

Ryan Knapp, Chair
Chris Smith, Vice Chair
Judit DeStefano
Chris Eide
Jordana Bloom
Jay Mattegat



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TOWN OF NEWTOWN

Minutes of the Legislative Ordinance Committee Meeting

The Ordinance Committee met on Thursday March 8th, 2018 in The Council Chambers of the Municipal Center, 3 Primrose Lane, Newtown. Committee Chairman Ryan Knapp called the meeting to order at 9:10 pm.

Present: Mr. Eide, Ms. DeStefano, Ms. Jacob, Ms. Bloom, Mr. Mattegat and Mr. Knapp.

Absent: None

MINUTES:

Mr. Eide moved to approve the minutes of 1/3/18. Mr. Smith seconded. All in favor (6-0)

PUBLIC COMMENT:

None

New Business

Review and Recommendation regarding the prohibition of storage, disposal or use of fracking waste per the charge set forth by the Legislative Council on February 7th, 2018.

Mr. Knapp reviewed the charge and shared information from the recent Town of Redding ordinance process. He reviewed the relevant statutes on powers of municipalities

Mr. Smith asked why the committee was starting with Redding as a model.

Mr. Knapp response that is what was presented by the Sustainable Energy Committee and looks to be a good place to state.

Ms. DeStefano noted that Redding is just a model and their town is a similar circumstance.

Mr. Eide felt statutes 7H11 and 4H may also be possible enabling statutes.

Ms. Bloom asked about CCM's role in this process.

Mr. Knapp said that CCM is a resource that we are a member community of and they can be very helpful in researching these topics. He will reach out to CCM and Legal.

The group spoke about the committee process moving forward.

PUBLIC COMMENT: None.

Ms. DeStefano moved to adjourn the meeting at 9:30, Ms. Bloom seconded. All in favor (6-0)

Respectfully Submitted,

Ryan W. Knapp
Ordinance Committee Chairman

TOWN OF REDDING, CT
PROPOSED ORDINANCE PROHIBITING WASTE
ASSOCIATED WITH NATURAL GAS AND OIL EXTRACTION

Purpose:

The purpose of this Ordinance is to protect and preserve the water quality, agricultural lands, and environmental quality of life in the Town of Redding.

Definitions:

For the purposes of this Ordinance, the following terms, phrases, and words shall have the meanings given here, unless otherwise clearly indicated by the context:

- 1) “*Application*” shall mean the physical act of placing or spreading natural gas waste or oil waste on any road or real property located within the Town of Redding.
- 2) “*Hydraulic fracturing*” shall mean the fracturing of underground rock formations, including shale and non-shale formations, by manmade fluid-driven techniques for the purpose of stimulating oil, natural gas, or other subsurface hydrocarbon production.
- 3) “*Natural gas extraction activities*” shall mean all geologic or geophysical activities related to the exploration for or extraction of natural gas, including, but not limited to, core and rotary drilling and hydraulic fracturing.
- 4) “*Natural gas waste*” shall mean: a) any liquid or solid waste or its constituents that is generated as a result of natural gas extraction activities, which may consist of water, brine, chemicals, naturally occurring radioactive materials, heavy metals, or other contaminants; b) leachate from solid wastes associated with natural gas extraction activities; c) any waste that is generated as a result of or in association with the underground storage of natural gas; d) any waste that is generated as a result of or in association with liquefied petroleum gas well storage operations; and e) any products or byproducts resulting from the treatment, processing, or modification of any of the above wastes.
- 5) “*Oil extraction activities*” shall mean all geologic or geophysical activities related to the exploration for or extraction of oil, including, but not limited, to, core and rotary drilling and hydraulic fracturing.
- 6) “*Oil waste*” shall mean: a) any liquid or solid waste or its constituents that is generated as a result of oil extraction activities, which may consist of water, brine, chemicals, naturally occurring radioactive materials, heavy metals, or other contaminants; b) leachate from solid wastes associated with oil extraction activities; and c) any products or byproducts resulting from the treatment, processing, or modification of any of the above wastes.

Prohibitions:

- 1) The application of natural gas waste or oil waste, whether or not such waste has received Beneficial Use Determination or other approval for use by the Department of Energy & Environmental Protection (CT DEEP) or any other regulatory body, on any road or real property located within the Town of Redding for any purpose is prohibited.
- 2) The introduction of natural gas waste or oil waste into any wastewater treatment facility within or operated by the Town of Redding is prohibited.
- 3) The introduction of natural gas waste or oil waste into any solid waste management facility within or operated by the Town of Redding is prohibited.
- 4) The storage, disposal, sale, acquisition, transfer, handling, treatment and/or processing of waste from natural gas or oil extraction is prohibited within the Town of Redding.

Provision to be included in bids and contracts related to the construction or maintenance of publicly owned and/or maintained roads or real property within the Town of Redding:

- 1) All bids and contracts related to the retention of services to construct or maintain any publicly owned and/or maintained road or real property within the Town of Redding shall include a provision stating that no materials containing natural gas or oil waste shall be utilized in providing such a service.
- 2) All bids and contracts related to the purchase or acquisition of materials to be used to construct or maintain any publicly owned and/or maintained road or real property within the Town of Redding shall include a provision stating that no materials containing natural gas or oil waste shall be provided to the Town of Redding.
- 3) The following statement, which shall be a sworn statement under penalty of perjury, shall be included in all bids related to the purchase or acquisition of materials to be used to construct or maintain any publicly owned and or maintained road or real property within the Town of Redding and all bids related to the retention of services to construct or maintain any publicly owned and/or maintained road or real property within the Town of Redding:

“We _____ hereby submit a bid for materials, equipment and/or labor for the Town of Redding. The bid is for bid documents titled _____. We hereby certify under penalty of perjury that no natural gas waste or oil waste will be used by the undersigned bidder or any contractor, sub-contractor, agent or vendor agent in connection with the bid; nor will the undersigned bidder or any sub-contractor, agent or vendor agent thereof apply any natural gas waste or oil waste to any road or real property within the Town of Redding as a result of the submittal of this bid if selected.”

