

Studies Show Higher Concentration of Air Pollution and Higher Cancer Risk in South Park and Georgetown



Local Air Pollution Findings

- In 2009, the Environmental Protection Agency found excess cancer risk in port areas, such as South Park and Georgetown, 27 times higher than the national average.¹
- In 2008, the Federal Agency for Toxic Substances and Diseases Registry (ATSDR) released a report of air pollution in the Duwamish Valley, where the Port of Seattle, South Park and Georgetown are all located.² ATSDR reported that:
 - Of six air toxics monitoring sites in King County, health risks from toxic air pollutants are the greatest in Georgetown.
 - Areas of Georgetown and South Park have a risk factor of up to 4 excess cancer cases per 1,000 individuals exposed, due to mobile source emissions. Yet, the authors of the ATSDR study note that the cancer risk is likely higher, *as data for Port-related pollution, including ship, rail and air emissions, was not available for analysis.*
- A 2003 study by the Puget Sound Clean Air Agency showed that Georgetown appears to have the highest concentration of particulate matter in the air, a major component of diesel pollution.³

Health Hazards of Pollution From Trucks and Airplanes

- Exposure to air pollution in Seattle is linked to an increase in severity and frequency of asthma attacks.⁴
- Diesel exhaust poses the highest cancer risk of any toxic air contaminant by contributing to cell mutation that can lead to cancer.⁵
- Immediate effects of exposure to diesel exhaust include: irritation of the eyes, nose and throat and lungs. Exposure may cause cough, headache, lightheadedness and nausea and can increase susceptibility to allergens.⁶
- Exposure to particulate matter is associated with which is associated with premature death, chronic bronchitis, respiratory tract infections, heart disease and stroke.⁵
- Chemicals in airplane emissions are known to cause cancer and respiratory problems in those with long-term air exposure.⁷

¹ Reported by the Puget Sound Clean Air Agency (PSCAA). *Information Sheet: 2002 National Air Toxics Assessment*. 2009. Available at: http://www.pscleanair.org/airq/basics/PSCAA_4_16_09_NATA_info_sheet.pdf

² Agency for Toxic Substances and Disease Registry (ATSDR). *Health Consultation: Summary of Results of the Duwamish Valley Regional Modeling and Health Risk Assessment*. Atlanta, Georgia: US Department of Health and Human Services, Public Health Service. July 14, 2008. Available at: http://www.atsdr.cdc.gov/HAC/pha/Duwamish_Valley/Duwamish_Valley_%20HC%207-14-2008.pdf

³ Puget Sound Clean Air Agency (PSCAA). *Final Report: Puget Sound Air Toxics Evaluation*. October 2003. Available at: http://www.pscleanair.org/airq/basics/psate_final.pdf

⁴ Norris G, YoungPong SN, Koenig JQ, Larson TV, Sheppard L, and Stout JW. An association between fine particles and asthma emergency department visits for children in Seattle. *Environmental Health Perspectives*. 1999; 107(6): 489-93.

⁵ Office of Environmental Health Hazard Assessment. State of California. Available at http://oehha.ca.gov/public_info/facts/dieselfacts.html

⁶ Sydbom A, Blomberg A, Parnia S, Stenfors N, Sandström T and Dahlén SE. Health Effects of Diesel Exhaust Emissions. *European Respiratory Journal*. 2001; 17:733-746.

⁷ Agency for Toxic Substances and Disease Registry (ATSDR). *1,3-Butadiene: ATSDR Fact Sheet*. Atlanta, Georgia: US Department of Health and Human Services, Public Health Service. September 1, 1995.