
Secretariat memorandum

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Agenda item : 11
TS044
Drafted 6.12.10

Motor Cycles in bus lanes

1 Purpose of report

- 1.1 To provide a further report to members on the Transport for London (TfL) motorcycles in bus lanes trial following the presentation and debate held on 20 October 2010 at the Transport Services Committee.

2 Recommendations

- 2.1 That London TravelWatch formally requests that TfL undertake additional analysis on the collision data. Firstly for all of the 18 month trial period and secondly an analysis comparing Transport for London Road Network (TLRN) bus lanes to all other roads in those boroughs with high levels of cycling.
- 2.2 That TfL be asked to conduct a cost benefit analysis as would be customary for road safety interventions. This would compare the time savings for drivers against the road safety benefits/disbenefits.
- 2.3 That London TravelWatch reviews this data at its Board meeting in February 2011.

3 Background

- 3.1 London TravelWatch has kept a watching brief on the TfL motorcycle in bus lanes trial. Most recently, its Transport Services Committee has been presented with TfL's commissioned report (from the consultants Transport Research Laboratory (TRL), a highly respected consultancy in this field) looking into the trial which ran from January 2009 to July 2010. At the same meeting members heard submissions from both The British Motorcycle Federation and the London Cycling Campaign.
- 3.2 Members have previously agreed to take a view of this trial on the basis of three criteria :
 - What are the road safety implications for all road users?
 - Does the introduction of motorcyclists into bus lanes deter cyclists and pedestrians?
 - What is the impact on bus performance?

- 3.3 Subsequent to TfL's presentation the Streets and Surface Transport Policy Officer has met with TfL officers. This report summarises the officer's views.
- 3.4 TRL's final report is available at : <http://www.tfl.gov.uk/assets/downloads/MIBL-report-2010.pdf>

4 The findings of the TfL report

- 4.1 Not all the conclusions are reported here. Only those officers feel pertinent to members coming to a view.
- 4.2 The first set of conclusions have been arrived looking at 28 bus lane sites on the TLRN and comparing them to similar 'matched' sites on borough roads with bus lanes that do not allow motorcycle into them during operational hours. The conclusions are taken directly from the TRL report is highlighted in boxes. Commentary is interspersed.
- 4.3 The analysis has been undertaken on data from the first 10 of the 18 months of the trial and involved filming sections of bus lane in order that detailed analysis of driver behaviour, conflicts, speed etc could be investigated.

Conclusions - Speeds and Journey Times on Studied Sites

- Bus speeds were unaffected by permitting motorcycles access to the bus lanes.
- Non-priority traffic speeds remained reasonably constant on the main and Control sites.
- Motorcycle speeds increased after they were permitted access to the bus lanes.
- There was an increase in the percentage of motorcycles exceeding the speed limit.

Conclusions - Collision Rates on Studied Sites

- Collision rates involving motorcycles significantly increased (at the 95% confidence level) on the Main sites, although some caution is needed as the sample size is relatively small.
- Collision rates involving cycles significantly increased (at the 95% confidence level) on the Main sites, although, again, caution should be applied as the sample size is relatively small.
- Collision rates involving pedestrians did not significantly change.

- 4.4 From this aspect of the study it appears that allowing motorcycles into bus lanes leads to higher collision rates for motorcycles and cycles, but not pedestrians however, caution is expressed because the sample is small. One would want to have continued the trial to gain more data, however this was not possible using the experimental order legislation used to implement the trial.

- 4.5 In discussion with TfL it has been agreed that it would conduct further analysis of the full 18 months trial data that had not been possible because of the requirement to make a decision towards the end of the trial and the long lag in the process of providing casualty statistics. This is welcomed. This further analysis should be available in the New Year.
- 4.6 The next piece of analysis was to study the detailed statistics and assessments of collisions made by the police officer attending the incident and try and understand why the apparent increase in motorcycle and cycle collisions was occurring. The following conclusions were reached by TRL.

Conclusions - Detailed Examination of Collisions

- The increase in motorcycle collisions did not appear to be a result of a settling down period for the scheme.
- The increase in motorcycle collisions generally involved cars turning left into and out of side roads.
- The severity level of the motorcycle collisions had increased with a 25% increase in slight injury and a 50% increase in serious injury collisions, although the numbers involved in the sample are small and should be treated with caution.
- The increase in cycle collisions could be partially explained by the increase in cycle flows.
- It appeared that the change in cycle collisions was not a result of motorcyclists being permitted access to the bus lane.