Penalties:

This ordinance shall apply to any and all actions occurring on or after the effective date of this ordinance. In response to a violation of this ordinance, the Town of Redding is empowered to a) issue "Cease and Desist" orders demanding abatement of the violation, b) seek any appropriate legal relief, including immediate injunctive relief, as a result of any violation of this ordinance; c) file a complaint with any other proper authority; and d) require remediation of any damage done to any land, road, building, aquifer, well, watercourse, air quality or other asset, be it public or private, within the Town of Redding. The Town of Redding may recoup from the offending person(s), jointly and severally, all costs, including experts, consultants and reasonable attorney's fees, that it incurs as a result of having to prosecute or remediate any infraction of this ordinance. Any person who violates this ordinance shall be liable for a fine of \$250 per CT General Statute. The Town of Redding may also pursue other penalties as applicable defined in CT General Statutes.

Enforcement:

Any designee authorized by the First Selectman of the Town of Redding may pursue penalties against any person(s) who commits violations of this ordinance. The involvement of any Town of Redding officials will not require testing of waste products to determine chemical contents; this work will be done via contacting CT DEEP or other 3rd party analytical laboratories as is current practice of the Town of Redding for other exposures to potentially hazardous chemical situations.

Any designee authorized by the First Selectman of the Town of Redding may request the Commissioner of CT DEEP pursue civil penalties defined by CT General Statutes, as applicable.

Severability:

If any clause, sentence, paragraph, subdivision, section or part of this local law or the application thereof to any person, individual, corporation, firm, partnership, entity or circumstance shall be adjudged by any court of competent jurisdiction to be invalid or unconstitutional, such order or judgment shall not affect, impair, effect or invalidate the remainder thereof, but shall be confined in its operation to the clause, sentence, paragraph, subdivision, section or part of this law or in its application to the person, individual, corporation, firm, partnership, entity or circumstance directly involved in the controversy in which such order or judgment shall be rendered. To further this end, the provisions of this Chapter are hereby declared to be severable.

Transportation:

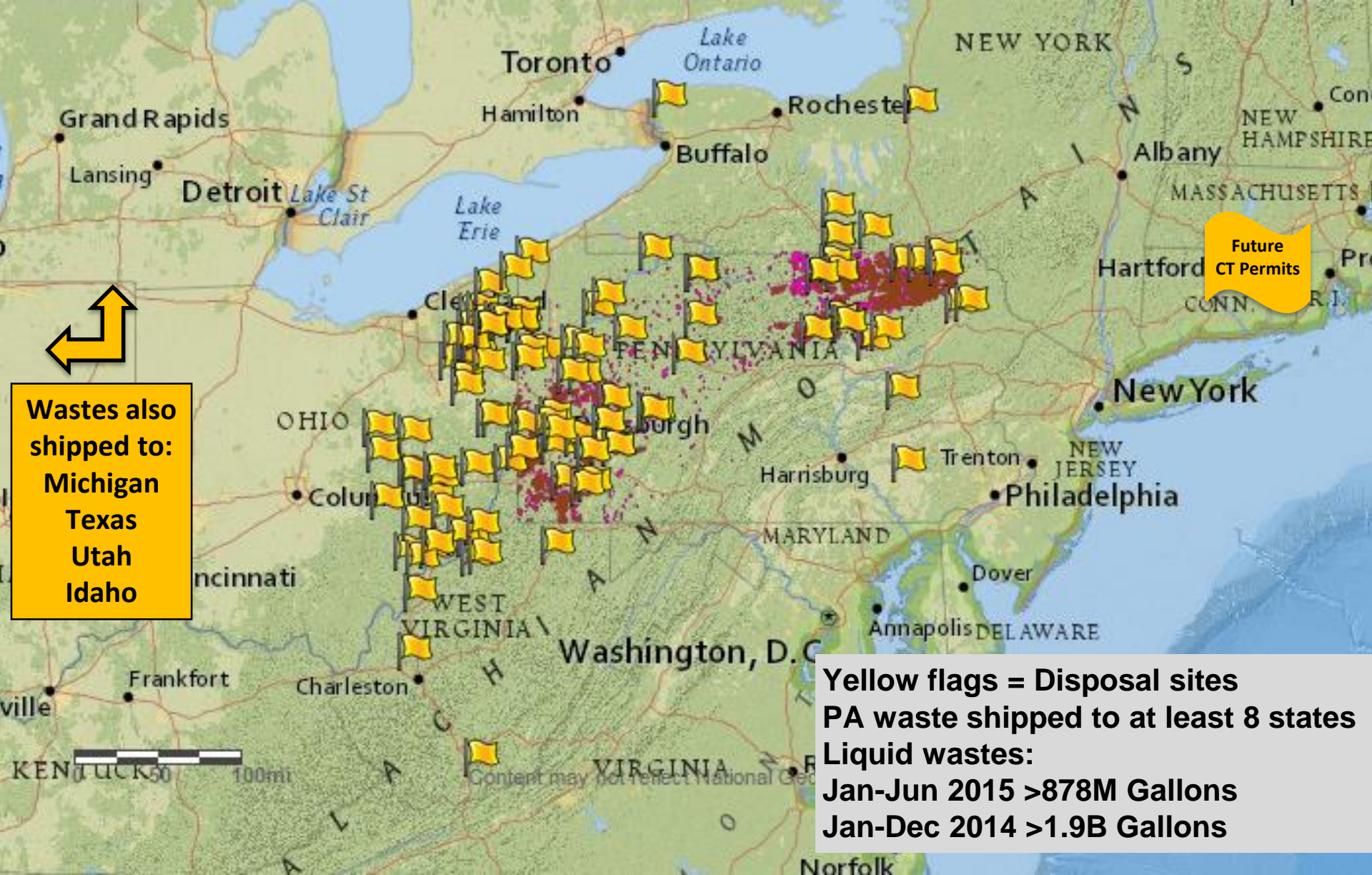
Nothing in this ordinance shall be interpreted to ban the transportation of any product or by-product described herein on any roadway or real property within the Town of Redding.



