PRIOR EXPERT TESTIMONY PUT ON THE INSTANT RECORD 2019-DCRA-00135

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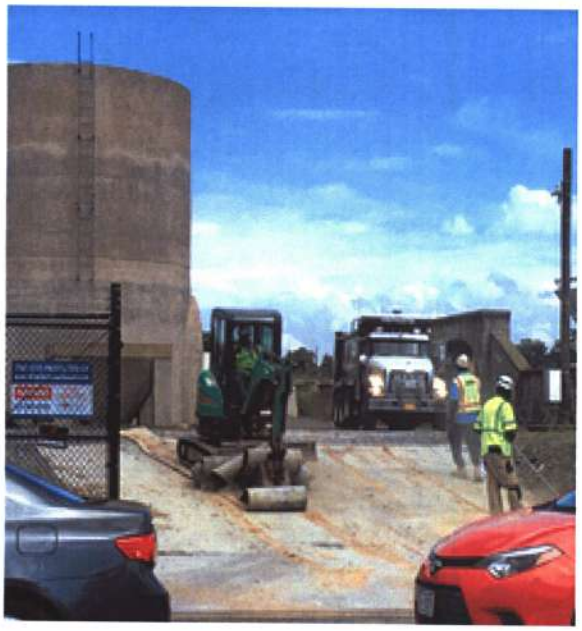
Chris Otten, Pro se, Daniel Wolkoff, Pro se, Cynthia Carson, Pro se, Melissa Peffers, Pro se, Jerome Peloquin, Pro se, James Fournier, Pro se, Linwood Norma, Pro se, Jimmie Boykin, Pro se, Yonna Pendelton, Pro se, Michael Werstein, Pro se, Joint Complainants, v. DC Department of Consumer and and Regulatory Affairs, Respondent.	**2019-DCRA-00135** Appeal of DCRA Demolition Permit D1600814 dated August 16, 2019 And, Appeal of DCRA Foundation Permit FD1800040 dated August 27, 2019

DECLARATION OF MELISSA SUSAN PEFFERS

As it regards the nationally registered historic landmark, McMillan Park and Sand Filtration Plant, I, Melissa Peffers, hereby declare and state as follows:

1. On Wednesday, August 14, 2019, I witnessed and photographed what appeared to be new construction and/or demolition activity at the McMillan Slow San Filtration Plant ('Site'). No posted permits were visible.



2. On September 10, 2019, I photographed continued and escalating signs of construction/demolition occurring at McMillan Slow Sand Filtration Plant ('Site'). No permits were posted at either of the two entrance: one on 1st. St. NW and one on North Capitol. I am an environmental health scientist. I am concerned about worker protections, workplace hazards, dust control, and site assessments including testing for common contaminants at old facilities, e.g. concrete, insulation, building materials that may contain asbestos. I was under the impression from city officials that no construction or demolition was allowed. Clearly what we heard in the community was not what we were witnessing at the site, in our neighborhood.

3. On September 25, 2019, I started asking DC officials, Kelly Crawford and Ralph Knatt, about asbestos and if testing had been done. I emailed many people to find answers and was rerouted to various other people. I also included in my email the U.S. Environmental Protection Agency< Region 3 asbestos contact Rich Ponak.

4. On October 1, 2019 in response to my requests to get information on the site inspection, or the Environmental Impact Screening Form (EISF), D.C. Officials

basically told me that I'd need to file a Freedom of Information Act (FOIA) request with them for the EISFs. I still had not seen any permits posted at the site so I was unsure how to even request such documents given it seemed that was required information for such a request. I was also advised that there are three D.C. Departments that would be covering the various issues of concern I brought up – DCRA and DOEE for the EISF and related documents and DDOT for my traffic/transit and fugitive dust concerns as materials go offsite.

5. On October 9, 2019, after taking a photo of the southwest corner of the site, walking north on 1st St. NW the worker on the property, behind the fence, was very upset that I took a picture and verbally intimidated me. He told me I was not allowed to take a picture without permission and basically made me feel threatened. I do not want the workers harmed in this project, thus my questions to DOEE staff about site conditions. This encounter, however, left me feeling like I can't walk in my own neighborhood near the site during work hours for fear of this intimidation and treatment.

6. I did observe, for the first time, permits posted. Unfortunately the ones at the 1st St. NW entrance are not visible to the public from the fence line as they are placed on the wooden board too far in on site property.

7. I was able to view permits posted on the fence at the North Capitol entrance. Extensive digging, dust creation, dirt tracking, and damage to the concrete structures appeared visible from fence line.

8. On October 23, 2019, after a phone call and email, Mr. Ralph Knatt confirmed uncertainty with asbestos testing at the site. He states, "Allow me to clarify that the Department of Energy and Environment (DOEE) has not received analytical results regarding the sampling of Cementitious structures at the McMillan project site. I am not sure if sampling/testing has been conducted."

9. On November 2, 2019, I sent a new message specific to what type of asbestos testing was being planned

10. On November 12, 2019, I left a voicemail for Rich Ponak with EPA to see if he could help get DC to answer my questions.

11. On November 21, 2019, I followed up via email to Mr. Ralph Knatt, Ms. Kelly Crawford and Mr. Ponak about a status update on asbestos testing given I had not heard back from any of them from my November 12 email.

12. On November 26, 2019, Upon asking DOEE for the written air safety reports & studies about asbestos, Mrs. Crawford directs me back to using the FOIA process to actually see any related documents.
"The facility has submitted results indicating that asbestos has not been detected in their sampling survey. Copies of test results and associated data may be obtained via the FOIA request process."

13. Meanwhile demolition continues and I have little faith in the word of DOEE at this point. Our collective FOIA's are still outstanding going back months now.

14. On Dec. 2, 2019, I filed three FOIA requests for the various DC Departments that handle environmental assessments of the sites before a permit is supposed to be issued - DCRA, DOEE, and DDOT. The three FOIA numbers are: 2020-FOIA-01541, 2020-FOIA-01542, and 2020-FOIA-01543

15. On December 4, 2019 Mr. Collin Burell provided more information via email about the asbestos testing. When asked specifically about his ability to get the Phase II Environmental Site Assessment dated November 4, 2013 and the Certificate of Analysis Report dated August 30, 2019, we were told to FOIA that information.

On December 4, 2019 I emailed Mr. Rich Ponak with EPA Region 3 to see if he could provide those documents on asbestos testing. He replied December 5, "I do not have that information."

16. On Dec. 11, 2019, I received only one document in response to the DCRA FOIA request 2020-FOIA-01541. That document is DOEE's May 2016 summary after reviewing materials and did not include that reports upon which it was generated. It says, "The District Department of the Environment has reviewed the Environmental Impact Screening Form (EISF) and related documents for this project ... ." We can't get to these documents that were relied upon by DDOE to determine that no Environmental Impact Statement (EIS) was needed to be completed for this massive project. We simply can't get access these key documents and they won't be shared with us by the government. Specifically, I am still waiting to receive the EISF.

