

# Transport for London Lane Rental Scheme

Monitoring Report –  
1 April 2018 to 31 March 2019

Status: Final  
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EVERY JOURNEY MATTERS

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# 1. Document Control

## 1.1 Author

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## 1.2 Document Summary

This document provides updated information on the impacts of the Transport for London Lane Rental Scheme for the period 1 April 2018 to 31 March 2019.

## 1.3 Reference Documents

[Transport for London Lane Rental Scheme](#)

[TLRS Cost Benefit Analysis v2.1, Jan 2012](#)

[TLRS First Annual Monitoring Report v0.5, Feb 2014](#)

[TLRS Interim Monitoring Report Oct 2013 to Jun 2014, Mar 15](#)

[TLRS Monitoring Report Jul 2014 to Mar 2015, Oct 2015](#)

[TLRS Monitoring Report Apr 2015 to Mar 2016, Oct 2016](#)

[TLRS Monitoring Report Apr 2016 to Mar 2017, Sept 2017](#)

[TLRS Monitoring Report Apr 2017 to Mar 2018, Nov 2018](#)

[TfL Lane Rental Scheme Supplementary Guidance V5.0, Jul 2016](#)

[Department for Transport Lane Rental Schemes Guidance for English Local Highway Authorities, Aug 2018](#)

## 1.4 Distribution

Glynn Barton – Director of Network Management

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Gerard O'Toole – Network Regulation Manager, Network Performance

Helena Kakouratos – Coordination and Permitting Manager, Network Management

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Louise Hall – Analysis Lead, Network Performance

## 1.5 Document Quality Assurance

Step	Step Description	Undertaken by	Date	Remarks
0.1	First draft	J MacInnis	05/12/2019	
0.2	Internal review	KK / LH / LAW	13/01/2020	
0.3	Second draft	J MacInnis	16/01/2020	Amendments following internal review
0.4	Third draft	GOT / J MacInnis	27/01/2020	Amendments following GOT review
0.5	Final	KK / JM	11/02/2020	Final version ready for publishing

## 2. Executive Summary

This is the latest in the series of statistical evaluation reports covering the period of 1 April 2018 to 31 March 2019 which monitors the Transport for London Lane Rental Scheme (TLRS).

The TLRS has once again had a positive impact in reducing congestion overall, but since the start of the scheme the congestion benefits delivered by the scheme have been swallowed up by a 2 per cent increase in the number of vehicles now travelling on TLRS segments when compared to the baseline in 2011. If this congestion benefit had been locked away by removing the extra demand the TLRS has enabled, the congestion benefit would have remained, and we would have likely been able to report a substantial improvement in journey times or reduction in congestion.

Analysis has shown that for the period 1 April 2018 to 31 March 2019:

- 99 per cent of TfL works and 84 per cent of utility works taking place in TLRS segments avoided incurring a TLRS charge
- A total of 95 applications to waive Lane Rental charges were submitted in 2018/19 with 58 receiving approval (£1.9 million waived charges)
- The Lane Rental surplus funded 21 applications totalling over £6 million for roadworks congestion busting projects, which represents a 43 per cent increase compared to the previous reporting year
- 1,317 days of Lane Rental were saved through early discussions with works promoters, with an estimated value of £2.4 million in charges avoided – an increase of 59 per cent compared to the previous reporting year

Compared to a baseline of 1 October 2010 to 30 September 2011:

- Since October 2013 over 10,000 days of Lane Rental were saved through early discussions with works promoters
- Average number of collaborative work sites have increased by 65 per cent per period
- There has been a 28 percentage point increase in planned utility works taking place overnight on TLRS segments since the scheme was implemented (from 11 to 39 per cent)
- The total number of works undertaken has decreased by 29 and 34 per cent in TLRS and non-TLRS segments respectively. Between 2017/18 and 2018/19 there has been 29 per cent reduction in the total number of permits or variations for works on the TLRN, demonstrating that there has been a significant drop in the number of works taking place in 2018/19 across the entire TLRN. This significant drop in works is not reflected in an improvement in journey times and JTR. It is likely that journey times and JTR would have significantly deteriorated if the number of works had remained unchanged or increased – this highlights the need for the TLRS
- Frustrations associated with 'Repeated roadworks on the same stretch of road within the same year', 'Seeing streets partially closed, but no-one working there' and 'Takes too long to carry out the work' have experienced significant improvements in customer satisfaction since the TLRS was implemented (down 30, 28 and 25 percentage points respectively). It is reasonable to assume that the implementation of TLRS has had a positive influence on these results

# Transport for London Lane Rental Scheme (TLRS)

Within 2018/19...



