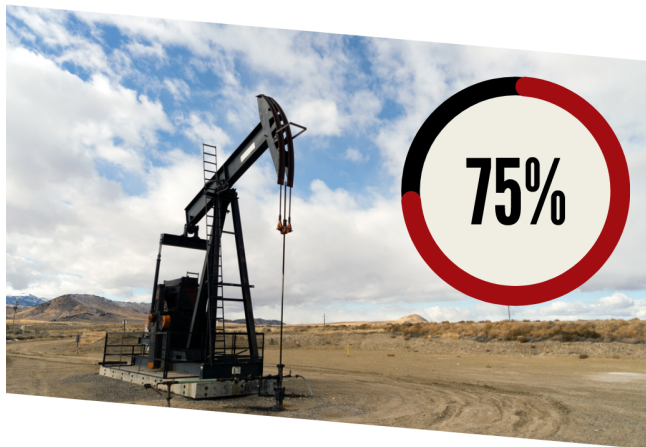


Testimony for the Expansion of the Bottle Bill

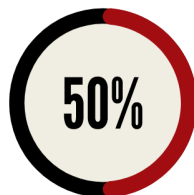
My name is Alyssa Hill, and I'm a 10th grader at Champlain Valley Union High School. I am here to testify in support of the expansion and modernization of the bottle bill to reduce the number of plastics created and their effects on our health.

Plastics have extreme effects on our health in every stage of their life. These start when the oil used to create 99% of plastics is extracted from the ground.¹ Many harmful chemicals are used in the wells needed to extract these fossil fuels. In fact, 75% of the chemicals typically used in gas and oil extraction are known to affect the sensory organs, the respiratory system, the gastrointestinal system, and the liver. Possibly even worse, up to 50% of these chemicals affect the brain/nervous system, the immune system, the cardiovascular system, and the kidneys.



OF THE CHEMICALS TYPICALLY USED IN GAS AND OIL EXTRACTION ARE KNOWN TO AFFECT THE SENSORY ORGANS, THE RESPIRATORY SYSTEM, THE GASTROINTESTINAL SYSTEM, AND THE LIVER.

OF THOSE CHEMICALS,



ARE KNOWN TO NEGATIVELY AFFECT THE BRAIN/NERVOUS SYSTEM, THE IMMUNE SYSTEM, THE CARDIOVASCULAR SYSTEM, AND THE KIDNEYS.

¹ "More Plastic Is On the Way: What It Means for Climate Change." 20 Feb. 2020, <https://blogs.ei.columbia.edu/2020/02/20/plastic-production-climate-change/>. Accessed 10 Feb. 2021.

The EPA has also found that 162 of the chemicals used in fracking cause cancer, a change in blood chemistry, and developmental toxicity.²

The damage these chemicals do to people is very clear. For instance, according to The Hidden Costs of a Plastic Planet, “studies have found that higher concentrations of fracking wells are significantly associated with higher inpatient hospitalization(s) for cardiac or neurological problems.” (page 21). Also, one chemical plant in Houston, Texas, caused brain cancer death rates that were five times higher than that of the general public in workers and surrounding citizens.³ Studies have even found that, in mothers living near fracking sites, premature birth rates increased by 40%.



October 8, 2015

Study: Fracking Industry Wells Associated With Premature Birth

NEW RESEARCH SUGGESTS INCREASED RISK OF ADVERSE PREGNANCY OUTCOMES CLOSER TO ACTIVE UNCONVENTIONAL NATURAL GAS WELLS



<https://www.jhsph.edu/news/news-releases/2015/study-fracking-industry-wells-associated-with-premature-birth.html>



Berkeley News

MIND & BODY, RESEARCH, SCIENCE & ENVIRONMENT

Living near oil and gas wells tied to low birth weights in infants

By Kara Mankie | JUNE 3, 2020



<https://news.berkeley.edu/2020/06/03/living-near-oil-and-gas-wells-tied-to-low-birth-weights-in-infants/>

A study also showed that children living within two miles of the Houston Ship Channel, home to many industrial plants, were 56% more likely to develop acute lymphocytic leukemia than

² "Plastic & Health: The Hidden Costs of a Plastic Planet - Center for" 1 Feb. 2019, <https://www.ciel.org/wp-content/uploads/2019/02/Plastic-and-Health-The-Hidden-Costs-of-a-Plastic-Planet-February-2019.pdf>. Accessed 10 Feb. 2021.

