

Air Pollution Hot Spots in Queens: Time for Solutions

What's the Problem?

Compelling new science shows that living and working near heavy traffic can dramatically increase the health risk associated with air pollution. Risks of asthma attacks, cancer, heart disease and lung impairment all worsen with proximity to heavy traffic. Health studies show that living within 500 feet of major roads can aggravate asthma and increase hospitalizations.

Approximately 400,000 people in Queens live within 500 feet of major roadways. Regional air monitors miss these pollution "hot spots". Currently, vehicular emissions contribute more than 91% of the total cancer risk from hazardous air pollutants in Queens. It's time to cut traffic, eliminate hot spots and ensure safe and healthy air in every neighborhood.

Health Facts:

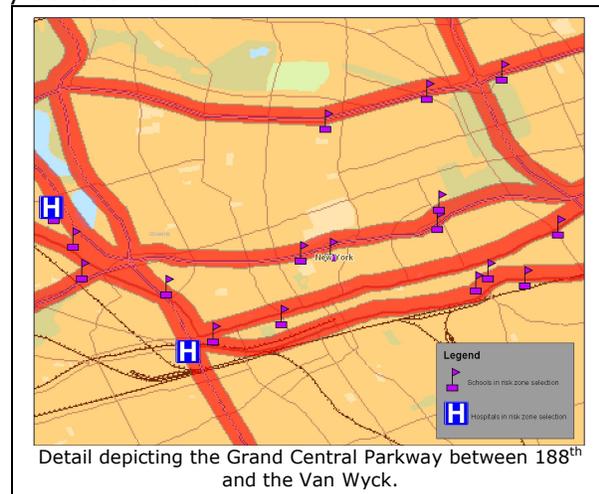
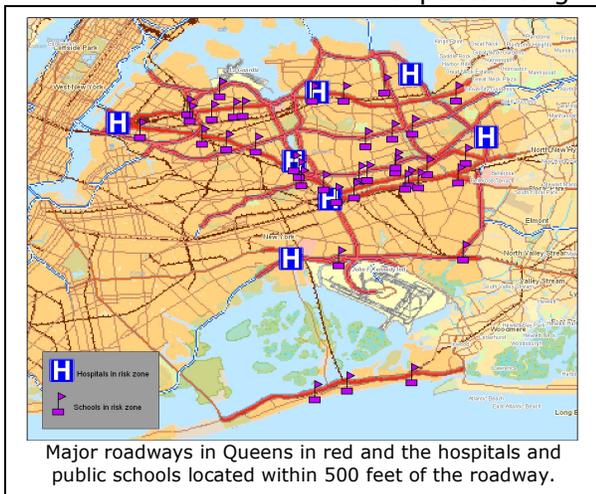
- The lifetime cancer risk due to diesel exhaust in Queens is over 900 times the acceptable EPA standard
- Compared to over 3000 counties, Queens County's diesel pollution risk ranks as the 10th unhealthiest in the nation
- 1 out of 8 New Yorkers has been diagnosed with asthma at some point in his or her life
- 300,000 children in NYC have been diagnosed with asthma
- In 2000, NYC children were almost twice as likely to be hospitalized because of asthma attacks than the average U.S. child

Traffic in New York City:

- wastes 200 million gallons of fuel annually
- costs \$13 billion in productivity losses
- spews 166,000 tons of pollutants each year
- slows average traffic speeds to just 8 mph in rush hour

What's Driving the Problem?

Traffic and roadway congestion are clearly contributing to hot spots of air pollution. Queens already suffers from clogged roadways from the Long Island Expwy to the Grand Central Pkwy. Cars and trucks stuck in this traffic emit up to three times more pollution than moving vehicles. New York City does not have a comprehensive plan for traffic relief across all five boroughs. Transportation policy is often set without accounting for the true impacts to health. By 2027, traffic traveling through the outer boroughs to Manhattan is expected to grow by at least 20%.



What Can Be Done?

Science and common sense tell us local exposure to air pollutants matter. Every New Yorker deserves to breathe cleaner air and to have less traffic in their neighborhood.

