
SAFE AND SENSIBLE STREET LIGHTING UPDATE

To: **Dover Joint Transportation Board - 9 June 2016**

Main Portfolio Area: **Highways, Transportation and Waste**

By: **Robert Clark, LED Project Manager**

Classification: **For Recommendation**

Summary: This report provides an update to Members about Phase 1 of the SSSL project – Trial switch-off

1.0 Introduction and Background

- 1.1 In August 2013, following a Member decision in 2011, the County Council began implementing its Safe & Sensible Street Lighting (SSSL) project to reduce the costs of providing street lighting across the County.
- 1.2 SSSL comprised two phases:
 - Phase 1 – Trial switch off of surplus lights;
 - Phase 2 – Conversion of approximately 60,000 lights to part-night operation.
- 1.3 Details of the sites to be included in the trial switch off (Phase 1), and the proposed hours of switch off and the exclusion criteria for Phase 2, were reported to Members at the Spring 2013 cycle of JTB meetings.
- 1.4 For the trial switch off sites, Members were invited at those JTB meetings to provide any information that should be considered when making the final decision on whether to proceed with the trial. This resulted in some lights being excluded from the trial and some others being amended from a full switch off to being included in Phase 2 – part night lighting.
- 1.5 For Phase 2, Members were asked to comment on the proposed hours of switch off which were 12.00 midnight to 05.30am Greenwich Mean Time (GMT) and 01.00 to 06.30 British Summer Time (BST). Members generally agreed with the proposals for Phase 2.
- 1.6 Both Phases of SSSL were largely completed by autumn 2014 and are currently saving around £1m each year.
- 1.7 A previous report was provided to members on Thursday 10th December 2015, where comments were recorded. Members highlighted that it was thought that these lights were included within the Street Lighting Consultation that ended on 29th November 2015 and would be subject to the new street lighting policy that was to be agreed in February 2016.
- 1.8 Following the agreement to return to 'Optimised' All Night Lighting, it can be confirmed that this does not include trial switch off sites. It is intended that a decision to remove or retain these lights will be taken to the Environment and Transport Cabinet Committee for a final sign off in July 2016. Should it be agreed that street lights at these sites are to be removed; these will be completed this year. Should it be agreed to keep these lights, these will be returned on in due course, in alignment with the LED Conversion Project. subsequently once converted to LED these will return to 'Optimised' All Night Lighting.
- 1.9 This report is seeking further comments from Members with the updated information in 1.7 and 1.8, before a report is taken to the Environment and Transport Cabinet Committee in

July 2016. Additionally Officers have responded to the queries raised by Members in December 2015 which are detailed within the summary section under 2.29.

2.0 Phase 1 – Trial Switch Off

Selection of sites

- 2.1 The sites selected for inclusion in the trial switch off were those where street lighting is present; however, if these roads were being designed and built today, it is most unlikely that street lighting would be provided.
- 2.2 The purpose of the trial switch off was to establish if there would be any adverse impact on a site if the lights were switched off completely. If it was found that there was no adverse impact, it would be the County Council's intention to consider these lights for removal.
- 2.3 When originally presented to Members at the Spring 2013 JTB meetings approximately 133 sites across Kent totalling around 2500 lights were identified as being potentially suitable for inclusion in the trial switch off. In the Dover district, the sites identified were:

East Kent Access Location A – Sandwich by-pass
East Kent Access Location B
East Kent Access Location C
East Kent Access Location D – Monks Way
East Kent Access Location E – Ramsgate Road
East Kent Access South – Ramsgate Road
A256 By-Pass – Venson, Tilmanstone and Eythorne junctions
Whitfield Hill
A257 Ash By-Pass – Sandwich Road
Betteshanger Road
Folkestone Road, Farthingloe

These sites are shown on the plan included at Appendix A.

