

Air Quality Challenges In Hell's Kitchen South

multiple large bus problems

DO YOU SEE IT ?

Environmental Protection Agency (EPA)
New York County – Manhattan Non Attainment of
National Ambient Air Quality Standards (NAAQS)



Green Book

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New York Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants

As of February 13, 2017

Listed by County, NAAQS, Area. The 8-hour Ozone (1997) standard was revoked on April 6, 2015 and the 1-hour Ozone (1979) standard was revoked on June 15, 2005.

Change the State:

NEW YORK

GO

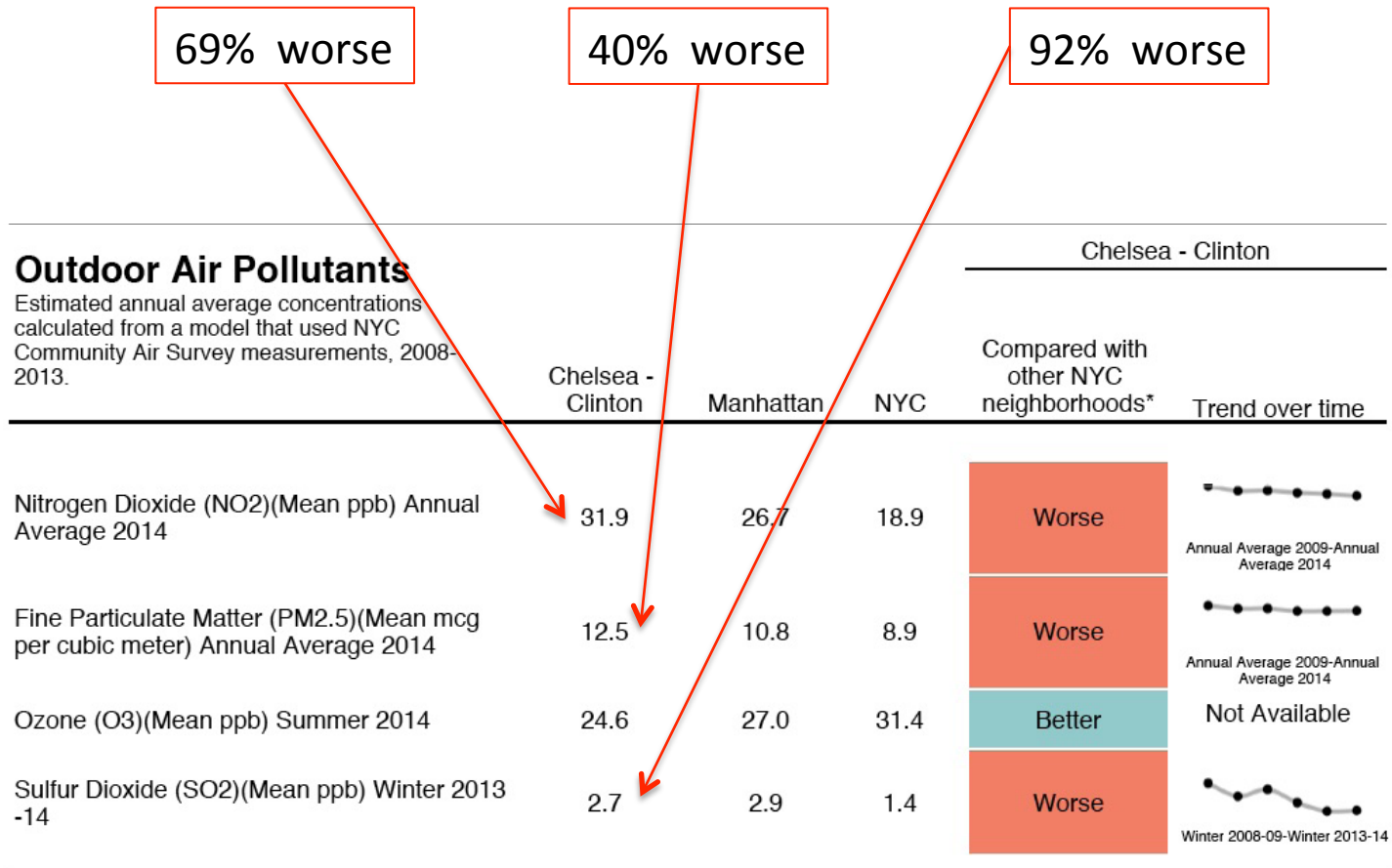
Important Notes

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or/ Part County	Population (2010)	State/ County FIPS Codes
NEW YORK								
New York Co	8-Hour Ozone (2008)	New York-N. New Jersey-Long Island, NY-NJ-CT	<div> <input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/> </div> <div> 12 13 14 15 16 17 </div>	//	Moderate	Whole	1,585,873	36/061
New York Co	PM-10 (1987)	New York Co, NY	<div> <input type="text"/><input type="text"/> 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 </div>	//	Moderate	Whole	1,585,873	36/061

