



Joseph Golombeck, Jr.
North District Common Council Member
1502 City Hall
Buffalo NY 14202

Clean Air Coalition
of Western New York
341 Delaware Ave
Buffalo NY 14202
716 852 3813
www.cacwny.org

October 24, 2012

Dear Councilman Golombeck,

Thank you for the opportunity to address the Community Development Committee yesterday. Our staff, members and academic partners appreciated the opportunity to respond to the "white paper" on asthma on the west side of Buffalo that was compiled urgently at the request of Governor Andrew Cuomo.

As we discussed yesterday, one of the white paper's key finding was that "...poverty, race and socioeconomic factors, *not* geographic location..." explain the asthma epidemic on the west side of Buffalo. This key finding is unfounded and insulting to the lower west side of buffalo, an environmental justice neighborhood. As you know, we believe the Buffalo Common Council and all other policy makers to whom the paper was circulated should reject the Governor's claim that it is scientific, unbiased and factual.

Enclosed are copies of the testimony from west side residents suffering from asthma, Clean Air Coalition staff and Dr. Joseph Gardella and Dr. William Scheider from the University at Buffalo.

In the committee meeting you requested that I submit in writing several of the questions I raised. They are:

1. What are the qualifications of Ms. Siwek, the author of the report from the Greater Buffalo Niagara Regional Transportation Council to issue such a report? Does she have a degree in public health?
2. What was the process of review at each of the agencies before they signed off? Who approved this report at DEC, DOH and DOT and after what process of internal review?
3. Have any of the Commissioners of any of the agencies ever visited the West Side of Buffalo or ever spoken to a person who lives there?
4. Why was the community not included in the planning process? Why was a draft review not released to the public like most other publicly funded health studies?
5. Why were local, independent experts not part of the planning process?

As I indicated in Council Chambers, I hope the Buffalo Common Council will follow up and get answers to these timely questions. It is my hope that in the future the Buffalo Common Council and other elected officials will note who authored the report, who commissioned the report and think critically about their motivations.



Clean Air Coalition
of Western New York

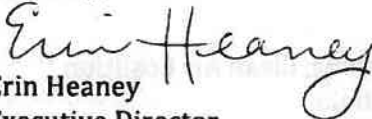
341 Delaware Ave
Buffalo NY 14202
716 852 3813
www.cacwny.org

It is important to remember that this report was released by the Governor after local residents impacted by asthma began organizing to oppose the expansion of a large truck plaza into their already over-burdened neighborhood. We are deeply concerned that white paper produced by these agencies was intended to quiet the voices of ordinary people trying to fight for their neighborhood.

As always, our membership appreciates your support and the opportunity to speak in the Community Development Committee on issues critical to the health and safety of the city's residents. We look forward to working together in the future to prevent illness and create a healthier Western New York.

If you have any additional questions, do not hesitate to be in touch.

Sincerely,


Erin Heaney

Executive Director

CC: Governor Andrew Cuomo
Sam Hoyt, Empire State Development
NYS Senator Mark Grisanti
NYS Senator Timothy Kennedy
NYS Senator Michael Rzenhofer
NYS Assemblyman Sean Ryan
NYS Assemblyman Robin Schimminger
NYS Assemblywoman Crystal People-Stokes
US Senator Charles Schumer
US Senator Kirsten Gillibrand
US Representative Brian Higgins
US Representative Louise Slaughter
Erie County Executive Mark Poloncarz
Maria Whyte, Erie County Commissioner of
Environment and Planning
Region 2 Administrator Judith Enck, US EPA

Ray Warner, Region 2 Chief of Air Programs
Branch, US EPA
Mike Basile, US EPA
Lisa Garcia, Associate Assistant Administrator
for Environmental Justice, US EPA
NYS Department of Conservation Commissioner
Joseph Martens
Jared Snyder Assistant Commissioner, Office of
Air Resources, Climate Change and Energy, NYS
DEC
Commissioner Abby Snyder, Region 9 NYS DEC
Al Carlacci, NYS DEC Region 9
Melvin Norris, Director of Environmental Justice
NYS DEC
Arturo Garcia-Costas, Office of Environmental
Justice, NYS DEC



University at Buffalo
The State University of New York

Department of Chemistry
Professor Joseph A. Gardella, Jr.
John and Frances Larkin Professor of Chemistry

October 23, 2012

Statement to Buffalo Common Council regarding Peace Bridge Air Pollution and recent release of REVIEW OF AIR QUALITY AND ASTHMA ISSUES AT PEACE BRIDGE, by the NYS Department of Transportation

Good Afternoon.

