

Date: 27 November 2013

Item 8: Safety Camera Replacement Project

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**This paper will be considered in public**

**1 Summary**

- 1.1 The Safety Camera Replacement Project (SCRCP) will replace the now obsolete wet film safety cameras at 629 sites with new digital technology.
- 1.2 On 13 March 2013, the Committee deferred a decision on the implementation of average speed cameras (ASCs) as part of the SCRCP pending a future discussion on the broader safety camera strategy, enforcement policy, user acceptance and the use of alternate technologies in reducing speed and Killed or Seriously Injured incidents (KSIs), such as speed warning signs. The strategy and policy information requested by Finance and Policy Committee was provided on 17 October 2013.
- 1.3 On 17 October 2013, the Committee recognised that ASCs provide additional KSI reduction benefits beyond those of spot speed cameras. However, given the Committee's remaining concerns about the public acceptability of this approach and its views that there would be benefits from gaining further experience of the operational impacts of ASCs from a small number of additional sites, the decision on deployment of ASCs was considered further with the Mayor, whose view is that ASCs should be installed in London at a limited number of appropriate locations, on the basis of a long-term trial to further assess their operational benefits.
- 1.4 This paper seeks approval for a trial of four ASC systems as part of the SCRCP. Subject to the Committee's approval, these systems would be installed at locations where TfL's operational experience and casualty analysis shows there would be likely to be demonstrable casualty reduction benefits over and above those that would be achieved by like for like replacement of spot speed cameras. This would be in line with the policies set out in Safe Streets for London, the Mayor's road safety action plan for London, which was published on 6 June 2013. It would also provide additional experience of the operational impacts of ASCs including their overall casualty reduction impact, their impact on traffic speeds and flow and political reaction.
- 1.5 A separate paper is included on Part 2 of the agenda, which contains exempt supplemental information. The information is exempt by virtue of paragraph 3 of Schedule 12A of the Local Government Act 1972 in that it contains information relating to the business affairs of TfL. Any discussion of that exempt information must take place after the press and public have been excluded from this meeting.

## **2 Recommendations**

### **2.1 That the Committee:**

- (a) note the paper and the supplementary paper on Part 2 of the agenda;**
- (b) approve the Project Authority required to implement the average speed camera element of the Safety Camera Replacement Programme (SCRП) using existing budgets to enable further assessment of their operational impacts;**
- (c) note that Procurement Authority will be sought from the Commissioner following the conclusion of the current procurement exercise for the SCRП; and**
- (d) note the proposed contract for average speed cameras has full Financial Authority to 2021/22 in the TfL Business Plan. However, as the contract has an option to be extended to 20 years, future Business Plans will need to provide for the remaining years of operation up to 2031/32.**

## **3 The Safety Camera Strategy**

- 3.1** The Mayor has published the new road safety action plan for London: 'Safe Streets for London' (SSfL). This sets out a target to reduce the number of KSIs on London's roads by 40 per cent by 2020, compared to the 2005-2009 baseline. The SSfL plan is supported by an increase in TfL's Business Plan funding for road safety by £100m to £250m for the period to 2021/22, and emphasises that improved road safety is one of the Mayor's and TfL's priorities. The plan's content reflects the core principles of road safety in applying a range of measures based on education, engineering and enforcement.
- 3.2** SSfL sets out a range of policies relating to improved enforcement of speed limits to promote a reduction in casualties. The strategy relating to enforcement via safety cameras, in particular, is aimed at maintaining TfL's existing enforcement capability by upgrading the obsolete wet film safety camera network (as delivered by the SCRП), alongside consideration of further sites on the Transport for London Road Network (TLRN) and borough roads where the history of speed related collisions would justify a camera installation in the future.