https://www3.epa.gov/airquality/greenbook/anayo_ny.html

NYC Health Department Report Neighborhood Air Quality 2008- 2015

Hell's Kitchen - Chelsea has the 3rd WORST air quality in New York City



NYC Health Department Report Neighborhood Air Quality 2008- 2015

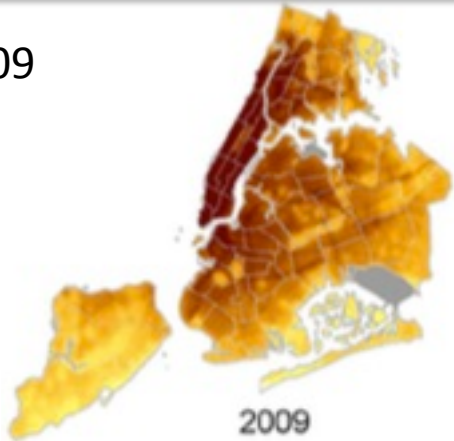
Is it getting better ?

Nitrogen Dioxide

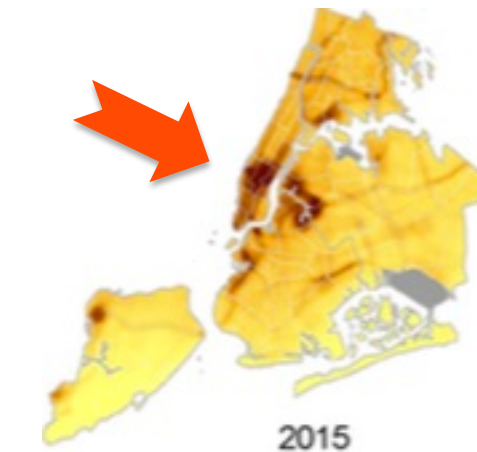
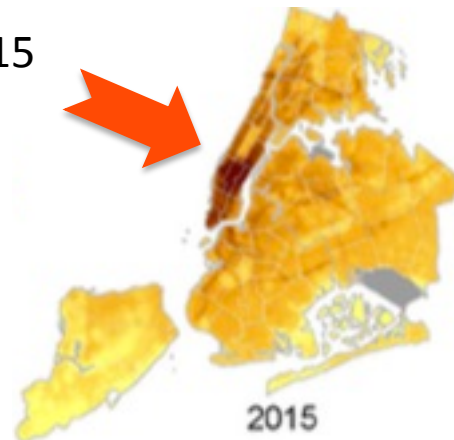
Fine Particulate Matter

Sulfur Dioxide

2009



2015



Motor vehicles are the major source of urban air pollution

In Melbourne in 2006, motor vehicle emissions contributed the following levels of pollutants to the overall air quality:

- 72 per cent of all carbon monoxide (CO) emissions
- 70 per cent of all [nitrogen oxides \(NO_x\) emissions](#)
- 28 per cent of all volatile organic compounds (VOC) emissions
- 31 per cent of all emissions of [particles smaller than 2.5 microns \(PM_{2.5}\)](#)
- 27 per cent of all emissions of [particles smaller than 10 microns \(PM₁₀\)](#)
- 6 per cent of all [sulfur dioxide \(SO₂\) emissions](#)

Nitrogen oxides (NO_x) and volatile organic compounds (VOCs) can combine to form [ozone \(summer smog\)](#).