My name is Joe Gardella, and I am the John and Frances Larkin Professor of Chemistry at UB. For nearly 20 years, I have worked with communities in WNY on air and soil pollution that affects public health. I have worked closely with state and federal agencies, such as the EPA, NYS DEC, NYS DOH, Army Corp of Engineers and other agencies in interpreting scientific data and helping communities design and collect their own scientific data. I have served as a scientific advisor to the Clean Air Coalition of WNY, and in particular, community members who founded the CAC since 2003.

I also serve as the Chair of the City of Buffalo Environmental Management Commission and other community advisory groups around WNY. My work has been recognized nationally and regionally by EPA and various professional societies, and the National Science Foundation.

While many of you are familiar with roles I have played in various community efforts within the City of Buffalo, I want to give some background to my expertise in commenting on this review paper.

In 1977, I began my research on the nature of diesel particulates, their surface chemistry and chemical composition, as part of my Ph.D. dissertation. I published work in this field in peer reviewed scientific journals as part of my research in the chemistry of air particulates (e.g., smoke) and have researched and taught in this field for over 30 years.

I am well versed in the methodology of characterizing fine and ultrafine particles in terms of their size and chemistry, and closely follow public policy in designating the health impacts of these particulates, especially as it relates to the delivery of toxic and carcinogenic chemicals to the human body.

Thus, I can effectively evaluate the statements made in the subject REVIEW based on my own research experience.

I am concerned that the release and promotion of this REVIEW is simply part of a public relations campaign to cover up the fact that little real DATA exist about particulate emissions and their impact on the health of residents.

for this project. EPA strongly recommends these measures to reduce PM emissions regardless of quantified levels of emissions also offers the following additional recommendations: (1) maintain and tune engines, perform inspections; (2) require newer diesel equipment; (3) reduce heavy equipment trips; (4) reduce heavy equipment idling; and (5) avoid or minimize the siting of laydown areas near residences and sensitive receptors.

Sensitive receptors include children, aged, and sick residents.

The REVIEW contains no data on the analysis of current truck traffic with respect to: EPA strongly recommends these measures to reduce PM emissions regardless of quantified levels of emissions also offers the following additional recommendations: (1) maintain and tune engines, perform inspections; (2) require newer diesel equipment; (3) reduce heavy equipment trips; (4) reduce heavy equipment idling; and (5) avoid or minimize the siting of laydown areas near residences and sensitive receptors.

3. The only thing that matters is collecting data on truck traffic, inspections and real data about air pollution and exposures to decide whether the new plans for the Peace Bridge will be safe.

While the REVIEW claims that no EPA standard methodology in regulatory form exists for analysis of ultra fine particulates like diesel emissions, the technology and methodology has existed for over 30 years.

This situation makes it even more amazing to claim that the Peace Bridge meets current EPA emissions standards.

One thing I know as a scientist, if you don't measure it, you won't find it. So to make the bold claim that the EPA emissions standards are important when we know later on that the REVIEW notes that EPA does not measure the chemistry of ultra fine particulates is another unscientific and unacceptable diversionary tactic by the Public Bridge Authority leadership meant to confuse the public.

The release of this review does not answer the need for REAL data, and does not close any issues that might affect the health impacts in the neighborhood. The Peace Bridge leadership can claim all they want, but there is a distinct lack of science behind their statements.

Sincerely,



Joseph A. Gardella, Jr.
John and Frances Larkin Professor of Chemistry

Air Quality, Asthma, and the Buffalo Peace Bridge

A Review of the NYS DOT/DEC/DOH White Paper

William L. Scheider, Ph.D.

Research Assistant Professor in Environmental Health
Department of Social and Preventive Medicine
School of Public Health and Health Professions
University at Buffalo

October 23, 2012

KEY FINDINGS

At the request of the Clean Air Coalition of Western New York and concerned residents of Buffalo's Lower West Side, I have reviewed the white paper, *Review of Air Quality and Asthma Issues at the Buffalo Peace Bridge Plaza*, prepared by the New York State Department of Transportation in collaboration with the Department of Environmental Conservation and Department of Health. The logic and interpretation of statistics in the white paper is deeply flawed and in some cases the white paper misrepresents available information so badly that the motivations behind the paper must be questioned. My key findings are:

