to appreciate nature, to understand ecosystems, and to value conservation. What lesson are we teaching them if we allow these special places to be industrialized for short-term profit? What kind of Ohio are we leaving for future generations if we sacrifice our remaining natural areas?

As a scientist, I am trained to follow evidence and to change my conclusions when new data emerges. The evidence regarding fracking's impacts is overwhelming and unambiguous:

- Water contamination is documented, ongoing, and in many cases irreversible
- Health impacts are real, measurable, and growing
- Climate consequences are severe and accelerating
- The industry's safety record is unacceptable
- Public opposition is overwhelming and well-founded

Senate Bill 219 ignores all of this evidence. It prioritizes short-term profits for out-of-state drilling companies over the long-term health and wellbeing of Ohio residents. It weakens protections precisely when stronger safeguards are needed. It diverts environmental funding away from critical oversight and remediation. It accelerates approvals when more careful review is required.

We have the scientific knowledge to understand these harms. We have documented evidence of contamination, health impacts, and safety failures in Ohio and elsewhere. We know that once an aquifer is poisoned with radioactive brine or toxic chemicals, the damage is permanent on any human timescale. We know that the parks my family treasures will be irreparably changed by industrial development.

The question before this committee is fundamental: **Will you protect the health and safety of Ohio's citizens and the integrity of our natural resources, or will you prioritize industry profits over public welfare? Will you preserve the natural heritage that belongs to all Ohioans and future generations, or will you allow it to be sacrificed for short-term gain?**

As a scientist, as a resident of Northeast Ohio, and as a parent who wants my children, grandchildren, and generations to come to inherit clean water, clean air, and intact natural spaces, **I strongly urge you to vote NO on Senate Bill 219.**

Respectfully submitted,
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