**£6 million**

investment approved  
to improve roadworks



**26**

Average number of  
collaborative work  
sites per period

Percentage of works that  
avoided a TLRS Charge

**99% TfL**      **84% Utility**



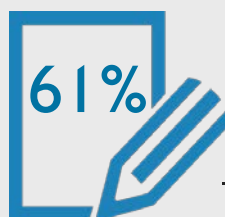
**78**

Average number of  
days of disruption  
avoided per period



**1,317**

Lane Rental  
Days saved



**61%**

Lane Rental waivers  
approved  
– totalling £1.9 million

## Compared to before the Lane Rental Scheme (2010/11)...



Works completed  
within TLRS segments

**-34% TfL**      **-13% Utility**



**+2%** Increase in vehicles  
within TLRS Segments



Works taking place  
overnight in TLRS  
segments **+28%**

**+6-12%**



Increase in journey  
times in both TLRS and  
non-TLRS segments.

Customer Satisfaction improved by the following percentage points

**30**



‘Repeated roadworks on  
the same stretch of road  
within the same year’

**25**



‘Takes too long to  
carry out the  
work’

**28**



‘Seeing streets partially  
closed, but no-one  
working there’



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## 3. Introduction

### 3.1 Scheme Scope

The Transport for London Lane Rental Scheme (TLRS) was introduced on 11 June 2012. The TLRS was designed to minimise disruption caused by roadworks and streetworks in specified traffic-sensitive locations by applying a daily charge for each day that the street is occupied by an activity promoter's works. The daily charge is not applied if the works take place outside traffic-sensitive times providing all activity promoters with an incentive to change behaviour and adopt less disruptive practices.

The same permitting regime is applied to all works on the Transport for London Road Network (TLRN), whether they are in the TLRS or not. TfL liaise with works promoters to reduce the length of time that the carriageway is occupied, especially in traffic-sensitive times; this typically includes changing works timings to overnight, off-peak or weekends.

The three charge bands and their typical times are shown in Table 1. During the TLRS calculations, segments of the TLRN are ranked by sensitivity. Charge band 2 is allocated to the most sensitive areas of the network and is therefore chargeable at a higher rate of £2,500 per day – this makes up approximately 17 per cent of the TLRN. Charge band 1 is allocated to approximately 60 per cent of the TLRS and charge band 2 and 3 make up the remaining 30 and 10 per cent respectively.