- 2.4 At the JTB meeting Members were invited to consider three options for each site. The options were:
- a) The site should be included in the trial switch off.
 - b) The site should be excluded from the trial but the lights converted to part-night operation
 - c) The site should be withdrawn from the trial switch off and the lights left to operate without change.
- 2.5 Information provided by Members at the JTB meeting was later considered together with other factors such as crime and road safety. A recommendation was then made to the Director of Highways, Transportation & Waste, who made the final decision on whether to include each site within the trial.
- 2.6 As a result of this process, the following sites were included in the trial switch-off:

Whitfield Hill
A257 Ash By-Pass – Sandwich Road
Betteshanger Road
Folkestone Road, Farthingloe

In addition, the following sites were identified as suitable for part-night operation:

East Kent Access Location A – Sandwich by-pass
East Kent Access Location D – Monks Way
East Kent Access Location E – Ramsgate Road
East Kent Access South – Ramsgate Road

The remaining sites were excluded from the trial switch off:

East Kent Access Location B
East Kent Access Location C
A256 By-Pass – Venson, Tilmanstone and Eythorne junctions

- 2.7 In respect of sites in other districts in the county the JTB meetings and decision making process resulted in the original 2500 lights being reduced to around 1200 lights that were actually switched off for a trial period.

Mitigation works

- 2.8 A key aspect of the trial switch off was to ensure the absence of lighting did not create an unsafe situation.
- 2.9 Prior to switching any street lights off, each site was inspected to establish the condition of the site and identify the need for any works to be undertaken to ensure that the safety of the site was not affected. The works required were generally found to be carriageway markings, cleaning signs, and for some sites installing reflective road studs.
- 2.10 An additional safeguard that was included in these mitigation works was that strips of reflective material were fixed to individual street lights so they would be picked up by car headlights alerting drivers to the presence of the columns.
- 2.11 All mitigation works were undertaken before any street lights were switched off.

Date of switch off

- 2.12 The date that each site in the Dover district was switched off is shown in the summary tables within paragraph 2.29 below.
- 2.13 On the date of the switch off, information signs with a contact telephone number were erected at each site.

Monitoring during the switch-off period

- 2.14 Throughout the period of the trial switch off, the sites were monitored for any adverse impacts that may have been due to the absence of street lighting. The monitoring included:
- a) Liaising regularly with Kent Police in respect of criminal activity.
 - b) Reviewing any Road Traffic Collisions (RTCs) that occurred.
 - c) Reviewing information received from others e.g. Members, the public, Parish and Town Councils, Emergency Services.
- 2.15 If any adverse impact was identified, then following consultation with the Cabinet Member, the street lights were switched back on.
- 2.16 Within the Dover district there were no sites that experienced any adverse impact that required the street lights to be switched back on before the end of the trial.

Feedback received

- 2.17 Following the switch off, a number of enquiries about the trial were received. Most enquiries were received within a few weeks of the date of the switch off and have generally declined in number and frequency since then.
- 2.18 The enquiries were generally from customers who felt that the safety of the road would be reduced without lighting.

- 2.19 Each enquiry was considered and investigated when it was received and a response provided at the time. All enquiries received were considered again as part of the review of the trial switch off.
- 2.20 The number of enquiries received and the date of the most recent enquiry are included in the tables within paragraph 2.29 below.

Review of the trial

- 2.21 Each of the trial switch off sites was reviewed, with the following factors being considered:
- a) Enquiries received
 - b) Feedback from Kent Police on crime
 - c) RTCs occurring during the trial switch off
 - d) Future requirements for street lights at the site.

Financial implications

- 2.22 The objective of SSSL as a whole is to reduce the cost to the County Council of providing street lighting, the savings being made principally from reduced energy consumption and reduced carbon emissions. In preparation for the LED conversion rollout, there are two additional savings that can be realised from the trial switch off sites: future maintenance costs would be eliminated, and the installation costs of new LED lanterns would be avoided.
- 2.23 In order to assess the financial implications of this element of the project a comparison was made between the cost of removing the lights and the cost of retaining the lights.
- 2.24 The cost to remove a light is principally dependent on the nature of the road in which it is located and the extent of traffic management required. In all other respects the works involved are the same regardless of the location and would include disconnection, removal and disposal of the equipment and reinstatement of the highway surface.
- 2.25 The cost of retaining the light was assessed over a period of 15 years as this coincides with the duration of the forthcoming new Street Lighting Term Services Contract.. The costs of retaining the light included installation of a new LED luminaire, replacement of the column if this is likely to be needed within 15 years, energy costs and routine electrical and structural testing.
- 2.26 The comparison of costs shows that the costs of removal are lower than retaining a light over this period of time. A longer period would further increase the cost of retaining the light. Additionally if at some stage it was decided that the lights are no longer required the cost of removal would still be incurred.
- 2.27 Funds have been specifically allocated for the removal of lights associated with the trial switch off and are currently available. If the lights are to be retained the availability of this funding in the future is not certain.
- 2.28 The cost of each of these options is included in the tables within paragraph 2.29 below.