- 4.7 So it appears that the reason for the increase in motorcycle collisions is as a result of vehicle drivers crossing the inside bus lane to turn left. Motorcycle collisions are more severe, though caution is again applied due to the small sample.
- 4.8 The increase of cycle collisions cannot be attributed to introducing motorcycles into bus lanes. This in a sense contradicts any conclusion one may draw from the collision analysis and leaves the question open as to why cycle collisions increased when motorcycles were introduced into bus lanes.
- 4.9 The next piece of analysis was to study the video footage of driver behaviour and undertake what road safety professionals term conflict analysis (1 is the lowest severity conflict, 5 is the highest). The following conclusions were reached by TRL.

Conclusions - Conflicts Involving Motorcycles or Cycles

- The number of level 1 conflicts involving motorcycles, decreased after they were permitted access to the bus lane probably as a result of the motorcyclists being segregated from the main traffic flow. However, these were unlikely to have safety implications.
- There was a small increase (from 4 to 8) in the number of level 2 conflicts after motorcycles were permitted access to the bus lane.
- The number of conflicts in severity level 3 were too few (four in total) to enable robust comparison, although more conflicts were seen in the after survey.

- In general increases in bus lane conflicts were as a result of more cars turning left into, or out of, side roads (albeit this conclusion is based on small numbers).

4.10 It appears little has been learned from this exercise.

4.11 Though TRL state that the above analysis (of the matched 28 sites) provides the most accurate and detailed understanding of collision trends resulting from permitting motorcycles into bus lanes the report then goes on to look at the collision data for the general network comparing all TLRN sections of road with a bus lane to a control of all Borough roads and any links on the TLRN without a bus lane.

4.12 TRL's conclusions are :

Conclusions - Collision Rates on the Network

- The relative change in collision rates on the TLRN roads with a bus lane compared and other lanes appears to imply that permitting motorcycles access to bus lanes :
 - increased motorcyclist's chance of having a collision
 - did not affect cyclist's chance of having a collision
 - did not affect pedestrian's chance of having a collision

4.13 So this analysis agrees with the matched 28 sites collision analysis with respect to motorcycle and pedestrians, but conflicts with the matched 28 sites collision analysis with respect to cycles.

4.14 The analysis then further investigates the collisions across the whole network. The TRL report concludes :

Conclusions - Collisions on the Network

- There was a large percentage increase in collisions involving motorcycles on the Network Sites, which was not seen on the Network Control Sites and their safety appears to have particularly been adversely affected in operational hours.
- In collisions involving motorcycles the vast majority of casualties were motorcyclists, between 73% and 85% depending on time of day and survey.
- The percentage change in cycle and pedestrian collisions within operational hours was less than that over all hours, implying that any potential changes in safety were mainly outside of operational hours

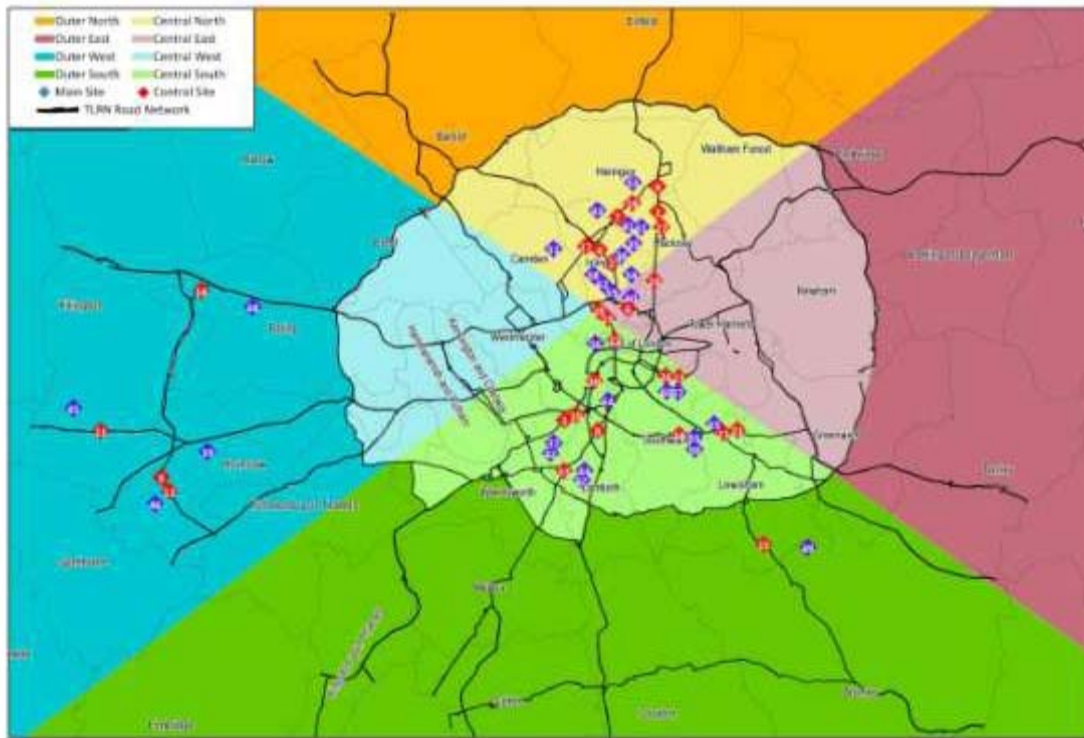
4.15 Finally the report summarises the overall findings. There are some consistent messages from the different analyses: motor cycle collisions have increased, but pedestrian collisions have not been affected adversely. Conversely there are also conflicting messages: cycling casualties increased on the 28 matched trial sites, but this cannot be attributed to the introduction of motorcyclists into bus lanes; cycling collisions did not increase on the TLRN bus lane sections compared to the general London wide road network. All of this is caveated because of small samples sizes. Only the increase in motorcycle collisions is regarded as statistically significant, thus the report concludes :