Table 1: Lane Rental Charges

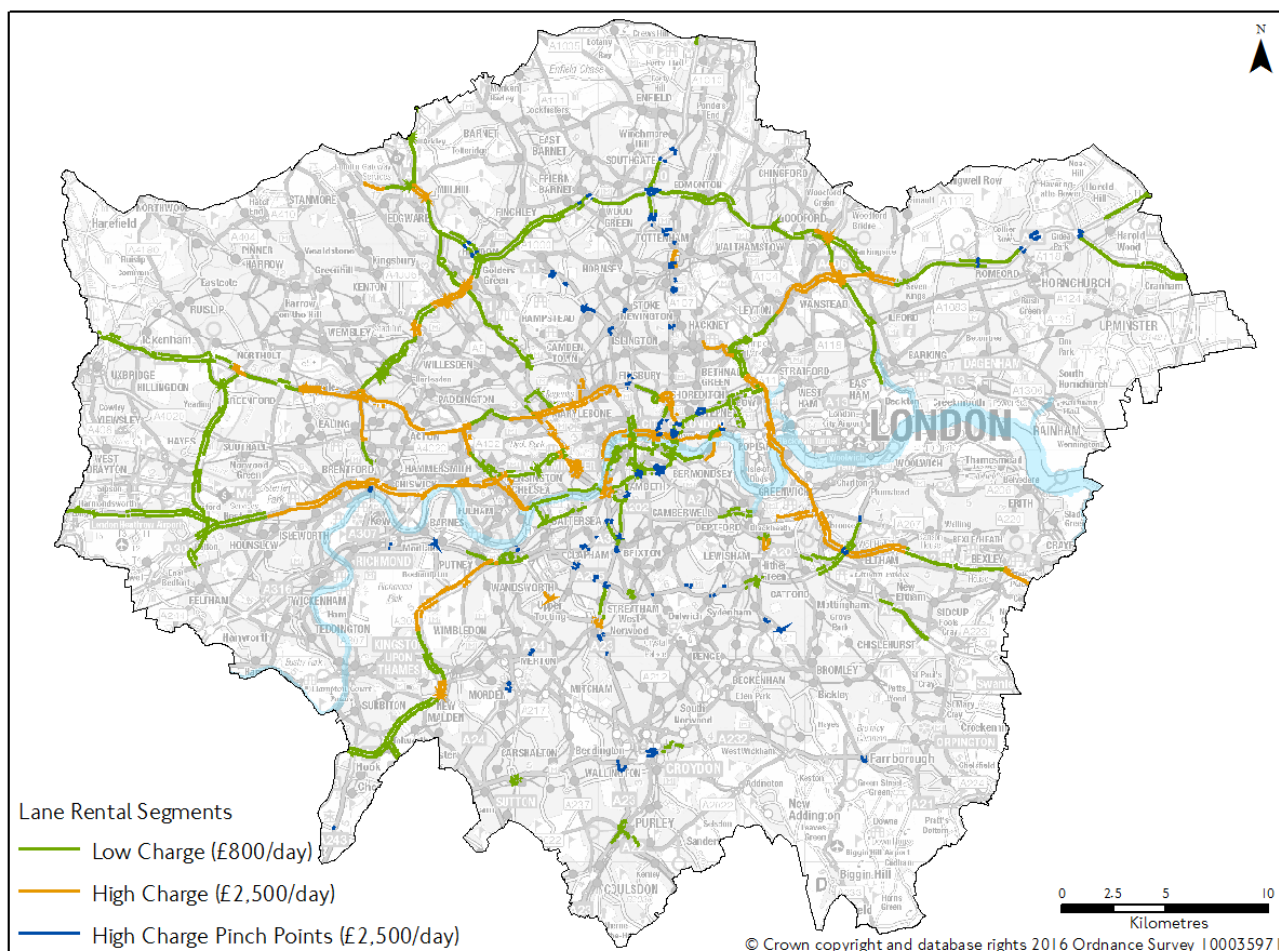
Charge Band	Type	Daily Charge	Typical Charging Times	
			Monday to Friday	Saturday and Sunday
1	Segment	£800	06:30-10:00 and 15:30-20:00	12:00-18:00
2	Segment	£2,500	06:30-22:00	12:00-18:00
3	Pinch point	£2,500	07:00-20:00	12:00-18:00

The Government consulted on the future of Lane Rental schemes between 2 September and 28 October 2017. It was decided that TfL and Kent County Council could retain their existing schemes and allow other local authorities to bid for and set up their own Lane Rental schemes.

For the purposes of this report, and to align with previous TLRS reports, analysis has been restricted to non-TLRS and TLRS whereby non-TLRS refers to areas of the TLRN which have never been part of the TLRS (both 2012 and 2014 versions). This provides a clear comparison between parts of the road network where Lane Rental operates compared the remaining network that is not subject to Lane Rental.

The latest TLRS areas (adopted in July 2014) can be seen in Figure 1 below.

Figure 1: Lane Rental Segments by Charge Bands - July 2014 to Present



### 3.2 Reporting Periods

This report is the fourth annual monitoring report which aligns to TfL's financial year and covers the period of 1 April 2018 to 31 March 2019. A baseline of 1 October 2010 to 30 September 2011 has been used for the following reasons:

- It is prior to the implementation of the TLRS
- It does not conflict with other schemes such as the Olympics Clearway
- It aligns with that used in the first annual report

All previous Lane Rental monitoring reports can be found on the TfL Lane Rental Scheme webpage<sup>1</sup>.

<sup>1</sup> TfL Lane Rental Scheme Monitoring Reports - <https://tfl.gov.uk/info-for/urban-planning-and-construction/lane-rental-scheme>



## 4. Road Network Context

Below is a summary from the Mayor's Transport Strategy<sup>2</sup> which looks at the challenges London and its road capacity will face in the future<sup>3</sup>.

