

Date: 8/14/15  
Submitted in TRAN/PLUM Committee  
Council File No: 15-0719  
1  
Deputy: Adam R. Lid

**Subsequent Responses to comments submitted to the Council File 15-0719**

The following are additional responses that DCP staff has prepared that address the comments submitted that relate to environmental analysis of the Mobility Plan 2035.

Air Pollution Exposure to Bicyclists

On July 29, 2015, Hollywoodians Encouraging Local Planning (HELP) submitted a series of hyper-linked articles that thematically address air pollution concentration on urban arterials, the pollution exposure to bicyclists, and air quality benefits of trees. The submittal does not specifically state any specific conclusion or raise deficiencies with MP 2035 EIR. After review by the City and the City's EIR consultants, we conclude that none of the articles and studies submitted support finding the EIR conclusions or analysis are in error. In fact, the majority of articles support, rather than contradict the conclusions in the MP 2035 EIR. Master Response 4 in the Final EIR (pages 2-13 through 2-7) addressed air pollution exposure to bicyclists on high volume urban arterials, including CO and fine PM.

The research efforts that aim to study direct air quality impact on the choice of urban cycling routes<sup>1</sup> is inconclusive, as identified in those studies, the research methodology is still evolving in tracking differentials in pollution intake. Some studies confirm the increased exposure to cycling along highly traveled arterials,<sup>2</sup> though are less conclusive of long-term risks.<sup>3 4</sup> Most of the research and articles referenced in the submittal conclude that cycling results in greater health benefits overall than driving,<sup>5</sup> even when considering the exposure to air pollutants, as motorists are also exposed to the air pollution, and bicycling improves overall health benefits due to exercise.<sup>6 7</sup> Other articles address air quality impacts on bicycling from other states<sup>8</sup> and countries.<sup>9 10</sup> However, it is unclear how their air pollution impact findings apply to California given the higher vehicle exhaust standards.

Some articles conclude that protected bicycle lanes help to mitigate exposure to poor air quality by increasing the physical separation from vehicle exhaust.<sup>11 12</sup> The Mobility Plan 2035 proposes a comprehensive network of facilities that would serve this function. There was also reference to the California Office of Environmental Health Hazard Assessment (OEHHA) fact sheet discussing the increased relative risk of air toxics to children.<sup>13</sup> The MP 2035 also includes a designation of

<sup>1</sup> Next City. 2015. Wearable Sensors Will Measure How Much Air Pollution City Cyclists Inhale. <https://nextcity.org/daily/entry/city-biking-breathe-air-pollution-sensors-wear-measure>

<sup>2</sup> CityLab. People Trying to Reduce Air Pollution Might Be Inhaling Even More Pollution. <http://www.citylab.com/commute/2012/12/people-trying-avoid-air-pollution-might-be-getting-even-more-pollution/4249/>

<sup>3</sup> Jarjpour, S., et al. 2013. Environmental Health. Cyclist route choice, traffic-related air pollution, and lung function: a scripted exposure study. <http://www.ehjournal.net/content/12/1/14>

<sup>4</sup> Weichenthal, Scott. Et al. 2011. Traffic-Related Air Pollution and Acute Changes in Heart Rate Variability and Respiratory Function in Urban Cyclists. *Environ Health Perspect.* 2011 Oct; 119(10): 1373-1378. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3230442/>

<sup>5</sup> Hartog, Jeroen Johan de., et al 2010. Do the Health Benefits of Cycling Outweigh the Risks? <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2920084/>

<sup>6</sup> Los Angeles Times. Bicyclists May Be Inhaling Twice as Much Soot as Pedestrians <http://articles.latimes.com/2011/sep/26/news/la-heb-cyclists-pollution-20110926>

<sup>7</sup> Bikeradar. Health: Air pollution, the Invisible Threat. <http://www.bikeradar.com/us/gear/article/health-air-pollution-the-invisible-threat-28264/>

<sup>8</sup> Bicycle Blueprint. Chapter 18. <http://www.transalt.org/sites/default/files/resources/blueprint/chapter18/chapter18b.html>

<sup>9</sup> Zuurber, Monick. Et al. 2010. Commuters' Exposure to Particulate Matter Air Pollution Is Affected by Mode of Transport, Fuel Type, and Route <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2898854/>

<sup>10</sup> Kingham, S. et al. 2011. Determination of personal exposure to traffic pollution while travelling by different modes <http://www.nzta.govt.nz/assets/resources/research/reports/457/docs/457.pdf>

<sup>11</sup> Fast Company Co.Exist. Bikers Suck Down Less Pollution When They Ride In Separated Bike Lanes, <http://www.fastcoexist.com/3031593/heres-an-idea/bikers-suck-down-less-pollution-when-they-ride-in-separated-bike-lanes>

<sup>12</sup> BikePortland.org. Study: Separated bikeways mean better air quality for bikers, walkers. <http://bikeportland.org/2010/10/28/study-cycle-tracks-mean-better-air-quality-for-bikers-walkers-41754>

<sup>13</sup> California Office of Environmental Health Hazard Assessment (OEHHA) website [http://oehha.ca.gov/public\\_info/facts/airkids.html](http://oehha.ca.gov/public_info/facts/airkids.html)

Neighborhood Streets that complement the Bicycle Enhanced Network (BEN) that facilitate bicycle travel of youth along low traffic corridors.

The submittal also includes several articles that point to the air quality benefits of trees, highlighting the environmental service they provide in filtering pollution.<sup>14 15 16</sup> Staff understand the air quality benefits of street trees, which is reflected in City policies and programs, as stated in Chapter 9 of the Framework Element. The management of the urban forest, including street trees, is carried out by the Department of Public Works Urban Forestry Division.

The collection of research and news articles does not change conclusion that the MP 2035 does not result in a significant impact due to air pollution exposure. To the extent that relative pollution exposure could be a factor to consider in exploring the relative merits in selecting optimal routes to receive facilities, that would be considered in the implementation of the MP 2035. As discussed in the EIR, many bicycle and transit lanes that would involve the repurposing of a travel lane, cannot be installed, constructed and implemented without further study and engineering, including environmental review.

### Lane Widths

In the letter submitted on July 29<sup>th</sup>, Luke Klipp requested that the City establish a standard 10-foot travel lane width and establish a maximum 11-foot travel lane width in the MP 2035, with the exception of limited circumstances to accommodate industrial access. He references the relationship of lane width and travel speed, also referred to as design speed, and concludes that narrower travel lanes will help reduce the impact of vehicle collisions.

Section 5.13 of the Complete Streets Design Guide (CSDG) recommends lane narrowing to provide traffic calming benefits. This section specifically recommends applying lane narrowing along roadways with wider lanes (12 feet or wider) to address safety and speeding concern. In limited circumstances along streets designated as Industrial Collectors (Chapter 2 of the CSDG), wider lane widths are permitted to accommodate turning radii required for trucks. While this does not create a requirement, it provides policy guidance that is consistent with the comment. Finally, nothing in the letter submitted provides any specific basis or evidence to demonstrate that the analysis or conclusions in the EIR are deficient.

---

<sup>14</sup> Don't Like Pollution In Your Home? Plant A Row Of Trees And Breathe Easier By Half.

<http://www.fastcoexist.com/3022137/dont-like-pollution-in-your-home-plant-a-row-of-trees-and-breathe-easier-by-half>

<sup>15</sup> David C. Laine, Demand Media. What Do Trees Do to Air Pollution?

<http://classroom.synonym.com/trees-air-pollution-15038.html>

<sup>16</sup> <http://www.itreetools.org/>