

Committee: Sustainable Communities Overview & Scrutiny Panel

Date: 26th February 2014

Agenda item: 5

Subject: Scrutiny Review – 20 mph limits / zones update

Lead officer: Chris Lee, Director of Environment and Regeneration

Lead member: Councillor Andrew Judge, Cabinet Member for Environmental Sustainability & Regeneration

Contact officer: Mario Lecordier / Richard Lancaster

Recommendations:

- A. That Sustainable Communities O & S Panel considers the information in the report and the council's approach to Speed Management.
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1 PURPOSE OF REPORT AND EXECUTIVE SUMMARY

1.1 The purpose of the report is to provide an update to Members of the Overview & Scrutiny Panel regarding the council's approach to 20mph zones and limits.

1.2 The report has been prepared in response to a motion and resolution from Council in November 2012, set out as follows:

'As part of the work to increase road safety and reduce casualties, Merton has a combination of roads with 20 mph limits and 20 mph zones, the majority of which have been implemented during the last 4 years.

In order to assess the effectiveness of the current Merton schemes, monitoring analysis has been commissioned. This is focusing on a comparison of 'before' and 'after' accident data at each of the individual limits and zones, along with 'before' and 'after' traffic flow and vehicle speed data at each. This work will be reported in the next few months.

The intention is to examine the evidence alongside the evidence from places such as Portsmouth and Islington which have implemented 'area wide' 20 mph speed limits to determine what has and will work best to reduce road traffic casualties in an outer London location like Merton.

The council affirms that:

- (1) *It is important that road traffic policy and schemes are based on empirical evidence and developed in consultation with residents; and*
- (2) *Asks that the work is completed with due urgency as a priority; and*
- (3) *Asks that a report is presented to both Cabinet and Scrutiny with balanced recommendations for future policy including practical measures to maximise road safety for all road users.'*

1.3 A previous version of this paper was presented to Sustainable Communities Overview & Scrutiny Panel on 16th October 2013 (included as appendix A).

2 **Details**

Background

- 2.1 Having a safe road network and public realm is a key factor in ensuring that Merton remains a sustainable and liveable borough.
- 2.2 In 2012 there were a total of 196,000 casualties of all severities in road accidents reported to the police in the UK, 4% lower than in 2011. There were 1,750 people killed, an 8% decrease from 2011, and 23,000 seriously injured, down 0.4%.
- 2.3 In Greater London in 2012 there were 28,780 casualties. Of these, 134 were fatally injured, 2884 were seriously injured and 55,762 were slightly injured. Fatalities fell by 16% (159 to 134) to the second lowest level since recent records began.
- 2.4 Merton has demonstrated positive progress in order to meet collision reduction targets over the last 15 years. Between 1996 and 2011 Merton experienced a 65% reduction in those Killed or Seriously Injured (KSI's), along with a 34% reduction in the number of slight casualties during the same period. Whilst there was an increase in year-on-year KSI's in 2012, provisional results from 2013 indicate further reductions.
- 2.5 Speed significantly increases the chance of being injured in a collision. Studies which compare injury severity with vehicle speed show that accidents at speeds above 20mph are more likely to result in severe injuries, rather than slight injuries. The risk of being fatally injured increases too, and a UK study of accidents found that at 20mph there was a 2.5% chance of being fatally injured, compared to a 20% chance at 30mph.

Characteristics of 20mph zones and speed limits

- 2.6 There is a significant difference between the characteristics of a 20mph speed limit and a 20mph zone.

20mph limits are areas where the speed limit has been reduced to 20 mph but there are no physical measures to reduce vehicle speeds

within the areas. Drivers are alerted to the speed limit with 20mph speed limit repeater signs.

20mph limits are most appropriate for roads where average speeds are already low, and the guidance suggests below 24mph. The layout and use of the road must also give the clear impression that a 20mph speed or below is the most appropriate.

20 mph zones use traffic calming measures to reduce the adverse impact of motor vehicles on built up areas. The principle is that the traffic calming slows vehicles down to speeds below the limit, and in this way the zone becomes “self-enforcing”. Speed humps, chicanes, road narrowing, planting and other measures can be introduced to both physically and visually reinforce the nature of the road.

- 2.7 The Police have the authority to enforce speed limits in both 20 mph zones and limits.

Effectiveness of 20mph limits

- 2.8 Transport Research Laboratory (TRL) carried out research on 20mph limits in 1998 which examined the effectiveness of 20mph limits without traffic calming measures. It found that traffic calming was a more effective way of reducing vehicle speeds than signs only, which only produced a small reduction in speed. There was some evidence that public awareness campaigns and enforcement further reduced traffic speeds.
- 2.9 In 2009, an interim analysis was conducted of the 20mph limits introduced in Portsmouth, which cover 91% of the 438km of the city’s roads. The evaluation was taken from 158 sites which were monitored for vehicle speeds, one year after the limits were implemented.
- 2.10 It found that 20 mph speed limits reduced the average speed by 0.9 miles per hour, which was not statistically significant. However, at sites where the average speed was above 24mph before the new limit was introduced, there was a statistically significant average speed reduction of 7 mph.
- 2.11 An analysis of accidents found that there was an overall reduction in casualties but it was not significant when compared to the national trend. Further research after 3 years of the scheme will hopefully clarify its effectiveness, but, no date has currently been set for the publication of this information.
- 2.12 In other cities and towns research regarding limits remains relatively scarce due to the embryonic stage that the majority of the schemes are at.
- 2.13 Islington became the first London Borough to introduce the limit on all side roads after introducing a scheme in early 2012. However, it should

be noted that 78% of the roads in the borough were already covered by zones, so the new 20mph limit only covers the remaining 22% of roads. On 16th December 2013 Camden also announced that it would be introducing a 20mph limit on all remaining roads in the borough not covered by existing controls in order 'to reduce the number of accidents and encourage more people to walk and cycle.' Southwark also made a similar decision in November 2013.