### Mayor's Transport Strategy – Supporting Evidence Challenges and Opportunities Summary

In 2015, London's population was 8.7 million and there was an average of 26.7 million trips per day made. London has grown rapidly in recent years, leading to increased demand on the transport system. Population is expected to reach 10.5 million by 2041, and London's employment is projected to grow to 6.8 million by 2041, from 5.7 million in 2016. As a result, travel demand is expected to increase to around 32 million trips on an average day, with most of the additional travel demand in the form of more public transport, walking and cycling. Despite a falling car mode share, car kilometres is estimated to rise by around 8%.

This, coupled with a large rise in van traffic of 26 per cent, will lead to an overall rise in traffic on the network if left unchecked. Over the same period, the amount of space available for use by general road traffic is expected to reduce by 3 per cent, more in central London. This could lead to the average Londoner sitting in congested traffic for 2.5 days a year by 2041.

One of the key themes of the Mayor's Transport Strategy in tackling these issues is creating streets and street networks that encourage walking, cycling and public transport use which will reduce car dependency and the health problems it creates, otherwise known as the 'Healthy Streets Approach'.

The Mayor, through TfL, has begun to prioritise buses and bus infrastructure in conjunction with improvements to rail services, walking and cycling environments to support measures to reduce car use. This, along with a significant amount of building and construction works have taken place to accommodate London's exceptional economic and population growth, with developers, boroughs and utility providers building additional homes, shops, public places and infrastructure. This growth is changing the way our roads operate and are used. In response, TfL is continuing to oversee the largest ever investment in London's streets, comprising numerous projects and programmes that are transforming some of the busiest roads and junctions to improve them for all road users. This construction programme is still underway to transform junctions, bridges, tunnels, cycling lanes and pedestrian areas; all of which are expected to put even more pressure on the network in the short term. This and the increased traffic flow have led to deterioration in journey times and journey time reliability across the network, making effective traffic management, including operating the TLRS, more vital than ever.

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<sup>2</sup> Mayor's Transport Strategy March 2018 - <https://www.london.gov.uk/what-we-do/transport/our-vision-transport/mayors-transport-strategy-2018>

<sup>3</sup> Mayor's Transport Strategy: Supporting Evidence Challenges and Opportunities June 2017 - <http://content.tfl.gov.uk/mts-supporting-evidence-challenges-opportunities.pdf>



## 5. Impact on the Road Network

### 5.1 Road Network Analysis

To assess the TLRS impact on the road network this report will analyse the recorded journey times, journey time reliability, vehicle flows, and the number of works on the TLRN during the financial year 2018/19 (1 April 2018 to 31 March 2019) and compare it to the baseline period (1 October 2010 to 30 September 2011) prior to the TLRS implementation.

Throughout this report vehicle flows and journey times refer to the analysis of motorised vehicles only. Analysis where possible will be broken down into peak periods. This will help assess the influence the TLRS has had on peak period roadworks. The peak period definitions used throughout this report are shown in Table 2.

Table 2: Peak Period Times

AM Peak	Inter Peak	PM Peak	Overnight
07:00 to 10:00	10:00 to 16:00	16:00 to 19:00	19:00 to 07:00

Following a change to the operating model and operational focus within TfL's Network Management Control Centre mid-way through the year, serious and severe disruption events have been recorded differently. This section has therefore been removed from this report as there is no longer a meaningful comparison with the baseline statistics.

### 5.2 Background to Journey Time and Journey Time Reliability

An objective of the TLRS is to contribute to journey time reliability (JTR). JTR is measured as the percentage of nominal 30 minute journeys completed within 35 minutes. For example, if a corridor can be managed such that 9 out of 10 journeys can be completed within the expected journey time then the corridor would be considered 90 per cent reliable.

JTR is calculated using journey time data from the London Congestion Analysis Project (LCAP), which in turn is based on Automatic Number Plate Recognition (ANPR) camera data.

There will be some small differences in the numbers reported for the baseline of October 2010 to September 2011 between this report and within the Lane Rental Monitoring Report 2015/16, 2016/17 and 2017/18. This is due to only corresponding financial periods being analysed for journey time and JTR analysis. For example if there is missing data for LCAP link 2090 in P1 2018/19 then the data for this same link is removed from the equivalent period in the baseline; this ensures comparable data is analysed within each annual report. Within this section comparisons will be made between the baseline figures used for 2018/19 and the figures reported for the previous three financial years. As explained above each of the figures will not cover the exact same LCAP links or dates.