Fracking Waste in Connecticut

Protecting Towns from Future State Regulations & Loopholes
Toxins & Risks of Radioactive & Chemical Contamination
Jen Siskind, Local Coordinator, jsiskind@fwwlocal.org

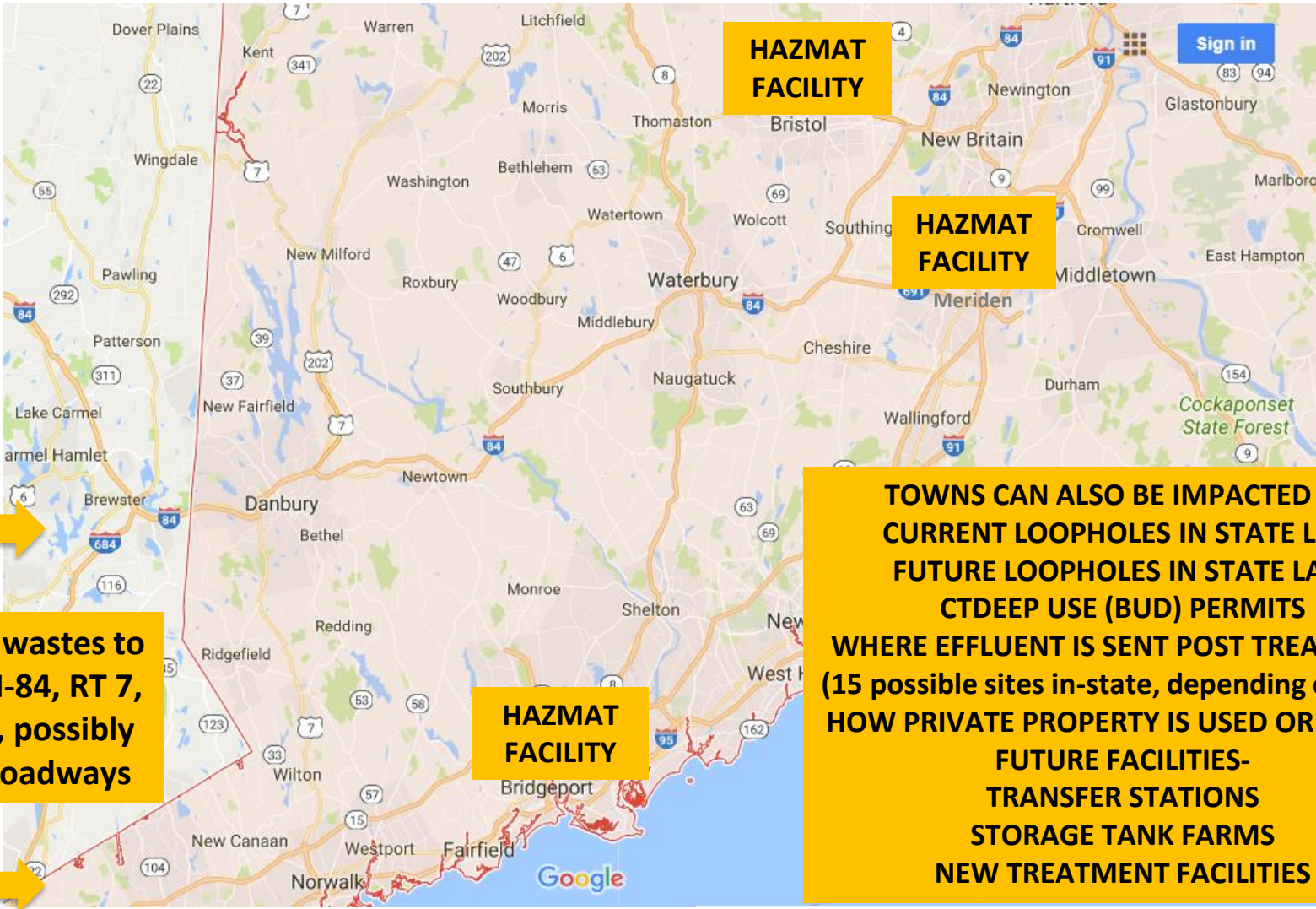




Base map courtesy FracTracker
www.fracktracker.org

Current State Law: Temporary moratorium + Mandate for future regulations

Submit for review: July 1, 2017 - July 1, 2018 by CTDEEP to Regs Review Committee. Once finalized, HazMat facilities may apply for future permits in Bristol, Meriden & Bridgeport