Summary of review, financial implications and recommendations for each site

- 2.29 The findings of the review are summarised in the tables below, together with conclusions and recommendations for each site.

Site	Whitfield Hill
Number of lights	31
Date of switch off	22/08/2013
Number of enquiries received	15
Date of most recent enquiry	January 2015
Number of incidents of crime or ASB occurring during the trial switch off	1
Date of incidents of crime or ASB	December 2013
Number and severity of RTCs occurring in darkness during the trial switch off	1 - SLIGHT
Remarks relating to RTCs	Single vehicle lost control.
Feedback from Development Team	No concerns raised
Feedback from Operations Team	No concerns raised
Cost to remove	£22,500.00
Cost to retain and operate for 15 years	£53,700.00
Other remarks	None
Members comments from Dover JTB dated 10 th December 2015	<p>Councillor G Cowan expressed surprise that it was proposed to remove columns on Whitfield Hill. Before 2013 there had been fatalities there, and a couple of cars had recently ended up in the roadside hedge.</p> <p>Councillor M R Eddy stressed that an improved maintenance regime was needed for road markings and reflectors if there was to be no lighting.</p> <p>Councillor MJ Ovenden asked if the lights in the vicinity of the houses could be retained and switched back on.</p>
Officer response to comments from Dover JTB	<p>Officers advised at the meeting that there were always a number of factors involved in any road traffic accident. For each site the team had considered whether lighting was a contributory factor, but they undertook to review this site.</p> <p>The RTC data has been reviewed and there is no indication that changed lighting conditions has adversely affected type or frequency of incident. Generally RTC's in this road relate to driver behaviour.</p> <p>Officers advised that maintenance work had been carried out in 2013 on road studs and reflectors, and that additional markers could be installed to help motorists maintain a visual line. However, beyond that there was no special maintenance regime for unlit roads.</p> <p>In response to Councillor M J Ovenden, officers agreed to review whether lights in the vicinity of houses could remain in place.</p> <p>There are no safety reasons why these two lights should be retained.</p>

	<p>In response to Members who suggested cats' eyes to replace reflector strips on columns, officers undertook to investigate these whilst highlighting their relatively high cost.</p> <p>The investigation considered two options, road studs installed at 18m centres on both sides of the road and installation of a verge marker post to replace each of the lighting columns to be removed.</p> <p>Road studs would provide a better solution overall by making both existing edge lines more visible in darkness, would be cheaper but may require greater traffic management to install.</p> <p>Marker posts would only be provided on one side of the road, so would be less effective, would be more expensive, but can be installed at the time the existing columns are removed within the same traffic management arrangements.</p> <p>It is thus intended to install road studs unless the traffic management requirements prove to be too expensive. In which case marker posts will be installed.</p> <p>Officers also agreed to look at reflectors for the escape lane.</p> <p>The escape lane has two signs in advance of it. The carriageway markings are in good condition and there appears, from Google, to be three black & white bollards which have reflectors on them. The bollards, which are plastic and collapse on impact, are there to prevent road users inadvertently driving into the gravel. These existing arrangements appear to provide sufficient awareness of the escape lane.</p>
<p>Conclusions</p>	<p>The trial switch-off has not led to an increase in crashes or a significant increase in crime, and although several residents initially expressed concerns about the trial, the reduction in enquiries over time suggests that Kent's residents are now largely accepting of the switch-off.</p> <p>Most of these columns are at the end of their lifespan, and removing them immediately will result in savings to Kent County Council of around £32,000 over the next 15 years, with further savings in the longer term. Taking this into consideration, it is recommended that these columns be removed.</p>