## **4 The Role of Enforcement in Reducing Casualties**

### **Impact of Speeding**

- 4.1** High vehicle speeds increase the likelihood of having a collision and lead to more severe injuries in the event of a collision. Speed-related collisions (i.e. collisions where the Police accident report records speed as being one of the causes of the collision) account for 46 per cent of all KSIs across the Capital (see Appendix 1).
- 4.2** Given the impact of vehicle speeds and non-compliance with speed limits on both the number and severity of casualties, TfL and the boroughs undertake a range of activities to reduce the likelihood of speeding and to improve compliance with

speed limits. These include providing education and information, implementing engineering schemes and enforcement of speed limits.

### **Role of Safety Camera Network**

- 4.3 The safety camera network is, therefore, one element in a comprehensive 'tool box' used to manage speeds and encourage compliance with speed limits.
- 4.4 TfL analysis of casualties over a three year period before and after the installation of speed cameras showed that KSIs fell by an average of around 57 per cent at the locations where safety cameras were introduced (see Appendix 2). On this basis, London's existing wet film safety cameras help prevent around 400 KSIs each year which is 80 per cent of the 500 KSIs that are prevented by the existing camera network as a whole (which already includes some digital cameras). Replacement of the current wet film network with like for like cameras will contribute to ensuring these KSI reductions are maintained.
- 4.5 The introduction of new ASC technology at appropriate locations offers the opportunity to further improve the effectiveness of the camera network in reducing KSIs. Overall, the safety camera network makes a valuable contribution to achieving the overall KSI reduction target established in the new SSfL plan.

## **5 Average Speed Camera Prioritisation and TfL's Proposal**

- 5.1 TfL undertook an analysis to understand if there were any additional locations where additional casualty reduction benefits could be achieved by replacing existing spot speed cameras with ASCs, as has occurred on the A13. This analysis has identified eight multi-lane, high traffic volume, high speed routes, which were characterised by having speed limits of 40 or 50 mph, which could potentially benefit from improved safety performance by using average speed technology as a replacement for the existing spot speed cameras.
- 5.2 When selecting these potential routes for study, the following selection criteria were considered:
  - (a) routes with limited opportunities to avoid enforcement by 'rat running' on parallel routes; and
  - (b) routes experiencing an even distribution of KSIs along their length, which are more effectively mitigated by average speed cameras and where there are KSI collisions occurring in the gaps between the existing spot speed cameras.
- 5.3 TfL ranked the eight potential routes and selected four which offered the greatest potential for improvement in reducing KSIs when compared with like for like replacement with spot speed cameras. These will be taken forward as a trial to test the additional KSI benefits and public acceptability of the operational deployment of these cameras. The four routes identified as likely to deliver the greatest additional safety benefits are:
  - (a) A406 – Hanger Lane to Bounds Green Road;
  - (b) A40 – Polish War Memorial to Paddington Slip Road;

- (c) A2 – Black Prince to Tunnel Avenue; and
  - (d) A316 – M3 to Hogarth Roundabout.
- 5.4 At these four locations, the existing spot speed cameras currently prevent an estimated total of 16 KSIs per annum. During the last three-year period, however, 145 KSIs occurred on these routes outside the area of influence of the existing spot speed cameras (i.e. in the gaps between cameras). Based on the first 29 months of experience of the installation of the ASC system on the A13, it is estimated that using ASCs as a replacement for spot speed cameras on these four routes would prevent 35 per cent of these KSIs occurring, a reduction of 51 KSIs over three years, or 17 KSIs per annum.
- 5.5 In order to achieve the Mayor's target to reduce KSIs further in London, an annual reduction of around four per cent in the number of KSIs occurring is required. This equates to 105 fewer KSIs per year. The installation of ASCs at the four priority locations could, on its own, have a significant impact on this goal by helping secure over one sixth of the total KSI reduction needed in just one year, and would maintain this benefit thereafter.
- 5.6 Of the eight routes assessed, the four routes prioritised are predicted to achieve 73 per cent of the potential total KSI reduction, at less than 50 per cent of the additional cost.
- 5.7 Given the additional safety benefits offered by the new average speed technology, these four routes are therefore proposed for a long running trial of average speed systems as an alternative to the like for like replacement of 35 existing spot speed cameras. Over the life of these cameras, TfL will monitor the KSI benefits and will test user acceptability after two years of operation by undertaking a market research exercise to assess the public reaction.
- 5.8 It should also be noted that the four remaining routes that were not prioritised for installation of average speed systems in the trial will be included in the programme to replace their existing wet-film cameras with digital spot speed replacement cameras. As such, the existing KSI benefits they deliver will be maintained.

