



CITIZENS FOR SENSIBLE TRANSPORTATION PLANNING

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Because of the state's failure to perform the statutorily required studies, we do not know the absolute value of the harm that this freeway project will inflict upon the citizenry. This is precisely why we are pursuing this case. The NSC project creates a major, multimodal transportation corridor in an urban environment where there wasn't one and triples the freeway traffic lanes in the East Central Neighborhood. This project slices thru neighborhoods, past schools and businesses and could dramatically increase the risk of cancer and numerous other serious medical conditions for all those who live within its airshed. This transportation corridor was thrust into their communities; they did not choose to move into its shadow. Neither the Final Environmental Impact Statement, nor its Final Supplemental Environmental Impact Statement for the US-395 project addressed the health effects from air toxics in any fashion. Since the WSDOT did not do the studies we are left with uncertainty. The community was not informed of the risks and the decision to go forward with the project was made in a vacuum regarding the health effects this project would inflict upon our community.

It is well known that vehicle exhaust is toxic and contains cancer causing compounds. Within the last decade, numerous scientific studies have been published that document the significant health effects that afflict people living close to transportation corridors. *"Human epidemiology and animal toxicology experiments indicate that many chemicals or mixtures termed air toxics have the potential to impact human health. As toxicology, epidemiology and air contaminant measurement techniques have improved over the decades, scientists and regulators have increased their focus on the levels of each chemical or material in the air in an effort to link potential exposures with potential health effects"* (APPENDIX D of Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents, FHWA Sponsored Mobile Source Air Toxics Research Efforts).

Given the lack of project-specific research (which this legal action seeks to remedy), we are left with examining the results from air toxics research conducted on other transportation corridors to characterize the potential harm that could be inflicted upon the residents in our community.

In 2000, the South Coast Air Quality Management District in California made a major contribution to the research showing the link between cancer and mobile source pollution. The final Multiple Air Toxics Exposure Study (MATES-II) measured exposures to 30 toxic air pollutants at 22 locations in the Los Angeles air basin. MATES-II demonstrated that *emissions from mobile sources account for 90% of the overall cancer risk* attributable to toxic air pollutants in the five-county air district. *MATES-II also demonstrated that higher levels of risk occur near highways.* The study

found that the range of cancer risks varied significantly across the region. MATES-II concluded that “[f]or mobile source compounds such as benzene, 1-3 butadiene, and particulates associated with diesel fuels, *higher concentration levels are seen along freeways and freeway junctions.*” Thus the cancer risks to populations in close proximity to a major freeway will be substantially greater than the regional cancer risks attributable to motor vehicle emissions. [South Coast Air Quality Management District, Multiple Air Toxics Exposure Study-II (Mar. 2000), *available at <http://www.aqmd.gov/matesiidf/matestoc.htm>*].

A 2004 study designed to determine whether the proximity of 10 middle schools to major freeways in California’s East Bay caused adverse health effects among school children aged 10 to 12 found a statistically significant greater prevalence of diagnosed asthma and bronchitis among students at the four schools most affected by motor vehicle emissions. At each school, the study monitored concentrations of a number of motor vehicle-related pollutants, showing that *PM2.5* was 25% higher in a school yard 60 meters from a freeway than at monitors located a mile from the freeways. Black carbon, a component of diesel exhaust measured at the schools, was also shown to increase with proximity of the school to a major highway. Carbon levels were 55% higher at the school closest to a freeway compared to schools that were more than a mile distant from a freeway. Air quality at every school complied with national ambient air quality standards (NAAQS). [Janice J. Kim et al., Traffic-Related Air Pollution Near Busy Roads: The East Bay Children’s Respiratory Health Study, 170 *Am. J. Respiratory & Critical Care Med.* 520 (2004).]