- 2.14 Within Merton, like a number of other London Boroughs, there is a combination of roads with 20 mph limits and 20 mph zones, the majority of which have been implemented during the last 4 years.
- 2.15 In order to assess the effectiveness of the current schemes that have been implemented in Merton, monitoring analysis was commissioned in 2012. The report has been included as Appendix 2.
- 2.16 The report has focused on a comparison of before and after accident data at each of the individual limits and zones, along with before and after traffic flow and vehicle speed data at each of the individual limits and zones.
- 2.17 The purpose of the report was to help inform whether a borough-wide approach in the form of a 20mph limit is the most effective method to reduce collisions and vehicle speeds, or if it would be more effective to maintain an evidence based approach in order to target those areas that experience particular issues.
- 2.18 The Audit was carried out in July 2012 and used the following methodology:
 - Analysis of before and after accident data at each site;
 - Analysis of before and after traffic flow and speed at each site
 - Overall comparison of accidents, traffic flow and speed measures at each site.
- 2.19 The majority of the speed reducing measures was introduced in 2009 and the remainder in 2010/11. The report concluded that:
 - Both zones and limits experienced an increase in personal injury collisions per year with an increase in zones greater than that of limits;
 - Limits delivered a reduction in pedestrian and child accidents, albeit from a low base;
 - Zones experienced a greater reduction in 85thile speeds (3.7% reduction on average per zone (0.9mph – change from 26.69 to 25.79mph) compared to 2.7% (0.75mph – change from 27.65 to 26.9mph) in limits). Limits experienced a greater reduction in average speeds.

- Overall vehicle speeds were down by 5.5% (1.19mph) in limits and 7.8% (1.73mph) in zones.
- Zones performed best with regards to traffic flows with a marginal increase in traffic flows across the zones.

2.20 It is clearly evident from the extensive research on the subject that reducing speed remains the most effective way of reducing the severity and number of road casualties. However, due to the limitations of the Merton based work to date, particularly in relation to the 'after' data that in most cases was just collected for one year, it has proven to be very difficult to draw accurate conclusions and have sufficient confidence in the evidence collected.

2.20 For this reason, the council will maintain its current approach to speed management, implementing school zones and homezone 'lite' measures, aimed at reducing speeds in key areas such as in the vicinity of schools, areas with high pedestrian footfall and major trip generators such as town centres and also in residential areas. The works due to commence in March 2014 in Abbey Road, Kirkley Road and Shelton Road are examples of this work. Speed reduction measures will also be considered to encourage sustainable local travel by making cycling, walking and the use of public transport more attractive and effective.

Next Steps (with reference to the Council motion):

- 2.21 As discussed in the body of the report, whilst overall research in Merton and elsewhere with respect to 20 mph zones identifies clear reductions in vehicle speeds and accidents, there remains less clarity with regard to the effectiveness of 20mph speed limits, principally due to the lack of research in place to quantify impacts. On this basis of the need for further empirical evidence to inform the future approach to speed management, the council will commit to undertaking the following:
- (a) To undertake in-depth survey work in 2014/15 to develop a comprehensive understanding of the effectiveness of 20mph zones and limits operating in the borough and in other towns and cities. This will also consider the potential for reductions in traffic speeds / road casualties via the introduction of 20 mph speed limits or zones in areas not already covered by existing speed control measures. Funding with the council's LIP programme has been set aside for this purpose in 2014/15.
 - (b) An assessment of the business case associated with the introduction of 20 mph zones vs the introduction of borough-wide 20 mph limits, or a combination of the two;
 - (c) The sustainability of the potential benefits of 20 mph zones and limits (i.e. whether improvements are likely to be maintained without the need for further traffic calming measures).

- (d) The views of local residents with respect to both 20 mph zones and limits.
 - (e) An investigation into enforcement matters, including liaison with the Police.
- 2.22 Following this work, officers will be in a position to report back the evidence to the Panel, along with clear recommendations regarding the council's future approach to speed management.
- 3 ALTERNATIVE OPTIONS**
- 3.1 Not applicable – this report is for information only.
- 4 CONSULTATION UNDERTAKEN OR PROPOSED**
- 4.1 N/A
- 5 TIMETABLE**
- 5.1 Performance information is monitored annually as a requirement of TfL.
- 6 FINANCIAL, RESOURCE AND PROPERTY IMPLICATIONS**
- 6.1 There are no financial, resource or property implications arising from this information report. All related services are delivered within existing resources.
- 7 LEGAL AND STATUTORY IMPLICATIONS**
- 7.1 This report is for information only.
- 8 HUMAN RIGHTS, EQUALITIES AND COMMUNITY COHESION IMPLICATIONS**
- 8.1 There are no specific human rights, equalities or community cohesion
- 9 CRIME AND DISORDER IMPLICATIONS**
- 9.1 There are no specific crime and disorder implications arising from this information report.
- 10 RISK MANAGEMENT AND HEALTH AND SAFETY IMPLICATIONS**
- 10.1 There are no risk management or health and safety implications arising from this information report.

Appendix 1: Scrutiny Review – 20 mph limits / zones update (October 2013)

Appendix 2: 20 mph Speed Limit and Zones – Interim Monitoring Analysis