GOVERNING THE GASOLINE SPIGOT

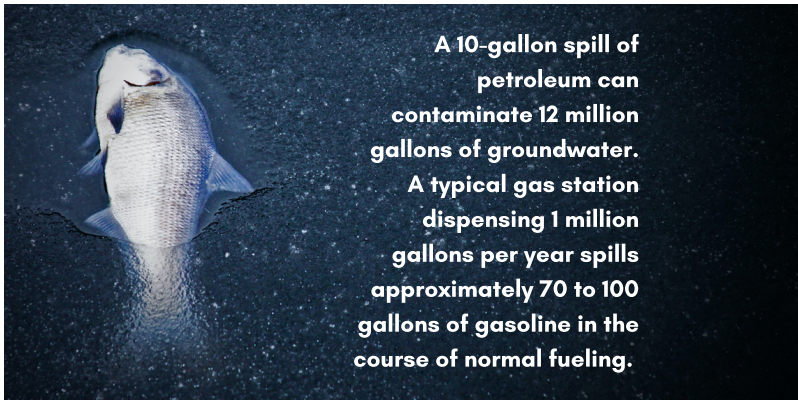
Gas stations sit at the intersection of four emerging issues: the worsening climate crisis, the rise of electric vehicles, aging infrastructure, and a growing understanding of the health risks posed by gas station pollution. State and local governments exercise substantial regulatory power over gas stations and are able to have an enormous impact on one of the largest sources of carbon emissions and pollution in their communities. Governments first began regulating the environmental harms of gas stations in the 1980s. These approaches need to be updated to reflect the current climate crisis and greater understanding of the health harms of gasoline.

"Governing the Gasoline Spigot: Gas station regulation and the transition away from gasoline" explores questions of how aging infrastructure and gas station contamination should be addressed and maps a regulatory path forward to create a smaller, cleaner network of gas stations.

Read the full law review article here.

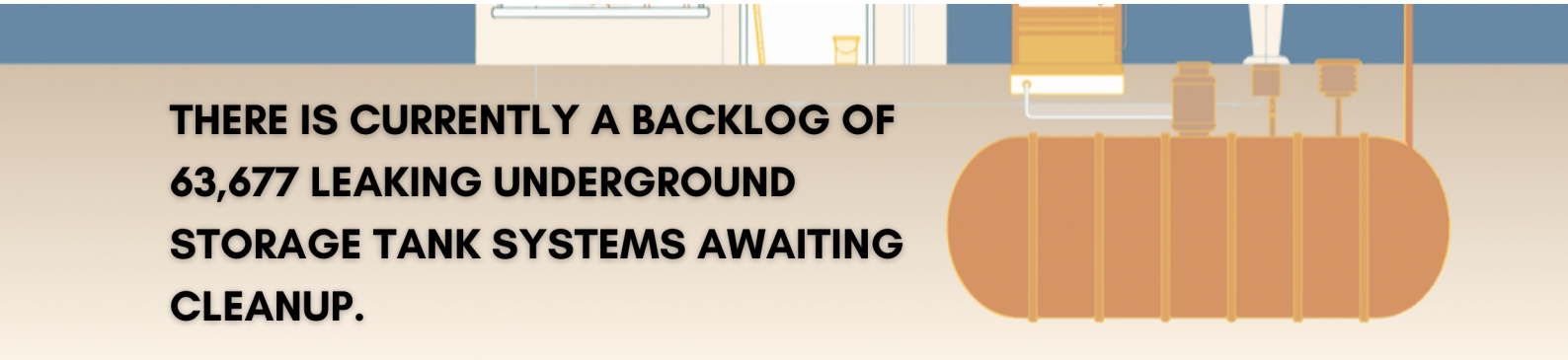
The Polluter on the Corner

Gas stations are the last link in the supply chain connecting the oil field and internal combustion engine (ICE) vehicles. The average driver in the United States purchases 522 gallons of gasoline per year, adding 5.22 tons of carbon dioxide to our atmosphere. Collectively, Americans consumed 142 billion gallons of gasoline in 2019.



Beyond their role facilitating our culture's addiction to fossil fuels, gas stations pose an environmental and public health risk to our neighborhoods and communities. Every day, gas stations release toxic vapors like benzene and contaminate our soil and groundwater through spills and chemical runoff.

Across the country, aging gasoline storage infrastructure poses a growing risk of spills and leaks that contaminate the soil and nearby water sources, necessitating costly cleanup. The safe lifespan of an underground storage tank (UST) for gasoline is 25-30 years. Roughly half of the USTs and piping systems currently in use are either past the age of safe use or are single walled, lacking the recommended back up to prevent leaks into the surrounding soil. As of 2015, the average age of a UST in the US was 22.6 years - the odds of leaks increase with age.



COLTURA

"Zombie" Gas Stations

Zombie gas stations are contaminated sites that continue to pollute long after market forces would ordinarily dictate their replacement. The high cost of cleanup and a lack of enforcement incentivize gas station operators to ignore potential contamination and kick the can down the road until the pollution is carried off by groundwater or the value of the land increases enough to sell. If cleanup costs outweigh property value, owners may simply abandon contaminated stations. Gas station abandonment is common and expensive. **Abandoned and contaminated gas stations account for roughly half of America's 450,000 brownfields.**

As electric vehicles become increasingly affordable and capture a larger share of the American auto market, gas stations will face an economic crunch. Gas stations depend on gasoline for nearly 70% of total sales, while EV drivers more than 80% of their charging at home. A less carbon-intensive transportation system raises the possibility of more abandoned, contaminated "zombie" gas stations.

Policy Levers

Educate the public about the gas station health risks

- Collect data on benzene pollution at gas stations, set and enforce concentration limits. Stations unable to reliable control benzene levels should halt operations under they are able to do so.
- Follow the lead of cities like Cambridge, MA, to require that pumps display labels warning consumers that gasoline contributes to climate change.
- Collect and publish data on gasoline sales at the city level to measure the impact of gasoline/transportation emissions reduction policies.

Require gas stations to clean up pollution and install modern infrastructure:

- Enforce federally required cleanup of gas station leaks and spills. Mandated cleanups will force polluting stations to reckon with their contamination and upgrade to modern underground storage tanks or exit the business and free up land for redevelopment.
- Mandated replacement of single-walled and aging tanks with double-walled storage tanks a cost-effective way to reduce the biggest source of gasoline pollution of soil and water.
- Require surface water control systems to prevent spilled gasoline from contaminating sewer and water systems.

Stop construction of new gas stations and eliminate subsidies for existing ones.

- Cities and counties can utilize their zoning powers to tighten limitations on where gasoline can be sold, ending the construction of new gas stations. Capping the number of existing gas stations disincentivizes the abandonment of existing, aging gas stations, and prevent gas stations that have been shuttered due to contamination and poor upkeep from simply re-opening in a new location and starting the cycle over.
- Flat rate insurance fees function as a subsidy for aging, high-risk stations. Risk-adjusted insurance would shore up state cleanup funds while incentivizing gas stations to update their infrastructure to prevent leaks and lower insurance costs.