- The white paper consistently uses Buffalo-Niagara regional, New York State, and in a few cases national data to make the case that "air quality in proximity of the Peace Bridge meets current EPA emissions standards." However, *it is impossible to know whether data at the regional, state, or national level actually applies to smaller, local areas within the region, such as Buffalo's Lower West Side.*
- Improvements at the Peace Bridge will result in improved air quality over the long term *only if they are not overwhelmed by increased bridge traffic and if regulations aimed at reducing emissions are enforced.*
- An analysis of EZ-Pass transactions, as well as a survey of trucks at the Peace Bridge Plaza, shows that as of 2012, *almost 50% of trucks crossing the Peace Bridge were NOT in compliance with the 2007 EPA Clean Diesel law. The trucks in compliance may simply represent replacement of older trucks that would have happened anyway.* The white paper itself states that *all trucks are not expected to be in compliance until 2030.*
- *Data specific to the Lower West Side show that geographic location near the Peace Bridge is a major contributor to high asthma prevalence in that area.*
- *High asthma hospitalization rates in other areas of Buffalo have no relevance to causes of asthma on the Lower West Side.* The incidence of severe asthma attacks in different areas of the city can be due to different reasons in each area.
- The *AUTHORS* of the Health Effects Institute study concluded (page 102) that "*The Peace Bridge plaza and the adjacent neighborhood represent a classic mobile-source hot spot.*" Urban areas to which Buffalo was compared in the report were New York City, Pittsburgh, Los Angeles, and Houston, *the air quality of which rank among the worst in the nation.*
- Air quality improvements at the Peace Bridge will only occur and be maintained *if truck idling and other environmental regulations are strictly enforced. A remediation plan must be in place in the event that air monitoring shows no improvement or a worsening of air quality if the plaza expansion moves forward.*

RECOMMENDATIONS

The following recommendations are necessary to help protect the health of residents living on Buffalo's Lower West Side:

- Before any changes are made at the Peace Bridge, perform a health impact assessment using an independent consultant with expertise and experience performing such assessments.
- Follow recommendations for protecting the health of community residents that are made by the health impact assessment, including modification of Peace Bridge plaza expansion plans, location and design of a second bridge, traffic routing and construction of exhaust emission barriers, and strict enforcement of truck idling and other environmental regulations.
- In any event, monitor and strictly enforce compliance with EPA standards for heavy-duty diesel engines, truck idling regulations, and other environmental laws and regulations.
- Establish a remediation plan in the event that air monitoring shows no improvement or a worsening of air quality if the plaza expansion and plans for a second bridge move forward.
- Include community representatives with voting rights on planning boards or committees involved with changes in the Peace Bridge, the plaza, and access roads and expressways.
- When planning any urban development or economic development or similar project, design and implement the project as if the community's health really matters.

Respectfully,

William L. Scheider

William L. Scheider, Ph.D.
Research Assistant Professor in Environmental Health
Department of Social and Preventive Medicine
School of Public Health and Health Professions
University at Buffalo

Air Quality, Asthma, and the Buffalo Peace Bridge

A Review of the NYS DOT/DEC/DOH White Paper

William L. Scheider, Ph.D.

Research Assistant Professor in Environmental Health
Department of Social and Preventive Medicine
School of Public Health and Health Professions
University at Buffalo

October 23, 2012

The following expands upon my key findings listed on the front page of this document. Each of my findings is a response to one of the key findings at the beginning of the NYSDOT white paper, *Review of Air Quality and Asthma Issues at the Buffalo Peace Bridge Plaza*. For each key finding, I provide relevant information from the NYSDOT white paper and the forward by Sarah Siwek, along with my evaluation of that information.

- **Key Finding #1:** The NYSDOT white paper consistently uses Buffalo-Niagara regional, New York State, and in a few cases national data to make the case that “air quality in proximity of the Peace Bridge meets current EPA emissions standards.” *However, it is impossible to know whether data at the regional, state, or national level actually applies to smaller, local areas, such as Buffalo’s Lower West Side, within the larger region.*

This key finding is in response to the first NYSDOT white paper key finding: “Past monitoring and testing has shown air quality in proximity of the Peace Bridge meets current EPA emissions standards.”

Both Ms. Siwek’s forward and the main body of the white paper frequently cite air quality data for the Buffalo-Niagara region or New York State. For example, in the paragraph at the top of page 15 of the white paper:

“Governmental *regional* [italics mine] air quality monitors indicate that the Peace Bridge air quality for PM is better than the existing US EPA health-based ambient air quality standards.”

Another example is the entire section “Air Quality Trends in New York,” pages 9 through 13 in the white paper, as well as the first paragraph in the section “Conformity with US EPA Standards” on page 14, and several places in Ms. Siwek’s forward.

However, what is true about a larger geographic area, such as the Buffalo-Niagara region or New York State, is not necessarily true for smaller, local areas within the larger area. Epidemiologists call attempts to make an inference about a small geographic area or individual people from data about a large geographic area an **ecologic fallacy**. The white paper statement on page 15 is especially troubling in this regard, because it directly states that governmental *regional* air quality monitors indicate that Peace Bridge air quality for PM is better than EPA standards. Maybe it is, but maybe it is not. *We do not have the information necessary to answer this question.* The EPA regional air monitors closest to the Peace Bridge

are located on Dingen Street in Buffalo and Simon Street and Ridge Road in Lackawanna, much too far away to be applicable to the Peace Bridge.

