



Wasatch Front Air Quality

The Wasatch Front region's unique weather, topography, and pollutant emissions result in poor air quality during both the summer and winter.ⁱ In the winter, inversions result in high concentrations of particulate matter, and in the summer sunlight result in higher ozone levels.



The Wasatch Front is designated "nonattainment" for three pollutants: PM_{2.5}, PM₁₀, and Ozoneⁱⁱ however, PM_{2.5} nonattainment areas are being considered for redesignation to "maintenance." This region is also experiencing rapid population and economic growth leading to continued demand for freight and logistics facilities.

Particulate Matter



PM_{2.5} are fine inhalable particles that are 2.5 micrometers or smaller.



PM₁₀ are inhalable particles with diameters of 10 micrometers or smaller.

Particulate Matter may be made up of hundreds of different chemicals and are emitted from construction sites, unpaved roads, fields, smokestacks, or fires. Most of these particles form from complex chemical reactions such as sulfur dioxide and nitrogen oxide, both of which are emitted from power plants, industries, and automobiles.

- ▶ Both Salt Lake City and Provo's PM_{2.5} nonattainment areas are classified as "Serious".
- ▶ Logan's nonattainment areas are classified as "Moderate" for PM_{2.5}.
- ▶ Salt Lake County, Utah County, and Ogden are moderate in their nonattainment areas for PM₁₀.

Ozone (O₃) – "Smog"



Ozone is a gas found both in the upper atmosphere and at ground level. Ground-level ozone is an air pollutant that is the main ingredient in "smog". Ozone forms when pollutants from chemicals react with heat and sunlight. These pollutants include NO_x (oxides of nitrogen) and VOC (volatile organic compounds). Sources of these pollutants include industrial facilities, electric utilities, motor vehicle exhaust, gasoline vapors, and chemical solvents.

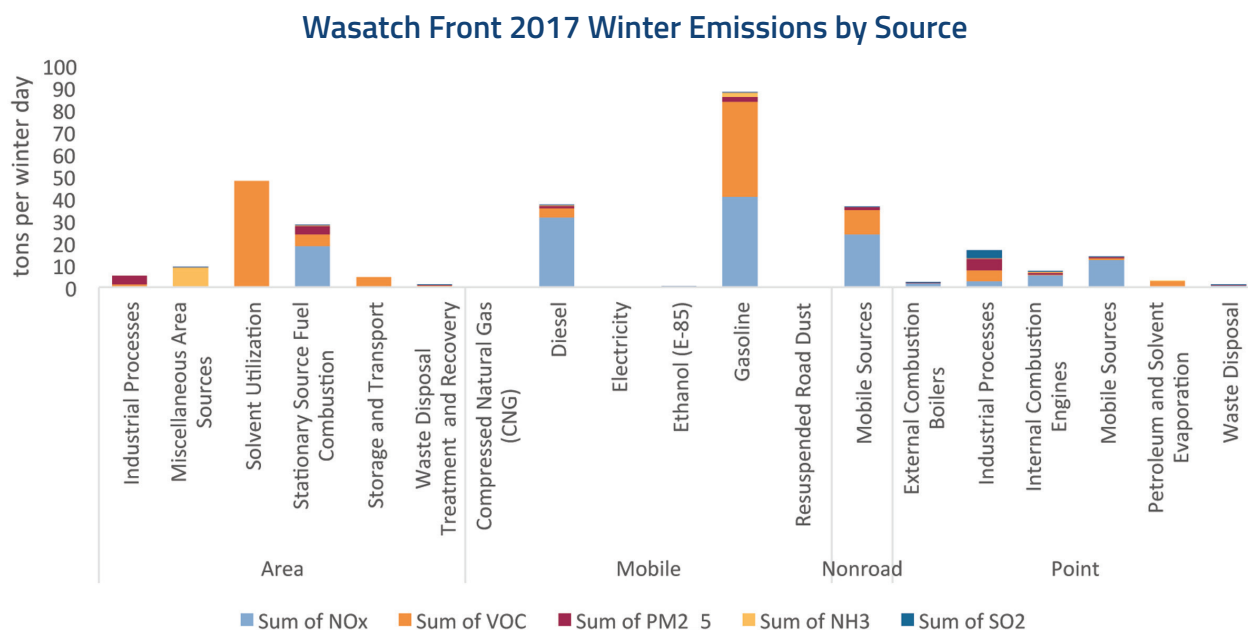
- ▶ The Entire Northern and Southern Wasatch Front do not meet federal standards for ground-level ozone pollutants and are classified as "Marginal".

Other Pollutants

Other air pollutants include sulfur dioxide, ammonia, volatile organic compounds, and nitrogen oxide. Salt Lake County and Tooele County are in the formal process of redesignation to "maintenance" for sulfur dioxide.

Wasatch Front Emission Sources

Top contributors of air emissions in the Wasatch Front include gasoline, diesel, solvent utilization, stationary source fuel combustion, and mobile sources. Top nonroad mobile sources include off-highway vehicle diesel (construction and mining equipment, industrial equipment, and commercial equipment), railroad equipment vehicle gasoline, and aircraft.ⁱⁱⁱ



Air Emissions Regulations

The Utah Department of Environmental Quality (DEQ) is responsible for regulating emission sources. However, under the Clean Air Act, the state faces regulatory limitations that prevent it from establishing new vehicle emission standards, other requirements for non-new vehicle emission standards, as well as for locomotives, and farm/construction equipment. Recently, the Utah State Legislature passed SB144, which directs DEQ to establish and maintain monitoring facilities within the UIPA jurisdictional area to measure emission levels.

Role of Utah Inland Port Authority

The Utah Inland Port Authority does not determine what is built in its jurisdiction, but works intentionally with stakeholders, including the Department of Environmental Quality, on 'best practices to meet or exceed applicable federal and state standards, including: emissions monitoring and reporting; and strategies that use the best available technology to mitigate environmental impacts from development.'

UIPA plans to propose measurable and meaningful policies and programs that promote a clean, smart, sustainable logistics investment for future generations of Utahns. Some examples include **carbon-efficient transportation modes (LNG, CNG, hydrogen, etc.), dedicated truck lanes, congestion mitigation, idling limitations, and microgrid infrastructure (solar panel).**

ⁱ TRAX Air Quality Observation Project, Utah Department of Environmental Quality, October 2019

ⁱⁱ Utah Air Quality Nonattainment/Maintenance status, EPA Green Book, October 2019

ⁱⁱⁱ Wasatch Front Winter Nonroad Emissions by Source (2017), Vehicles and equipment Fuels and Air Quality, Utah Department of Environmental Quality Presentation to the Public Utilities, Energy, and Technology Interim Committee, June 20, 2018. Utah Inland Port Authority Act §58-58-202(1)(a), effective 3/16/2018



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