17. As of Dec. 14, 2019, I am still waiting for documents from DOEE and DDOT, FOIA numbers 2020-FOIA-01542 and 2020-FOIA-01543.

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IN CONCLUSION:

This project represents massive demolition of a 1.35 cubic feet concrete waterworks across 25-acres of current green space and next to our drinking water reservoir. This project means the construction of numerous downtown sized buildings -- 2+ million square feet of new residential and commercial buildings - with 3,000 parking spaces.

The lack of planning is astounding in how atrociously nonchalant it is leaving my health and personal interest in this public space at imminent harm. It is unacceptable that the city risks my well being and simultaneously threatens permanent destruction of a public historic site I enjoy now for its cultural assets and historic City Beautiful aesthetic, its awesome carbon-

sink and green space environmental qualities, its peace and quiet, and its amazing protected historic viewsheds.

To date, there are no written assurances as to whether there will be serious health impacts that need mitigation during demolition of the site. There are children, the elderly, and people like me in the community susceptible to serious adverse health effects by this poor planning and unlawful demolition and construction activities. The dust continues to blow up and over the fence around the site into the air and water of the surrounding community, including DC's drinking water reservoir.

The photographs were taken around the perimeter of the McMillan Sand Filtration site mainly from First Street, N.W. and that entrance and the North Capitol side including that entrance. I used my iPhone SE smartphone and can make available the originals that include the digital information on the photos including date and location identification.

These statements and photographs are true and accurate representations of what I saw at that time.

I, Melissa Susan Peffers, declare that the foregoing is true and accurate, under penalty of perjury under the laws of the United States of America.

As executed on this the 15th (day) day of December (month), 2019 (year).

Melissa Susan Peffers (print || signature)

2201 2nd St. NW Apt. 41
Address, City, State, Zip

206-679-9077 mpeffs@gmail.com
Phone || Email

District of Columbia: SS
Subscribed and sworn to before me, in my presence, this 15th day of December 2019

Shonta' High, Notary Public, D.C.
My commission expires June 30, 2022.

DC Office of Zoning (DCOZ)
441 4th St NW #200
Washington, DC 20001

DC Zoning Officials:

I'm here asking the Zoning Commission to reject or delay a ruling on the zoning application from Vision McMillan Partners, LLC & DC Deputy Mayor for Planning & Economic Development, case number 13-14. I believe there are grounds to have the applicants reconsider development plans due to environmental health and community impact reasons. If proceeding with the current development plans, I respectfully request that either a full Environmental Impact Statement (EIS) or updated Environmental Assessment (EA) and Health Impact Assessment (HIA) are needed and warranted before a zoning decision is made. Currently I do not see this development plan as being consistent with the Comprehensive Plan.

I attended two May 2014 DC Zoning hearings regarding development plans for McMillan Reservoir. I appreciated the opportunity to share with the Zoning Commission my concerns about possible negative community and environmental impacts including health concerns associated with air pollution, noise pollution and loss of green/park space. I recently read about the D.C. Court of Appeals judgement issued on Dec. 8, 2016[1] which agreed with Friends of McMillan Park (FOMP) that the "Commission has a clear responsibility under the applicable statutes and regulations to assess environmental impacts when deciding whether to grant a PUD application." This includes environmental impact assessments of increased air and water pollution, noise, waste, emissions, and use of water, electricity, and gas. I do not believe many of these impacts are included or properly assessed in the District Department of the Environment's "ENVIRONMENTAL ASSESSMENT For McMillan Reservoir project" report (May 2016), written before the D.C. Court of Appeals ruling. Based on the publicly available case documents available on the IZIS site, I do not agree with Melinda Bolling, Director, Government of the District of Columbia, Department of Consumer and Regulatory Affairs decision "that the proposed action is not likely to have substantial negative impact on the environment" documented in her August 29, 2016 letter, a decision written before the D.C. Court of Appeals ruling.

I'd like to request that the Zoning Commission give community members and the public more time to evaluate all the materials recently added to the application for Case 13-14. Much of these materials were only loaded to the case exhibits last week, March 13, 2017. I and others in my community would appreciate more time to review recently added exhibits. I specifically would like more time to read and understand ***all*** of the District of Columbia's environmental assessment materials many of which are referenced in the May 2016 report but not included in the publically available case exhibits. Please make readily available to those following this case (#13-14) materials referenced in the March 13, 2017 documents including but not limited to:

- In-house reference materials listed in Section C on the May 2016 Environmental Assessment (EA)
- The applicant's responses to the EISF which is references heavily in the May 2016 EA
- The Air Quality Analysis (AQA) by Applied Environmental, Inc., Dec. 22, 2015
- The Air Quality Analysis (AQA) by ECS Mid-Atlantic, LLC, May 19, 2016
- Vehicle, transit, and traffic details not readily found in the publicly available Transportation Impact Study (TIS), e.g. miles traveled by specific engine, vehicle type, model year, fuel type.

[1] http://www.dccourts.gov/internet/documents/15-AA-0493plus.pdf last accessed March 21, 2017

A more complete Environmental Assessment (EA) or an Environmental Impact Statement (EIS) is needed and required for this project for numerous reasons including the following:

Inadequate DDOT assessment: A new/updated transportation impact study is needed and there need to be signed agreements that the traffic mitigation plans (e.g. placement of signals and turn lanes, parking limitations to encourage the use of non-automobile modes of travel) are not just recommended but required *before* any development plans are approved. DDOT needs to properly reassess not only how this project meets all DDOT standards (list of standards and how the VMP plan meets those standard is not included in the Sam Zimbabwe, Associate Director, District Department of Transportation (DDOT), letter from August 19, 2016 - review of 15-00632 – 2501 First Street NW (McMillan Reservoir)) and how the increases in traffic impacts safety and transportation emissions in the region. Earlier DDOT testimony to the Zoning Commission recognized that traffic congestion and safety mitigation efforts were required given significant increased traffic impacts from this project (e.g. May 1, 2014 testimony from Mr. Shiesel with Gorove/Slade Associates).