³ "Plastic & Health: The Hidden Costs of a Plastic Planet - Center for" 1 Feb. 2019, <https://www.ciel.org/wp-content/uploads/2019/02/Plastic-and-Health-The-Hidden-Costs-of-a-Plastic-Planet-February-2019.pdf>. Accessed 10 Feb. 2021.

children living 10 miles from the industrial plants, showing, yet again, how dangerous the production of plastics is.⁴

By 2025, if we do nothing to stop this growing crisis, scientists predict that ground-level ozone, a by-product of fossil fuel wells, will cause 750,000 summertime asthma attacks in children, over 2,000 asthma-related emergency room visits, and 600 other respiratory-related emergency room visits.

BY 2025, SCIENTISTS PREDICT THAT GROUND-LEVEL OZONE, A BY-PRODUCT OF FOSSIL FUEL WELLS, WILL CAUSE:



750,000

**SUMMERTIME ASTHMA
ATTACKS IN CHILDREN**



2,000+

**ASTHMA-RELATED
ER VISITS**



600+

**RESPIRATORY-
RELATED ER VISITS**

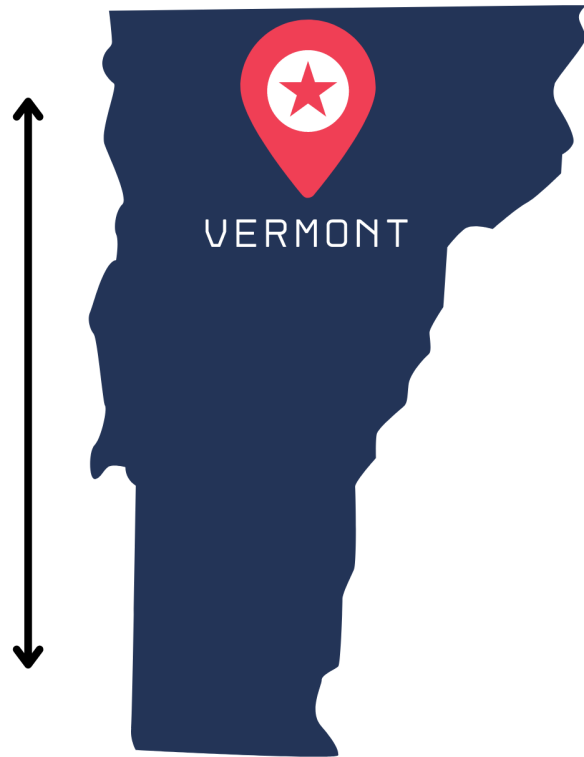
As if that wasn't bad enough, the smog can travel for up to 200 miles (the distance from Montpelier to Quebec City) so it can affect massive amounts of people⁵.

⁴ "Plastic & Health: The Hidden Costs of a Plastic Planet - Center for" 1 Feb. 2019, <https://www.ciel.org/wp-content/uploads/2019/02/Plastic-and-Health-The-Hidden-Costs-of-a-Plastic-Planet-February-2019.pdf>. Accessed 10 Feb. 2021.

⁵ "Plastic & Health: The Hidden Costs of a Plastic Planet - Center for" 1 Feb. 2019, <https://www.ciel.org/wp-content/uploads/2019/02/Plastic-and-Health-The-Hidden-Costs-of-a-Plastic-Planet-February-2019.pdf>. Accessed 13 Feb. 2021.

**SMOG CREATED BY
FOSSIL FUEL EXTRACTION
CAN TRAVEL UP TO
200 MILES.**

**THAT'S ROUGHLY
EQUIVALENT TO THE
ENTIRE LENGTH OF
VERMONT!**



Even more worrisome is the vast amount of people that are exposed to these chemicals; in the US over 12 million people live with half a mile of these wells and are exposed to the chemicals mentioned above daily⁶.