Recommendation	The recommendation to the Cabinet Member is that the street lights should be removed.
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Site	A257 Ash Bypass
Number of lights	28
Date of switch off	23/08/2013
Number of enquiries received	1
Date of most recent enquiry	January 2014
Number of incidents of crime or ASB occurring during the trial switch off	1
Date of incidents of crime or ASB	January 2014
Number and severity of RTCs occurring in darkness during the trial switch off	0
Remarks relating to RTCs	-
Feedback from Development Team	No concerns raised
Feedback from Operations Team	No concerns raised
Cost to remove	£28,000.00
Cost to retain and operate for 15 years	£60,760.00
Other remarks	None
Members comments from Dover JTB dated 10 th December 2015	<p>Councillor P I Carter raised concerns about agricultural workers using the road in darkness.</p> <p>Cllr Ridings commented that since switch off he had received no enquiries / concerns about this site.</p>
Officer response to comments from Dover JTB	Officers clarified that there are several unlit junctions on this road, a number of which incorporate a right turn facility
Conclusions	<p>The trial switch-off has not led to an increase in crime or crashes, and other than a single enquiry relating to the bus service, Kent's residents have not commented on these lights being switched off, suggesting that there is no need to continue providing lighting to this part of the highway.</p> <p>These columns, although in acceptable condition, are likely to need replacing during the next 15 years, so removing them immediately will result in savings to Kent County Council of around £33,000 over this period, with further savings in the longer term. Taking this into consideration, it is recommended that these columns be removed.</p>
Recommendation	The recommendation to the Cabinet Member is that the street lights should be removed.

Site	Betteshanger Road
Number of lights	24
Date of switch off	22/08/2013
Number of enquiries received	0
Date of most recent enquiry	-
Number of incidents of crime or ASB occurring during the trial switch off	0
Date of incidents of crime or ASB	-
Number and severity of RTCs occurring in darkness during the trial switch off	0
Remarks relating to RTCs	-
Feedback from Development Team	Hadlow College may be relocating to this area and use Betteshanger Road as the main access route.
Feedback from Operations Team	No concerns raised
Cost to remove	£12,500.00
Cost to retain and operate for 15 years	£16,750.00
Other remarks	None
Members comments from Dover JTB dated 10 th December 2015	Members raised no objection to the recommendation.
Officer response to comments from Dover JTB	N/A
Conclusions	<p>Although there has been no increase in crime or crashes since switch-off, and Kent's residents have not commented on these lights being switched off, the likelihood of increased traffic linked to the Hadlow College proposals suggests that there may be a future need to provide lighting to this part of the highway.</p> <p>As the columns at this site are less than half-way through their expected lifespan, they are unlikely to need replacing within the next 15 years, so the cost of continuing to run them over this period would be only around £5,000 more than the cost of removing them. Taking this into consideration, it is recommended that the trial be extended until the columns are fitted with LED lanterns as part of the roll-out of the LED project.</p>
Recommendation	The recommendation to the Cabinet Member is that the trial switch off should be continued until the lights are converted to LED in due course, when they will be switched back on.

Site	Folkestone Road, Farthingloe
Number of lights	61
Date of switch off	23/08/2013
Number of enquiries received	4
Date of most recent enquiry	December 2014
Number of incidents of crime or ASB occurring during the trial switch off	2
Date of incidents of crime or ASB	March 2014 May 2014
Number and severity of RTCs occurring in darkness during the trial switch off	1 – SERIOUS
Remarks relating to RTCs	Foreign vehicle. Police confirmed that the absence of lighting was not a factor.
Feedback from Development Team	No concerns raised
Feedback from Operations Team	No concerns raised
Cost to remove	£45,750.00
Cost to retain and operate for 15 years	£112,870.00
Other remarks	Restoring lighting to 6 columns would align the lit area with the start of the 40 mph speed limit and light the cycle lane.
Members comments from Dover JTB dated 10 th December 2015	<p>Councillor Cowan commented that there had been two burglaries at the farm shop immediately after the switch-off. He had therefore requested that a small number of columns around the farm shop be switched back on.</p> <p>Councillor N J Collor agreed, adding that the Farthingloe development would be considerably bigger than development taking place at Betteshanger, and advised that the KCC development team have details of the proposals.</p>
Officer response to comments from Dover JTB	<p>Officers undertook to review the reinstatement of five columns around the farm shop.</p> <p>The farm complex and a small number of residential properties are located some way from the end of the trial switch off. Restoring lights in isolation for these properties would create a short length of darkness which is hazardous to road users. To overcome this approximately 20 lights would need to be retained and switched back on. The farm shop that was burgled is located within the farm complex and not directly adjacent to the highway so any benefit from street lighting is minimal. The lighting is intended to light the highway and whilst there are some benefits to others nearby it would be an expensive exercise to retain these lights to provide security for private property.</p> <p>In respect of the development proposals, officers added that Farthingloe was likely to</p>