NYC Health Department Report

Neighborhood Air Quality 2008- 2015

NYC Clean Air Survey data have consistently shown that areas of the city with higher traffic density suffer from higher levels of air pollutants.

Traffic Density	Chelsea - Clinton				
	Chelsea - Clinton	Manhattan	NYC	Compared with other NYC neighborhoods*	Trend over time
All vehicles 2005	46.1	24.9	24.0	Worse	Not Available
Cars 2005	42.0	23.5	22.6	Worse	Not Available
Trucks 2005	3.4	1.2	1.3	Worse	Not Available

92% worse

86% worse

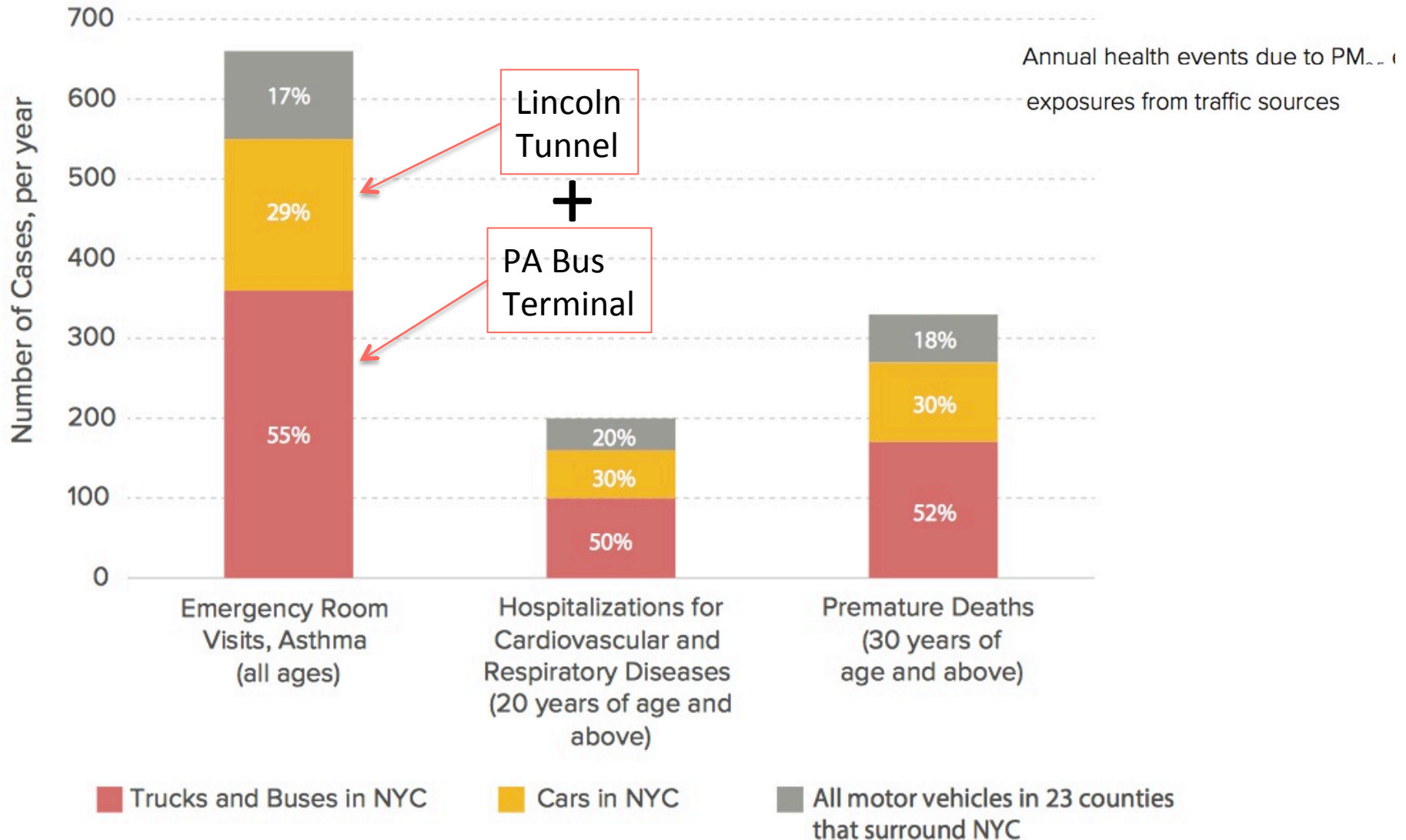
162% worse

Traffic Density

Estimated millions of annual vehicle miles traveled per km2 in 2005. Vehicle miles traveled is an indicator of emissions from automobile exhaust, brake wear and tire wear.

NYC Health Department Report Neighborhood Air Quality 2008- 2015