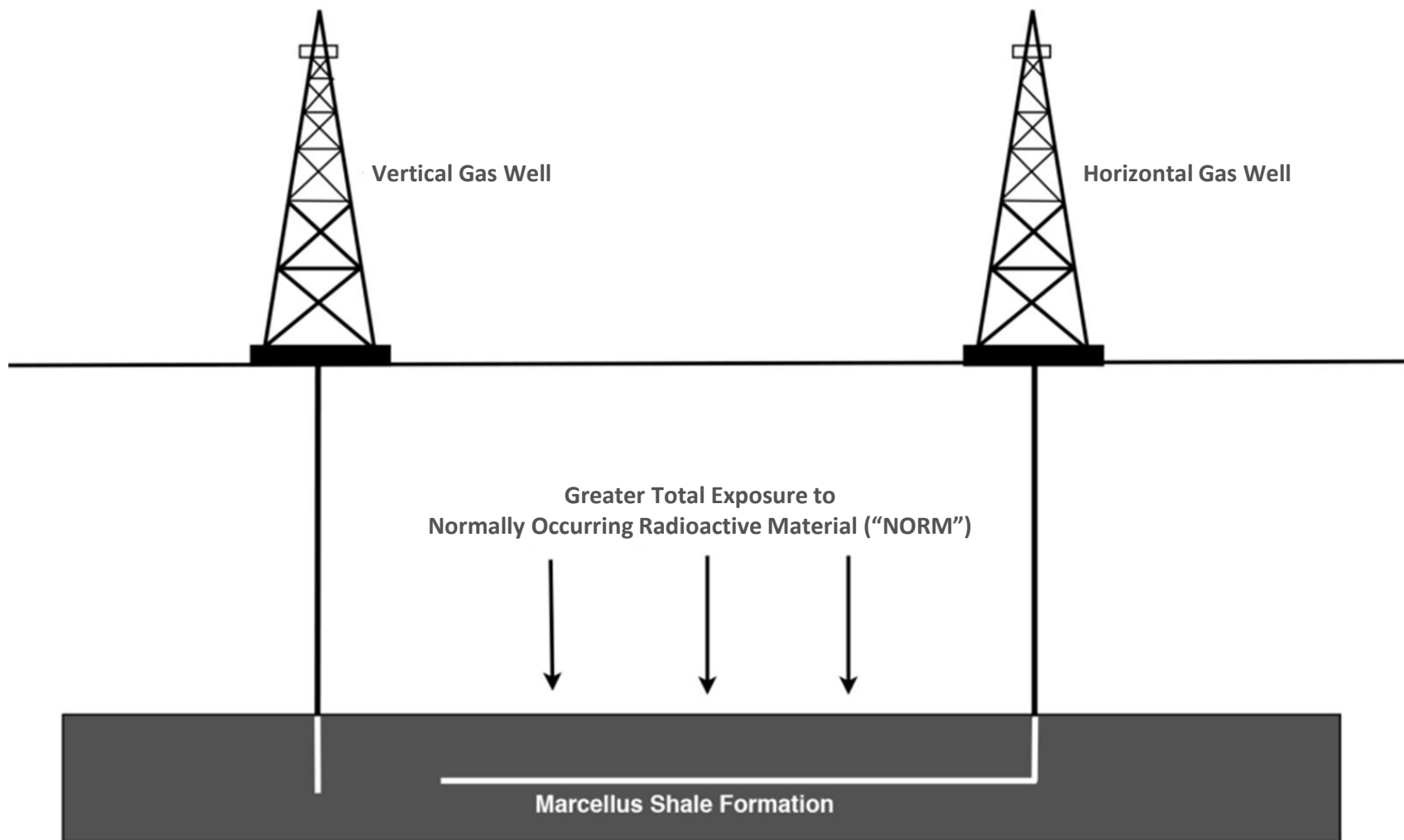


Figure 1: Comparison of Exposure to NORM in Marcellus Shale for Vertical Wells and Horizontal Wells