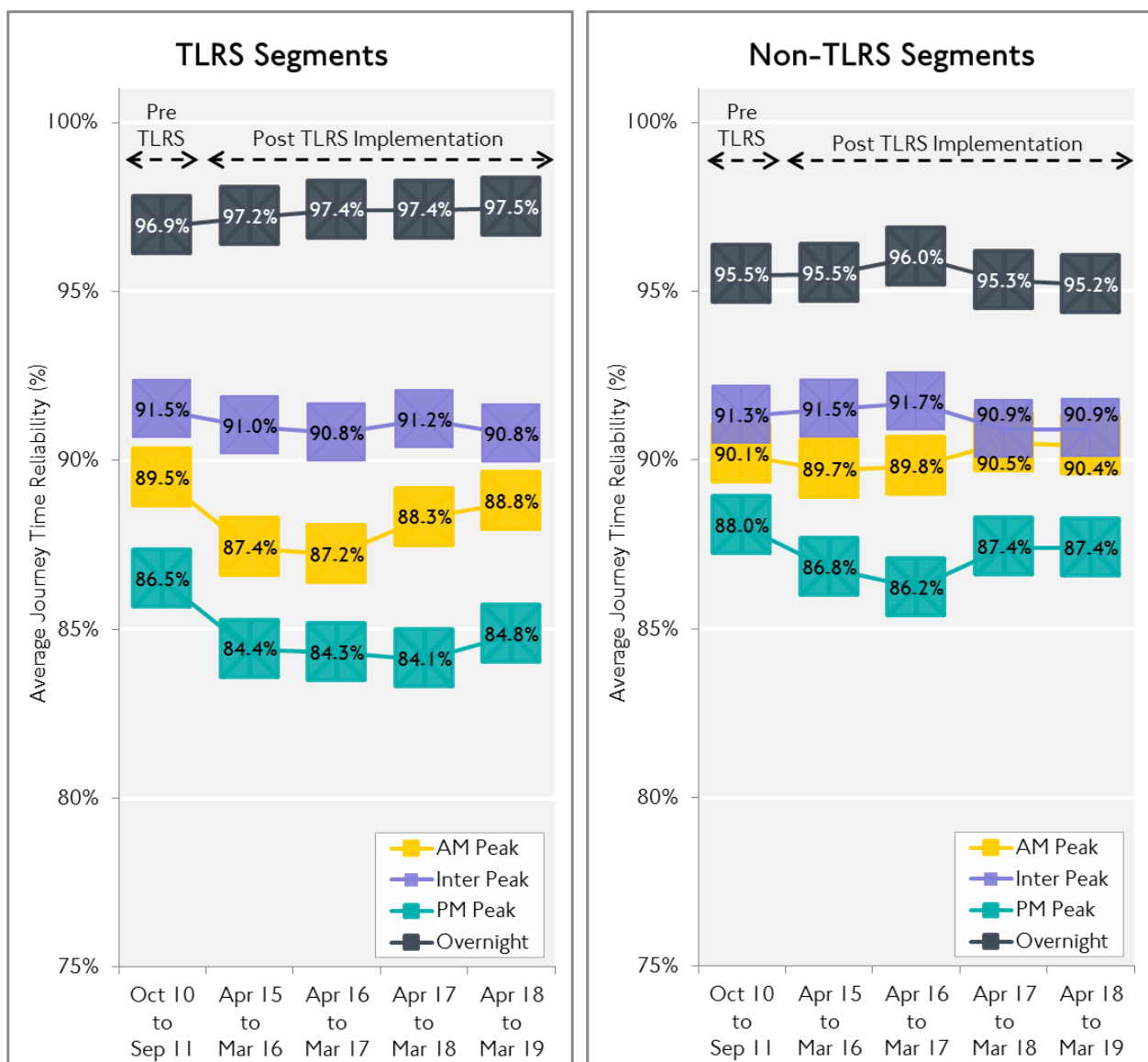
### 5.3 TLRN Journey Time Reliability

A comparison of JTR for TLRN and non-TLRN segments on the TLRN has been performed. The results are summarised in Figure 2.

Figure 2 shows that both TLRN and non-TLRN segments have seen a decrease in JTR with the exception of the AM peak in non-TLRN segments and overnight within TLRN segments. The decline in JTR has been more marked on TLRN segments in the PM peak (1.6 percentage point deterioration). However, JTR has improved when compared to the previous three financial years (with the exception of the inter peak).