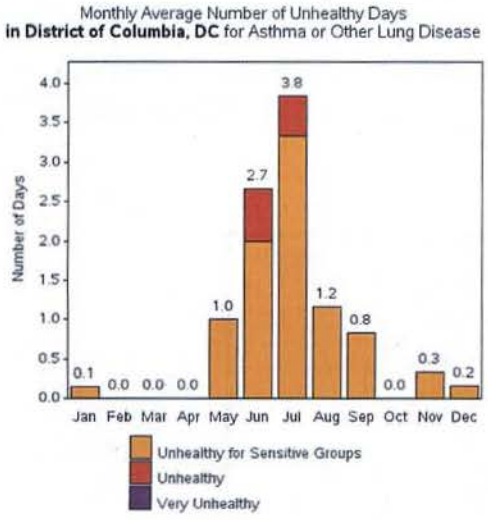
Incomplete and Inadequate Environmental Assessment (EA): The D.C. Court of Appeals in their December 2016 ruling stated that FOMP "contends that the Commission has a clear responsibility under the applicable statutes and regulations to assess environmental impacts when deciding whether to grant a PUD application. For the reasons already stated, we agree." The most recent May 2016 DDOE "ENVIRONMENTAL ASSESSMENT For McMillan Reservoir project" is only 24 pages long and does not include essential supporting documents and information, e.g. from the AQAs on carbon monoxide. The Environmental Assessment (EA) also does not include important components we'd expect to see in an EA, e.g. noise pollution. The EA and related letters/memos do not explain what criteria and reasons were used to recommend to the Dept. of Consumer and Regulatory Affairs that the project does not require the preparation of an environmental impact statement (EIS). While a full EIS may not be needed, I cannot find proper documentation on codifying that decision against the relevant statues and regulations set by the District of Columbia and the federal government. All sections of this DDOE EA need more analysis but I'll focus on the areas where I have some background and expertise:

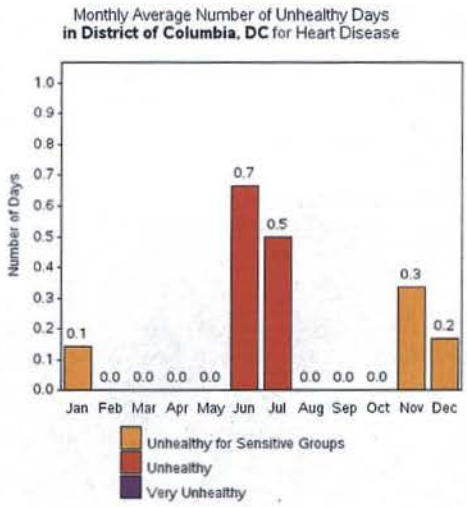
Noise pollution: The EA does not include a section on evaluation and abatement of noise pollution. Noise pollution should be assessed for all phases of construction and the future growth scenario. The project should demonstrate compliance with the Clean Air Act Title IV Noise Pollution section, the Noise Control Act of 1972, and the Quiet Communities Act of 1978 along with any relevant D.C. noise laws. stress related illnesses, high blood pressure, speech interference, hearing loss, sleep disruption, and lost productivity. Noise can produce a large range of negative health impacts beyond Noise Induced Hearing Loss (NIHL) including stress related illnesses, high blood pressure, speech interference, sleep disruption, and lost productivity.[2]

Air pollution: It is difficult for me to properly assess the conclusions in the EA provided (the 24-page document) given my inability to find essential referenced materials in the May 2016 DDOE EA, e.g. the Dec. 22, 2015 Air Quality Analysis (AQA) completed by Applied Environmental, Inc., the applicant's responses to the Environmental Impact Screening Form (EISF). I disagree with the DDOE Air Quality Division (AQD)'s decision to not modeling key National Ambient Air Quality Standard (NAAQS) criteria air pollutants specifically ozone, nitrogen dioxide (NO2), and fine particulate matter (PM2.5). The DC region is currently in non-attainment for ozone and barely in attainment for PM2.5. While the AQD claims that since ozone is a regional problem and project-specific analysis is not needed, that is not proper or helpful

[2] Noise and Its Effects, by Dr. Alice H. Suter, Administrative Conference of the United States, November 1991

to achieving attainment. Any State Implementation Plan (SIP) the DC-MD-VA area should address how they will work region-wide to reduce ozone including development plans with increased transportation emission, transit hubs, etc. that are part of the VMP plan. The SIP has to include Transportation Control Measures (TCM) along with other ozone control measures and saying this project can't help with the SIP is negligent on the part of DC's DDEO. Our regions also experience numerous days where the Air Quality Index (AQI) is not healthy for many vulnerable populations, e.g. elderly, children, asthmatics. These are two recent graphics showing the monthly average number of unhealthy AQI days for asthma or other lung diseases (often tied to more ozone and mobile source pollution) and for heart disease (typically tied to more PM2.5 and stationary and diesel mobile source pollution).[3]





For on-road emissions, again, I would like more time and access to materials I couldn't find in the Transportation Impact Study (TIS). I'm also interested in why the AQA modelers used CAL3QHCR and not EPA's MOBILE6.2 for the carbon monoxide estimates. I do appreciate them modeling CO emissions but would also like analysis on how hot spots of CO emissions, e.g. at the bus stops/stations, inside the garage, affect indoor air based on where it intake air vents are for the VMP development buildings, air exchange rates during peak heat and A/C conditions. Importantly, diesel is a known carcinogen and PM2.5 is known to cause cardiovascular and pulmonary health problems and decreased life expectance. PM2.5 should be modeled for both mobile source and point-sources associated with this project, e.g. generators.

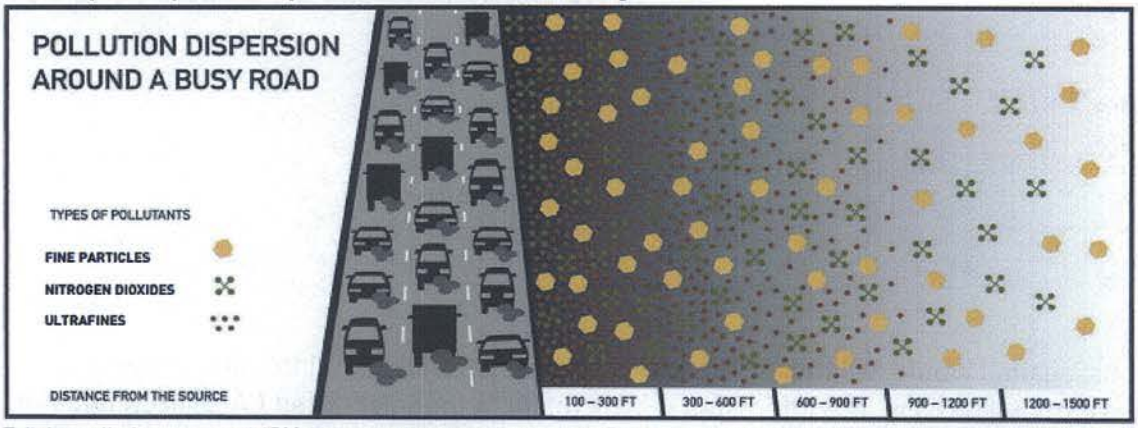
I also noted that the AQA did not include information about air pollution created during construction. Heavy-duty, non-road diesel equipment can be a major source of dangerous air pollution. VMP also needs to provide emission estimates on the equipment used on-site during *all* construction phases, not just post-construction, e.g. non-road equipment, boilers, generators, etc. AQD needs to evaluate and model these emission sources, specifically the diesel and PM2.5. Off-road diesel emissions are some of the worst local sources of air pollution to neighborhoods yet this was not included in the EA. I would like AQA to use the National Emissions Inventory (NEI) to evaluate all sectors generating air pollution and EPA's MOBILE6.2 and NONROAD models to estimate air pollution emissions from those sectors. PLEASE do not allow any dirty diesel equipment on-site to protect our community health. I've worked with several construction sites to ensure contractors use the cleanest diesel engines or retrofit options, e.g. diesel particulate filters. Analyzing the impacts from on-road and off-road vehicle and point-source emissions is essential to evaluating the health impacts from increased air pollution.

