**Performance and Resources Scrutiny Programme 2017/18**

**Report to: the Office of the Police, Fire and Crime Commissioner for Essex**

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| **Title of Report:** | **108/16 Update on Part-Night Lighting v.2.4** |
| **Chief Officer** | **Dr. Victoria Harrington** |
| **Report from:**  | **Essex Police** |
| **Date of Meeting:** | **30 November 2017** |
| **Author on behalf of Chief Officer:** | **Matt Robbins** |
| **Date of Approval:** | **16 November 2017** |

1. **Purpose of Report**

To provide an updated analysis on the effect that part-night lighting (PNL) may have had on crime, anti-social behaviour (ASB) and the number of killed and seriously injured (KSI) road traffic collisions (RTCs) in Essex.

1. **Recommendations**

There are no recommendations. This report is for the board to note.

1. **Executive Summary**

There is no evidence of a relationship between PNL and levels of crime, ASB or KSIs in areas where PNL was adopted, when compared with control areas that never took up the initiative. The findings from this report support previous research conducted by Essex Police, as well as that of a national, independent study.

Although crime has increased in PNL districts between the hours of 1am and 5am, the rate is in line with the increases experienced at other times in the same districts. A concomitant increase was also experienced in non-PNL districts. It must further be noted that crime has risen in Essex, and nationally.

ASB decreased at similar rates in PNL districts when compared to non-PNL districts.

With regards KSI RTCs, the rate of increase was greater in non-PNL districts. However, it should be noted that small numbers of incidents skew percentage comparisons.

**4.0 Introduction/Background**

Introduction

Part-night lighting (PNL) refers to the switching off of street lights between the hours of 1am and 5am. Piloting began in 2007 throughout the 12 districts in Essex County Council (ECC) between the hours of midnight and 5am hours. PNL between the hours of 1am and 5am was officially introduced on 30th March 2015.

Background

During the lead-up to the switch-off, Essex Police engaged with the ECC. They also held regular meetings to discuss the issues surrounding PNL, and conducted an analysis of crime and ASB data to establish possible links between crime levels and lighting.

  *Initial Analysis on Crime and ASB by Essex Police*

Analysis previously conducted by Essex Police in July 2014 concluded that there were no apparent links between PNL and either crime or ASB. When comparing the 87 days after switch off to the same 87 day period the previous year, both crime[[1]](#footnote-1) and ASB committed between the hours of midnight and 0500 hours reduced. Crime increased in three districts; it decreased in seven. ASB increased in five districts; it decreased in six.

*Lanterns Project*

“The effect of reduced street lighting on road casualties and crime in England and Wales: controlled interrupted time series and analysis” was a paper published in July 2015. The paper was a collaborative effort between local authorities in England and Wales and the University of London. Essex Police was one of the forces which contributed data.

The project concluded that there was little evidence of the harmful effects of switch off, part-night lighting, dimming, or changes to white light/LEDs on road collisions or crime in England and Wales.

*Safer Essex Roads Partnership Report*

In August 2017, Safer Essex Roads Partnership produced a document reviewing recorded road traffic collisions (RTCs) after the period in late 2013 and early 2014 when 10 districts adopted PNL. The paper concluded that PNL appeared to be related to an increase in collisions between cars and pedestrians, which are more likely to result in serious or fatal injury than those involving cars only. “A corresponding decrease in slight-injury collisions in PNL areas means there was no net effect on the overall collision rate, but an increase in KSI collisions.”

**5.0 Current Work and Performance**

In order to determine what – if any – effect PNL has had on crime, ASB or KSI RTCs, the volumes of each were compared for two different periods:

* 30/03/2014-25/06/2014 (87 day period in the year prior to switch-off on 30th March 2015) to the same period in 2017. This updates the analysis previously conducted by Essex Police in 2014.
* 30/03/2014-29/03/2015 (12 months prior to switch-off) to the same period in 2016/17. This provides a comparison over a longer period to that which was previously conducted by Essex Police.

Comparisons were made with the districts of Southend and Thurrock, where PNL has not been implemented. Comparisons have also been made to crimes/incidents reported at any other time.

Crime

The exact times at which many crimes were committed is unknown. Criminal damage to a vehicle, for example, may have been committed at 3am, but the recorded time would have been from when the owner last saw the vehicle to when the victim discovered the damage. Only instances when the time is definitively known as having occurred between 1am and 5am have been included.

To ensure consistency with the 2014 analysis conducted by Essex Police, those PNL offence types which were previously excluded were also excluded in this report.

*87 day period comparison: 30/03/2014-25/06/2014 v. 30/03/2017-25/06/2017*

Crime committed between 1am and 5am increased in all but three districts. The biggest rise in volume was experienced in Thurrock (a non-PNL district). However, crime also increased outside the PNL hours in all districts.

Table 1





*\* Please note that combining the PNL District and Non-PNL District totals in Table 1 will not add up to the total for all districts. This is because Harlow (which abandoned PNL), and Maldon and Uttlesford (pilot PNL districts) were not included in either total.*

*Annual period: 30/03/2014-29/03/2015 v. 30/03/2016-29/03/2017*

Every district – with the exception of Harlow – experienced an increase in crime committed between 1am and 5am. While Southend experienced only a 2.9% increase, Thurrock (the other control District) experienced a 27.2% increase, and had the second highest volume rise.

