

## An open letter from Hounslow Cycling Campaign to Cllr Sam Hearn regarding CS9 and air pollution.

In a recent blog post<sup>1</sup>, Cllr Sam Hearn wrote *“It would however be good if the pro-CS9 lobby were to engage directly with the air pollution issue.”*

Hounslow Cycling Campaign is delighted to engage directly, and has produced the following document which provides evidence of the benefits of CS9, including its impact upon air pollution. In summary:

1. Air pollution is created by emissions from many sources both local and further away, which, when mixed in the atmosphere, continue to change chemically. Pollution from motor traffic is one of the important sources of local air pollution. So far as motor traffic is concerned, emissions vary with speed, and changes in individual journey times do not directly cause changes in the level of air pollution. For example, a study by Imperial College shows that it would be incorrect to assume a 20mph speed restriction would be detrimental to ambient local air quality.
2. TfL traffic modelling predicts a **decrease** of motor traffic on Chiswick High Road.<sup>2</sup>
3. Empirical evidence from the East West cycle superhighway has shown a small **decrease** in pollution following the cycle route being opened. This is in a location with a volume of traffic more than twice as great as on Chiswick High Road and where TfL predicted even greater increased journey times (which have subsequently not materialised).
4. Separately from any local changes there may be in levels of motor traffic, the creation of the Ultra-Low Emission Zone (ULEZ) will have far reaching effects in reducing motor traffic pollution at source, i.e. the vehicle exhaust pipe. These will further aid air pollution reduction in London.

**It is worth clearly stating, that the cause of air pollution is motor traffic, and that the way to reduce pollution from vehicles on Chiswick High Road is to reduce the number of polluting vehicles on Chiswick High Road. This can be achieved in various ways, one of which is to offer realistic options for people to cycle rather than to drive.**<sup>3</sup>

A focus only on journey times changes along Chiswick High Road to the exclusion of the other effects of slower speed and reduced motor traffic leads to wrong conclusions. Conversely, trying to suggest that air pollution could be reduced by increasing the speed of motor traffic could be considered as akin to trying to reduce obesity by making it easier to eat cake.

Cyclists using Chiswick High Road are people who would otherwise have either driven a car, or used the bus or the tube. More people cycling will reduce the net contribution to air pollution.

There may be other methods for reducing the number of polluting vehicles on Chiswick High Road besides the introduction of CS9. However, CS9 will have the double benefit of both helping to reduce air pollution, and at the same time offering people the chance to travel in a way that is cheap, efficient and has many health benefits for the individual.

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<sup>1</sup> <http://www.chiswickw4.com/default.asp?section=info&page=samhearnblog104.htm>

<sup>2</sup> <https://consultations.tfl.gov.uk/roads/fb586463/>

<sup>3</sup> [http://www.ajpmonline.org/article/S0749-3797\(15\)00622-4/fulltext](http://www.ajpmonline.org/article/S0749-3797(15)00622-4/fulltext)

We believe our document provides clear and compelling evidence of how CS9 will help address the issue of air pollution in West London and we look forward to Cllr Hearn's proposals.

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## Acknowledgements

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# Pollution and CS9 – the Evidence

## The big picture

Air pollution on Chiswick High Road will be primarily affected by a range of factors, most of which are unconnected with CS9. These include the following:

- The London Ultra Low Emission Zone (ULEZ) and the proposed expansion of the zone to cover the area bounded by the north and south circulars, hence the A315 section of Chiswick High Road.<sup>4</sup>
- The T charge (Emissions Surcharge) on older vehicles.<sup>5</sup>
- Changes to licensing requirements for taxis and private hire vehicles to mandate zero emission vehicles.<sup>6</sup>
- Changes to the bus fleet and introduction of a low emission bus zone from Chiswick High Road to Kensington.<sup>7</sup>
- Other policies intended to dis-incentivise the ownership and use of polluting vehicles.<sup>8</sup>

The traffic modelling undertaken by TfL indicates that there will be a **reduction** in motor traffic volumes on Chiswick High Road. CS9 and an improved environment for cycling along Chiswick High Road will encourage modal shift and offer an environment where it is attractive and comfortable for people to cycle instead of driving or taking the bus. TfL has adopted a conservative approach and has not assumed any level of modal shift in their traffic modelling. However, promising results from North-South and East-West superhighways suggest substantially increased levels of cycling, some of which will be mode shift from car. This is particularly likely to be the case in West London where car use is much higher than in Central London.

