THE THREAT OF OIL & GAS POLLUTION

Utah

Methane, the primary component of gas, is an invisible, odorless greenhouse gas that is a powerful driver of climate change—87 times as powerful as carbon dioxide during the time it remains in the atmosphere.[1] The oil and gas industry is the largest source of methane in the U.S., leaking or intentionally venting large quantities of this dangerous pollutant into our air every day. In 2014, the oil and gas industry emitted over 9.8 million metric tons of methane, a number 34% higher than previous estimates.[2] The near-term climate impact of these emissions is equal to the pollution caused by more than 200 coal-fired power plants over 20 years.

Along with methane, oil and gas facilities often release other air pollutants that can harm our health, including formaldehyde, benzene, acetaldehyde, and ethyl benzene. These toxins can cause cancer, respiratory symptoms, anemia, brain damage and birth defects, eye irritation, and blood and neurological disorders.

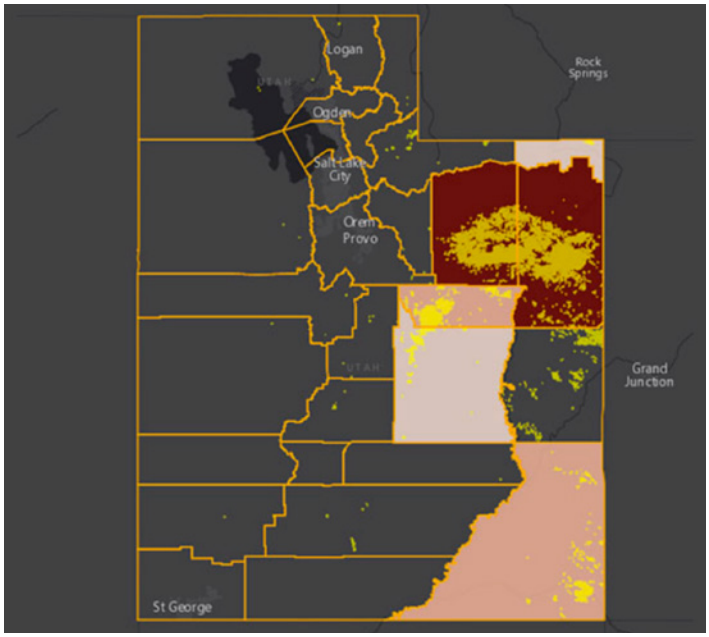
THE THREAT RADIUS

Peer-reviewed studies have documented higher levels of harmful air pollutants in and around areas with oil and gas production activity, and have shown that oil and gas facilities are the source of the excess pollution. Research indicates links between risks and/or prevalence of disease and proximity to facilities.[3] The half mile "threat radius" is a very conservative estimate of the area within which higher levels of toxic pollution are seen, and the distance within which health impacts have most clearly been correlated with the presence of oil and gas facilities.[4]

There are currently 12.4 million people living within a half mile of one of 1,193,118 active oil and gas wells, compressors, and processors in the United States. In total, 184,578 square miles are covered by the threat radius[5], which includes 11,543 schools and 639 medical facilities. Nationwide, 238 counties in 21 states face a cancer risk that exceeds EPA's one-in-a-million threshold level of concern, **Duchesne County and Uintah County in Utah.**[6]

OIL & GAS THREATENS UTAHNS

Not only do Duchesne County and Uintah County exceed EPA's cancer risk level of concern, but they also both exceed EPA's respiratory hazard risk level of concern. These two counties are among the 15 most polluted counties in the country for smog pollution, and had a combined 54 days that exceeded the national ozone standard in 2013.[7]



MAP: OILANDGASTHREATMAP.COM/THREAT-MAP/UTAH

Utah is the worst state in the country for methane pollution on tribal lands, emitting over $17 million worth of gas from tribal lands per year. Utah polluted more gas on tribal lands than New Mexico, Colorado, and Montana combined. This methane pollution is equivalent to the annual greenhouse gas emissions of over 675,000 cars.[8]

The Uinta Basin of Utah was the ninth highest methane emitting oil- and gas-producing basin in 2014, emitting 2,336,781 metric tons of carbon dioxide equivalent from 11,753 wells—a rate of 199 metric tons per well, the fifth highest rate of the top fifteen emitting basins.[9]

THE NUMBERS[10]

TOTAL POPULATION Living in the Threat Radius (within a half mile of a facility)	17,000
TOTAL NUMBER of Active Oil and Gas Wells, Compressors, and Processors	20,621
NUMBER OF COUNTIES that Exceed EPA's Cancer Risk Level of Concern	**2** Duchesne and Uintah
NUMBER OF SCHOOLS in the Threat Radius	2
NUMBER OF MEDICAL FACILITIES in the Threat Radius	0
SQUARE MILES COVERED by the Threat Radius	2,863

STRONG FEDERAL STANDARDS ARE KEY

Utah has taken preliminary steps to reduce methane emissions, such as requiring pneumatic controllers to be retrofitted with lower emitting models,[11] but these requirements do not go nearly far enough to protect communities from air pollution from the oil and gas industry. Strong nationwide standards are critical to addressing this issue.

