



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.<sup>1</sup> The oil and gas sector 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.<sup>2</sup> 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

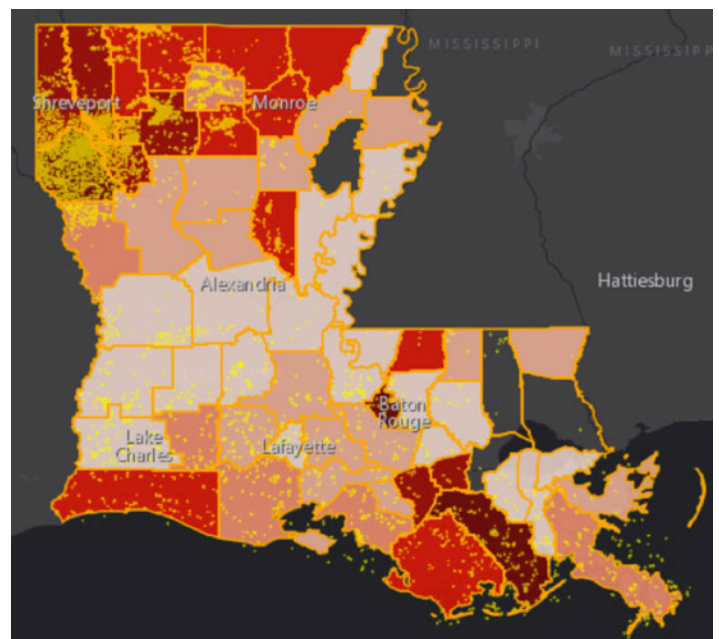
Peer-reviewed studies have documented higher levels of harmful air pollutants in and around areas with oil and gas production activity, and have shown that oil and gas facilities are the source of the excess pollution. Research indicates links between risks and/or prevalence of disease and proximity to facilities.<sup>3</sup> 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.<sup>4</sup>

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<sup>5</sup>, 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, including nineteen counties in Louisiana.<sup>6</sup>

### OIL & GAS THREATENS LOUISIANANS

More than 4% of Louisiana’s residents, spread throughout sixty-one of Louisiana’s sixty-four parishes, live within a half mile threat radius of a methane-emitting facility. In



MAP: [OILANDGASTHREATMAP.COM/THREAT-MAP/LOUISIANA](http://OILANDGASTHREATMAP.COM/THREAT-MAP/LOUISIANA)

**addition to nineteen parishes exceeding EPA's cancer risk level of concern, six of Louisiana's parishes have a cancer risk in the highest 10%.**

The Gulf Coast Basin, covering parts of Louisiana and Texas, was the second highest methane emitting oil-and-gas-producing basin in 2014, emitting 5,751,780 metric tons of carbon dioxide equivalent from 32,770 wells — a rate of 163 metric tons per well. Louisiana is also in the Arkla basin, which was the fifteenth highest methane emitting oil- and gas-producing basin in 2014, emitting 1,381,239 metric tons of carbon dioxide equivalent from 8,369 wells — a rate of 165 methane emissions per well.<sup>7</sup>

### THE NUMBERS<sup>8</sup>

<b>TOTAL POPULATION</b> Living in the Threat Radius (within a half mile of a facility)	199,831
<b>TOTAL NUMBER</b> of Active Oil and Gas Wells, Compressors, and Processors	9,097
<b>NUMBER OF COUNTIES</b> that Exceed EPA's Cancer Risk Level of Concern	19
<b>NUMBER OF SCHOOLS</b> in the Threat Radius	174
<b>NUMBER OF MEDICAL FACILITIES</b> in the Threat Radius	6
<b>SQUARE MILES COVERED</b> by the Threat Radius	3,127

### STRONG FEDERAL STANDARDS ARE KEY

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.<sup>9</sup> 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.<sup>10</sup> 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.<sup>11</sup> 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.<sup>12</sup> 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 199,000 in Louisiana 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; **Louisiana is home to 29 of these locations, including one company headquarters and 24 service facilities.** These businesses are helping to grow the local economy by creating highly skilled, good-paying jobs.<sup>13</sup>

### ENDNOTES

- [http://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5\\_Chapter08\\_FINAL.pdf](http://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter08_FINAL.pdf)
- <https://www3.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2016-Main-Text.pdf>
- <http://ehp.niehs.nih.gov/1306722/>
- <http://oilandgasthreatmap.com/about/threat/>
- <http://oilandgasthreatmap.com/threat-map/>
- <http://www.catf.us/resources/publications/files/FossilFumes.pdf>
- <https://cdn.americanprogress.org/wp-content/uploads/2016/06/20070044/MethanePollution-report.pdf>

- <http://oilandgasthreatmap.com/threat-map/louisiana/>
- <https://www.epa.gov/newsreleases/epa-releases-first-ever-standards-cut-methane-emissions-oil-and-gas-sector>
- <https://www.epa.gov/newsreleases/epa-releases-first-ever-standards-cut-methane-emissions-oil-and-gas-sector>
- [https://www.edf.org/sites/default/files/methane\\_cost\\_curve\\_report.pdf](https://www.edf.org/sites/default/files/methane_cost_curve_report.pdf)
- <https://www.whitehouse.gov/the-press-office/2015/03/31/fact-sheet-us-reports-its-2025-emissions-target-unfccc>
- [https://www.edf.org/sites/default/files/us\\_methane\\_mitigation\\_industry\\_report.pdf](https://www.edf.org/sites/default/files/us_methane_mitigation_industry_report.pdf)