Crime committed at any other time period also rose, but at a higher rate overall. It is of note that there has been a rise in crime, both in Essex and nationally.

Table 2





*\* Please note that combining the PNL District and Non-PNL District totals in Table 2 will not add up to the total for all districts. This is because Harlow (which abandoned PNL), and Maldon and Uttlesford (pilot PNL districts) were not included in either total.*

Anti-Social Behaviour (ASB)

*87 day period comparison: 30/03/2014-25/06/2014 v. 30/03/2017-25/06/2017*

ASB decreased in all districts other than Brentwood, Harlow (which abandoned PNL) and Rochford.

Table 3





*\* Please note that combining the PNL District and Non-PNL District totals in Table 3 will not add up to the total for all districts. This is because Harlow (which abandoned PNL), and Maldon and Uttlesford (pilot PNL districts) were not included in either total.*

*Annual period: 30/03/2014-29/03/2015 v. 30/03/2016-29/03/2017*

Every district – with the exception of Castle Point – experienced a reduction in ASB. A bigger percentage decrease was experienced in PNL districts, however.

Table 4





*\* Please note that combining the PNL District and Non-PNL District totals in Table 4 will not add up to the total for all districts. This is because Harlow (which abandoned PNL), and Maldon and Uttlesford (pilot PNL districts) were not included in either total.*

Killed and Seriously Injured (KSI) Road Traffic Collisions (RTCs)

*87 day period comparison: 30/03/2014-25/06/2014 v. 30/03/2016-25/06/2016*

The percentage increase in KSI RTCs was the same for both non-PNL and PNL districts. It should be noted, however, that low numbers skew percentage comparisons.

Table 5





*\* Please note that combining the PNL District and Non-PNL District totals in Table 5 will not add up to the total for all districts. This is because Harlow (which abandoned PNL), and Maldon and Uttlesford (pilot PNL districts) were not included in either total.*

*Annual period: 30/03/2014-29/03/2015 v. 30/03/2016-29/03/2017*

A higher percentage of KSI RTCs occurred in non-PNL districts than PNL districts. It should again be noted that low numbers skew percentage comparisons.

Table 6





*\* Please note that combining the PNL District and Non-PNL District totals in Table 6 will not add up to the total for all districts. This is because Harlow (which abandoned PNL), and Maldon and Uttlesford (pilot PNL districts) were not included in either total.*

Of the 32 KSI RTCs that occurred in the PNL districts in the most recent period, seven occurred where streetlights were present but not lit. In the majority of instances, there were either no streetlights (13), or the streetlights were present and lit (10); in one instance it was unknown and in another the lighting was unknown.

By comparison, of the 26 KSI RTCs that occurred in the year prior to the switch-off in PNL areas, lights were present but not lit in five instances.

Table 7



**6.0 Implications (Issues)**

The below details the caveats relating to the analysis:

* The initial PNL trials were between the hours of midnight and 5am in late 2013 and early 2014. PNL between the hours of 1am and 5am was introduced on 30th March 2015 (an hour difference).
* Harlow district ceased PNL operation on 25th October 2015. Maldon and Uttlesford Districts adopted PNL in 2007. These districts have therefore been excluded from comparisons.
* No information is available as to the streets/areas in which PNL was implemented. It is therefore unclear whether the offences identified were committed in town centres, for example, where lights would be on all day (offences committed in illuminated areas, and part of the night-time economy will therefore have been included the analysis).
* Crime committed in the period when PNL was introduced was recorded on Crime File (the crime system used before Athena).
* Further to the above, it is not possible to determine from Athena which offences were committed outdoors. This information was formerly available in the Crime File system. Many offences included in the analysis may therefore have been committed within premises.

**6.1 Risks/Mitigation**

No risks were identified during the course of this analysis.

**6.2 Equality and/or Human Rights Implications**

There is no identified impact on equality, diversity or human rights.

**6.3 Health and Safety Implications**

There are no identified implications with regards health and safety.

**7.0 Consultation/Engagement**

Papers reviewed and referenced:

* Initial Analysis on Crime and ASB by Essex Police – July 2014
* Lanterns Project: “The effect of reduced street lighting on road casualties and crime in England and Wales: controlled interrupted time series and analysis” by local authorities in England and Wales and the University of London – July 2015
* Part Night Lighting Review by Safer Essex Roads Partnership Report – August 2017

**8.0 Actions for Improvement**

No actions for improvement have been taken.

**9.0 Future Work/Development**

There are no current plans for future analysis in this area given the findings from multiple analyses over different time periods

**10.0 Decisions Required by the Police, Fire and Crime Commissioner**

This report is purely for the information of the Police, Fire and Crime Commissioner.

1. Crimes excluded: Domestic Abuse, Abstracting electricity, Theft from dwelling, Theft of mail, Theft from employer, Cannabis cultivation, Shoplifting, Making off without payment, Witness intimidation. Crimes that spanned either before and after midnight and 0500 hours were also excluded, as it was not certain if they were committed in the relevant period. [↑](#footnote-ref-1)