[3] Environmental Protection Agency, AirNow data and website, last accessed March 22, 2017.

Hotspots of air pollution: The EA, by using the NAAQS attainment as reasons to dismiss air pollution as an environmental health concern for this project, ignores the actual site conditions and related risks. Ambient air monitoring stations only capture the area pollution, what birds are breathing, not the pollution as we breath it in our neighborhoods, walking our sidewalks, closer to the tailpipes and sources. Saying that the DC metropolitan area as a whole is in compliance with NAAQS is not an acceptable reason to not model and include PM2.5, NO2 and other NAAQS pollution in the air quality analysis (AQA) for this project. And our environmental health compromised by this development project both during construction and after.

Hotspots of local air pollutants exist particularly around construction sites and traffic corridors. This graphic shows how certain air pollutants, including fine particles (PM2.5) and nitrogen dioxides (NO2) which are NAAQS pollutants, will de higher and in greater concentrations along the increased traffic corridors[4] around this development project.

FIGURE 1
Traffic spreads pollution up to 1500 feet from the roadway



Tailpipe pollution can travel 1500 feet or farther from the roadway. Three pollutants types and their impact range are depicted.

The environmental assessment (EA) air quality analysis (AQA) should misses the very real an important health effects known to occur on a short-term timeline by not modeling ozone and PM2.5 at a minimum. Table 2.3.1.1 is from EPA's last Integrated Science Assessment (ISA) conducted in 2009 reflecting the best scientific knowledge on public health effects associated with exposure to particulate matter air pollution[5] Long-term effects of exposure to fine (PM2.5) and ultrafine particulate matter (PM1.0) are also significant and summarizes in the last EPA review of the research in Table 2.3.1.2. There is growing evidence that neurological effects[6] including Alzheimer's disease[7] and dementia[8] can be attributed to exposures to particulate air pollution. Ultrafine particles can travel up the olfactory nerve pathway and deposit directly into the brain.[9]

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[4] Environmental Defense Fund, *All Choked Up: Heavy Traffic, Dirty Air and the Risk to New Yorkers*, March 2007.

[5] U.S. EPA, 2009 Final Report: Integrated Science Assessment for Particulate Matter. U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-08/139F, 2009.

[6] American Psychological Association, "Smog in our brains Researchers are identifying startling connections between air pollution and decreased cognition and well-being" Kirsten Weir July/August 2012, Vol 43, No. 7 Print version: page 32

[7] Maher BA, Ahmed IAM, Karloukovski V, et al. Magnetite pollution nanoparticles in the human brain. PNAS. Published online September 6 2016

[8] Nature, "Particulate air pollutants, APOE alleles and their contributions to cognitive impairment in older women and to amyloidogenesis in experimental models." *Translational Psychiatry* (2017) **7**, e1022; doi:10.1038/tp.2016.280, Published online 31 January 2017

[9] Translocation of Inhaled Ultrafine Particles to the Brain, G. Oberdörster, Z. Sharp, V. Atudorei, A. Elder, R. Gelein, W. Kreyling, and C. Cox Inhalation Toxicology Vol. 16 , Iss. 6-7,2004

2.3.1.1. Effects of Short-Term Exposure to $PM_{2.5}$

Table 2-1. Summary of causal determinations for short-term exposure to $PM_{2.5}$.

Size Fraction	Outcome	Causality Determination
$PM_{2.5}$	Cardiovascular Effects	Causal
	Respiratory Effects	Likely to be causal
	Mortality	Causal

2.3.1.2. Effects of Long-Term Exposure to $PM_{2.5}$

Table 2-2. Summary of causal determinations for long-term exposure to $PM_{2.5}$.

Size Fraction	Outcome	Causality Determination
$PM_{2.5}$	Cardiovascular Effects	Causal
	Respiratory Effects	Likely to be causal
	Mortality	Causal
	Reproductive and Developmental	Suggestive
	Cancer, Mutagenicity, and Genotoxicity	Suggestive

Environmental Justice (EJ): Hot spots of air pollution happen most frequently around areas with lower socioeconomic (SES) conditions and community barriers to affecting decisions in their neighborhood. The EA only took a precursory look at EJ issues running EPA's EJ Screen tool. I disagree with their EJ Screen assessment and also recommend going beyond that simplistic "check-off" approach to concluding EJ issues had been appropriately addressed for the EA – they have not. The lack of transparency throughout this development proposal project showcases those problematic EJ issues.

Greenspace Assessment: The EA fails to address the environmental and health benefits or losses associated with this plan. There are significant studies in both the U.S. and the U.K showing that people living in greener urban areas experience better health, independent of socio-demographic characteristics.[10] Green space within the local neighborhood has been shown to be associated with reduced rates of self-reported poor health[11] and mortality[12], respiratory disease and cardiovascular disease (CVD).[13] "Observational, individual and ecological studies have additionally found people living in greener urban areas to experience better health, independent of socio-demographic

[10] Maas J, Verheij RA, Groenewegen PP, de Vries S, Spreeuwenberg P. Green space, urbanity, and health: How strong is the relation? J Epidemiol Community Health. 2006;60: 587–592. pmid:16790830

[11] Mitchell R, Popham F. Greenspace, urbanity and health: relationships in England. J Epidemiol Community Health. 2007;61: 681–683. pmid:17630365