## **6 Camera Standards: Requirement for 10 Year Contract with Option to Extend**

- 6.1 As with the Spot Speed and Red Light camera contracts, the equipment used for average speed enforcement is specialised and needs to be Home Office Type Approved (HOTA) in order to be used for enforcement. The manufacturers generally operate on a relatively small scale. Attaining HOTA for systems is challenging and costly.
- 6.2 The cameras have an expected life span of 20 years and HOTA requirements are such that the maintenance of the cameras must be carried out by the HOTA approved company. Consequently, the letting of camera maintenance contracts by TfL to third party contractors who do not possess the HOTA certificate would likely impact upon the admissibility of evidence from the cameras.

- 6.3 Therefore, it is proposed that, while the maintenance contracts could be let for up to 20 years, the initial contract term is 10 years with an option for TfL to extend after this. This would enable TfL to take advantage of any market developments while protecting its commercial interests.

**List of appendices to this report:**

A paper on Part 2 of the agenda contains exempt supplemental information

Appendix 1: Collisions Resulting in People Killed & Seriously Injured in London

Appendix 2: Impacts of Existing Safety Camera Network

**List of Background Papers:**

Road Safety Action Plan “Safe Streets for London”

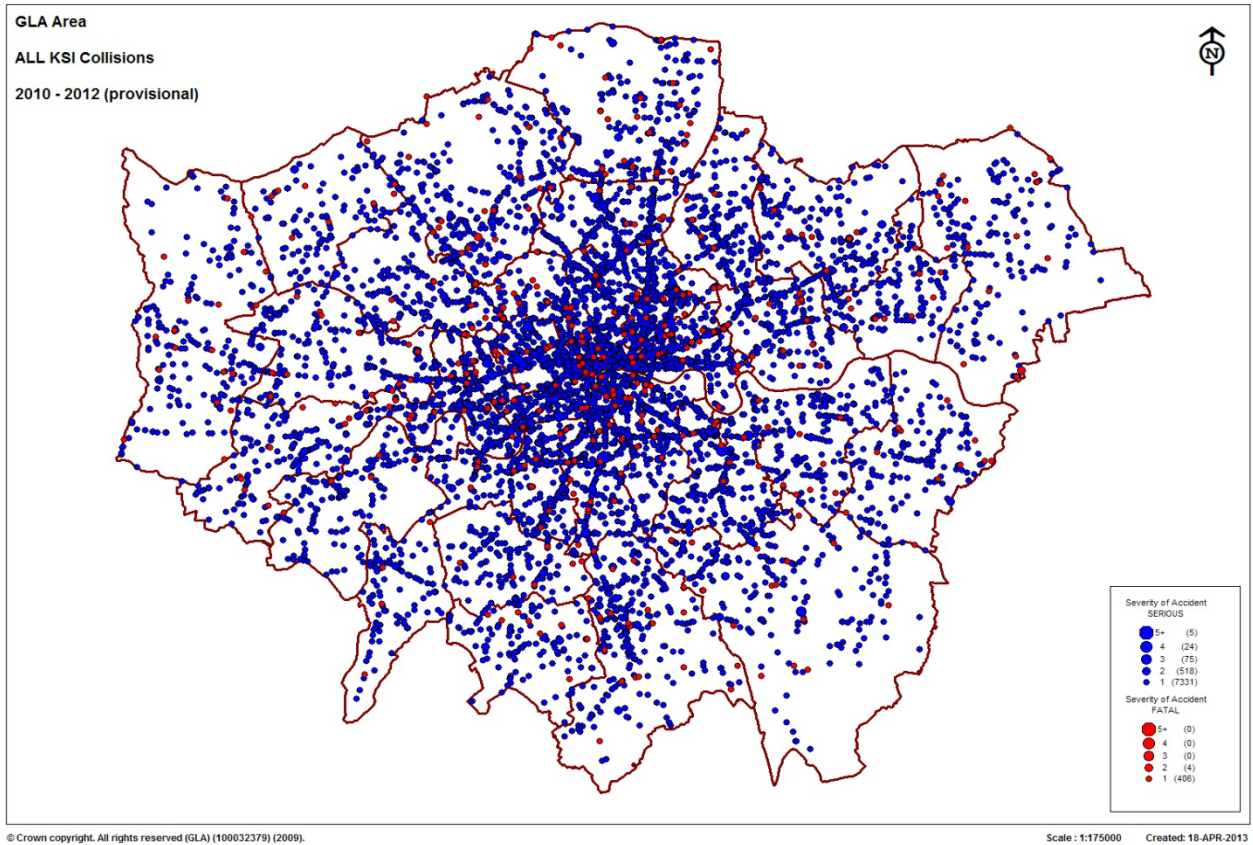
Finance and Policy Committee Papers – 13 March and 17 October 2013

