

ROAD SAFETY ACROSS CAMBRIDGESHIRE

To: Highways & Community Infrastructure Committee

Meeting Date: 11th September 2018

From: Graham Hughes, Executive Director, Place & Economy

Electoral division(s): All

Forward Plan ref: 2018/059 **Key decision:** Yes

Purpose: To outline proposals for the digitalisation of safety cameras across Cambridgeshire.

Recommendation: The Committee is recommended to:

- a) Approve the suggested approach to the digitalisation of the county's safety cameras as outlined in Appendix 2.
- b) Approve the commencement of procurement to upgrade the county's safety cameras as outlined in section 2.2.
- c) Delegate authority to award the contract to the Executive Director, Place & Economy in consultation with the Chair and Vice Chair of the Committee.
- d) Approve the allocation of the Council's Road Safety Capital Scheme funding in 2019/20 for the upgrade of the county's safety cameras, if required, as outlined in section 2.3.

Officer contact:		Member contacts:	
Name:	Matt Staton	Name:	Cllr Mathew Shuter/Cllr Bill Hunt
Post:	Interim Highway Projects & Road Safety Service Manager	Post:	Chairman/Vice Chairman, Highways & Community Infrastructure Committee
Email:	Matt.staton@cambridgeshire.gov.uk	Email:	mshuter@btinternet.com William-hunt@hotmail.co.uk
Tel:	(01223) 699652	Tel:	(01223) 706398

1. BACKGROUND

- 1.1. Cambridgeshire has a network of safety cameras used to detect speed and red light offences across the county. These cameras have been in place since 1995.
- 1.2. The cameras use wet-film technology and as such are reaching the end of their operational life. In order to enable enforcement to continue the cameras require updating to digital technology.
- 1.3. All camera sites across Cambridgeshire have been installed in response to a cluster of speed related collisions at or near to the location of the camera.
- 1.4. There are currently 33 spot speed cameras, 2 red light cameras and 1 average speed camera system on the county's network. The average speed camera system is already digital and therefore outside the scope of the programme outlined in this report.
- 1.5. The cameras are operated in partnership with the Police and Peterborough City Council.
- 1.6. At the Highways and Community Infrastructure Committee meeting on 13th March, Councillors approved the commencement of negotiations with the Police regarding the future costs associated with the safety camera programme, in partnership with Peterborough City Council. These negotiations have been undertaken and are outlined in in section 2.3.
- 1.7. At the Highways and Community Infrastructure Committee meeting on 10th July, Councillors approved the action plan for the transformation of road safety services, section 3 of which related to the digitalisation of cameras and is outlined below for ease of reference:

Green	3. Safety camera digitalisation	Negotiate funding arrangements with partners	Richard Lumley	Apr-18	Aug-18	capital investment and ongoing revenue for maintenance etc	date of last meeting 23/4/18 date of next meeting 25/6/18
Green		Initial review of sites and recommended action for each site	Matt Staton		May-18	officer time	
		Consultation (as required)	Matt Staton / Andre Chabot	as required			
Green		Detailed digitalisation plan to H&CI committee for approval	Richard Lumley / Matt Staton		Sep-18	H&CI committee, officer time	dependent on agreed funding arrangements
Green		Procurement process		Oct-18	Mar-19	procurement team, officer time	dependent on Committee decision and funding arrangements
Green		Implementation of digitalisation plan		Apr-19	Apr-21		dependent on agreed approach (phased or not)

- 1.8. While this process will be undertaken collaboratively with Peterborough City Council and some of the data presented in this report includes Peterborough sites, the recommendations outlined below relate to cameras on Cambridgeshire County Council's highway network only.

2. MAIN ISSUES

2.1. Effectiveness of safety cameras

- 2.1.1. A review of the effectiveness of the existing safety camera operation has been undertaken using established methodology in order to inform options for the upgrade to digital technology.

- 2.1.2. **Appendix 1** outlines the statistical results for each camera site using Allsop's (2013) four time period method which has been widely used in the industry. Allsop's own analysis showed that, collectively, the fixed sites installed by the partnership have had a significant effect in reducing the number of fatal and serious collisions but no discernible effect on the overall number of personal injury collisions in the vicinity of the sites. However, it is recognised that this method gives a conservative estimate of effect as a peak in collisions (the site selection period) is removed from the data set.