Overall Conclusions

- The effect of permitting motorcycles into bus lanes has been assessed after 10 months of implementation. This analysis period is the minimum where any reasonably large effects can be ascertained. This has identified that motorcyclists appear to be less safe since the scheme has been introduced. There were no changes in the safety of cyclists and pedestrians that could be directly attributed to the motorcycles being permitted access to the bus lanes.

5 Discussion and conclusions

- 5.1 This study is thorough and comes to some stark conclusions that set against London TravelWatch's first criteria (road safety impact) would lead one to conclude that this experiment should have either been stopped or extended in order that more data could be gathered.
- 5.2 Short of that, the analysis that TfL have agreed to undertake looking at the collision data for the whole 18 months trial is welcome.
- 5.3 Members will know that the Mayor has not stopped the trial, but devised a second trial involving education and enforcement to attempt to mitigate the impact of the original trial on motorcycle safety. It should be noted that the resources being used, particularly the additional police resource, has been taken away from other road safety projects, namely 'Bikesafe', a project to improve motorcycle safety more generally, although TfL officers have said this project is waning.
- 5.4 The Streets and Surface Transport Policy Officer has identified one more issue for TfL to consider. Whilst the matched 28 site trial concluded there was a significant increase in cycle collisions, the network wide analysis did not. This may be related to the site selection criteria for the bus lane sections which was done on a random basis. However, it is the case that the vast majority of the matched 28 sites are located in and around London's cycling boroughs (as they too have most bus lanes), i.e. Islington, Lambeth, Southwark and Hackney. TfL have been asked to undertake an analysis, limited to these boroughs, comparing the sections of the TLRN which have bus lanes with all other roads. See below map of matched 28 sites.



- 5.5 It is said by the British Motorcycling Federation that motorcyclists want the trial to become permanent.
- 5.6 As there are no road safety benefits, the only benefit would seem to be journey time savings.
- 5.7 The mitigation measures being undertaken on the new trial, i.e education and enforcement may reduce the road safety disbenefits of the trial; however that needs to be set against what other safety projects have been foregone.
- 5.8 It is customary in transport projects to assess costs and benefits in monetary terms. Thus the time savings benefits for motorcyclists can be compared to the costs in terms of additional crashes.

6 Equalities and inclusion implications

- 6.1 Motorcyclists are disproportionately over represented in casualty statistics and therefore it is essential that particular efforts are taken to improve road safety for this group of transport users.
- 6.2 Cyclists are also disproportionately over represented in casualty statistics and therefore it is essential that particular efforts are taken to improve road safety for this group of transport users.

7 Legal powers

- 7.1 Section 248 of the Greater London Authority Act 1999 places upon London TravelWatch (as the London Transport Users Committee) a duty to consider - and where it appears to the Committee to be desirable, to make

recommendations with respect to - any matter affecting the functions of the Greater London Authority or Transport for London which relate to transport (other than of freight).

8 Financial implications

8.1 None.