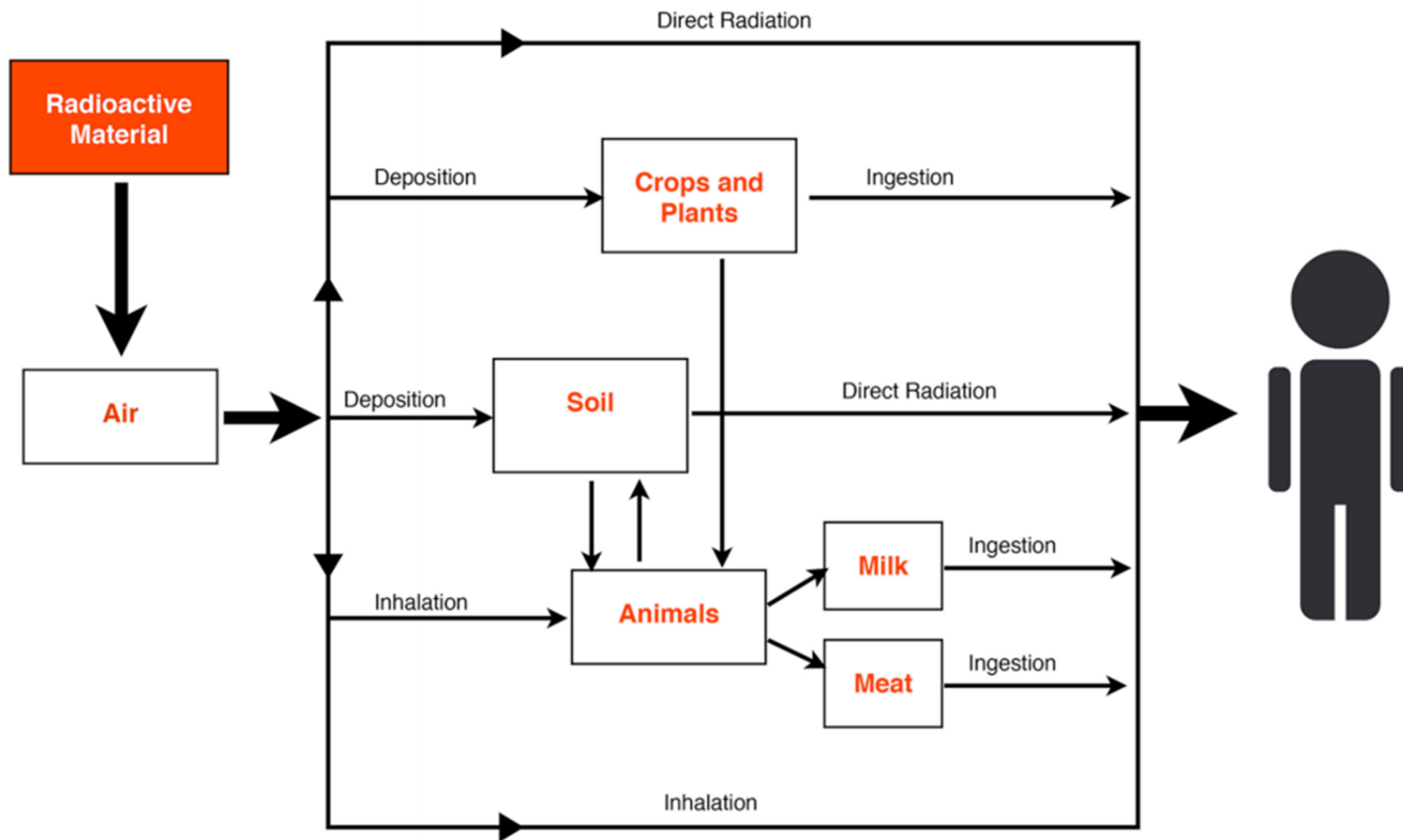


Figure 2: Pathways for Radiation Migration Through Air

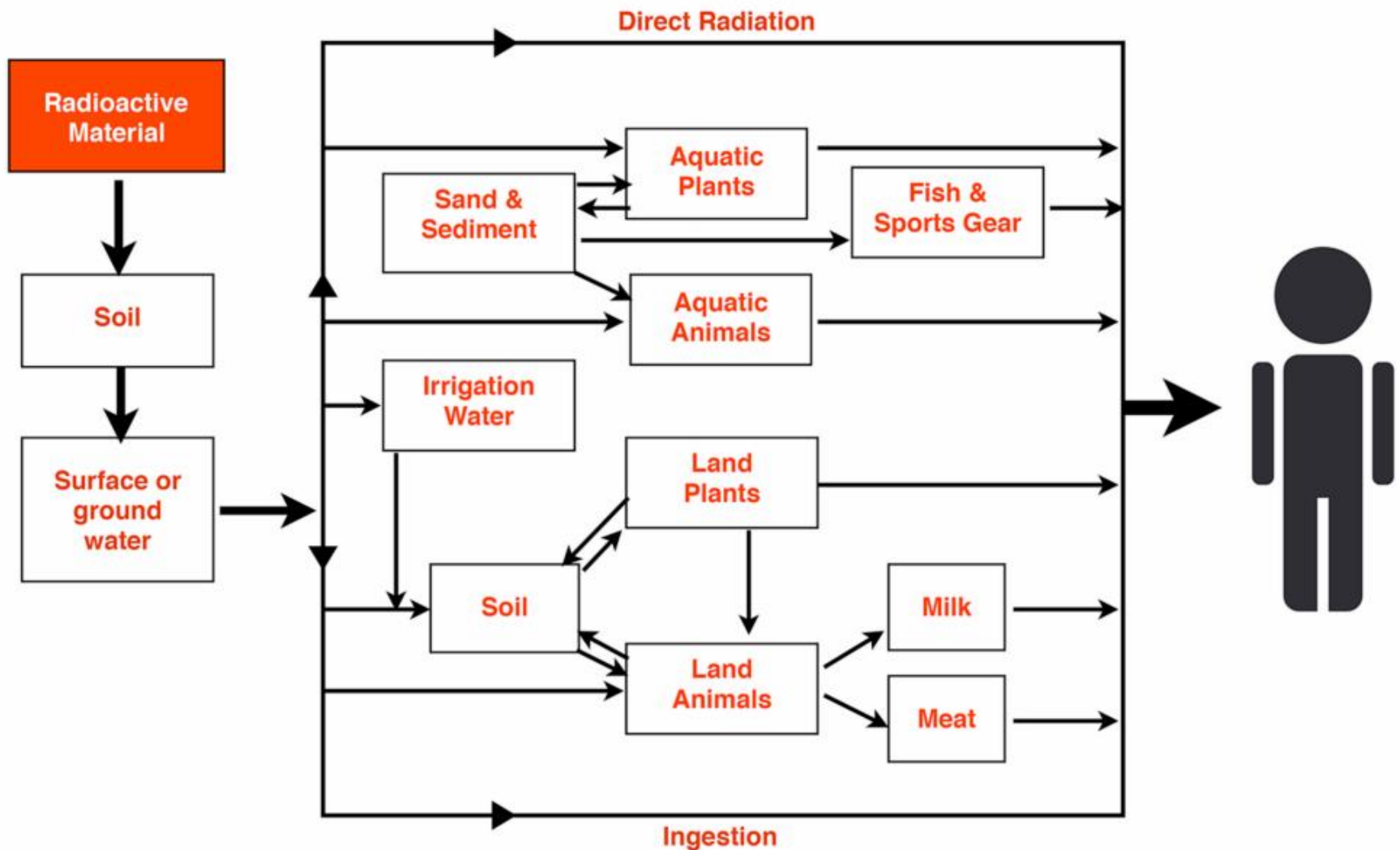


Figure 3: Pathways for Radiation Migration Through Soil and Water

26,600 pCi/L

5 pCi/L
Safe Drinking Water Limit

1,600 yr radioactive half-life
Cumulative
Bioaccumulates

Causes Breast
Bone and
Liver Cancers

Associated with
Adult and Childhood Leukemias

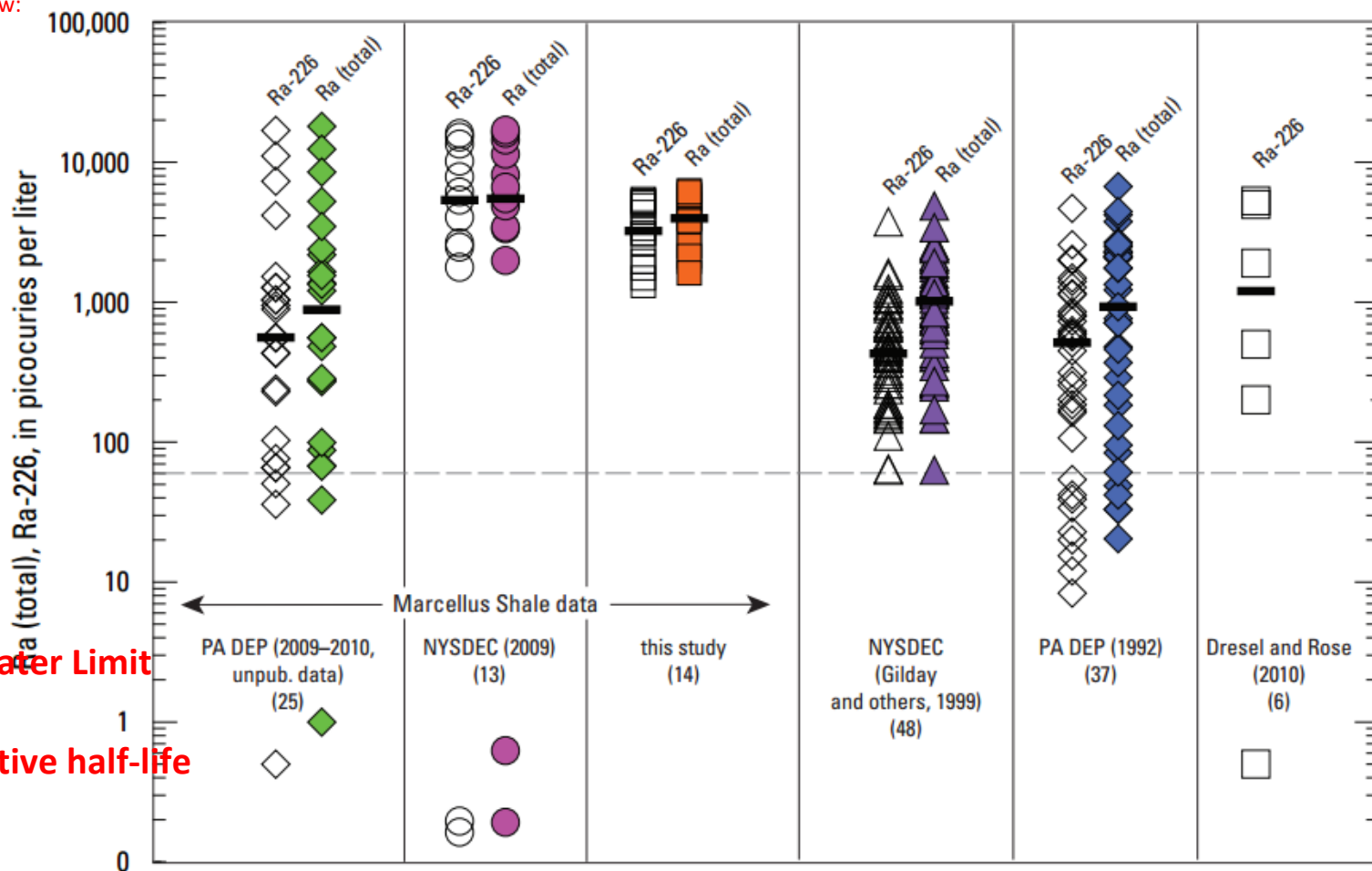


Figure 4. Measured activities for total radium (Ra-226 + Ra-228) and Ra-226 for each of the data sources used in the study. The three datasets for produced water from Marcellus Shale wells are shown on the left; the remaining three datasets are for non-Marcellus Shale wells. The number of points in each dataset is shown in parentheses, and the median values are plotted as heavy black lines. For reference, the dashed line shows the industrial effluent discharge limit (60 pCi/L) for Ra-226 (U.S. Nuclear Regulatory Commission, <http://www.nrc.gov/reading-rm/doc-collections/cfr/part020/appb/Radium-226.html>).

Health Affects of Naturally-occurring Toxins

Radium226 & 228	Causes breast, bone & liver cancers, Associated with leukemia Radioactive half-life of 1,600 years Decays into other radioactive material & lead
Arsenic	Associated with bladder, kidney & skin cancers
Lead	Children - Brain & nervous system damage, developmental delay Adults - High blood pressure & kidney damage
Barium	Abnormal heart rhythms
Strontium	Children - Impacts bone growth
Benzene	Causes Leukemia
Toluene	Nervous system, liver & kidney damage
Xylene	Memory, stomach upset, liver & kidney changes, impacts to fetus
Chromium 6	Dermal burns, vertigo, GI hemorrhage, liver & kidney damage
PAHs	Associated with skin, lung, bladder & gastrointestinal cancers
Bromides	React synergistically with chlorine added to disinfect drinking water creating brominated trihalomethane - highly carcinogenic

649 Known chemicals in 2011

56% Examined & reported here-363*

44% No information available
on these chemicals

Soluble in water = Run-off & leaching
Impact drinking water supplies
Impact soil, property & surface waters