- 2.1.3. For average speed cameras (ASC) systems, as the number of sites across Cambridgeshire and Peterborough is small it was deemed most appropriate to consider the national effectiveness of ASC systems where the data set is much larger and more robust. Analysis found that, on average, the ASC sites assessed saw fatal and serious collisions fall 25-46% and personal injury collisions fall 9-22%.

- 2.1.4. This shows that where a problem affecting a route is identified, ASC systems are effective in reducing collisions along the entire route.

2.2. Proposal for the digitalisation of safety cameras

- 2.2.1. Using the evidence of effectiveness outlined above, the review has separated the existing sites into three specific groups:

Group 1 - Sites where it is deemed that the most appropriate course of action is like for like replacement with a similar solution.

Group 2 - Sites where it is deemed that the existing camera is no longer required and therefore the site should be considered for decommissioning.

Group 3 - Sites which require further investigation due to planned changes to the environment or where a wider route issue has been identified.

- 2.2.2. Due to the success of the current strategy for safety camera implementation, as outlined above, the majority of sites (21, including two red light cameras) fall into Group 1. There are two sites that fall into Group 2 and should be considered for decommissioning. The remaining 12 sites are identified as requiring further investigation as like-for-like

replacement with a fixed camera may not be the most cost-effective solution. **Appendix 2** shows the proposed action for each site.

2.2.3. The proposed groupings lend themselves to a phased approach to digitalisation:

Phase one would see the procurement of infrastructure and cameras for the 21 sites in group 1 and the commencement of the decommissioning process for the 2 sites in group 2. This would aim to be implemented as close to March 2019 as the procurement process allows.

Phase two would be informed by investigations of the remaining sites in group 3. Investigations would be carried out while phase one is being implemented.

2.2.4. Procurement options are being explored with the support of LGSS Procurement, including a call-off against a Crown Commercial Services framework contract, our own framework or an open tender; with the aim to ensure that the procurement route chosen ensures best value for money for both phases one and two of the process and includes provision for the ongoing maintenance of the cameras.

2.2.5. Due to advances in technology, it may be that newer ASC systems could provide greater value for money for sites in group 1, even if the enforcement area is relatively small, therefore the procurement process will focus on the issue to be addressed, rather than specify a fixed or ASC solution.

2.2.6. Officers are engaged with LGSS Procurement and LGSS Law as well as the Police and Peterborough City Council to draft the procurement documents.

2.3. Funding

2.3.1. The total cost to upgrade the existing wet-film cameras is expected to be between £500k and £600k.

2.3.2. As agreed at the March Highways and Community Infrastructure Committee meeting on negotiations with the Police regarding the future costs associated with the safety camera programme have been undertaken.

2.3.3. These negotiations have taken place and all parties were committed to a workable solution to fund the upgrade of safety cameras as they are a proven casualty reduction intervention (as evidenced above). The result of the negotiations is the following funding options being put forward to this committee and also to the Police and Crime Commissioner's Business Coordination Board on 13th September:

- the Office of the Police and Crime Commissioner's Business Coordination Board will be recommended to fund either the replacement costs for the safety cameras OR the Council's road safety capital schemes for 2019/20.
- the Council's road safety capital scheme funding for 2019/20 (£594k) be provisionally allocated to fund the upgrade of the safety cameras in order that this can be progressed without delay, to ensure enforcement activity can continue across Cambridgeshire, pending the decision from the Police and Crime Commissioner's Business Coordination Board on 13th September; and

- a maintenance agreement for a fixed period post-implementation is included in the procurement cost.

3. ALIGNMENT WITH CORPORATE PRIORITIES

3.1 Developing the local economy for the benefit of all

There are no significant implications for this priority.

3.2 Helping people live healthy and independent lives

The following bullet points set out details of implications identified by officers:

- The existing camera deployment strategy is proven to have reduced the number of fatal and serious casualties at sites where they have been installed.

3.3 Supporting and protecting vulnerable people

There are no significant implications for this priority.