On May 12, 2016, the Environmental Protection Agency (EPA) finalized the first-ever federal standards addressing new and modified sources of methane pollution from the oil and gas sector. These standards require, among other things, that companies regularly monitor for and repair leaks.[12] The EPA expects this rule to cut 510,000 tons of methane pollution from oil and gas facilities and equipment, the emissions equivalent of 11 coal-fired power plants or taking 8.5 million cars off the road every year.[13] These standards will also significantly impact public health by curbing emissions of smog-forming volatile organic compounds (VOCs) and toxic air pollutants.

The 2016 standards were an important first step, but in 2018, nearly 90% of methane emissions will come from *existing* sources not covered by this rule.[14] Strong methane standards for both new and existing sources are key to the Administration's ability to meet its Paris climate commitments to reduce greenhouse gas emissions 26-28% below 2005 levels by 2025.[15] Therefore, the EPA must develop strong and effective standards for existing sources as soon as possible, both to meet its legal commitments and to protect public health and welfare. **Without strong standards on existing sources, millions of people—including the 17 thousand in Utah within the threat radius—will continue to be at risk.**

COMMON-SENSE SOLUTIONS ARE READILY AVAILABLE

Thankfully, common-sense solutions exist not only to clean-up and fix methane leaks, but to boost local economies as well. More than 500 locations in 46 states are already manufacturing the equipment and providing the services needed to reduce methane pollution, **including 8 in Utah.** These businesses are helping to grow the local economy by creating highly skilled, good-paying jobs.[16]

ENDNOTES

1 http://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter08_FINAL.pdf
2 https://www3.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2016-Main-Text.pdf
3 http://ehp.niehs.nih.gov/1306722/
4 http://oilandgasthreatmap.com/about/threat/
5 http://oilandgasthreatmap.com/threat-map/
6 http://oilandgasthreatmap.com/threat-map/utah/
7 http://methanefacts.org/files/2015/08/UT-Methane-Rule-Fact-sheet.pdf
8 http://methanefacts.org/files/2015/08/UT-Methane-Rule-Fact-sheet.pdf
9 https://cdn.americanprogress.org/wp-content/uploads/2016/06/20070044/MethanePollution-report.pdf
10 http://oilandgasthreatmap.com/threat-map/utah/
11 http://methanefacts.org/files/2015/08/UT-Methane-Rule-Fact-sheet.pdf
12 https://www.epa.gov/newsreleases/epa-releases-first-ever-standards-cut-methane-emissions-oil-and-gas-sector
13 https://www.epa.gov/newsreleases/epa-releases-first-ever-standards-cut-methane-emissions-oil-and-gas-sector
14 https://www.edf.org/sites/default/files/methane_cost_curve_report.pdf
15 https://www.whitehouse.gov/the-press-office/2015/03/31/fact-sheet-us-reports-its-2025-emissions-target-unfccc
16 https://www.edf.org/sites/default/files/us_methane_mitigation_industry_report.pdf

Sierra Club National
2101 Webster Street, Suite 1300
Oakland, CA 94612
(415) 977-5500

Sierra Club Legislative
50 F Street, NW, Eighth Floor
Washington, DC 20001
(202) 547-1141

sierraclub.org
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APPENDIX

UT Counties	Total Population	Threatened Population	Number of Facilities	Threatened Schools	Threatened Medical Facilities	Threatened Square Miles	Other Risks
Duchesne County	18,607	7,662	5,985	1	0	805.52	Exceeds EPA level of concern for cancer risk*AND exceeds EPA level of concern for respiratory hazard risk**
Carbon County	21,403	5,717	1,448	1	0	288.25	
Uintah County	32,588	2,125	10,801	0	0	1,114.50	Exceeds EPA level of concern for cancer risk* AND exceeds EPA level of concern for respiratory hazard risk**
San Juan County	14,746	862	1,181	0	0	213.99	
Summit County	36,324	450	85	0	0	29.01	
Emery County	10,976	390	354	0	0	118.14	
Utah County	516,564	92	4	0	0	3.06	
Sanpete County	27,822	47	8	0	0	5.54	
Salt Lake County	1,029,655	19	2	0	0	1.66	
Daggett County	1,059	16	62	0	0	10.18	
Cache County	112,656	14	2	0	0	1.03	
Sevier County	20,802	7	28	0	0	4.66	
Box Elder County	49,975	4	3	0	0	2.36	
Grand County	9,225	2	603	0	0	239.10	
Millard County	12,503	1	6	0	0	1.35	
Beaver County	6,629	0	0	0	0	0.00	
Davis County	306,479	0	0	0	0	0.00	
Garfield County	5,172	0	36	0	0	14.30	
Iron County	46,163	0	1	0	0	0.79	
Juab County	10,246	0	2	0	0	1.57	
Kane County	7,125	0	0	0	0	0.00	
Morgan County	9,469	0	0	0	0	0.00	
Piute County	1,556	0	0	0	0	0.00	
Rich County	2,264	0	3	0	0	2.61	
Tooele County	58,218	0	3	0	0	2.36	
Wasatch County	23,530	0	3	0	0	2.36	
Washington County	138,115	0	0	0	0	0.00	
Wayne County	2,778	0	1	0	0	0.79	
Weber County	231,236	0	0	0	0	0	

*County-wide average cancer risk is equal to or greater than 1 in 1 million.

**County-wide average respiratory hazard index is equal to or greater than 1.