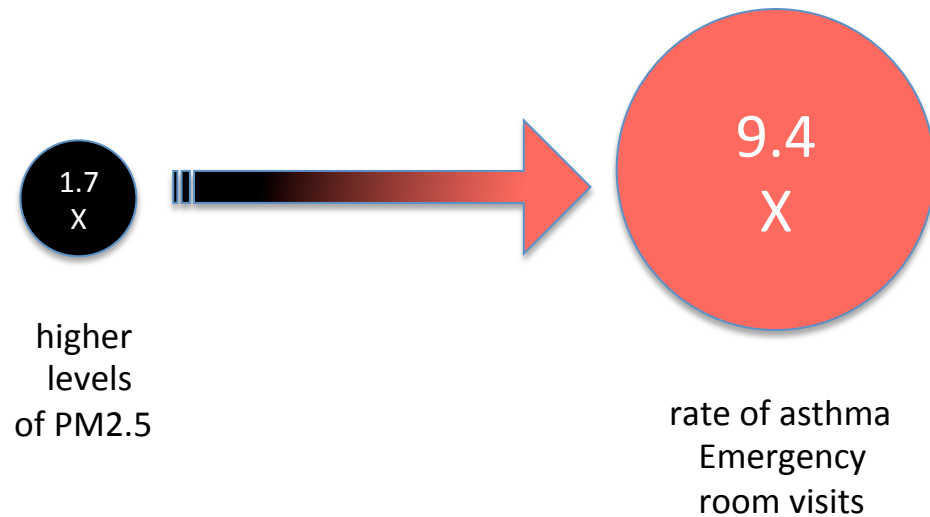
How bad is it really?



NYC Health Department Report Neighborhood Air Quality 2008- 2015

How can it get worse?

The study also found that trace-related PM2.5 exposures and their associated health effects disproportionately affect the city's low-income neighborhoods.



- Access to crucial information early in the permit process
- Environmental justice concerns included in the environmental impact assessment (EIS) review.
- Equitable distribution of green benefits
- DEC to be proactive in enforcement efforts
- DEC to address EJ issues related to Native Americans.

- EIS allows for earlier and more extensive community consultations
- Taken in account in the Air Permit process
- DEC Grants, greening and targeted enforcement can be obtained