Oil and Gas extraction also uses resources very carelessly. For instance, fracking uses millions of gallons of water to release fossil fuels.⁷ Using such vast water is extremely dangerous because, by 2030, our planet will have only 60% of the fresh water required by the population (UN Report: World Faces 40% Water Shortfall by 2030).⁸ Over a million people already die from a lack of fresh water each year, a number that will surely increase as water scarcity increases.⁹ With such huge demands for water, the human population clearly can not

⁶ "Plastic & Health: The Hidden Costs of a Plastic Planet - Center for" 1 Feb. 2019, <https://www.ciel.org/wp-content/uploads/2019/02/Plastic-and-Health-The-Hidden-Costs-of-a-Plastic-Planet-February-2019.pdf>. Accessed 13 Feb. 2021.

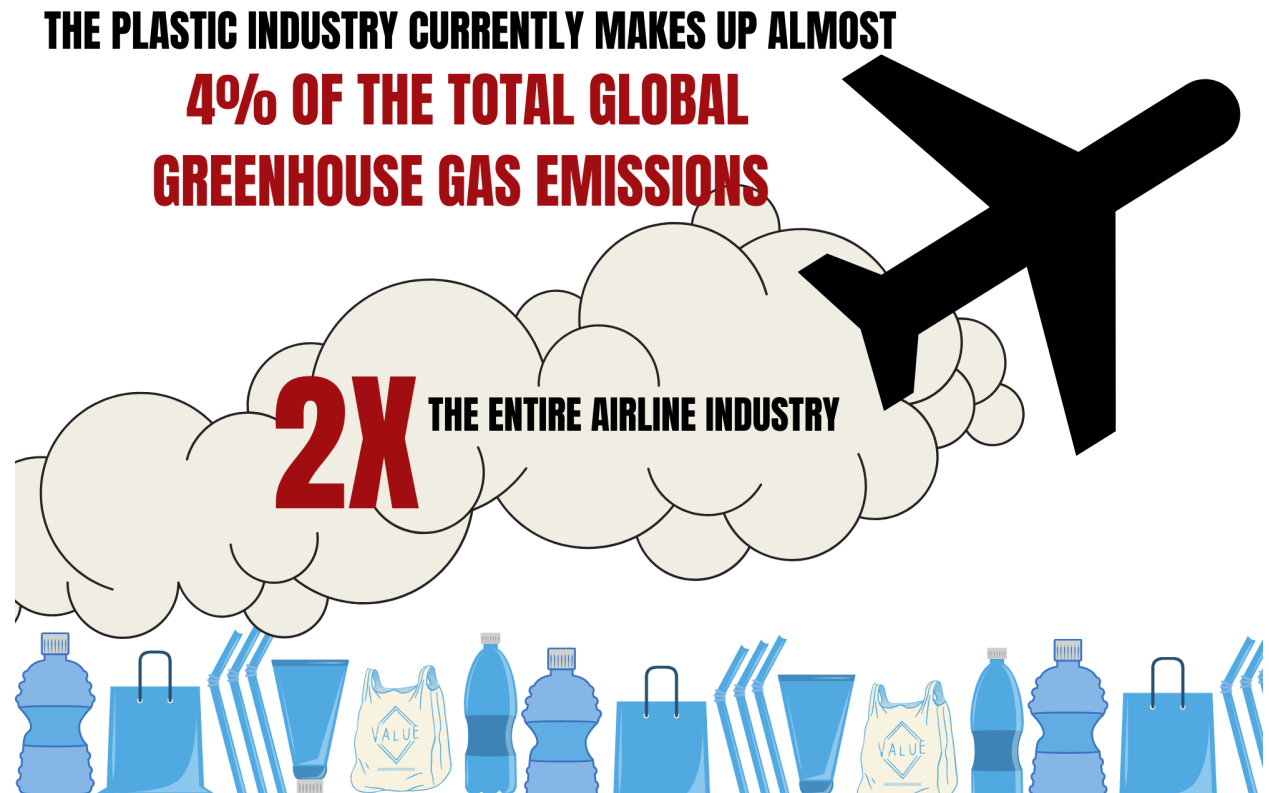
⁷ "Plastic & Health: The Hidden Costs of a Plastic Planet - Center for" 1 Feb. 2019, <https://www.ciel.org/wp-content/uploads/2019/02/Plastic-and-Health-The-Hidden-Costs-of-a-Plastic-Planet-February-2019.pdf>. Accessed 10 Feb. 2021.

⁸ "UN Report: World Faces 40% Water Shortfall by 2030 | Voice of" 22 Mar. 2015, <https://www.voanews.com/east-asia/un-report-world-faces-40-water-shortfall-2030>. Accessed 10 Feb. 2021.

