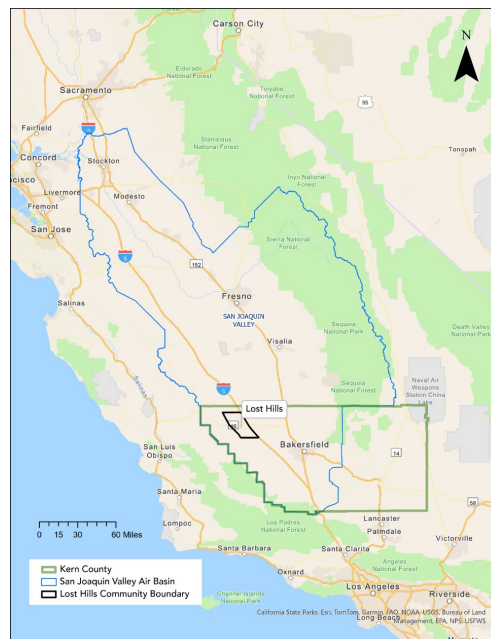


## Fact Sheet: Lost Hills Community Technical Assessment

Lost Hills, California, is a small, rural community of approximately 2,600 low-income, mostly Spanish-speaking residents who face a disproportionate burden of environmental pollution and socioeconomic hardship. This community is adjacent to, and downwind of, the Lost Hills Oilfield (the sixth largest oil producer in California). Per [CalEnviroScreen 4.0](#)<sup>1</sup>, Lost Hills is at the 71st percentile for ozone exposure, the 52nd percentile for particulate matter less than 2.5 micron (PM<sub>2.5</sub>), the 86th percentile for pesticides, and the 91st percentile for cumulative pollution burden.

There are a variety of pollution sources near the community, including oil and gas facilities from the Lost Hills Oil Field, agricultural activities, mobile sources from Interstate highway 5 (I-5) and State Route 46 (SR 46), landfills, composting facilities, residential activities, local natural gas distribution and Lost Hills transmission pipelines, and commercial services, such as gas stations and restaurants, located east of the community.



## Lost Hills Community Emissions Inventory

The preliminary emissions inventory estimates for Lost Hills in tons per year (tpy) for nitrogen oxides (NO<sub>x</sub>), particulate matter smaller than 2.5µm (PM<sub>2.5</sub>), sulfur oxides (SO<sub>x</sub>), diesel PM (DPM) and cancer weighted (CW) emissions in Figure 1 are based on information within CARB's California Emissions Inventory Data Analysis and Reporting System ([CEIDARS](#))<sup>2</sup> for calendar year (CY) 2023.

[Criteria pollutants and toxic air contaminants](#)<sup>3</sup> differ in both their regulatory frameworks and health impacts. Criteria pollutants such as NO<sub>x</sub>, PM<sub>2.5</sub> and SO<sub>x</sub> are regulated under the federal Clean Air Act due to their widespread presence and well-documented health and environmental effects. In contrast, toxic emissions refer to a broad group of over 200

<sup>1</sup> Office of Environmental Health Hazard Assessment - CalEnviroScreen 4.0:  
<https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>

<sup>2</sup> California Air Resources Board - Criteria Pollutant Emissions Inventory: <https://ww2.arb.ca.gov/criteria-pollutant-ei>

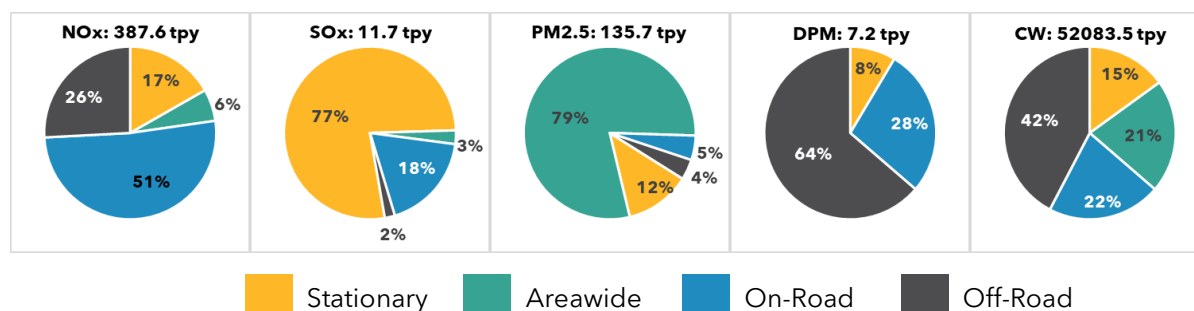
<sup>3</sup> California Air Resources Board - Common Air Pollutants: <https://ww2.arb.ca.gov/resources/common-air-pollutants>

pollutants such as DPM, known or suspected to cause cancer or other serious health effects often at much lower concentrations and with more localized impacts.