Any modal shift to cycling that does occur will therefore further reduce traffic along Chiswick High Road beyond the predicted reductions in traffic already referenced by TfL.

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<sup>4</sup> <https://tfl.gov.uk/modes/driving/ultra-low-emission-zone>

<sup>5</sup> <https://tfl.gov.uk/modes/driving/emissions-surcharge>

<sup>6</sup> <https://tfl.gov.uk/modes/driving/ultra-low-emission-zone/cleaner-greener-taxis>

<sup>7</sup> <https://tfl.gov.uk/modes/driving/ultra-low-emission-zone/cleaner-greener-phvs>

<sup>8</sup> <https://tfl.gov.uk/modes/buses/improving-buses>

<sup>8</sup> <https://www.airqualitynews.com/2017/10/10/hounslow-approves-50-diesel-parking-surcharge/>

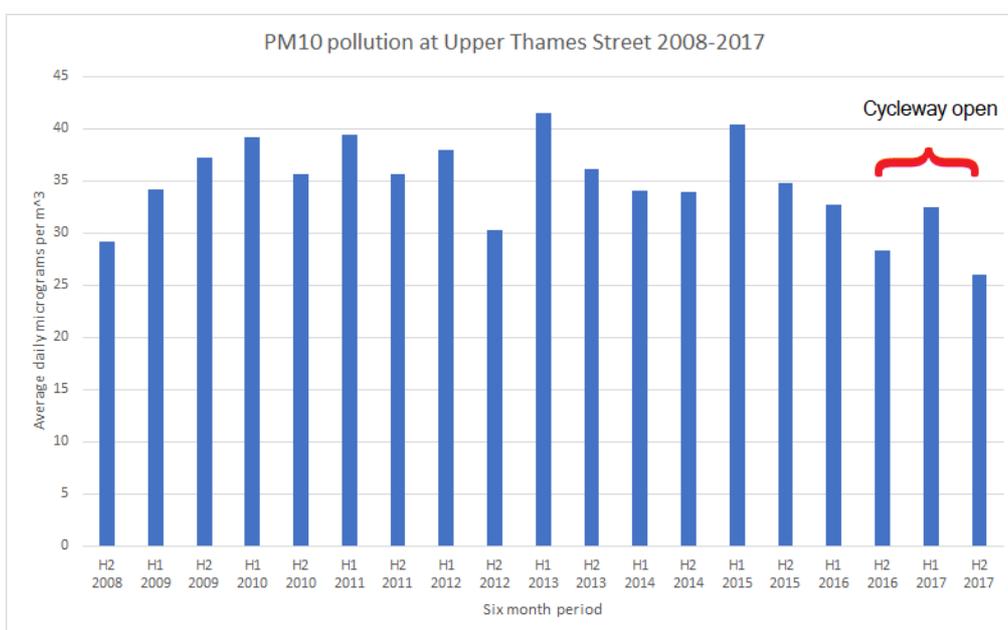
## Evidence from the central London Cycling Superhighway

Part of the East-West Cycle Superhighway lies along the Embankment, a road with over double the volume of motor traffic of Chiswick High Road.<sup>9</sup> In 2014 TfL traffic modelling predicted worst case delays of up to 16 minutes for the route.<sup>10</sup>

An independent report into Understanding and Managing Congestion in London states: “evidence suggests that while these schemes [cycle superhighways] may have short-term negative impacts on traffic speeds during the construction phase, longer term impacts may be negligible.”<sup>11</sup>

This is supported by measurements of particulate air pollution (PM10)<sup>12</sup> before and after the cycle superhighway was opened. The average PM10 pollution measure prior to the cycle lane opening was 35.8 micro-grams/m<sup>3</sup>. The average after the cycle lane opening is 28.9 micro-grams/m<sup>3</sup> – a fall of nearly 20%.<sup>13</sup>

Therefore, a cycleway which removed road space from a busy road has not increased pollution.