	<p>require significant improvements and changes to the road network in order to provide an access to the new development. The development access layout is most unlikely to incorporate use of the existing lights. At Betteshanger the road is relatively new, the alignment straightforward meaning that there is a good chance that the Hadlow development may be able to use existing lights. Officers undertook to consult the development team.</p> <p>The development team have advised that the proposals have received outline approval but that this is subject to a judicial review. The proposals included two junctions onto Folkestone Road with no properties directly fronting Folkestone Road. The proposals for these junctions confirm the officer's remarks that the use of existing street lighting would be most unlikely.</p>
<p>Conclusions</p>	<p>The trial switch-off has not led to an increase in crashes, and where crimes have been reported the police have not identified lack of lighting as a significant factor, whilst the small number of enquiries received suggest that Kent's residents are largely accepting of the switch-off. Reviewing the site, six of the columns are within the 40 mph speed limit, where they light the cycle lane. To address the safety concerns raised by officers and emphasise the start of the speed limit, it is recommended that these lights be switched back on, and the columns fitted with LED lanterns in due course.</p> <p>All 61 columns are all at the end of their lifespan, so will need replacing within the next 15 years. Removing 55 of them immediately will result in savings to Kent County Council of around £62,000 over that period, with further savings in the longer term. It is thus recommended that the columns outside the 40 mph speed limit be removed.</p>
<p>Recommendation</p>	<p>The recommendation to the Cabinet Member is that the six columns within the 40 mph speed limit should be switched back on immediately and converted to LED in due course, and the remaining columns should be removed.</p>

3.0 Legal implications

- 3.1 The County Council has no statutory duty to provide street lighting, but where it does so the lighting must be provided and maintained in accordance with industry good practice.
- 3.2 Power for the street lights is supplied by UK Power Networks and switching the lights off for a trial period is acceptable to UKPN, however UKPN will not allow the street lights to remain connected to their network indefinitely if they are not using the power.
- 3.3 If the power to the street lights is removed to satisfy UKPN's requirements the street lights would be considered to be a number of individual highway obstructions. If one of these 'obstructions' were struck, the County Council could be liable for any costs.
- 3.4 In order for the County Council to avoid any legal liability the street lights must be either turned back on or removed.
- 3.5 The presence of a system of street lights in a road restricts vehicle speeds in that road to a maximum speed of 30mph. Where a speed limit in a road with street lights exists that is more or less than 30mph that speed limit would have been made by the creation of a specific Speed Limit Order (SLO).
- 3.6 Where a SLO does not exist the removal of street lights in a road would mean that the road becomes automatically subject to the national speed limit i.e. 60mph for a single carriageway road or 70mph for a dual carriageway.
- 3.7 If the removal of street lights led to the speed limit changing from 30mph to the national speed limit, a SLO would be made to restrict vehicle speeds to a maximum of 30mph.

4.0 Conclusions

- 4.1 For the majority of sites across Kent that were included in the trial, turning off the lights has not had an adverse effect.
- 4.2 There are a small number of sites where the absence of lighting has had an adverse effect and some of these were returned to lighting during the trial. The review has identified some other sites where the recommendation is that lighting is restored.
- 4.3 To avoid any legal liability the lights must be switched back on or removed.
- 4.4 The cost to the County Council of removing the lights will in every case be less than the cost of turning the lights back on and maintaining them into the future.
- 4.5 The switch off and removal of the lights will this generate financial savings for the County Council.

5.0 Recommendations

- 5.1 For each site in the summary tables, Members are asked to provide any additional information in relation to the officer's response to outstanding queries made at a previous JTB in December 2015. The new information detailed in paragraph 1.7 to 1.9 and the officers comments detailed in each summary table should be taken into consideration.
- 5.2 Any additional comments will be reported to the Environment and Transport Cabinet Committee in July 2016 for consideration before a final decision has been made.

APPENDIX A