In the same way, other data and charts about air quality in the Buffalo-Niagara region and New York State are not relevant to the subject of the white paper—air quality near the Peace Bridge. Rather than having the same air quality as the rest of the Buffalo-Niagara region, the Peace Bridge could be an air pollution “hot spot” within the region, an issue explored by the Health Effects Institute report discussed below.

- **Key Finding #2:** Improvements at the Peace Bridge will result in improved air quality over the long term *only if they are not overwhelmed by increased bridge traffic and if regulations aimed at reducing emissions are enforced.*

This key finding is in response to the second NYSDOT white paper key finding: “Since such monitoring and testing was completed, additional improvements have been put in place to reduce congestion and further improve air quality.”

It is true that moving the toll booths to the Fort Erie side of the bridge, reducing vehicle inspection times, and more stringent EPA emissions standards for heavy duty diesel engines will reduce the impact of individual vehicles, including trucks, on air quality near the Peace Bridge. On the other hand, these improvements could be offset by increased bridge traffic. If crossing the bridge becomes easier, it seems logical that more vehicles would be attracted to this border crossing, adding to air pollution near the bridge. Improvements also assume enforcement of emissions regulations in the future. A conservative Republican President and Congress could again limit the EPA’s regulatory power, as occurred under President George W. Bush, and even attempt to abolish the agency. To be on the safe side, we cannot simply assume that air quality will continue to improve.

The most recent air monitoring at the Peace Bridge was performed by the Harvard research team in the Health Effects Institute Study over six years ago (2005-2006). Installation of upwind and downwind air monitors at the bridge by the NYS DEC is an important and welcome step in assessing trends in air quality near the bridge.

- **Key Finding #3:** An analysis of EZ-Pass transactions, as well as a survey of trucks at the Peace Bridge Plaza, shows that as of 2012, *almost 50% of trucks crossing the Peace Bridge were NOT in compliance with the 2007 EPA Clean Diesel law. The trucks in compliance may simply represent replacement of older trucks that would have happened anyway.* The white paper itself states that *all trucks are not expected to be in compliance until 2030.*

This key finding is in response to the third NYSDOT white paper key finding: “The 2007 EPA Clean Diesel law required full transition to new fuel and engine technology by 2010 for all new diesel trucks, and over 50% of trucks crossing the Peace Bridge are already in compliance.”

The meaning of the 50% compliance statistic is a matter of how we look at it. If almost 50% of trucks are out of compliance, then 2,000 to 2,500 trucks crossing the bridge every day are out of compliance. Also, the trucks that are in compliance may be the easy part of the

conversion process—the “low-hanging fruit” of trucks that were due to be replaced anyway. Bringing the other 50% of trucks into compliance may prove more difficult, and the white paper report itself states that all trucks are not expected to be in compliance until 2030, 18 years from now (if everything goes as planned). In the final analysis, what really matters is how much air pollution drifts from the Peace Bridge into nearby neighborhoods, and emphasis must be placed on monitoring and reducing that.

- **Key Finding #4:** *Data specific to the Lower West Side show that geographic location near the Peace Bridge is a major contributor to high asthma prevalence in that area.*

This key finding is in response to the fourth NYSDOT white paper key finding: “Local data shows that poverty, race, & socio-economic factors (not geographic location) have the greatest correlation to asthma related hospital visits within the City Buffalo.”

Emergency department) visits and hospitalizations due to asthma attacks are two measures of asthma occurrence that are reportable and therefore available for analysis. However, they represent only acute asthma attacks that are severe enough to warrant an emergency room visit or hospitalization. They do not necessarily reflect overall asthma prevalence in a community, particularly less severe, chronic asthma, which can still be debilitating and frightening, but not require an emergency room visit or hospitalization. High rates of emergency department (ED) visits and hospital admissions (HA) could also be due to lack of access to medical care and health insurance that would help asthmatics keep the condition under control. In this case, the ED visit and HA rates might have little relationship to overall prevalence of chronic asthma in the community.

The way the maps on pages 23 and 24 are used is deceiving. First of all, ZIP codes are fairly large areas, and the ecologic fallacy may apply. ZIP code 14213 extends quite far north, and it may be that high ED visit and HA rates in the area near the bridge are diluted by lower rates farther from the bridge. Also, we do not have information about access to medical care and health insurance that would allow us to assess the extent to which these factors are influencing ED visit and HA rates among ZIP codes.