Contact Officer: Leon Daniels, Managing Director, Surface Transport

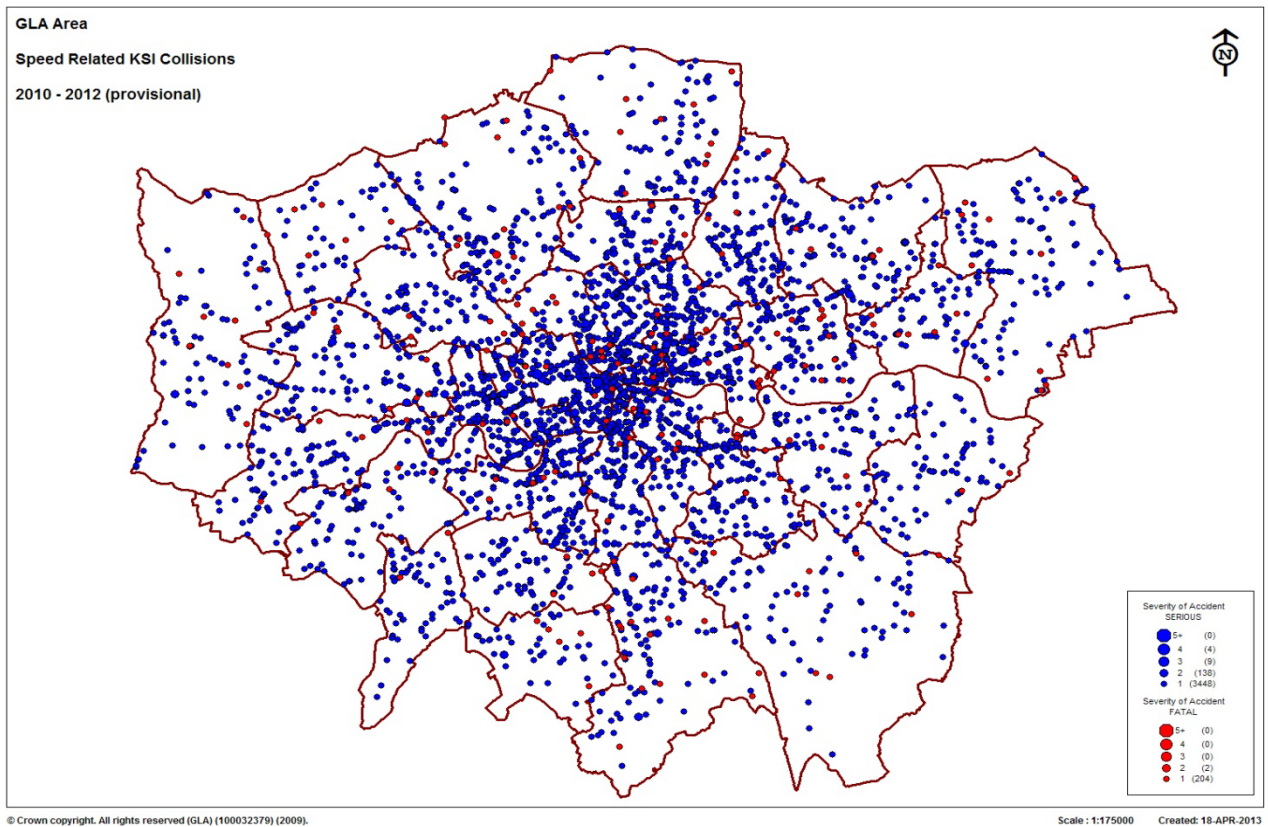
Number: 020 3054 0178

Email: [LeonDaniels@tfl.gov.uk](mailto:LeonDaniels@tfl.gov.uk)

