

Public health concerns regarding the proposed Springdale Data Center

[Pennsylvania's Constitution includes environmental rights.](#)

Article 1 § 27. Natural resources and the public estate.

The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people. (May 18, 1971, P.L.769, J.R.3)

[The Allegheny County Subdivision and Land Development Ordinance \(SALDO\)](#)

§780-102 It is the purpose of this chapter to protect and promote the public health, safety and welfare through the establishment of standards and procedures for the review and approval of subdivisions and land development in Allegheny County.

Air Pollution

- [Diesel backup generators that power data centers emit nitrogen oxides \(NOx\), particulate matter \(PM2.5\), and other toxic pollution, increasing respiratory disease, cardiovascular conditions, and cancer risk.](#)
- [Diesel exhaust particles may affect the immune response and increase allergic inflammation, which could contribute to higher prevalence and morbidity of asthma and allergies.](#)
- [Exposure to diesel exhaust can increase asthma, respiratory issues, and heart and lung disease resulting in missed work and school, ER visits, and premature death.](#)
- Springdale is already exposed to toxic air pollution from at least 11 other sources, according to the 2020 National Emissions Inventory (NEI). The data center would increase cumulative exposure to air pollution, putting community members at greater risk of health impacts.
 - These facilities are located within 5 miles of the proposed data center. They include various manufacturing plants, a compressor station, airport, petroleum storage facility, and a gas-fired power plant.
 - Together, these facilities emitted hundreds of tons of pollution into the Springdale community and



surrounding areas in 2020. Springdale Generation Station, a gas-fired power plant about a mile from the proposed data center, was responsible for 82% of the fine particulate matter (PM2.5) and 79% of the nitrogen oxides (NOx) emitted in 2020.

Note: this analysis excludes the Cheswick Plant that was operating in 2020.

Noise Pollution

- [Data center HVAC systems, diesel backup generators, and cooling towers produce a continuous hum made up of low-frequency noise that can travel farther than other sounds and penetrate building structures. Low-frequency noise exposure can significantly impair critical reasoning and decision-making functions.](#)
- [Chronic noise exposure can cause tinnitus, sleep disturbances, blood pressure elevation, muscle cramps, mental fatigue, cardiovascular disorders, cognitive impairment, annoyance, and elevated stress, with greater impacts observed at higher volume levels.](#)
- [Based on research about the health impacts of noise in other contexts with comparable facilities, data center noise pollution would be expected to have a detrimental health impact.](#)

Light Pollution

§780-10B: To control light pollution.

- [24/7 exterior lighting can disrupt circadian rhythms, suppress melatonin, and increase chronic disease risk for those living nearby.](#)
- [Residents near data centers may be exposed to chronic light at night, increasing risk of mood and anxiety disorders, such as depression, or bipolar episodes.](#)
- [Higher rates of breast and prostate cancer have been found in areas with elevated light pollution.](#)
- [Night shift workers exposed to persistent artificial light show elevated rates of cancer, cardiovascular disease, type 2 diabetes, and depression; children of night shift workers tend to display increased behavioral problems.](#)

Water Pollution

§780-10B: To encourage new development that is well-designed, of high quality and suited to the natural conditions of this site. To prevent development which may be hazardous because of the physical character of land and to protect and preserve valued natural, historic and cultural features of the environment.

- [Some data centers' water consumption patterns have been linked to increased waterborne disease risk, poor maternal and infant health outcomes, and worsened drought stress.](#)

- Up to 57% of cooling water for some data centers comes from potable sources, but fewer than one-third of data center operators measured or reported water consumption in 2021.

Climate Change

§780-10B: To promote energy conservation. To encourage sustainable design techniques, including the use of renewable energy systems and energy efficient building design.

- Emissions from diesel generators will include greenhouse gases, which contribute to climate change.
- Greenhouse gas emissions contribute to extreme temperatures, more intense storms, and worse droughts. Extreme heat is especially dangerous, leading to health effects, hospitalizations, and deaths.
- Waste heat from data centers can raise temperatures in the surrounding areas, contributing to heat islands nearby.
- Rapid data center development is expected to weaken power grid reliability, which may cause more frequent power outages. Hospitalizations for cardiovascular and respiratory disease increase during power outages.
 - On July 22 in Virginia, a mechanical failure caused an electric line to be removed from service, and as a result 4,000 MW from data centers disconnected from the grid unexpectedly. According to PJM, the data centers should not disconnect during minor disturbances, which may result in diesel generators running more than needed.

Interactive Air Dispersion Map



<https://www.google.com/maps/d/u/0/viewer?ll=40.53589633799697%2C-79.88911801443373&z=11&mid=1cjSfLzfGPBALjinnutH1szEeRB2vntQ>