Here are three things that the City needs to do now:

1. Reduce traffic and congestion: A comprehensive plan to decrease traffic and improve transit must be developed to protect community health. If traffic to Manhattan dropped by just 15%, key parts of Queens would feel a significant improvement in rush hour traffic snarls. Long Island City alone would experience a 27% reduction in traffic.
2. Get the science right: The City must place air monitors near major roadways to accurately assess the health risk posed to the community.
3. Clean up dirty vehicles: Priority action is needed to stop the pollution from dirty diesel engines rolling through Queens streets. Filters can cut tailpipe emissions by 90%.

Questions? Email Ramon Cruz at Environmental Defense at LivingCities@environmentaldefense.org

REFERENCES

Cancer risks from hazardous air pollutants: Queens County, NY. Scorecard. (1996). Retrieved on 1/17/07 at http://scorecard.org/env-releases/hap/county.tcl?fips_county_code=36081

Cleaner Diesel Handbook. Environmental Defense. (April 2005).

Diesel Soot in America: Diesel Soot Health Impacts. Clean Air Task Force. <http://catf.us/projects/diesel/dieselhealth/county.php?c=36081&site=0>

Growth or Gridlock: The Economic Case for Traffic Relief and Transit Improvement for a Greater New York. Partnership for New York City. (Dec. 2006). Retrieved on 1/17/07 at http://www.pfnyc.org/pressReleases/2006/pr_120406_congestion.html.

Investing in Mobility: Freight Transport in the Hudson Region. Environmental Defense. (2004).

Technical Methods for Analyzing Pricing Measures to Reduce Transportation Emissions. U.S. Environmental Protection Agency. (1998). Retrieved on 8/29/05 at <http://www.epa.gov/otaq/transp/anpricng.pdf>, 2-18, 2-20.

Studies related to health risks in close proximity to major roads or near heavy truck traffic:

Brunekreef, B., Janssen, N.A., de Hartog, J., Harssema, H., Knape, M., and van Vliet P. "Air pollution from truck traffic and lung function in children living near motor-ways." *Epidemiology.* 8(3):298-303, 1997.

Edwards, J., Walters, S., and Griffiths, R. "Hospital admissions for asthma in preschool children: relationship to major roads in Birmingham, United Kingdom." *Archives of Environmental Health.* 49(4): 223-7, 1994.

Gauderman, W.J., Avol, E., Lurmann, F., Kuenzli, N., Gilliland, F., Peters, J., and McConnell, R. "Childhood Asthma and Exposure to Traffic and Nitrogen Dioxide," *Epidemiology.* Vol. 16, No. 6, November 2005.

Jerrett, M., Burnett, R., Ma, R., Pope C.A., Krewski, D., Newbold, K.B., Thurston, G., Shi, Y., Finkelstein, N., Calle, E.E., and Thun, M.J. "Spatial Analysis of Air Pollution and Mortality in Los Angeles" *Epidemiology.* 16(6):727-736, November 2005.

Knox, EG, and Gilman, EA. "Hazard proximities of childhood cancers in Great Britain from 1953-1980." *Journal of Epidemiology and Community Health.* 51: 151-159, 1997.

McConnell, R., Berhane, K., Yao, L., Jerrett, M., Lurmann, F., Gilliland, F., Kunzli, N., Gauderman, J., Avol, E., Thomas, D., and Peters, J. "Traffic, Susceptibility and Childhood Asthma," *Environmental Health Perspectives,* Volume 114, Number 5, May 2006.

Pearson, R.L., Wachtel, H., and Ebi KL, "Distance-weighted traffic density in proximity to a home is a risk factor for leukemia and other childhood cancers." *Journal of Air and Waste Management Association,* 50:175-180, 2002.

Van Vliet, P., Knape, M., de Hartog, J., Janssen, N., Harssema, H., and Brunekreef, B. "Motor vehicle exhaust and chronic respiratory symptoms in children living near freeways." *Environmental Research.* 74(2): 122-32, 1997.

Questions? Email Ramon Cruz at Environmental Defense at LivingCities@environmentaldefense.org