Volatile = Vaporize

Travel through air - Inhaled

Settle on surfaces, water & crops

- Absorbed by skin
- Ingested

Colborn, et al 2011

Physicians for Social Responsibility-LA

www.PSA-LA.org

FOR THE 56% OF
FRACKING
CHEMICALS WE
CAN IDENTIFY



58%

SOLUBLE
IN WATER



36%

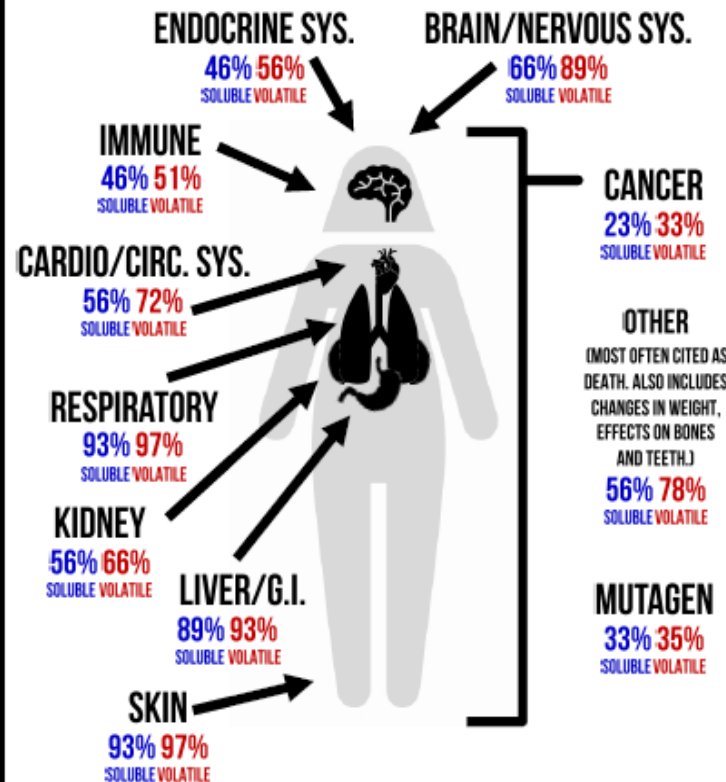
VOLATILE

SMALLER PERCENTAGE,
BUT BIGGER IMPACT. THESE
CHEMICALS CAN BE
INHALED, SWALLOWED,
AND/OR ABSORBED
THROUGH THE SKIN

ALL IMAGES FROM
THE NOUN PROJECT —
FRACKING: TOM ANANTWERP,
STOMACH: SERIO DELGADO
GARCIA, HEART: CATHERINE
PLEASE, LUNGS: JORIS HOOGEN-
DOORN, WATER DROP: CRIS
DOBBINS, CLOUD: JAMES FEN-
TON, QUESTION CLOUD: ANAS
RAMADAN, WOMAN: LUIS PRADO

BODY SYSTEMS AFFECTED BY FRACKING CHEMICALS*

SHOWN WITH % OF CHEMICALS AFFECTING EACH BODY SYSTEM
(SOLUBLE CHEMICALS IN BLUE AND VOLATILE CHEMICALS IN RED)



Yale SCHOOL OF PUBLIC HEALTH

Toxins Linked to Developmental
& Reproductive Health Problems

1,157 known chemical additives

Yale SCHOOL OF PUBLIC HEALTH

119 Carcinogens
Known & Suspected
Travel Through Air and Water

SCHOOL OF ENGINEERING
& APPLIED SCIENCE Yale

Elevated Levels of Diesel-like
Chemicals Found in 65 Home Wells
Tied to Surface Spills
Trace Amounts 3-5 Years Later



**Study: Fracking associated with migraines,
fatigue, chronic nasal and sinus symptoms**



**Johns Hopkins study links fracking to
premature births, high-risk pregnancies**

Researchers look at nearly 11,000 births in north, central Pennsylvania

colorado school of
public health

Age 5-24 Leukemia
4.3 x likely live near
dense drilling activity



- **Radioactive sediment in waterways in PA & ND**
Spills and post-treatment discharge causing contamination
- **Iodide, Bromide + Chlorine = Carcinogenic Trihalomethane**
- **6,648 spills in 4 states over 10 years - 50% storing & moving waste**



**Increased Hospitalizations in
Heavily-drilled PA Counties:**

Cardiology
Neurology
Dermatology
Neonatology
Urology
Oncology

750+ Studies Compendium 2016 4th Ed
Concerned Health Professionals of NY
concernedhealthny.org/compendium/



Drilling Process = Drill Cuttings & drilling muds
Chemicals + naturally-occurring toxins



Hydraulic Fracturing Process = Flowback Waste =
Fracking fluids + silica sand + drill cuttings + brine + sludge
Chemicals + naturally-occurring toxins



Production/Dehydration Process
Produced Water or Brine
Residual chemicals + naturally-occurring toxins



"Fresh Water" (Industry term)
Partially treated & re-used many times
Finally too contaminated to use & needs disposal
Chemicals + naturally-occurring toxins



EPA Violations



www.riversalliance.org

Click on:

- Priority Topics
- HazWaste Treatment
- CT HazWaste Treatment Facility Compliance Overview

Clean Harbors of CT Inc. of Bristol													
(USEPA ECHO ID: 110002083478)													
	QTR.2	QTR.3	QTR.4	QTR.5	QTR.6	QTR.7	QTR.8	QTR.9	QTR.10	QTR.11	QTR.12	QTR.13*	
Clean Water Act Permit Compliance For The Past Three Years	Apr Jun 2013	Jul Sep 2013	Oct Dec 2013	Jan Mar 2014	Apr Jun 2014	Jul Sep 2014	Oct Dec 2014	Jan Mar 2015	Apr Jun 2015	Jul Sep 2015	Oct Dec 2015	Jan Mar 2016	Apr Jun 2016
Facility Status During That Quarter:	In Viol	In Viol	In Viol	In Viol	In Viol	In Viol	In Viol (Rslvd)	No Viol (Rslvd)	No Viol	In Viol	No Viol	In Viol	In Viol*

Tradebe Treatment and Recycling Northeast LLC of Meriden													
(USEPA ECHO ID: 110000316248)													
	QTR.1	QTR.2	QTR.3	QTR.4	QTR.5	QTR.6	QTR.7	QTR.8	QTR.9	QTR.10	QTR.11	QTR.12	QTR.13*
Clean Water Act Permit Compliance For The Past Three Years	Apr Jun 2013	Jul Sep 2013	Oct Dec 2013	Jan Mar 2014	Apr Jun 2014	Jul Sep 2014	Oct Dec 2014	Jan Mar 2015	Apr Jun 2015	Jul Sep 2015	Oct Dec 2015	Jan Mar 2016	Apr Jun 2016
Facility Status During That Quarter:	In Viol (ResPend)	In Viol (ResPend)	In Viol (ResPend)	In Viol	SNC / Cat 1	In Viol	In Viol ****	In Viol ****	In Viol	In Viol ****	In Viol	In Viol (ResPend)	In Viol*