To compare the relative health risks of these diverse toxic pollutants, cancer-weighted emissions are used as a screening tool. This method, outlined in [OEHHA's 2015 Guidance Manual](#)<sup>4</sup> and the [Technical Support Document for Cancer Potency Factors](#)<sup>5</sup>, involves multiplying the mass emissions of each toxic compound by its cancer potency factor. These values reflect the estimated risk of cancer from lifetime exposure to a given concentration of the pollutant. The result is a normalized metric, cancer-weighted emissions, that allows for comparison across pollutants with vastly different toxicities.

It is important to emphasize that **cancer-weighted emissions are not actual risk estimates**. They are intended solely for screening and prioritization, helping identify which sources or pollutants may warrant more detailed investigation.

Figure 1: Source contribution of criteria and toxic emissions within Lost Hills



The activities that are the main contributors to these emissions are detailed in tables below.

Top Mobile Sources (CY 2023)							
NOx	%	PM <sub>2.5</sub>	%	DPM	%	Cancer Weighted	%
Heavy Heavy Duty Trucks	41%	Heavy Heavy Duty Trucks	27%	Heavy Heavy Duty Trucks	33%	Farm Equipment	39%
Farm Equipment	17%	Farm Equipment	24%	Light Duty Passenger	20%	Off-Road Equipment	25%
Off-Road Equipment	15%	Off-Road Equipment	16%	Medium Duty Trucks	14%	Heavy Heavy Duty Trucks	21%
Light Heavy Duty Trucks - 1	5.4%	Light Duty Passenger	8.0%	Light Duty Trucks - 2	12%	Light Heavy Duty Trucks - 1	4.7%
Medium Duty Trucks	4.6%	Light Heavy Duty Trucks - 1	6.1%	Light Heavy Duty Trucks - 1	4.3%	Off-Road Recreational Vehicles	2.1%

Heavy heavy-duty trucks are the leading contributors to NOx, PM2.5, and DPM, while Farm Equipment contributes significantly to cancer-weighted emissions.

<sup>4</sup> Office of Environmental Health Hazard Assessment - Risk Assessment Guidelines: <https://oehha.ca.gov/sites/default/files/media/downloads/cnr/2015guidancemanual>

<sup>5</sup> Office of Environmental Health Hazard Assessment - Technical Support Document for Cancer Potency Factors: <https://oehha.ca.gov/sites/default/files/media/downloads/cnr/tsdcancerpotency.pdf>

Top Stationary Sources (CY 2023)							
NOx	%	PM <sub>2.5</sub>	%	SOx	%	Cancer Weighted	%
Food and Agricultural Processing	58%	Coatings And Related Process Solvents	38%	Oil And Gas Production	82%	Food And Agricultural Processing	34%
Oil And Gas Production (Combustion)	19%	Oil And Gas Production (Combustion)	16%	Food And Agricultural Processing	10%	Landfills	23%
Manufacturing And Industrial	17%	Food And Agricultural Processing	14%	Manufacturing And Industrial	7.3%	Oil And Gas Production	22%
Other (Fuel Combustion)	3.8%	Manufacturing And Industrial	13%	Service And Commercial	0.2%	Oil And Gas Production (Combustion)	15%
Oil And Gas Production	2.2%	Food And Agriculture	10%	Oil And Gas Production (Combustion)	0.1%	Other (Fuel Combustion)	3.1%

Oil and gas production and food and agricultural processing are the dominant contributors across multiple pollutants, with coatings and solvents the primary contributor to PM<sub>2.5</sub>.