4. SIGNIFICANT IMPLICATIONS

4.1 Resource Implications

The report above sets out details of significant implications in section **Error! Reference source not found..**

4.2 Procurement/Contractual/Council Contract Procedure Rules Implications

The report above sets out details of significant implications in section **Error! Reference source not found..**

4.3 Statutory, Legal and Risk Implications

The following bullet points set out details of significant implications identified by officers:

- Under Section 39 of the Road Traffic Act 1988 the Council has a statutory duty to “prepare and carry out a programme of measures designed to promote road safety... must carry out studies into accidents arising out of the use of vehicles on roads or parts of roads, other than trunk roads, within their area [and] in the light of those studies, take such measures as appear to the authority to be appropriate to prevent such accidents, including the dissemination of information and advice relating to the use of roads, the giving of practical training to road users or any class or description of road users, the construction, improvement, maintenance or repair of roads for which they are the highway authority and other measures taken in the exercise of their powers for controlling, protecting or assisting the movement of traffic on roads.” [bold formatting added by author for emphasis]
- Serious road traffic collisions attract significant media attention and the Council's actions to reduce their occurrence comes under regular media scrutiny.
- Safety cameras attract significant public scrutiny and it is important to note the work undertaken to establish the effectiveness of existing camera deployment across Cambridgeshire in putting forward the recommended course of action.

4.4 Equality and Diversity Implications

There are no significant implications for this priority.

4.5 Engagement and Communications Implications

The following bullet points set out details of significant implications identified by officers:

- Safety cameras attract significant public scrutiny and it is important to note the work undertaken to establish the effectiveness of existing camera deployment across Cambridgeshire in putting forward the recommended course of action.
- Potential for shared service arrangements with Peterborough City Council, and within the wider road safety partnership.

4.6 Localism and Local Member Involvement

The following bullet points set out details of significant implications identified by officers:

- Consultation is a key element of the decommissioning process which will be followed for all camera sites identified for possible removal.

4.7 Public Health Implications

The following bullet points set out details of significant implications identified by officers:

- Road traffic collisions have a significant burden on health services.
- Public Health indicator 1.10, KSI casualties per 100,000 population, is currently red for Cambridgeshire, and specifically for East Cambs, Huntingdonshire and South Cambs districts (Fenland and Cambridge City are amber).

Implications	Officer Clearance
Have the resource implications been cleared by Finance?	Yes Name of Financial Officer: David Parcell
Have the procurement/contractual/ Council Contract Procedure Rules implications been cleared by Finance?	Yes Name of Financial Officer: Paul White
Has the impact on statutory, legal and risk implications been cleared by LGSS Law?	Yes Name of Legal Officer: Debbie Carter-Hughes
Have the equality and diversity implications been cleared by your Service Contact?	Yes Name of Officer: Tamar Oviatt-Ham
Have any engagement and communication implications been cleared by Communications?	Yes Name of Officer: Sarah Silk
Have any localism and Local Member involvement issues been cleared by your Service Contact?	Yes Name of Officer: Tamar Oviatt-Ham
Have any Public Health implications been cleared by Public Health	Yes Name of Officer: Stuart Keeble

Source Documents	Location
Owen (2015) Northamptonshire Speed Cameras: Post Switch-Off Collision Analysis	http://roadsafetyanalysis.co.uk/wp-content/uploads/2016/03/Northamptonshire-Speed-Cameras-Final-Version.pdf
Owen, Ursachi & Allsop (2016) The Effectiveness of Average Speed Cameras in Great Britain	https://www.racfoundation.org/assets/rac_foundation/content/downloadables/Average_speed_camera_effectiveness_Owen_Ursachi_Allsop_September_2016.pdf
Allsop (2013) Guidance on Use of Speed Camera Transparency Data	https://www.racfoundation.org/wp-content/uploads/2017/11/speed_camera_data_revised-allsop-nov2013.pdf

