

https://www.unionleader.com/opinion/op-eds/muriel-s-robinette-science-matters-siting-landfills/article_b83f017e-992c-5ffa-a8d4-9aebd40a685b.html

Muriel S. Robinette: Science matters siting landfills

Feb 10, 2022



Muriel S. Robinette

NEW HAMPSHIRE LAWMAKERS have a unique opportunity to allow science to play a role in the responsible siting of new landfills. This opportunity presents itself in **HB 1454**, currently before the House Environment and Agriculture Committee.

As landfill developers seek new sites to be permitted, it is crucial that our state has in place a clear and science-based siting criteria to protect our surface water resources.

House Bill 1454 proposes to protect rivers and lakes by addressing the 200-foot setback factor in our state's landfill siting process, a factor that currently is not based on science or any site characteristics. Why is this requirement 200 feet from surface water bodies? No one appears to know exactly, and though it may be well-intentioned as "protective", this requirement is an arbitrary, one-size-fits-all factor with no scientific basis. Unfortunately, one size most certainly doesn't fit all when it comes to millions of gallons of landfill leachate and our state's water bodies.

The Granite State is diverse — from mountains and upland forests to the seacoast, with valleys, swamps, and fields in between. The variations that we see on the landscape are also valid below the ground. These variations affect how groundwater and contaminants travel. Therefore, a landfill setback siting factor that does not reflect site-specific conditions may not be protective, as it is meant to be, against contamination reaching our precious rivers, streams, and lakes.

HB 1454 proposes using the distance that groundwater can flow within a five-year window to determine a protective setback. Why five years? Because when contaminants from a landfill are detected in groundwater, we need to allow a sufficient response time for the landfill operator and the Department of Environmental Services (DES) to react, design and implement a remedy to try and protect the nearby surface water supplies.

Measuring site-specific groundwater flow is an inexpensive and well-known science that has been going on for more than 150 years. The math is simple and trained hydrogeologists perform these measurements routinely; this bill merely moves the testing to the beginning of the site evaluation, much like anyone wanting to buy a piece of land for a home would ask the seller to do a simple “perc test” to see if the land can support a septic system.

The concept of setbacks based on groundwater travel times is an accepted technical methodology. Our neighboring state of Maine has had a six-year setback for its landfills since 2015, while the federal EPA recommends up to 10 years’ separation between certain types of polluting facilities and drinking water wells.

If, as a state, our goal is to be protective of our natural resources and proper site development, the current “one size fits all” 200-foot landfill setback is not the answer. A landfill, once in operation, is a source of potential contamination to our water resources, not only during its decades of active operations, but for many decades after.

Just as we have seen with the recent news regarding PFAS in water supplies, it is crucial that we protect the resources that surround areas that are chosen for development.

HB 1454 will help to ensure that new landfills are appropriately sited and not located in areas where groundwater flow can rapidly transmit contaminants to surface water bodies. Ultimately, it should reduce the need for tens of millions of dollars to be spent trying to clean up contamination to our surface waters that can be prevented in the first place by use of appropriate sites for landfilling of New Hampshire’s waste.

This legislation is good for DES, well-intentioned developers, citizens, small businesses that rely on our surface waters, and our precious natural resources.

Professional geologist Muriel S. Robinette lives in Tufonboro. She is a senior consultant at Calix Environmental, LLC in Colebrook.