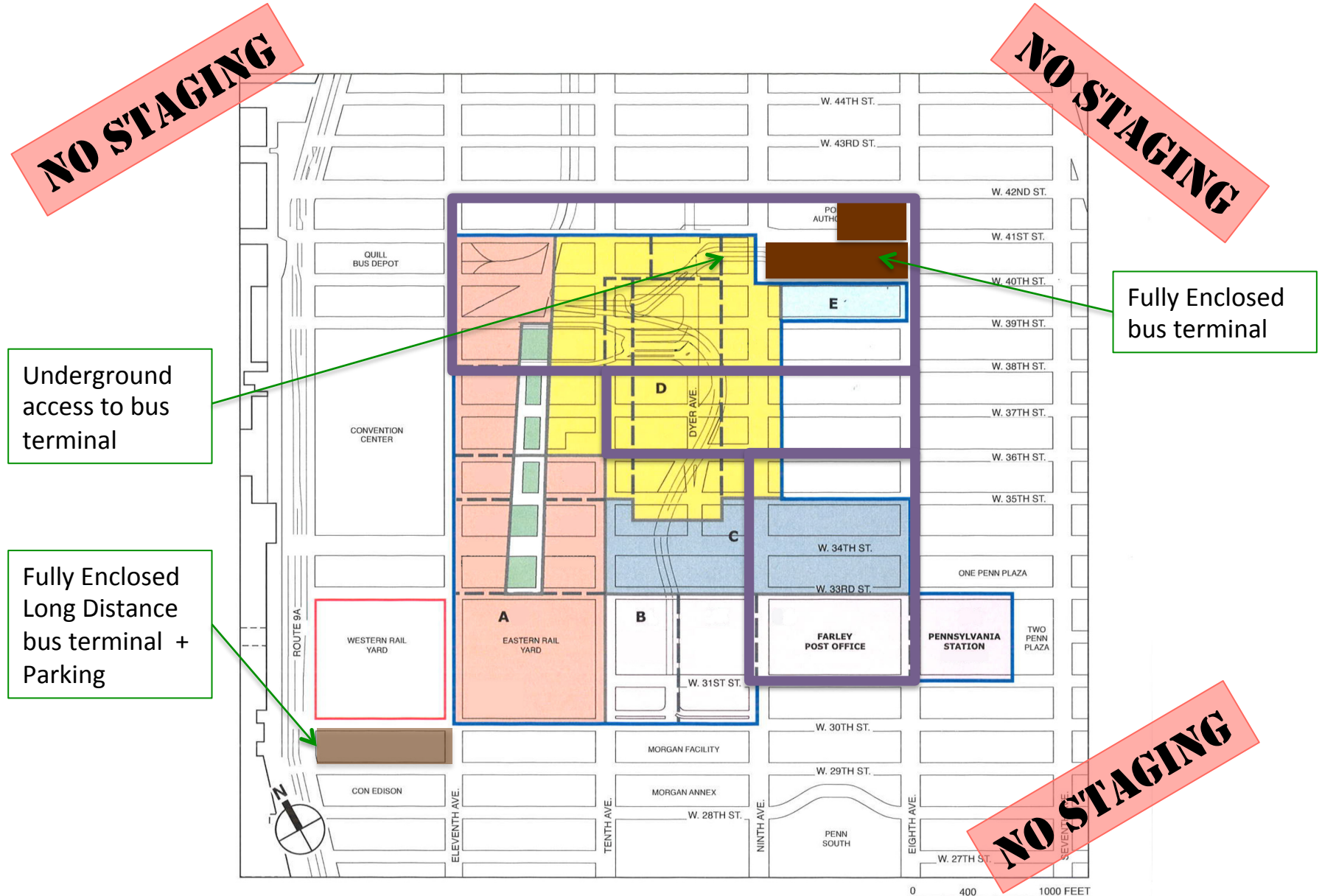
NYC Health Department Report Neighborhood Air Quality 2008- 2015

Conclusion

Need to reduce emissions from trucks and buses to improve the health of New Yorkers, especially the most vulnerable residents.

Interventions directed at **the most polluting trucks and buses** that travel roadways in the most burdened neighborhoods will maximize public health benefits and reduce health inequities across city neighborhoods.

Principles for improving Air Quality



Targeted Strategies for Various Bus Activities

- **Staging:** High impact on air quality - queuing and idling – up to 3000 buses daily + 1,000 – *Commuter Buses*
- **Bus terminal :** High impact on air quality - queuing and idling while loading – up to 3,000 buses daily + 1,000– *Commuter Buses*
- **Ramps:** High impact on air quality - queuing and idling while loading up to 3,000 buses daily + 1,000– *Commuter Bus*
- **Curbside terminal:** Limited impact on air quality because of location and limited volumes – but locations are disappearing – *Long Distance buses*
- **Parking:** Limited but Increasing impact on air quality parking spots are eliminated and buses idle in illegal spots or cruise around – *Tour and Charter Buses*

NO STAGING

**ENCLOSED
TERMINAL**

**UNDERGROUND
RAMPS**

**ENCLOSED
TERMINAL**

**ENCLOSED
PARKING**