Tradebe Treatment and Recycling of Bridgeport													
(USEPA ECHO ID: 110000317069)													
	QTR.1	QTR.2	QTR.3	QTR.4	QTR.5	QTR.6	QTR.7	QTR.8	QTR.9	QTR.10	QTR.11	QTR.12	QTR.13*
Clean Water Act Permit Compliance For The Past Three Years	Apr Jun 2013	Jul Sep 2013	Oct Dec 2013	Jan Mar 2014	Apr Jun 2014	Jul Sep 2014	Oct Dec 2014	Jan Mar 2015	Apr Jun 2015	Jul Sep 2015	Oct Dec 2015	Jan Mar 2016	Apr Jun 2016
Facility Status During That Quarter:	In Viol	SNC / Cat 1	SNC / Cat 1	In Viol (Rslvd)	SNC / Cat 1	In Viol (Rslvd)	In Viol **	SNC / Cat 1	SNC / Cat 1	No Viol (Rslvd)	SNC / Cat 1	SNC / Cat 1	In Viol*

Partially-treated effluent is discharged into the sewage systems of Bristol, Meriden & Bridgeport. Depending of future regulations, there is risk of still contaminated & radioactive effluent to also be sent to additional Publicly Owned Treatment Works (POTW) in CT. See slide 19 for locations.



Tradebe Treatment and Recycling of Bridgeport (click for details)

Yellow background indicates noncompliance was noted in the data. Red background indicates significant noncompliance.

(USEPA ECHO ID: 110000317069)

Statute	Insp (5 Years)	Last Inspections	Current Status	Qtrs in Noncompliance (bridgeport)	Qtrs in Significant Violation	Informal Enforcement Actions (5 years)	Formal Enforcement Actions (5 years)
RCRA	3	09/16/2015	Noncompliance	9	0	2 10/08/2013, 11/25/2015	
CAA	1	09/02/2015, 12/18/2012		1	0	1 01/14/2016	
CWA	4	03/07/2017 01/05/2016,	Noncompliance	9 (separate sheet)	5 (separate sheet)	3 07/19/2016, 12/05/2013, 04/30/2013 (see below)	
1. Summary from Notice of Violation No. WR IN13 104 April 30, 2013 : Failed to collect O&G (?) as a grab sample average for February and March 2013. Company representatives / employees state the pH probe is cleaned daily however they do not document the date the probes are cleaned. The total volatile verification analysis has not been submitted quarterly as required. The 2012 and 2013 analyses were provided at the time of this inspection. CLOSURE 7/10/2013 Summary: Based upon the representations made in your submittal and Department information, it has been decided that no further action by the Department will be taken at this time...					2. Notice Of Violation No. WR IN 13 029 Dec 5, 2013 and Cover Letter . Summary: Based on a review of the discharge monitoring reports it appears the effluent limitations were violated 50 times from August 2011 through September 2013 including violations that placed the facility in the status of significant noncompliance (SNC). CLOSURE Mar 5, 2014 . Summary: Based upon the representations made in a facility submittal and Department information, it was been decided that no further action by the Department will be taken at this time ...		
Information from USEPA ECHO at http:// echo.epa.gov/ detailed-facility-report?fid=110000317069 retrieved Apr 7, 2016. <i>Entries in italics are not considered inspections in official counts.</i> *Quarter 13 is draft/unofficial and has not been fully quality assured."							

EPA ECHO Records.

Further detailed pages available at Rivers Alliance Website by clicking on active blue links seen above.

Chart courtesy Rivers Alliance of CT rivers@riversalliance.org

Potential Chain of Radioactive & Chemical Contamination in CT

Transport*	Accidents, leaks, spills Run-off, leaching into soil, ground & surface Water	
Transfer & Storage*	Accidents, leaks, spills Run-off, leaching into soil, ground & surface water	
Hazardous Waste Facility*	Concentrated residuals transferred out of state Effluent Discharged to local sewage system Effluent to POTW or City Waste Water Facilities	
Effluent to POTW*	Effluent discharged to waterways Sludge to incinerators	
Trash to Energy Incinerator	Incinerator emissions Disposal of incinerator ash	
Beneficial Use (BUD) Permits**	Solids	Liquids
	Construction fill	Sprayed on roads
	Road base	De-icer
	Brownfield capping	Dust control
	De-watered salts	
	Run-off, leaching into soil & surface water	

* Contamination & remediation costs in other states with regulations

** PADEP reversed policy for solid waste BUD permits 5 years after permitting

Oil & Gas Drilling & Extraction Wastes	Local Bans in 33 of 34 CT Towns (Washington, CT passed State of CT language)	Temporary Moratorium Pending CT Regulations*
Gas Drilling Muds	X	
Gas Drill Cuttings	X	
Gas Hydraulic Fracturing Flowback	X	X
Gas Flowback & Drill Cuttings Mix	X	X
Gas Flowback & Brine Mix	X	X
Gas Flowback & Used Frac Sand	X	X
Gas Brine Produced During Gas Flow	X	?
Gas Chemicals Used on Pad Surface	X	?
Gas Underground Storage Waste	X	
Gas Liquified Petroleum Gas Waste	X	
Oil Drilling Muds	X	
Oil Drill Cuttings	X	
Oil Hydraulic Fracturing Flowback	X	
Oil Flowback & Drill Cuttings Mix	X	
Oil Flowback & Brine Mix	X	
Oil Flowback & Used Frac Sand	X	
Oil Brine Produced During Oil Flow	X	
Oil Chemicals Used on Pad Surface	X	

* Same definitions considered for ban in 2017. Passed House, died in Senate.
House bill would have rolled back key protections passed into law in 2014.