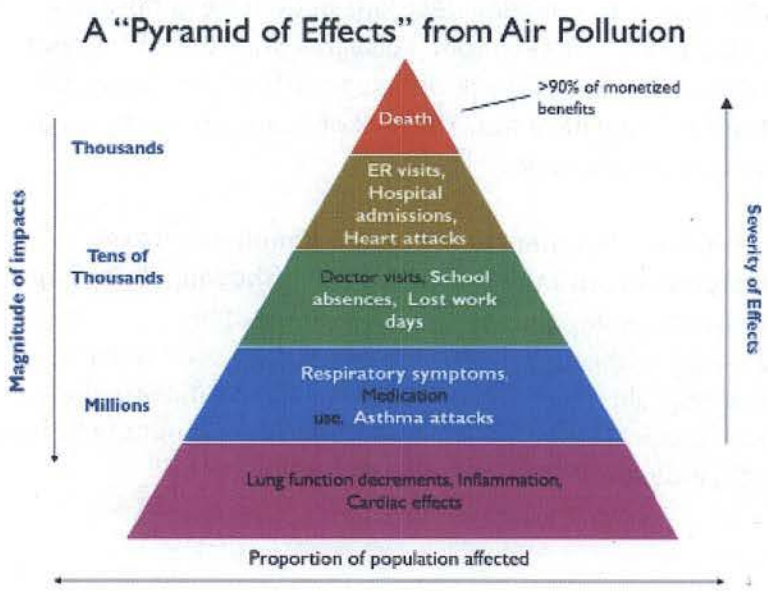
[12] Mitchell R, Popham F. Effect of exposure to natural environment on health inequalities: an observational population study. Lancet. 2008;372: 1655–1660. doi: 10.1016/S0140-6736(08)61689-X. pmid:18994663

[13] Richardson EA, Mitchell R. Gender differences in relationships between urban green space and health in the United Kingdom. Soc Sci Med. 2010;71: 568–575. doi: 10.1016/j.socscimed.2010.04.015. pmid:20621750

characteristics.[14]" Unfortunately, studies in the U.S.[15] and the U.K.[16] show that neighborhood health benefits are lost when scaling up assessments to the city-level. This is possibly due to EJ and loss-of-greenspace buffers creating more hot spots of pollution in certain areas. Moving development to zones already permitted for building helps achieve sustainability goals while preserving and protecting greenspace that provide numerous benefits to health and the community.

Health Assessment: Ideally, I'd like to see a full Health Impact Assessment for the development project. "Health impact assessment (HIA) is used to evaluate the public health consequences of proposed decisions in non-health sectors. HIA is a systematic process that uses an array of data sources and analytic methods and considers input from stakeholders to determine the potential effects of a proposed policy, plan, program, or project on the health of a population and whether the health effects are distributed evenly within the population. HIAs provide practical recommendations for how to minimize negative health effects and maximize beneficial health effects."[17] At a minimum, I'd like to see the District of Columbia or the developer use BenMap to calculate the number and economic value of air pollution-related deaths and illnesses associated with the air pollution from the project. Air pollution around busy streets has been linked to heart attacks, asthma attacks, loss of IQ points in children and many other detrimental health effects.[18]

"The BenMAP-CE tool estimates the number and economic value of health impacts resulting from changes in air quality - specifically, ground-level ozone and fine particles.
Fine particles can enter deep into the lungs and enter the blood stream." Some of the health impacts from particles include premature death, non-fatal heart attacks, aggravated asthma, stroke, and other pulmonary and cardiovascular problems. Ground-level ozone is an oxidant that can irritate airways in the lungs. Some of the health impacts form ozone include premature death, aggravated asthma, lost days of school, and other respiratory problems. The pyramid shown describes how the incidence, and severity, of fine particle and ozone-related health impacts are related.[19]



A proper assessment of air pollution and resulting health impacts is needed for this project before allowing it to proceed.

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[14] Maas J, Verheij RA, Groenewegen PP, de Vries S, Spreeuwenberg P. Green space, urbanity, and health: How strong is the relation? J Epidemiol Community Health. 2006;60: 587–592. pmid:16790830

[15] Richardson EA, Mitchell R, Hartig T, de Vries S, Astell-Burt T, Frumkin H. Green cities and health: a question of scale? J Epidemiol Community Health. 2012;66: 160–165. doi: 10.1136/jech.2011.137240. pmid:22003083

[16] Bixby H, Hodgson S, Fortunato L, Hansell A, Fecht D (2015) Associations between Green Space and Health in English Cities: An Ecological, Cross-Sectional Study. PLoS ONE 10(3): e0119495. doi:10.1371/journal.pone.0119495

[17] Improving Health in the United States: The Role of Health Impact Assessment (2011), National Academies Press

[18] HEI Panel on the Health Effects of Traffic-Related Air Pollution. (2010). Traffic-related air pollution: a critical review of the literature on emissions, exposure, and health effects – Special Report 17. Health Effects Institute, Boston, MA.

[19] Environmental Protection Agency, Benefits Mapping and Analysis Program (BenMAP) website, last accessed March 22, 2017

Better solutions and collaborative development approaches are available.

Please, do not review or approve any zoning requests until these issues, along with others presented tonight, are properly addressed. I am very concerned about the 1) lack of transparency in the decision-making and criteria used in both development plan approvals and environmental assessment decisions, 2) the lack of access to all relevant documents associated and referenced in the publicly accessible zoning case items, 3) the lack of honest communication with the community, and 4) the lack of respect and adherence to D.C.'s Comprehensive Plan. Let's work together for a better McMillan development approach. Key suggestions include:

- **Open up development plan options:** This is the opportune time to reopen the competition and design options for development of this parcel.
- **Use Transfer Development Rights (TDRs):**[20] Preventing pollution is key. TDRs would allow developers to building more density where needed, allow the property owner, in this case the District of Columbia, to gain financially from selling development rights while still protecting the original land and site, and provide more tax revenue based on the increased development rights given to the more appropriate site location – it's a win/win/win.
- **Use a Community Benefits Agreement:**[21] Working with the local community, including urban sustainable gardens, would provide more input into development plans, e.g. more balanced and beneficial development plans that are accepted by the community.
- **Use a public-private partnership**: The community, city and economy would grow 10-100 times with a visionary plan that preservers and develops McMillan as a destination public space. There are numerous park-city examples of success, e.g. New York City's High-Line. which both used public-private partnership agreement variations. The benefits from these unique spaces has been shown to improve development in the surround zones including increased tax revenues and property values.

PLEASE think visionary. Develop the McMillan into a strong public space that protects and benefits the environment, community and public health. Working together with community members can help development grow sustainably in harmony with the protection and preservation of our water, air, and environment. Reject this VMP plan or delay a decision until proper assessments are conducted. Let's develop smartly, together, with community and District collaboration.