The author of the white paper attempts to associate poverty and ethnicity with ED visit and HA rates. However, it is important to ask, “What is it about poverty or Hispanic or African-American ethnicity that would lead to higher ED visit and HS rates?” It could be that the African-Americans and Hispanic people in these communities are low-income, and hence ethnicity may be associated with higher poverty rates. Poverty, in turn, could force people to live in older housing that contains a number of asthma triggers, such as mold and dust and indoor air pollution from the source of heat. And, it could be that neighborhoods near the Peace Bridge have a great deal of low-income housing, so both ethnicity and poverty are associated with living near the Peace Bridge and hence exposure to vehicle emissions.

This mixing of effects of several exposure factors (e.g. location, housing, poverty) with a health outcome (e.g. asthma) is called **confounding**. Epidemiologists use statistical methods to determine the nature and degree of confounding and control it in their studies, *but area data such as that in the maps on pages 23 and 24 CANNOT be used to untangle the effects of confounding at the level of individual people (the ecological fallacy again)*. Thus, the maps

tell us nothing about the distribution of *chronic asthma*, the more common manifestation, across the city or whether poverty, race, and socio-economic factors rather than location near the Peace Bridge are causing asthma in communities or in individuals living near the bridge. Also, the effects of *all* of these factors could be combining to increase asthma prevalence, so that air pollution from the bridge may be *adding to* chronic asthma caused by triggers in older housing on the Lower West Side, making a bad situation worse.

Two local-level studies performed by Dr. Jamson Lwebuga-Muskasa, a pulmonologist at the University of Buffalo Medical School and Kaleida Health Buffalo General, indicate that a number of factors, including both indoor and outdoor air quality, interact to cause asthma in neighborhoods near the Peace Bridge and that living close to the bridge is an important contributor to the problem. In the *American Journal of Public Health* study, the authors *mapped where people actually lived* who were hospitalized or seen for outpatient visits due to asthma, and their conclusion states, "*current traffic levels not only contribute to asthma and other respiratory disease exacerbations but may also contribute to high asthma prevalence on Buffalo's West Side in comparison with other Buffalo communities.*"

For more detailed information about these studies, please refer to the original papers, which were published in highly respected, refereed journals:

1. Oyana TJ, Rogerson P, Lwebuga-Mukasa JS. "Geographic clustering of adult asthma hospitalization and residential exposure to pollution at a United States-Canada border crossing." *American Journal of Public Health*. 2004; volume 94, pages 1250-1257.
 2. Lwebuga-Mukasa JS, Oyana TJ, Wydro P. "Risk factors for asthma prevalence and chronic respiratory illnesses among residents of different neighbourhoods in Buffalo, New York." *Journal of Epidemiology and Community Health*. 2004; volume 58, pages 951-957.
- **Key Finding #5:** *High asthma hospitalization rates in other areas of Buffalo have no relevance to causes of asthma on the Lower West Side. The incidence of severe asthma attacks in different areas of the city can be due to different reasons in each area.*

This key finding is in response to the fifth NYSDOT white paper key finding: "Multiple areas of high asthma hospitalization rates in the City of Buffalo are not located near the Peace Bridge."

This white paper finding is not relevant to the Peace Bridge issue. Much of the explanation provided for Key Finding #4 above also applies here. It also may be simply that high asthma ED and HA rates in other ZIP codes in Buffalo are due to other reasons than in 14213 or that in 14213, air pollution from the Peace Bridge is making a bad situation worse. It is also possible and perhaps likely that lower ED visit and HA rates in Cheektowaga and West Seneca reflect better access to medical care that can prevent or control asthma, so that fewer people have attacks severe enough to warrant an emergency room visit or hospitalization.

- **Key Finding #6:** The *AUTHORS* of the Health Effects Institute study concluded (page 102) that “*The Peace Bridge plaza and the adjacent neighborhood represent a classic mobile-source hot spot.*” Urban areas to which Buffalo was compared in the report were New York City, Pittsburgh, Los Angeles, and Houston, *the air quality of which rank among the worst in the nation.*

This key finding is in response to the sixth NYSDOT white paper key finding: “A study by the Health Effects Institute has stated that the adjacent Peace Bridge neighborhood is not considered an air quality “hot-spot” as emissions levels are similar or better than in other urban areas.”