Appendix 1

Statistical Analysis of Fixed Camera Sites – data 1990-2015

Camera site	Personal Injury collisions (PIC)				Fatal and serious collisions (FSC)				PIC m _c	95% confidence		FSC m _c	95% confidence	
	b	B	a	A	b	B	a	A						
C1	53	27193	107	39672	8	5739	6	6088	1.358	0.971	1.900	0.628	0.213	1.851
C2	13	21154	49	45408	5	4681	7	7063	1.631	0.874	3.043	0.773	0.240	2.494
C3	5	15444	58	51415	1	3627	7	8161	2.904	1.143	7.375	1.556	0.183	13.196
C5	11	27193	18	39672	4	5739	5	6088	1.028	0.478	2.210	0.943	0.246	3.606
C6	10	21154	19	45408	4	4681	2	7063	0.805	0.368	1.758	0.265	0.047	1.498
C7	13	24205	39	42420	6	5236	1	6560	1.590	0.838	3.016	0.114	0.013	0.989
C8	40	27193	70	39672	10	5739	2	6088	1.170	0.787	1.740	0.171	0.036	0.807
C9	35	24205	67	42420	5	5236	9	6560	1.062	0.700	1.612	1.197	0.392	3.653
C10	13	21154	53	45408	3	4681	9	7063	1.764	0.950	3.275	1.491	0.393	5.657
C12	17	27193	17	39672	4	5739	2	6088	0.647	0.326	1.286	0.377	0.067	2.131
C16	40	29941	43	36657	12	6211	4	5612	0.857	0.552	1.329	0.341	0.107	1.081
C17	10	29941	17	36657	1	6211	4	5612	1.262	0.569	2.801	2.213	0.237	20.710
C18	11	29941	22	36657	0	6211	1	5612	1.497	0.715	3.134	1.107		
C19	37	29941	86	36657	6	6211	12	5612	1.849	1.248	2.739	1.897	0.698	5.157
C20	27	29941	63	36657	4	6211	3	5612	1.838	1.160	2.911	0.664	0.144	3.059
C21	53	32956	65	33625	8	6687	6	5158	1.180	0.815	1.708	0.864	0.293	2.545
C22	33	32956	52	33625	5	6687	4	5158	1.499	0.960	2.339	0.864	0.226	3.306
C24	13	32956	30	33625	5	6687	1	5158	2.100	1.081	4.080	0.216	0.024	1.932
C25	20	32956	21	33625	5	6687	4	5158	0.980	0.525	1.831	0.864	0.226	3.306
C26	23	32956	27	33625	5	6687	3	5158	1.103	0.625	1.945	0.648	0.150	2.793
C28	12	35988	20	30651	4	7141	2	4703	1.806	0.870	3.749	0.607	0.107	3.433
C29	82	35988	119	30651	20	7141	11	4703	1.683	1.263	2.243	0.795	0.375	1.685
C30	66	35988	101	30651	9	7141	9	4703	1.770	1.290	2.429	1.367	0.532	3.508
C31	81	35988	79	30651	7	7141	10	4703	1.131	0.824	1.552	1.898	0.708	5.086

C32	68	35988	91	30651	14	7141	10	4703	1.548	1.124	2.134	1.012	0.442	2.317
C34	7	35988	5	30651	1	7141	0	4703	0.734	0.228	2.367			
C35	57	38962	63	27699	8	7596	7	4257	1.528	1.060	2.202	1.388	0.493	3.907
C36	34	38962	35	27699	7	7596	4	4257	1.407	0.869	2.277	0.892	0.255	3.125
C37	8	38962	3	27699	3	7596	0	4257	0.469	0.121	1.816			
C38	9	38962	6	27699	2	7596	2	4257	0.844	0.294	2.422	1.190	0.161	8.790
C39	34	41914	14	24693	5	8042	1	3787	0.679	0.360	1.281	0.354	0.040	3.165
C40	29	41914	20	24693	7	8042	3	3787	1.132	0.633	2.024	0.796	0.200	3.166
C41	17	60106	0	7378	5	10812	0	1166						
P1	11	24205	31	42420	4	5236	6	6560	1.474	0.731	2.974	0.958	0.263	3.483
P2	24	32956	21	33625	3	6687	3	5158	0.823	0.453	1.497	0.972	0.190	4.977
P7	32	35988	28	30651	2	7141	2	4703	0.996	0.594	1.672	1.012	0.137	7.480
P8	120	35988	234	30651	18	7141	15	4703	2.271	1.814	2.842	1.199	0.596	2.412
P9	44	41914	28	24693	6	8042	6	3787	1.056	0.651	1.713	1.820	0.574	5.776
P10	28	41914	14	24693	8	8042	1	3787	0.819	0.426	1.577	0.236	0.028	1.968
T1	18	29941	22	36657	6	6211	2	5612	0.946	0.501	1.786	0.316	0.062	1.619
T2	18	29941	22	36657	6	6211	2	5612	0.946	0.501	1.786	0.316	0.062	1.619
T17	11	29941	7	36657	5	6211	0	5612	0.476	0.181	1.253			
T18	6	29941	10	36657	2	6211	3	5612	1.167	0.415	3.278	1.107	0.178	6.870

Key

b = collisions in the vicinity of camera site before installation (excluding SSP)

B = collisions in the CPRSP area (excl. trunk roads) for same time period as b

a = collisions in the vicinity of camera site after installation

A = collisions in the CPRSP area (excl. trunk roads) for same time period as a

Sites in grey are in Peterborough.