Respectfully,

Mel Peffers
Environmental Health Scientist
Bloomingdale neighbor and DC homeowner
2201 2nd St. NW
Washington, DC 20001

[20] Transfer of Development Rights, Conservation Tools via Pennsylvania Land Trust Association, John Theilacker original author; http://conservationtools.org/guides/12-transfer-of-development-rights last accessed March 17, 2017.
[21] https://en.wikipedia.org/wiki/Community_Benefits_Agreement

Jim Schulman, AIA, Architect
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Testimony: BZA Case No. 20191 (McMillan appeal)

August 5, 2020

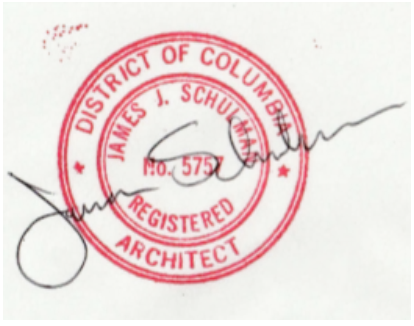
Honorable Members of the Board of Zoning Adjustment:

My name is Jim Schulman and I have been a Registered Architect in the District and Maryland for over 30 years. I have taken multiple opportunities to testify regarding the McMillan Sand Filtration Plant development. I testified as expert witness before the Mayor's Agent for Historic Preservation in the Court of Appeals Remand to the Zoning Commission. My interest in the case relates to my observation that this project is at the opposite extreme from a project of "special merit," as its planning, design, governmental approvals and permit-processing have been incomplete, inconsistent with community and civic needs, and have already wasted precious public resources. This is the ***second time*** demolition permits have been issued improperly! There is an eagerness to demolish the vaulted underground caverns at this site that might relate to the presence of asbestos in the unreinforced concrete that constitute the walls, columns, and roof structures to be demolished. It is possible that the development team and the Deputy Mayor's Office for Planning and Economic Development worry that an Administrative Law Judge might rightly demand that the historic fabric be thoroughly tested to protect public health and DC drinking water.

The Secretary of Interior's Standards for Historic Preservation are of the essence of this case, as they convey with the Federal Covenants, and nothing in the DC Code indicates that they can be waived on the say so of the Mayor's Agent for Historic Preservation. DC's zoning procedure law is also of the essence. Subtitle Z, Section 702 of the District's Code of Municipal Regulations is very clear. The Appellants pleading demonstrates that demolition and foundation permits have been issued prematurely, in that the project is still undergoing review by the Office of Administrative Hearings, the Commission on Fine Arts, and the P.U.D.'s zoning ought to be reviewed again, for final design purposes, by the Zoning Commission.

I strongly urge the BZA to revoke the permits issued to date. The BZA should then go further and see that a new and fair bidding process is developed for the selection of a development team that will truly engage the citizens of the District in a design development process that is dedicated to providing benefits to the near-by residents and the public at large, including full compliance with Inclusionary Zoning and reviewed through a public health and equity lens.

Thank you for this opportunity to submit my comments.



Dr. Sacoby Wilson
Written Testimony

1. **As required by the regulations governing DOEE's review under the DC Environmental Policy Act, attached, DDOE is required to assess the health impacts of proposed actions, noise impacts, and cumulative impacts.**

There should be an assessment of the health impacts of the development on local populations, those populations that reside, work, play, or pray near the proposed development. The current EA is not in compliance because it has not included public health impacts. I suggest that a health impact assessment is performed. There needs to be baseline data collected on local hazards, pollution, sociodemographics, and health status. I suggest that analyses should be performed in a five block radius, 10 block radius, and 25 block radius around the proposed develop to capture populations particularly vulnerable groups that will be impacted by pollution particularly air pollution associated with the development. The use of ward level, city-wide, or regional data is not relevant or applicable to populations that are in close proximity to the proposed development.

Health Impact Assessment (HIA) is a tool that is designed to support decision and policymaking. HIA combines array of data sources, analytic methods and input from stakeholders including community members to determine if a proposed policy, plan, program, and/or decision has the potential to impact the health of the community, and how these effects are distributed within population subgroups that differ by geography, SES, and demographic characteristics [9]. This information is then fed back to the policymakers to help them make an informed decision on the pending policy, plan, program and/or decision. HIA is not a quantitative risk assessment, rather it provides information that is qualitative in nature that can be used to assess whether and how community wellbeing may be impacted, both directly and indirectly.
It consists of 6 steps: 1. Screening: Initial step to determine the need for HIA. 2. Scoping: With community input, identify the most important hazard and health impact to focus on. 3. Assessment: Analyze the baseline characteristics of the population and provide anticipated potential effects. 4. Recommendations: Based on the assessment, develop recommendations for minimizing health effects, and approaches for monitoring. 5. Reporting: Prepare a report for the decision makers, disseminate the findings and recommendations to all the stakeholders including community members. 6. Monitoring and Evaluation of the HIA Process: Evaluate if the HIA process helped the decision-making process.

2. **DOEE's examination only of pollutants for which DC is in attainment fails to approach this analysis from a public health impact (as distinct from an air quality impact) perspective, even though DC's regulations require consideration of human health impacts.**

The fact that DC is in attainment for several criteria air pollutants is irrelevant. It is barely in attainment for particulate matter and is not in attainment for ozone. The attainment status is for DC, not for the site specific area that will be impacted by the development. You need to perform an analysis to assess impacts particularly traffic related impacts on the local population. This is why a hot-spot analysis is needed for all combustion related emissions resulting from increased traffic close to a residential neighborhood and other sensitive receptor sites including schools, day care centers, senior centers, Howard University (college students) and most importantly populations who are ill and/or with comorbidities or underlying social or economic vulnerabilities who seek care at the multiple hospitals near the proposed development. There are five hospitals near the area that could be impacted by traffic-related air pollution: Children's Hospital, Veteran's Hospital, MedStar, Washington Hospital, and Howard U Hospital.

3. **The point of an EA is to assess the totality of a project's impacts, even if those impacts as a substantive matter are regulated by another agency. The EA's conclusion that the project does not have a significant impact is undermined when relevant impacts are omitted from the EA or not addressed simply because they are under another agency's jurisdiction (i.e., the DC Department of Health).**

It is important for the EA to be updated to assess cumulative impacts of both chemical, and non-chemical stressors including noise, psychosocial stressors, and other social determinants. The agency should work with the health department to develop a cumulative risk assessment.