This is probably the most blatantly misleading statement in the entire white paper. At several points in their conclusions, most notably the passage quoted above from page 104 of the HEI report, the authors of the study—the people who conducted the study on the ground in Buffalo—concluded that *the Peace Bridge is a mobile-source hot-spot!* It was the HEI committee that reviewed the study who voiced two reservations (they did not oppose the authors’ conclusions altogether), one noting that Peace Bridge traffic emissions were most problematic on the Lower West Side when the wind was blowing from Lake Erie rather than from the city and secondly that air quality in Buffalo is better than several other urban areas in the nation. This in no way diminishes the authors’ conclusions—they were the people who actually conducted the study. Also, the urban areas to which Buffalo was favorably compared were New York City, Pittsburgh, Los Angeles, and Houston, the air quality of which rank among the worst in the nation. On the other hand, Boston and Buffalo had roughly similar air quality.

- **Key Finding #7:** Air quality improvements at the Peace Bridge will only occur and be maintained *if truck idling and other environmental regulations are strictly enforced. A remediation plan must be in place in the event that air monitoring shows no improvement or a worsening of air quality if the plaza expansion moves forward.*

This key finding is in response to the seventh NYSDOT white paper key finding: “Proposed Peace Bridge idling enforcement and air monitoring activity is also considered another positive step towards increased environmental stewardship policies at the crossing.”

At several points the white paper, and especially Ms. Siwek’s forward, express optimism that improvements at the Peace Bridge and the new EPA emission standards *will* continue to improve air quality. For example, on page ii of her forward (italics are mine):

Heading: “Air quality in the region and specifically at the Peace Bridge Plaza *will* continue to improve in the future.”

“Traffic operational improvements and limited idling at the Plaza including providing the necessary number of inspection lanes *will* also [in addition to more stringent EPA heavy duty engine standards and low-sulfur diesel fuel] reduce localized emissions... Technology improvements in vehicles and fuels and operational improvements at the Peace Bridge Plaza *will* further reduce emissions dramatically in the future.”

Again, on page iv of the forward:

“Improvements at the Peace Bridge Plaza *will* aim to reduce or eliminate vehicle waiting time, idling and backups at customs inspection stations while also accommodating an increase in the number of vehicles using the Plaza. These improvements in combination with the continued implementation of the motor vehicle air pollution regulations (e.g. cleaner vehicles and fuels) *are expected to result* in improved air quality at the Peace Bridge Plaza and within the surrounding community.”

This optimism *will* only become a reality *if* everything goes as planned and *if* truck idling and other environmental regulations are strictly enforced. Continued air quality monitoring at the Peace Bridge is vital to determine whether improvements in air quality actually do continue and should the plaza expansion become a reality, the impact the expansion has on air quality.

- **A special note about ultrafine particulates (UFP)**

A particularly disturbing part of the NYSDOT white paper is the way it dismisses the impact of ultrafine particulates on the grounds that no standardized methods exist for measuring them and their health effects are not well established. On page 14 (italics mine):

“There are no universally accepted methods for measuring ultra fines, and the methods that currently exist are not uniform between different studies and measurement sites, *making inter-comparison of the results problematic and potentially misleading*. In addition, research into how to properly measure ultra fine particulate concentration near roadways is *still only in the early stages*. Factors such as distance from the roadway, the impact of vegetation and man-made structures, vertical concentration profiles, etc. are all *poorly understood* at this time. Although research efforts are underway in this area, there *is currently no scientific protocol or standards to correctly determine* the proper sampling site locations, sampling method, or instrumentation method needed in order to produce an accurate and reliable measure of ultra fine particulates in a near-roadway region.”

Again on page 18:

“Currently the potential health effects of ultra fine particles (UFPs), or more specifically, mobile source related UFPs *are not well understood... Most of the particulates in diesel exhaust are present in the UFP size fraction*. At this time the number of studies looking at human exposures to ultrafine DEPs or other UFPs in laboratory, occupational, or community settings is limited, and although some studies have raised concerns about health effects from exposure to UFPs, in 2011, the EPA concluded that current collective evidence *‘is suggestive of a causal relationship between short-term exposures to UFPs and cardiovascular and respiratory effects,’ but is too limited to support a UFP standard.*”

Ultrafine particulates are a form of nanoparticles and provide a means for particulate matter and chemicals they carry to enter the body that is in fact not well understood. However, what is known is disturbing. UFPs easily cross cell membranes and are absorbed from the air spaces of the lungs into the bloodstream. They can also travel along the nerve tract from

the nose to the brain. It is also known that they provoke inflammatory responses in the body, which may be one way that they increase risk of atherosclerosis and heart disease.

For the EPA to conclude that “current collective evidence is suggestive of a causal relationship between short-term exposures to UFPs and cardiovascular and respiratory effects” is highly troubling rather than reassuring. Epidemiologically speaking, “suggestive of a causal relationship” is quite a way along the path toward establishing causality, much farther than saying that UFP exposure and cardiovascular and respiratory effects are simply associated. This also says nothing about potential long-term effects, which could include cancer, autoimmune disorders, behavioral disorders, and neurological diseases.