⁹ "UN Report: World Faces 40% Water Shortfall by 2030 | Voice of" 22 Mar. 2015, <https://www.voanews.com/east-asia/un-report-world-faces-40-water-shortfall-2030>. Accessed 10 Feb. 2021.

afford to waste almost a million gallons of water for every oil rig, unless we are willing to sacrifice more lives for the convenience of oil (The Water Crisis).

In addition to the dire impacts plastics have on our health and the huge amount of resources they use, plastics also have enormous effects on the environment. The plastic industry currently makes up almost 4% of global greenhouse gas emissions, which's almost double the entire airline industry.



This means that, if the plastics industry was a country, it would be ranked 5th in the world.¹⁰ This is an enormous amount of emissions, especially as our planet nears the point of no return in terms of climate change where, even if all greenhouse gas emissions cease, Earth will continue to warm to more and more lethal temperatures. Also, scientists have theorized that climate change was partly responsible for the pandemic. Many studies have found that the warming climate forced bats to move to more populated areas, where they infected people. "The fact that climate change can accelerate the transmission of wildlife pathogens to humans should be an

¹⁰ "Plastic warms the planet twice as much as aviation – here's how to" 15 May. 2019, <https://theconversation.com/plastic-warms-the-planet-twice-as-much-as-aviation-heres-how-to-make-it-climate-friendly-116376>. Accessed 15 Feb. 2021.

urgent wake-up call to reduce global emissions," added Professor Camilo Mora. While nothing is confirmed, this leads to the possibility, plastics will lead to more and more pandemics.¹¹

With so many adverse effects of plastic already seen readily, it's not hard to imagine what will happen if the plastic industry continues to grow as it is projected to; by 2050, plastic production is expected to triple. The creation of such a dangerous substance will ensure that more and more people will be exposed and affected by the chemicals used to create plastics as they accumulate in the environment. Until, everyone, regardless of where they live, will be exposed to even higher amounts of these chemicals, amounts that have a strong likelihood of causing fatal diseases. If this happens, the whole world might have the cancer rates currently seen in Houston and other such places. Diseases will sweep through the world, creating health crises to match the one we're in now. If we let this happen, we are dooming ourselves to a world where people won't ask if you've had cancer, but when.

I am worried about my future, about what our world will look like if we continue to manufacture such a toxic substance in increasingly large quantities. In fact, by 2050, plastic production is expected to triple, which would likely triple the devastating effects they have on us. I don't want to live in a world plagued with diseases or in anything like what's mentioned above, a world where masks are constantly used to try to protect us from the lethal chemicals in our atmosphere. Years from now, I don't want to look back and wish we had acted, while we still had the chance.

To preserve our future and prevent the creation of such a harmful substance, I urge you to pass H.175 to expand the bottle bill by including more plastic containers, which I see as the first step in our separation from plastics. This bottle bill is expected to increase the number of plastic containers turned into new plastic containers by 397 million. That's almost 400 million plastic containers that don't need to be manufactured, almost half a billion containers that will no longer be able to release poisons into the communities surrounding them. Bottle Bill recycling is a more efficient and clean method of recycling because the bottles aren't contaminated as they would be in curbside recycling, which only allows for 'downcycling' where plastics are turned into a cheap plastic item that's destined for the trash, and doesn't often allow for items to be recycled again and again (which is true recycling). In addition, the bottles that would be

¹¹ "Climate Change can Accelerate Transmission of Wildlife Pathogens"
<https://www.azocleantech.com/news.aspx?newsID=28812>. Accessed 15 Feb. 2021.

collected by the bottle bill would have a much higher value as they could be recycled into food-grade containers and aren't containers. This bottle bill could also provide amazing learning opportunities for people. For instance, every year, some people at my school have the opportunity to go to Washington, D.C., or New York because of a bottle bill fundraiser. If we were to get twice as much for each bottle and more bottles were included in the bill, many more people would be able to go on these trips, which are amazing learning opportunities. While I recognize that recycling isn't the ultimate solution, I see it as a first step towards our separation from plastics and a step towards banning unnecessary plastics.

Also, I am not alone in wanting legislative action against plastics; over 175 students, parents, and community members signed a petition (linked [here](#)) supporting the expansion of the bottle bill and, eventually banning unnecessary plastics.