Conventional risk assessment methods were designed to assist regulators and risk managers in addressing threats resulting from a single chemical or source to a hypothetical individual, instead of a population. This approach fails to account for the fact that exposures do not happen in a vacuum, and that individuals are simultaneously exposed to multiple chemical, biological and physical hazards as well as psychosocial stressors. This shortcoming of traditional risk assessment has given rise to cumulative risk assessment (CRA) or community-based risk assessment approaches. Cumulative risk is the combined risk from aggregate exposures from all relevant routes, to multiple hazards or stressors, including chemical, biological, physical and psychosocial stressors. Under this framework, the CRA is divided into 3 distinct phases: 1) planning and scoping and problem formulation, 2) analysis phase, and 3) risk estimation and characterization. In this approach, the impacted community is the central focus, instead of a specific chemical or the source. CRA is a tool for organizing and analyzing information to examine, characterize and possibly quantify the combined adverse human health effects from multiple stressors. The scoping process allows engagement of stakeholders, particularly impacted community members, from the onset. This process helps to identify concerns that are of high priority to the impacted community. As such, it is a useful tool for a community that is being impacted by new development. CRA is often not quantitative like conventional risk assessment. This is because CRA deals with the combined effects of multiple hazards (chemical, physical, and biological) and psychosocial stressors, and calculating specific risk, including interactions among various mixtures/stressors is methodologically complex. Although there has been some advancement made in terms of aggregate exposure and dealing with hazards that have common mechanisms of toxicity, similar modes of action, or have common target organs, there are no clear approaches to deal with interactions between multiple stressors, particularly non- chemical stressors such as psychosocial stress from loss of property value, loss of community identity, family conflict, poverty, unemployment, lack of access to amenities, unsafe community conditions and working environments, limited access to healthcare resources, discrimination, residential crowding, street crime, traffic congestion and other circumstances, on risk.

Air Pollution and Human Health

- There are **more than 45 million people in the United States living, working, or attending school within 100 meters/yards of a major road, airport or railroad** (USEPA)
- In January 2010, the Health Effects Institute published a major review of the evidence by a panel of expert scientists. The panel looked at over 700 studies from around the world, examining the health effects. **The area most affected, they concluded, was roughly 0.2 to 0.3 miles (300 to 500 meters) from the highway.** [1]
- **The number of people living "next to a busy road" may include 30 to 45 percent of the urban population in North America**, according to the most recent review of the evidence. (TRB News 2015)
- **In the U.S. alone, 200 million people live in areas where pollutants such as ozone and fine particulate matter exceed the standards. (Mexico City Study)**

Health Effects Institute Panel on the Health Effects of Traffic-Related Air Pollution, *Traffic-Related Air Pollution: A Critical Review of the Literature on Emissions, Exposure, and Health Effects.* Health Effects Institute: Boston, 2010. Available at www.healtheffects.org

- One in six people in the United States lives in an area with unhealthy year-round levels of fine particle pollution (termed annual average levels). More live in areas where levels are higher on a seasonal basis due to air/temp patterns or other. **Roughly 3 in 10 Americans live in counties with unhealthful spikes of particle pollution which can last from hours to days (termed 24-hour levels)**.
- **Six out of ten Americans -- 186.1 million people -- live in areas where air pollution levels endanger lives, according to a new report listing cities with high and low pollution levels. Nearly every major U.S. city is still burdened by significant amounts of air pollution.** "When 60 percent of Americans are left breathing air dirty enough to send people to the emergency room, to shape how kids' lungs develop, and to kill, air pollution remains a serious problem."
- **Fifty-eight percent of people in the United States live in counties with recorded unhealthy levels of ozone air pollution, measured against the tighter standard in effect since March 2008. The new standard showed that unhealthy ozone levels are more widespread and more severe than**

previously recognized. Ozone is the most widespread form of air pollution. When inhaled, ozone irritates the lungs, resulting in something like a bad sunburn. The health effects of breathing ozone pollution can be immediate. Ozone can cause wheezing, coughing and asthma attacks. Breathing ozone pollution can even shorten lives.

- **"More than 175 million Americans live in areas with unhealthy smog levels**—that's 80 million more than we identified in last year's report," explained Charles D. Connor, American Lung Association President and CEO. "We at the American Lung Association believe that the new ozone standard is not yet strong enough to protect human health—an opinion nearly all scientific experts share."
- Previous studies have focused on the young, the elderly, and those with asthma or diabetes, but recent research shows that young people in the prime of life have brain alterations/damage associated with air pollution, when they are entirely healthy, otherwise. Still, "air pollution worsens asthma and is a direct cause of heart attacks, which makes people living with lung and heart disease especially vulnerable."
- Emerging research has redefined the severity and immediate health impacts of particle pollution and ozone, as well as an expanded definition of specific groups at great risk. New data show that **women in their 50s may be particularly threatened by air pollution, that women of reproductive age (and their fertility) are affected by air pollution, and that working age people such as diesel truck drivers and dockworkers who are forced to breathe exhaust on the job face a greater risk of developing lung cancer or chronic obstructive pulmonary disease**. As a result, **California researchers have tripled their estimate of the number of people that particle pollution kills each year in their state**.
- **"The science is rock-solid. We now know that air pollution can impair the lung function of even the healthiest people,"** said Norman H. Edelman, MD, American Lung Association Chief Medical Officer.
- **Low income people and some racial and ethnic groups often face greater risk from pollutants. Pollution sources like factories and power plants may be closer to their homes. Many live near areas with heavy highway traffic or have poor access to health care, which makes them even more vulnerable**. Some racial and ethnic groups have a higher prevalence of diseases like **asthma or diabetes, which compounds the ill effects of air pollution** for these groups.

The deaths currently associated with air pollution in these counts include those from lung cancer, chronic obstructive pulmonary disease (COPD) and respiratory infections.

UBC. "Poor air quality kills 5.5 million worldwide annually." ScienceDaily. 12 February 2016. www.sciencedaily.com/releases/2016/02/160212140912.htm.

"Particulate air pollution is like lead pollution; there is no evidence of a safe threshold even at levels far below (a third of) current standards"

A new study by researchers at the Harvard School of Public Health found that death rates among people over 65 are higher in zip codes with more fine particulate air pollution (PM2.5) than in those with lower levels of PM2.5, researchers have found. **The harmful effects from the particles were observed even in areas where concentrations were less than a third of the current standard set by the US EPA.**

It is the first study to examine the effect of soot particles in the air in the entire population of a region, including rural areas. The researchers used satellite data to determine particle levels and temperatures in every zip code in New England. This allowed them to examine the effects of PM2.5 on locations far from monitoring stations, and to look at the effects of short-term exposures and annual average exposures simultaneously. They **analyzed health data from everyone covered by Medicare in New England -- 2.4 million people -- between 2003 and 2008 and followed them each year until they died and found that both short- and long-term $PM_{2.5}$ exposure was significantly associated with higher death rates, even when restricted to zip codes and times with annual exposures below EPA standards.**

Liuhua Shi, Antonella Zanobetti, Itai Kloog, Brent A. Coull, Petros Koutrakis, Steven J. Melly, Joel D. Schwartz. **Low-Concentration PM2.5 and Mortality: Estimating Acute and Chronic Effects in a Population-Based Study**. *Environmental Health Perspectives*, 2015; DOI:10.1289/ehp.1409111

Harvard School of Public Health. "Air pollution below EPA standards linked with higher death rates." ScienceDaily. ScienceDaily, 4 June 2015. www.sciencedaily.com/releases/2015/06/150604100801.htm.