Proposals for existing fixed camera sites

Ref	Location	Camera	Column type	Proposed group	Comment
001/2	A1134 Elizabeth Way (B/d), Cambridge	Gatso	standard	1 - digitalise	High non-compliance
003	A605 Eastrea Rd, Whittlesey	Gatso	standard	3 - investigate	Route review required to explore ASC
007	A1134 Barnwell Rd, Cambridge	Gatso	standard	1 - digitalise	High non-compliance
010	A1134 Perne Rd, Cambridge	Gatso	standard	1 - digitalise	
012	A141 Old Hurst	Gatso	smart	1 - digitalise	
014	A1134 Newmarket Rd, Cambridge	Gatso	standard	3 - investigate	GCP scheme on route – need to see if safety issues can be addressed through scheme
015	B198 Cromwell Rd, Wisbech	Gatso	standard	1 - digitalise	
021	B1050 Station Rd, Willingham	Gatso	smart	1 - digitalise	
022/23	A1307 Huntingdon Rd (B/d), Cambridge	Gatso	standard	3 - investigate	New cycle scheme changes environment – need to assess impact
026	B1040 Woodhurst, Huntingdon	Gatso	smart	1 - digitalise	
027	C292 Victoria Avenue, Cambridge	Gatso	standard	1 - digitalise	
028	A605 Peterborough Rd, Whittlesey	Gatso	standard	3 - investigate	Route review required to explore ASC
029	A1309 High St, Trumpington	Gatso	standard	1 - digitalise	
030	B1049 Histon Rd, Cambridge	Gatso	standard	3 - investigate	New cycle scheme proposed – need to see if safety issues can be addressed through scheme
031	A603 Wimpole Rd, Barton, Cambridge	Gatso	standard	1 - digitalise	Need to address visibility issues and review location
033	A142 Chatteris	Gatso	smart	3 - investigate	Route study underway
034/35	B198 Lynn Rd (B/d), Wisbech	Gatso	standard	1 - digitalise	
041	B1514 St John's St, Huntingdon	Gatso	standard	1 - digitalise	
042	A603 Barton Rd, Cambridge	Gatso	standard	1 - digitalise	
043	A1307 Park Hill, Horseheath	Truvelo	-	3 - investigate	GCP scheme on route – need to see if safety issues can be addressed through scheme
044	B1101 The Avenue, March	Gatso	smart	1 - digitalise	
045	A605 Elton	Gatso	smart	3 - investigate	Route issue, so possible ASC system
046/47	A1134 Newmarket Rd (Garlic Row), Cambridge	Gatso	standard	3 - investigate	GCP scheme on route – need to see if safety issues can be addressed through scheme
048	A1134 Mowbray Rd, Cambridge	Gatso	standard	1 - digitalise	

049	C235 Cherry Hinton Rd, Cambridge	Gatso	standard	2 - remove	Now 20mph
050	A1307 Hills Rd, Cambridge	Gatso	standard	3 - investigate	Route issue, so possible ASC system
051	A605 Syers Lane, Whittlesey	Gatso	standard	3 - investigate	Route review required to explore ASC
055	A10 Brandon Creek, Littleport	Gatso	standard	2 - remove	Currently bagged
056	B1047 Ditton Lane, Cambridge	Gatso	standard	1 - digitalise	Would benefit from being bi-directional
057	A1309 Milton Road, Cambridge	Gatso	smart	1 - digitalise	
058	A1123 Needingworth Rd, Bluntisham	Gatso	smart	1 - digitalise	
061	A605 King's Delph, Whittlesey	Gatso	standard	3 - investigate	Route review required to explore ASC
062	Cromwell Rd, St Neots	Gatso	standard	1 - digitalise	
9901	Cambridge St, St Neots (RED LIGHT)	RLGatso	smart	1 - digitalise	
9902	Huntingdon St, St Neots (RED LIGHT)	RLGatso	smart	1 - digitalise	