

**19<sup>th</sup> House District**

Parts of NE Franklin County  
Including Columbus, Gahanna,  
New Albany, Westerville, Minerva Park,  
and area townships

**134<sup>th</sup> General Assembly Committees**

Energy and Natural Resources  
Health  
Higher Education and Career Readiness  
Primary & Secondary Education  
Technology and Innovation, Ranking Member

**Representative Mary Lightbody  
19<sup>th</sup> House District**

Testimony to the Energy and Natural Resources Committee  
House Bill 579  
December 6, 2022  
Mary Lightbody, Ph.D.

Chairman Stephens, Vice Chair Stewart, Ranking Member Weinstein, and fellow members of the House Energy and Natural Resources Committee, thank you for allowing me to testify in support of House Bill 579, which would expressly prohibit the surface application of “brine” from oil and gas wells on Ohio’s roads.

Ohio is one of only ten states that permits the use of radioactive wastewater from oil and gas wells as a deicing or dust inhibiting application by spraying it on roads and earth surfaces. The practice of spreading this substance on Ohio’s roads was first authorized by the legislature in 1985 when Sub House Bill 510 was passed.

This radioactive water normally remains well below the surface, and only comes to the surface as a waste product of oil and gas extraction in vertical wells. Because the “brine” is “naturally occurring” current laws do not consider nor limit the amount of radiation (from Radium 226 and 228) the product contains. Radium 226 and 228 are water soluble, so spreading it on our roads threatens surface water and ground water in Ohio, and ultimately the health of living creatures, including humans.

The Ohio Department of Transportation and the Ohio Turnpike Authority decided last August to discontinue use of one such product<sup>1</sup> and now make their own salt solution to treat the roads for icing in the winter.

The Ohio Department of Health recently released a report on Radiation Dose Assessment of Residential Brine Application, which was requested by the Ohio Department of Natural Resources. The report modeled the residential “application of a commercially available de-icing product made from oil and gas brine, using concentration limits of 20,000 picocuries per liter for Radium-226 and 2,500 picocuries per liter of Radium-228, the two radionuclides of concern.” the report concludes: “routine applications of this product at the proposed radionuclide concentrations for a single year or for a multi-year period provides a radiation dose that is unnecessary and avoidable. Due to the increased levels of human exposure to radiation, use of products derived from oil and gas production brine is not recommended.”<sup>2</sup>

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<sup>1</sup> <https://www.dispatch.com/story/business/2021/08/30/ohio-plans-drop-brine-waste-product-used-deice-roads/5614700001/>

<sup>2</sup> Ohio Department of Health (2022). *Radiation Dose Assessment of Residential Brine Application*

We must cease the practice of spreading radioactive waste from vertical oil and gas wells on Ohio's roads and highways. This product can be more safely disposed of by inserting it into injection wells.

Thank you for the opportunity to testify today. I hope that you will offer additional hearings and support this legislation. I welcome your questions.