## APPENDIX

LA Counties	Total Population	Threatened Population	Number of Facilities	Threatened Schools	Threatened Medical Facilities	Threatened Square Miles	Other Risks
Caddo Parish	254,969	34,444	886	29	0	248.35	Exceeds EPA level of concern for cancer risk*
Lafayette Parish	221,578	18,922	41	4	1	28.45	
Terrebonne Parish	111,860	15,938	151	11	1	97.65	Exceeds EPA level of concern for cancer risk*
De Soto Parish	26,656	12,900	2,458	13	0	521.37	Exceeds EPA level of concern for cancer risk*
Jefferson Parish	432,552	12,190	43	4	0	31.02	County Cancer Risk is in highest 10%.
East Baton Rouge Parish	440,171	11,536	19	2	0	12.57	
Ouachita Parish	153,720	8,250	53	6	0	30.76	Exceeds EPA level of concern for cancer risk*
Bossier Parish	116,979	7,453	571	5	0	140.17	Exceeds EPA level of concern for cancer risk*
Iberia Parish	73,240	6,600	47	7	0	33.59	
Acadia Parish	61,773	6,148	97	9	0	53.57	
Lincoln Parish	46,735	5,487	295	10	1	113.75	County Cancer Risk is in highest 10%.
St. Mary Parish	54,650	5,367	112	5	0	64.14	County Cancer Risk is in highest 10%.
Lafourche Parish	96,318	5,112	147	3	0	90.81	Exceeds EPA level of concern for cancer risk*
Calcasieu Parish	192,768	5,028	117	2	0	78.22	
Webster Parish	41,207	3,609	272	6	2	95.88	Exceeds EPA level of concern for cancer risk*
Plaquemines Parish	23,042	3,281	183	7	0	117.80	County Cancer Risk is in highest 10%.
Livingston Parish	128,026	3,272	12	0	0	9.53	
Vermilion Parish	57,999	2,996	129	2	0	75.93	County Cancer Risk is in highest 10%.
Bienville Parish	14,353	2,877	891	7	0	209.88	Exceeds EPA level of concern for cancer risk*
St. Martin Parish	52,160	2,865	57	1	0	31.61	
Jackson Parish	16,274	2,672	374	2	0	76.21	Exceeds EPA level of concern for cancer risk*
Red River Parish	9,091	2,661	547	6	1	157.84	Exceeds EPA level of concern for cancer risk*
Sabine Parish	24,233	1,808	262	6	0	97.30	County Cancer Risk is in highest 10%.
St. Landry Parish	83,384	1,759	35	0	0	22.19	
Claiborne Parish	17,195	1,714	290	11	0	106.11	Exceeds EPA level of concern for cancer risk*
St. Bernard Parish	35,897	1,563	20	2	0	13.94	
Evangeline Parish	33,984	1,385	112	1	0	34.35	
Allen Parish	25,764	1,169	45	0	0	24.57	
Pointe Coupee Parish	22,802	986	57	3	0	31.40	
La Salle Parish	14,890	926	90	2	0	46.72	Exceeds EPA level of concern for cancer risk*
Tangipahoa Parish	121,097	921	12	0	0	7.10	
Jefferson Davis Parish	31,594	914	58	0	0	37.18	
Beauregard Parish	35,654	825	112	2	0	58.35	
St. Charles Parish	52,780	773	26	0	0	15.96	
Vernon Parish	52,334	743	70	0	0	52.61	
Rapides Parish	131,613	614	25	1	0	17.93	
St. Tammany Parish	233,740	557	1	0	0	0.79	
Cameron Parish	6,839	487	134	2	0	83.59	Exceeds EPA level of concern for cancer risk*

**APPENDIX, CONT.**

LA Counties	Total Population	Threatened Population	Number of Facilities	Threatened Schools	Threatened Medical Facilities	Threatened Square Miles	Other Risks
West Baton Rouge Parish	23,788	390	12	0	0	8.93	Exceeds EPA level of concern for cancer risk*
Assumption Parish	23,421	385	15	0	0	11.04	Exceeds EPA level of concern for cancer risk*
Union Parish	22,721	294	23	1	0	16.24	Exceeds EPA level of concern for cancer risk*
St. John the Baptist Parish	45,924	263	1	1	0	0.79	
Ascension Parish	107,215	262	15	0	0	7.06	
Caldwell Parish	10,132	260	23	1	0	13.28	
St. James Parish	22,102	226	7	0	0	5.09	Exceeds EPA level of concern for cancer risk*
Iberville Parish	33,387	198	43	0	0	27.80	
Natchitoches Parish	39,566	159	30	0	0	20.12	
Avoyelles Parish	42,073	109	13	0	0	8.06	
Washington Parish	47,168	109	1	0	0	0.79	
Concordia Parish	20,822	106	4	0	0	3.76	
St. Helena Parish	11,203	89	18	0	0	8.48	
Orleans Parish	343,829	68	2	0	0	1.41	
Winn Parish	15,313	44	6	0	0	5.02	
Richland Parish	20,725	38	3	0	0	2.09	
East Feliciana Parish	20,267	18	9	0	0	3.79	Exceeds EPA level of concern for cancer risk*
West Feliciana Parish	15,625	18	5	0	0	2.38	
Tensas Parish	5,252	15	5	0	0	3.67	
Catahoula Parish	10,407	11	7	0	0	5.09	
Grant Parish	22,309	8	2	0	0	1.18	
Franklin Parish	20,767	5	0	0	0	0.15	
Madison Parish	12,093	4	1	0	0	0.90	
Morehouse Parish	27,979	0	1	0	0	0.79	Exceeds EPA level of concern for cancer risk*
East Carroll Parish	7,759	0	0	0	0	0	
West Carroll Parish	11,604	0	0	0	0	0	

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