Traffic, Air Pollution, and Disparities

Those living or walking near exhaust sources, who tend to be lower income, suffer

Higher levels of nearby traffic increase exposure to air pollution and adversely affect health outcomes. Populations with lower socio-economic status (SES) are particularly vulnerable to stressors like air pollution. We investigated cumulative exposures and risks from traffic and from MNRiskS-modeled air pollution in multiple source categories across demographic groups. Exposures and risks, especially from on-road sources, were higher than the mean for minorities and low SES populations and lower than the mean for white and high SES populations. **Owning multiple vehicles and driving alone were linked to lower household exposures and risks. Those not owning a vehicle and walking or using transit had higher household exposures and risks. These results confirm for our study location that populations on the lower end of the socio-economic spectrum and minorities are disproportionately exposed to traffic and air pollution and at higher risk for adverse health outcomes. A major source of disparities appears to be the transportation infrastructure. Those outside the urban core had lower risks but drove more, while those living nearer the urban core tended to drive less but had higher exposures and risks from on-road sources.** We suggest policy considerations for addressing these inequities

Pratt, Greg et al. Traffic, Air Pollution, Minority and Socio-Economic Status: Addressing Inequities in Exposure and Risk http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4454972/ Am J Public Health. 2014 January; 104(1): 156–164.

Risks can increase sharply as traffic with gas and diesel-powered vehicles increases or rush hour or delay grows longer

Traffic congestion increases vehicle emissions and degrades ambient air quality, and recent studies have shown excess morbidity and mortality for drivers, commuters and individuals living near major roadways. Presently, our understanding of the air pollution impacts from congestion on roads is very limited. This study demonstrates an approach to characterize risks of traffic for on- and near-road populations. Simulation modeling was used to estimate on- and near-road NO2 concentrations and health risks for freeway and arterial scenarios attributable to traffic for different traffic volumes during rush hour periods. The modeling used emission factors from two different models (Comprehensive Modal Emissions Model and Motor Vehicle Emissions Factor Model version 6.2), an empirical traffic speed-volume relationship, the California Line Source Dispersion Model, an empirical NO2-NOx relationship, estimated travel time changes during congestion, and concentration-response relationships from the literature, which give emergency doctor visits, hospital admissions and mortality attributed to NO2 exposure. **An incremental analysis, which expresses the change in health risks for small increases in traffic volume, showed non-linear effects. For a freeway, "U" shaped trends of incremental risks were predicted for on-road populations, and incremental risks are flat at low traffic volumes for near-road populations. For an arterial road, incremental risks increased sharply for both on- and near-road populations as traffic increased. These patterns result from changes in emission factors, the NO2-NOx relationship, the travel delay for the on-road population, and the extended duration of rush hour for the near-road population.** This study suggests that health risks from congestion are potentially significant, and that additional traffic can significantly increase risks, depending on the type of road and other factors. Further, evaluations of risk associated with congestion must consider travel time, the duration of rush-hour, congestion-specific emission estimates, and uncertainties.

Zhang K[1], Batterman S. Air pollution and health risks due to vehicle traffic. Sci Total Environ. 2013 Apr 15;450-451:307-16. doi: 10.1016/j.scitotenv.2013.01.074. http://www.ncbi.nlm.nih.gov/pubmed/23500830

Environmental justice considerations in air pollution from traffic and health outcomes

Residential proximity to heavy traffic has been associated with adverse health effects, including asthma, reduced lung function, cardiac and pulmonary mortality, and adverse birth outcomes.1–3 Previous research suggests that non-White and lower income individuals may be exposed to higher levels of traffic-related air pollution4–8 and that disparities vary with social gradients associated with higher susceptibility to pollution.9,10 Environmental justice concerns are heightened in goods movement corridors in which substantial volumes of heavy-duty diesel trucks (HDDTs) transport shipping containers on arterials near residences and sensitive land uses through lower socioeconomic status communities.11,12

1. Adar SD, Kaufman JD. Cardiovascular disease and air pollutants: evaluating and improving epidemiological data implicating traffic exposure. Inhal Toxicol. 2007;19(suppl 1):135–149. [PubMed]

2. Lipfert FW, Wyzga RE. On exposure and response relationships for health effects associated with exposure to vehicular traffic. J Expo Sci Environ Epidemiol. 2008;18(6):588–599. [PubMed]

3. Wu J, Ren C, Delfino RJ, Chung J, Wilhelm M, Ritz B. Association between local traffic-generated air pollution and preeclampsia and preterm delivery in the south coast air basin of California. Environ Health Perspect. 2009;117(11):1773–1779. [PMC free article] [PubMed]

4. Bae C-HC, Sandlin G, Bassok A, Kim S. The exposure of disadvantaged populations in freeway air-pollution sheds: a case study of the Seattle and Portland regions. Environ Plann B Plann Des.2007;34(1):154–170.

5. Gunier RB, Hertz A, Von Behren J, Reynolds P. Traffic density in California: socioeconomic and ethnic differences among potentially exposed children. J Expo Anal Environ Epidemiol. 2003;13(3):240–246.[PubMed]

6. Houston D, Wu J, Ong P, Winer A. Structural disparities of urban traffic in southern California: implications for vehicle-related air pollution exposure in minority and high-poverty neighborhoods. J Urban Aff. 2004;26(5):565–592.

7. O'Neill MS, Jerrett M, Kawachi I. et al. Health, wealth, and air pollution: advancing theory and methods.Environ Health Perspect. 2003;111(16):1861–1870. [PMC free article] [PubMed]

8. Schweitzer L, Valenzuela AJ. Environmental injustice and transportation: the claims and the evidence. J Plann Lit. 2004;18(4):383–398.

9. Laurent O, Bard D, Filleul L, Segala C. Effect of socioeconomic status on the relationship between atmospheric pollution and mortality. J Epidemiol Community Health. 2007;61(8):665–675. [PMC free article][PubMed]

10. Ponce NA, Hoggatt KJ, Wilhelm M, Ritz B. Preterm birth: the interaction of traffic-related air pollution with economic hardship in Los Angeles neighborhoods. Am J Epidemiol. 2005;162(2):140–148.[PMC free article] [PubMed]

11. Fisher JB, Kelly M, Romm J. Scales of environmental justice: combining GIS and spatial analysis for air toxics in West Oakland, California. Health Place. 2006;12(4):701–714. [PubMed]

12. Houston D, Krudysz M, Winer A. Diesel truck traffic in port-adjacent low-income and minority communities; environmental justice implications of near-roadway land use conflicts. J Trans Research Board. 2008;2067:38–46.