## All KSIs in London



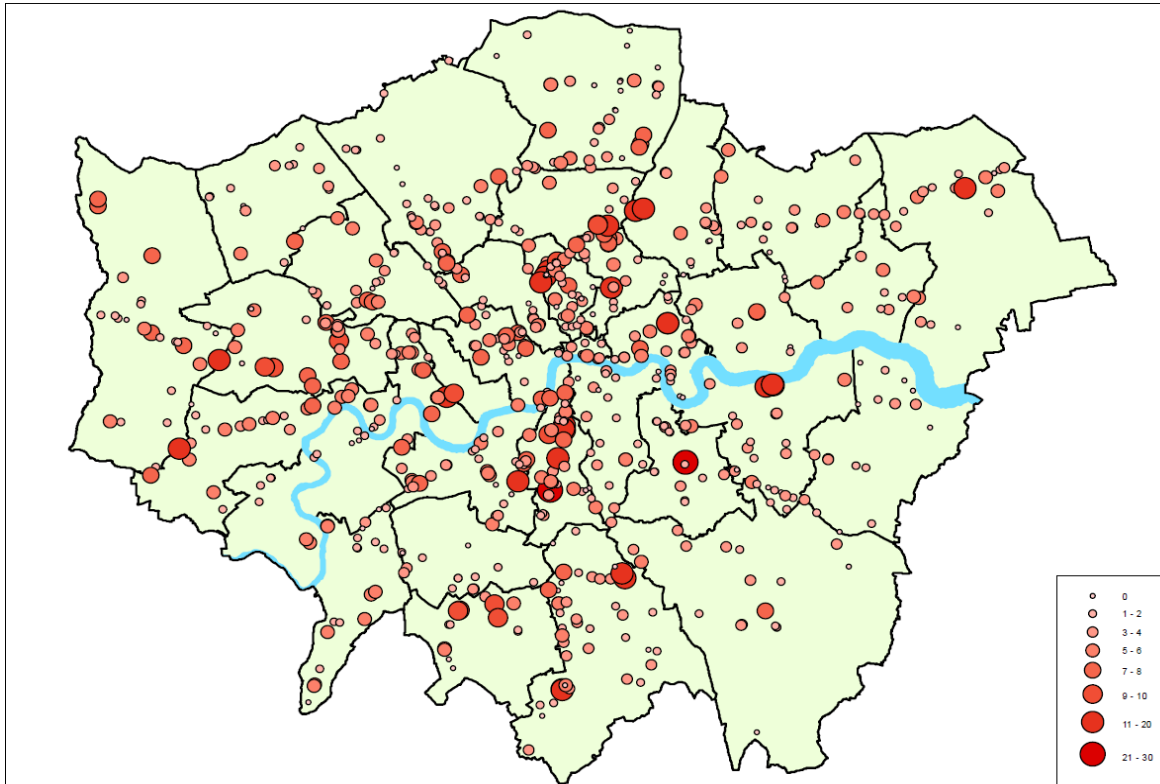
## Speed-Related KSIs



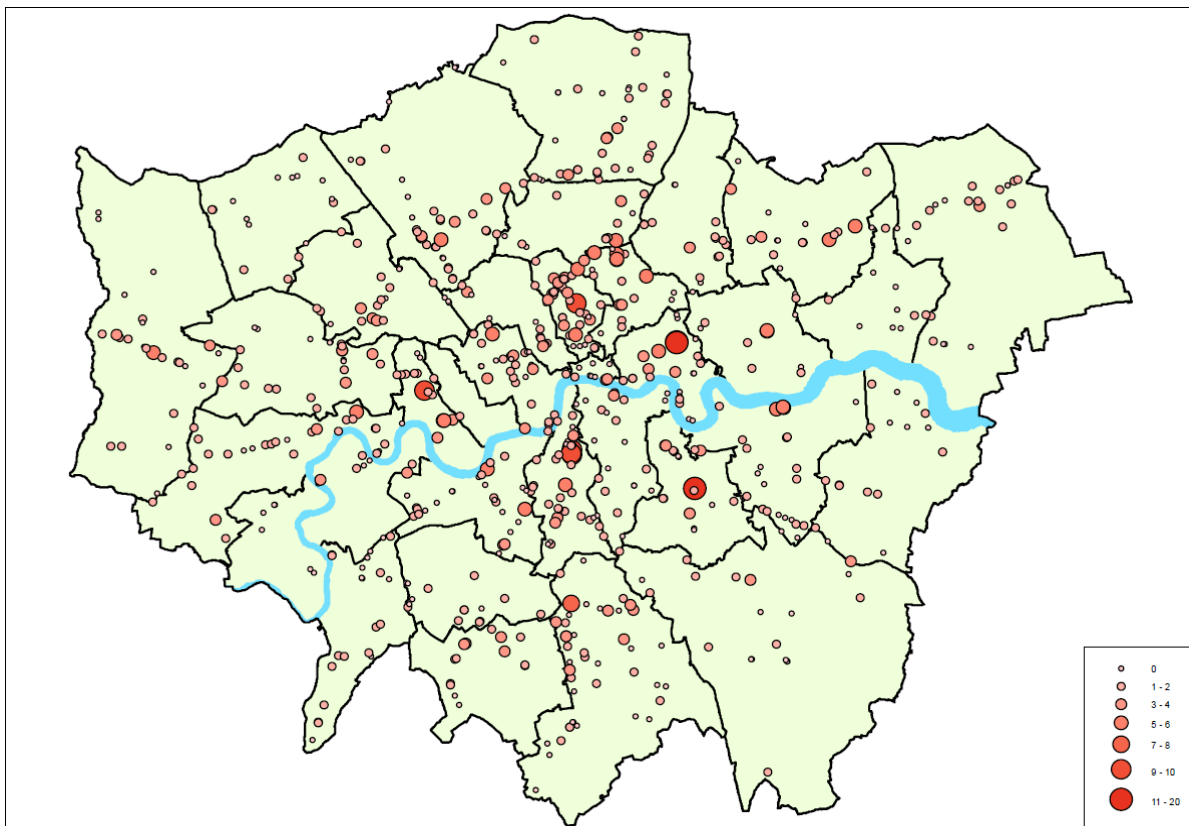
8,363 people have been Killed or Seriously Injured (KSIs) in London over the last three years. Of these, 46 per cent (3,805) are speed-related collisions.



### KSIs BEFORE existing camera network was installed



### KSIs AFTER existing camera network was installed: KSIs reduced by 500



The camera network is proven to be the most effective tool to manage down speed-related KSIs. It is a critical component of how TfL manages the safe operation of the road network preventing circa 500 KSIs annually. TfL analysis shows that KSIs fell by an average of 57 per cent where safety cameras were introduced.