<sup>9</sup> <https://www.dft.gov.uk/traffic-counts/>

<sup>10</sup> [https://consultations.tfl.gov.uk/cycling/be832fad/user\\_uploads/east-west-cycle-superhighway-modelling-results---230914.pdf](https://consultations.tfl.gov.uk/cycling/be832fad/user_uploads/east-west-cycle-superhighway-modelling-results---230914.pdf)

<sup>11</sup> <http://content.tfl.gov.uk/understanding-and-managing-congestion-in-london.pdf>

<sup>12</sup> <https://www.londonair.org.uk/london/asp/datadownload.asp>

<sup>13</sup> <https://explorersquare.wordpress.com/2018/01/28/east-west-cycle-superhighway-appears-not-to-be-causing-pollution/>

## TfL Traffic Modelling

The CS9 consultation contains predictions for peak period journey times and traffic reassignment based on TfL's traffic modelling.

The CS9 consultation does not contain any outputs from air pollution modelling therefore a claim that the TfL consultation shows an increase in air pollution is incorrect.

Journey time predictions that emanate from the traffic modelling are applicable to the busiest expected peak traffic, and they are therefore not representative of the total change on the route.

Regarding traffic reassignment, the consultation document says "due to the road capacity reductions along Chiswick High Road, traffic is predicted to decrease in both directions on Chiswick High Road".<sup>14</sup> This is significant and should not be ignored in any consideration of the effect of air pollution resulting from motor traffic along Chiswick High Road.

A claim that predicted increased journey times will lead to increased air pollution is incorrect

TfL's traffic modelling approximates reality as best it can. However, there are some features of the proposal that are not well modelled. One such is the change in the location of cycle traffic from being in the bus lane to being in a cycle track.<sup>15</sup> If cycle traffic currently acts to inhibit the free flow of some forms of motor traffic at the moment, such as buses, then in the proposed situations, where this will not be the case, the benefit will not be recognised in the modelling. It is entirely possible that CS9 will reduce journey times for buses as cycles and buses will no longer be in the same lane.<sup>16</sup>

It is not correct to equate longer travel times, that is, lower average speeds (at some periods of the day) with increased air pollution. There is no such clear relationship; on the contrary recent research by Imperial College for the City of London shows that reducing speed limits from 30 to 20 mph causes the emission levels of the most damaging pollutant, PM10 particulates, to fall.<sup>17</sup>

It is worthwhile pointing out that the TfL traffic data for 2015 shows that average speeds for a journey between Chiswick Roundabout and Goldhawk Road range between 5.3mph to 8.2 mph depending on direction and AM or PM peak.<sup>18</sup>

There is no prospect of vehicles achieving significantly higher average speeds during the peak along an urban street like Chiswick High Road, given the number of traffic signals, pedestrian crossings, bus stops and vehicles parking and entering or leaving side streets. Higher speeds would not be desirable anyway given the increased risk posed to pedestrians and cyclists.

The only clear and logical way to reduce air pollution is to reduce it at source by reducing individual vehicle emissions and by reducing volumes of motor traffic; a very small change in speed will make no difference.

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<sup>14</sup> <https://consultations.tfl.gov.uk/roads/fb586463/>

<sup>15</sup> <https://www.icevirtuallibrary.com/doi/abs/10.1680/jtran.16.00072>

<sup>16</sup> <https://www.fastcompany.com/3035580/new-york-citys-protected-bike-lanes-have-actually-sped-up-its-car-traffic>

<sup>17</sup> <https://www.cityoflondon.gov.uk/business/environmental-health/environmental-protection/air-quality/Documents/speed-restriction-air-quality-report-2013-for-web.pdf>

<sup>18</sup> Assumed journey distance is 1.6 miles

## Further Reading

[Ignore the toxic myth about bike lanes and pollution – the facts utterly debunk it](#)<sup>19</sup>

[Why are politicians getting away with bike lane claims based on hearsay?](#)<sup>20</sup>

[House of Lords peers criticised for 'propagating bike lane myths'](#)<sup>21</sup>

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<sup>19</sup> <https://www.theguardian.com/cities/2017/jun/16/myth-bike-lanes-congestion-pollution-debunked>

<sup>20</sup> <https://www.theguardian.com/environment/bike-blog/2018/feb/05/why-are-politicians-getting-away-with-bike-lane-claims-based-on-hearsay>

<sup>21</sup> <https://www.theguardian.com/lifeandstyle/2018/feb/05/house-of-lords-peers-criticised-for-propagating-bike-lane-myths>