

**PUBLIC COMMENT ON
RAISED S.B. NO. 103**

By: Sara C. Bronin
sara.bronin@gmail.com | 860-840-1408

via email at envtestimony@cga.ct.gov

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Thank you to the Honorable Senator Miner, Senator Kennedy, Representative Demicco, and distinguished members of the Environment Committee for providing the opportunity to provide public comment on this important energy bill. I am writing in **support** of SB 103, which you are hearing today.

By way of brief introduction, I am a tenured law professor at the University of Connecticut School of Law, and I serve as the faculty director for the Center for Energy and Environmental Law. I have written three books and over a dozen scholarly articles, many on the topic of land use and renewable energy. I am also the Chair of the City of Hartford's Planning & Zoning Commission. My views do not necessarily represent the views of the University of Connecticut or its Law School or its Center for Energy and Environmental Law, or the City of Hartford or its Planning & Zoning Commission.

Today, I would like to urge you to **adopt** SB 103.

Although Connecticut does not necessarily have the geological characteristics necessary to support hydraulic fracking, the state may be considered as a site for fracking waste. Fracking's use of water, use of potentially carcinogenic chemicals not disclosed to the public, and penchant for causing small earthquakes and tremors raises concerns about not only the process itself but also its byproducts.

The US EPA studied the impact of hydraulic fracturing on drinking water resources and found that the discharge of inadequately treated fracking wastewater and the disposal or storage of fracking wastewater in unlined pits resulting in groundwater contamination can severely impact the water supply.¹ Moreover, predicting the precise impact on drinking water is challenging because well operators use hundreds of different ingredients in their fracking fluid, including many ingredients claimed to be confidential business information.² Additionally, the New York

¹ U.S. EPA, *Hydraulic Fracturing for Oil and Gas: Impacts from the Hydraulic Fracturing Water Cycle on Drinking Water Resources in the United States (Final Report)*, U.S. ENVIRONMENTAL PROTECTION AGENCY, Washington, DC, EPA/600/R-16/236F, 2016.

² U.S. EPA, *Analysis of Hydraulic Fracturing Fluid Data from the FracFocus Chemical Disclosure Registry 1.0 (Fact Sheet)*, https://www.epa.gov/sites/production/files/2015-03/documents/fact_sheet_analysis_of_hydraulic_fracturing_fluid_data_from_the_fracocu.pdf (last visited Feb. 20, 2018) ("698 unique ingredients (i.e., chemicals) were reported by 428 operators in 20 states. The median number of additive ingredients per disclosure was 14. Hydrochloric acid, methanol, and hydrotreated light petroleum distillates were reported in more than 65% of all disclosures analyzed. Seventy percent of the disclosures analyzed included at

Department of Environmental Conservation studied hydraulic fracturing for seven years and found that improper wastewater disposal can have a significant adverse impact on water resources.³

For these and other reasons, the Hartford Planning & Zoning Commission banned fracking waste in 2017. We are not alone. At least thirty-three Connecticut municipalities have joined Hartford in banning fracking waste including: Andover, Ashford, Bloomfield, Branford, Chaplin, Coventry, Glastonbury, Hampton, Hebron, Lebanon, Litchfield, Mansfield, Meriden, Middletown, New London, Pomfret, Portland, Rocky Hill, South Windsor, Washington, Willington, Windham, Windsor, and Woodstock.⁴ Three states have banned hydraulic fracturing: Vermont, New York, and Maryland. Vermont's ban includes a prohibition on fracking wastewater.⁵

For more information on the regulatory and legal issues, Florida State University law professor Hannah Wiseman (a co-author of mine) has written a number of articles on the regulation of hydraulic fracturing. Articles by Professor Wiseman on fracking include "Risk and Response in Fracturing Policy,"⁶ and "Regulation of Shale Gas Development, Including Hydraulic Fracturing."⁷

Thank you for considering my testimony.

least one ingredient that was claimed to be confidential business information (CBI), and 11% of the ingredient records were identified as CBI.").

³ NY Dep't of Env'tl. Conservation, *Findings Statement: Final Supplemental Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory Program* (June 2015) at 14, http://www.dec.ny.gov/docs/materials_minerals_pdf/findingstatevhf62015.pdf ("The disposal of flowback water and production brine could cause a significant adverse impact if the wastewater is not properly stored and treated prior to disposal. Residual fracturing chemicals and/or naturally-occurring constituents from the rock formation could be present in production brine and could result in treatment, sludge disposal, and receiving-water impacts. Salts and dissolved solids may not be sufficiently treated by municipal biological treatment and/or other treatment technologies which are not designed to remove pollutants of this nature.").

⁴ Peter Marteka, *South Windsor Town Council Unanimously Approves A Fracking Waste Ban*, HARTFORD COURANT (Feb. 6, 2018), <http://www.courant.com/community/south-windsor/hc-news-south-windsor-fracking-ban-20180206-story.html>; Janet Kaminski Leduc, *Town Ordinances Banning Fracking Waste*, OFFICE OF LEGISLATIVE RESEARCH (Dec. 18, 2017), <https://www.cga.ct.gov/2017/rpt/pdf/2017-R-0348.pdf>.

⁵ Vt. Stat. Ann. tit. 29, § 571 (West 2017) ("(b) No person within the State may collect, store, or treat wastewater from hydraulic fracturing.").

⁶Hannah Jacobs Wiseman, *Risk and Response in Fracturing Policy* (March 6, 2012). 84 University of Colorado Law Review 729 (2013); FSU College of Law, Public Law Research Paper No. 594. Available at SSRN: <https://ssrn.com/abstract=2017104> or <http://dx.doi.org/10.2139/ssrn.2017104>.

⁷Hannah Jacobs Wiseman & Francis Gradijan, *Regulation of Shale Gas Development, Including Hydraulic Fracturing* (October 31, 2011). University of Tulsa Legal Studies Research Paper No. 2011-11. Available at SSRN: <https://ssrn.com/abstract=1953547> or <http://dx.doi.org/10.2139/ssrn.1953547>.