Top Area Sources (CY 2023)							
NOx	%	PM <sub>2.5</sub>	%	SOx	%	CW	%
Managed Burning And Disposal	97%	Managed Burning And Disposal	31%	Managed Burning And Disposal	95%	Farming Operations	53%
Residential Fuel Combustion	2.6%	Farming Operations	29%	Residential Fuel Combustion	4.9%	Fugitive Windblown Dust	33%
Fires	0.03%	Fugitive Windblown Dust	19%			Unpaved Road Dust	5.7%
		Unpaved Road Dust	15%			Construction And Demolition	4.0%
		Cooking	2.4%			Managed Burning And Disposal	2.5%

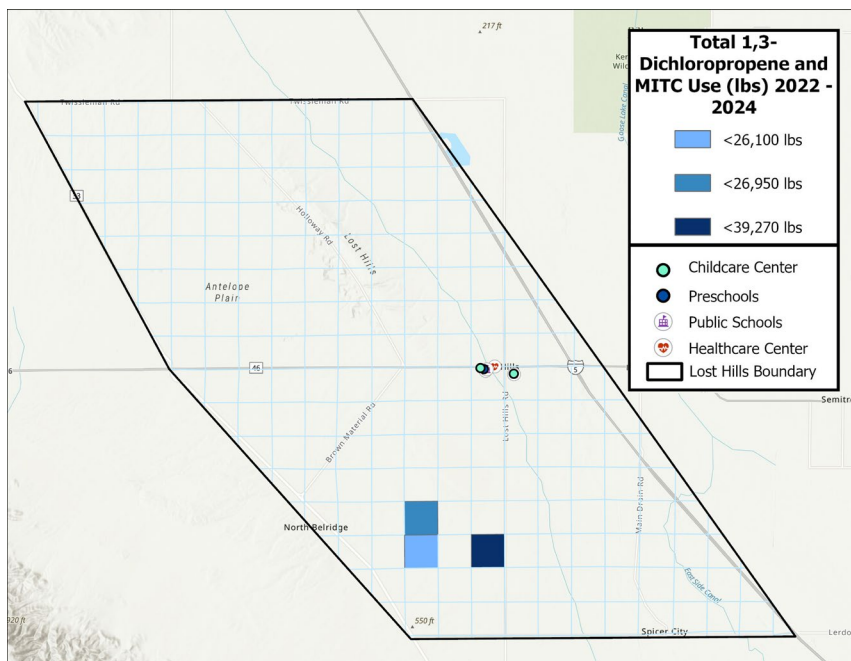
Managed burning is the most prominent contributor across all pollutants, particularly NOx, PM<sub>2.5</sub>, and SOx, while farming operations are a major source of cancer-weighted emissions and PM.

The California Air Toxics Assessment (CATA)<sup>6</sup> is an on-going effort that assesses exposure levels and related health risks arising from the inhalation of toxic air pollutants using detailed emission data.

<sup>6</sup> California Air Toxics Assessment (CATA). <https://california-air-toxics-assessment-californiaarb.hub.arcgis.com/>

## Pesticides Usage in Lost Hills

As per the [California Department of Pesticide Regulation](#), there were only five applications of pesticides that are toxic air contaminants and volatile (two applications being 1,3-Dichloroprene and three applications being metam-sodium) within the Lost Hills boundary between 2022 and 2024. None of the applications were within 0.25 miles of a sensitive receptor location.



## Air Quality Monitoring in Lost Hills

### Statewide Mobile Monitoring Initiative (SMMI)

[Aclima](#) and the CARB will collect detailed block-by-block air quality data in Lost Hills and provide residents with clear information about local pollution and help guide actions to improve air quality, focusing on the areas and people most affected. The final CARB approved community air monitoring plan (CAMP) is available [here](#)<sup>7</sup>.

### Study of Neighborhood Air near Petroleum Sources (SNAPS)

CARB, in collaboration with the Office of Environmental Health Hazard Assessment (OEHHA), conducted the SNAPS to assess air quality in Lost Hills due to its proximity to high-density oil and gas wells. The findings from the study were [published](#)<sup>8</sup> in 2024.

<sup>7</sup> Lost Hills Community Air Monitoring Plan. [\[FINAL\] Lost Hills CAMP\\_26August2025.docx](#)

<sup>8</sup> SNAPS Lost Hills Final Report and Dataset. [SNAPS Lost Hills Final Report and Dataset | California Air Resources Board](#)