The Health Effects Institute study established that some areas of the Lower West Side experience particularly dense concentrations of UFP from the Peace Bridge (see map below from page 88 of the HEI report). Since UFPs make up the majority of the particulates in diesel emissions, it is fair to say that much of the UFPs are coming from trucks on the bridge. To dismiss or understate the potential health impact on the Lower West Side community of UFPs generated by truck traffic on the bridge is unconscionable and unacceptable! To allow the community to be exposed to UFP is essentially subjecting thousands of people to an experiment to which they never consented!

Conclusion

The logic and interpretation of statistics in the white paper is deeply flawed and in some cases the white paper misrepresents available information so badly that the motivations behind the paper must be questioned. Page 2 of this document provides a list of recommendations that *will* help protect the health of the thousands of people who live on Buffalo's Lower West Side and any community in which urban or economic development projects are planned.

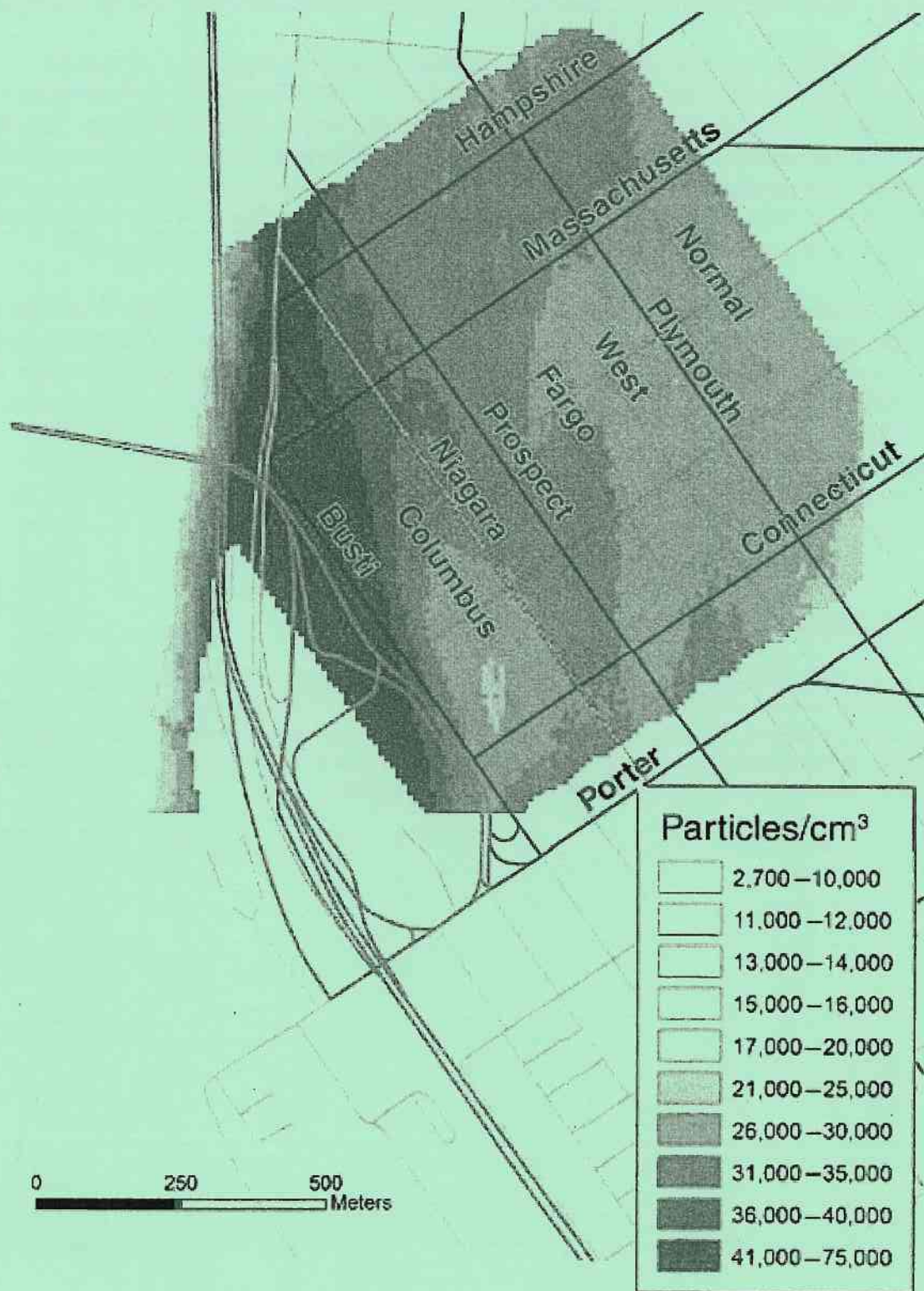


Figure 56. Spatial pattern of UFP measurements ($N = 2979$) made on winter afternoons under lake-wind conditions in west Buffalo using P-Trak.