While fetuses and children may be the population most sensitive to the effects of air pollution from vehicles, adults are also at risk. A report by the American Heart Association summarized decades of research showing that particulate matter contributes to premature mortality, increased hospitalizations and urgent care events related to both respiratory (lung) and cardio-vascular (heart) disease. Some of the greatest risks associated with particulate pollution are associated with exposure to diesel exhaust, and spending many hours on heavily trafficked highways. [“Air Pollution and Cardiovascular Disease--A Statement for Healthcare Professionals From the Expert Panel on Population and Prevention Science of the American Heart Association,” *Circulation* (AHA, June 1, 2004), p. 2655.]

Research published in 2005 shows that respiratory health in children is adversely affected by local exposures to outdoor nitrogen dioxide or other freeway-related pollutants. [W.J. Gauderman, E Avol, F. Lurmann, N. Kuenzli, F. Gilliland, J. Peters, and R. McConnell, *Childhood Asthma and Exposure to Traffic and Nitrogen Dioxide* Epidemiology, Volume 16, Number 6, November 2005].

Research published in 2005 aimed at attempting to find an explanation for cancer deaths among children before age 16 found that mothers who lived less than one kilometer from a highway during pregnancy and the first months following birth were much more likely to lose a child to cancer. [E.G. Knox, *Childhood Cancers and Atmospheric Carcinogens*, 59 *J. Epidemiology Community Health* 101 (Jan. 2005).]

In patients with asthma, air pollution increases symptoms, medication use, bronchoconstriction, emergency room admissions and hospitalisations. These effects are linked to pollutants such as ozone, nitrogen dioxide and particulate matter (PM) and, increasingly, the role of traffic-related air pollution has been highlighted. Traffic pollution consists of a complex mixture of particles and gases from gasoline and diesel engines, together with dust from wear of road surfaces, tyres and brakes. The coarse particles from road dust have been clearly associated with worsening of asthma and respiratory symptoms. Motor engine particles from diesel engines have been linked with worsening of asthma and increased bronchial hyper-responsiveness, a hallmark of asthma. [Sandstrom, T., Kelly, F. J (2009). Traffic-related air pollution, genetics and asthma development in children. *Thorax* 64: 98-99].

Research published in 2008, Multiple Air Toxics Exposure Study III (Mates III) presented the most sophisticated study ever conducted of toxic air pollution and its health risk in southern California. The study revealed that diesel particulate matter accounts for approximately 84 percent of region-wide cancer risk and mobile sources account for 94 percent of risk total. The study concluded that the risks are still unacceptable and are higher near sources of emissions such as ports and transportation corridors. [MATES III Multiple Air Toxics Exposure Study in the South Coast Air Basin, South Coast Air Quality Management District, September, 2008].

This growing body of scientific evidence, often published in peer-reviewed scientific journals, pushed the federal government to issue their new guidance in 2009 regarding mobile sources of air toxics (MSAT) studies. FHWA guidance now requires quantitative analyses of MSAT studies be conducted for their Tier 3 status projects, such as the North Spokane Corridor project.

When the WSDOT prepared their Environmental Classification Summary (January, 2009) for this project recently funded thru the TIGER grant process (the subject of our lawsuit), they specifically avoided answering questions regarding Part 4 – Environmental Considerations, section 5b Air Quality MSAT evaluation because they believe “This project is exempt from MSAT evaluation.” [page four of seven]. This erroneous conclusion (based on their belief that the ROD predates the MSAT guidance and therefore exempts them from having to conduct MSAT studies) is not supported by the clear language in 23 C.F.R. §771.130 *Supplemental environmental impact statements*.

- a. *A draft EIS, final EIS, or supplemental EIS may be supplemented at any time. **An EIS shall be supplemented whenever the Administration determines that:***
 1. *Changes to the proposed action would result in significant environmental impacts that were not evaluated in the EIS; or*
 2. *New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in the EIS.*

As the FHWA itself has issued new Guidance regarding when and how to analyze the emerging threat of mobile source air toxics in the NEPA process for highways, this must qualify as being “relevant to environmental concerns” that needs to be adequately addressed through the NEPA process.