White Paper Hearing Testimonial October 23, 2012

Hello, my name is **Ana Martinez** and I have lived on Niagara Street for the past 10 years.

I am here today because this white paper makes me feel discriminated against by claiming that “poverty, race & socio-economic factors are correlated to asthma”; there are white people who live on the West Side, who also have asthma, it is not only people of color who have asthma. And African Americans and Puerto Ricans **don’t** get asthma because we are **pigs**.

This white paper says that minorities are less likely to attend their appointments. That statement is not true- I always keep my appointments. I have been going to the same doctor for 20 years.

One day I had a big pain in my back and lungs and I was having trouble breathing, so I decided to go and see the doctor. I walk everywhere. As I was

walking there, I felt like my breathing was going away in the middle of the street, so I stopped and asked myself- should I keep going, or go home? I decided to keep going. I get to the corner, where the drug store is, and I couldn't breathe, and I saw a police officer on the corner- I have never seen a police officer there in my life! As soon as I get to the drug store, I fell, I fainted. Luckily, that police officer was there, she tried to revive me and she couldn't, so she called the ambulance. The next thing I know, I woke up in the hospital- they were running all these tests, they took an x-ray. When the doctor comes into the room, he asks me, did you know you are working with only one lung? And I said 'that's impossible!' And he told me that only one of my

lungs is working, and I didn't even know and I have been going to the same doctor for 20 years. And one of these days, my breathing will be so bad I will have to live with an oxygen tank. Is this because I am dirty?

I used to live on Seneca Street for most of my life, and as soon as I moved to the West Side, my asthma started, and it is not because I am dirty. You can come to my house and tell me if you see any roaches or rats. You can eat off my floor if you want. I have never lived with roaches and rats.

How would you feel if you had kids with asthma and you read this paper telling you it's because you're black and brown and dirty? How would you react to that? I have children, and grandchildren, and I take care of them, I take care of my children, and I take care of myself.

White Paper Hearing Testimonial October 23, 2012

My name is **Rebecca Soto**, and I live on Trenton Avenue for the past 3 years, and have been a West Side resident for almost all of my life.

I am here today because I am so disgusted by this white paper.

First- there are no names on this paper. Whoever put this out put it out as something definitive without any scientific proof.

I am angry because this white paper has clumped us all together as a poverty stricken area. It makes us, and our children, feel like second class citizens because of where we live. It has indirectly called people of color pigs. And that offended me. Even in poverty, people want to have a clean and healthy home. This is not why we have so much asthma. We have inherited the problems in our neighborhood.

Children with asthma are everywhere, but the numbers of trucks passing through our neighborhood and idling make the number of children with asthma higher. Sometimes the trucks pull off on Lakeview and idle, or pass

through our streets to take shortcuts to wherever it is they are going. Children of all colors need equity.

It is a racist paper that has made African Americans and Latinos the example. It makes me mad because whoever wrote this paper classifies a group of people, as people living in poverty, just based on the area in which they live. Just because the West Side is known for Latinos and African Americans does not mean there are NO white people in our area. White people do live on the West Side, and some of them even have asthma. Poverty and illness do not exclude people. Poverty is poverty, and illness is illness.

This weekend I was walking with my friend, Caroline, to the store, and there was this woman holding on to a tree in front of me. She looked like a fish out of water- her mouth was open and she was gasping for air and she couldn't get any. I went up to her and asked her if she needed help, and she told me no- she has to wait it out and wait for air to breathe. There she was clinging on to this tree for dear life, and I took this as a sign from GOD. I have no idea who this woman was, but she was gasping for air in my eyesight, and there was nothing she could do but

wait. It reminded me of all the things I have been trying to do in my community with Clean Air. He was opening my eyes to the people who need me to speak for them, like I am today, because they can't. It gave me a clear visual of what people go through when they are having an asthma attack.

I want to let whoever wrote this paper know that they have never walked a mile in our shoes, which does not give them a right to make these derogatory comments about where I come from, and the people who live in my neighborhood. This white paper paints my neighborhood as hopeless, that we will never get out of poverty or have a better life. This white paper kills the spirit, and you should never kill the spirit.

We should be taking preventative measures right now, like green buffers, and making sure trucks are not idling, so that we can cut down on diseases later on so that people are not left behind.

I am not against progress, but I am against the procedures in which we are achieving this "progress". I am for a better and economically stronger West Side that takes care of its people before profit.