Overnight JTR has remained stable within TLRN segments for the past four financial years – even with an increase of night-time working by 28 percentage points when compared to the 2010/11 baseline (Table 5). JTR is highest in 2018/19 within TLRN segments when compared to the previous three financial years (with the exception of the inter peak).

Figure 2: Average Journey Time Reliability

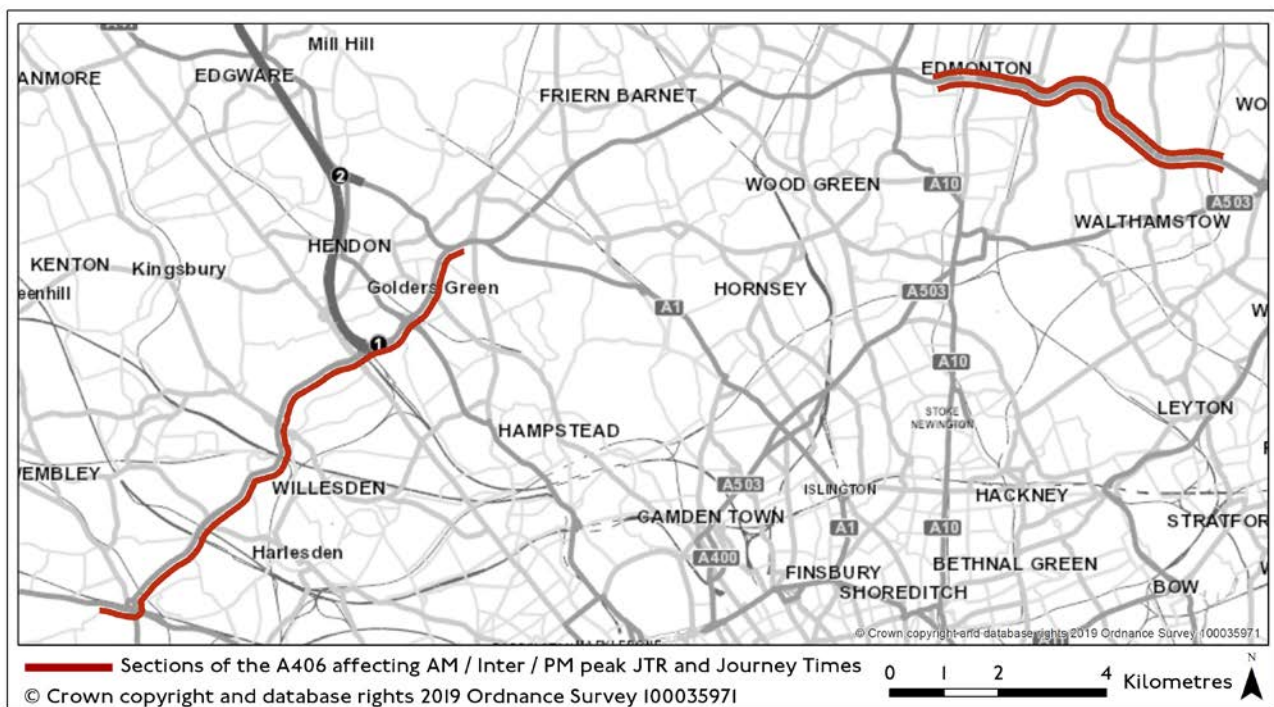


Sections of the A406 accounted for 41 and 22 per cent of the TLRs results in the AM and PM peaks respectively. Figure 3 shows the sections of the A406 which have contributed to this deterioration.

There were no major roadworks on the eastern section of the A406 during the day within 2018/19. Planned works on the A406 are not usually allowed to take place during the day due to the impact they would have on the network. However there have been multiple unplanned incidents that include collisions, flooding events, burst water mains, traffic signal issues and vehicle breakdowns. There were similar results reported within the 2016/17 and 2017/18 reports<sup>4</sup>. There are no traffic signals on the eastern side of the A406 therefore JTR is heavily influenced by the severity of incidents.

The sections illustrated in Figure 3 would also be affected by incidents which have occurred on any of the three motorways which feed into the A406. All of the above highlights the pressures the A406 has seen during the past few financial years This has led to the deterioration of the A406 resulting in a significant impact on the overall JTR results.

Figure 3: Sections of the A406 affecting AM / Inter / PM Peaks JTR and Journey Time



## 5.4 TLRN Journey Time

Journey time data has also been analysed for each time period throughout the day and has been separated into TLRs and non-TLRs segments (Figure 4).

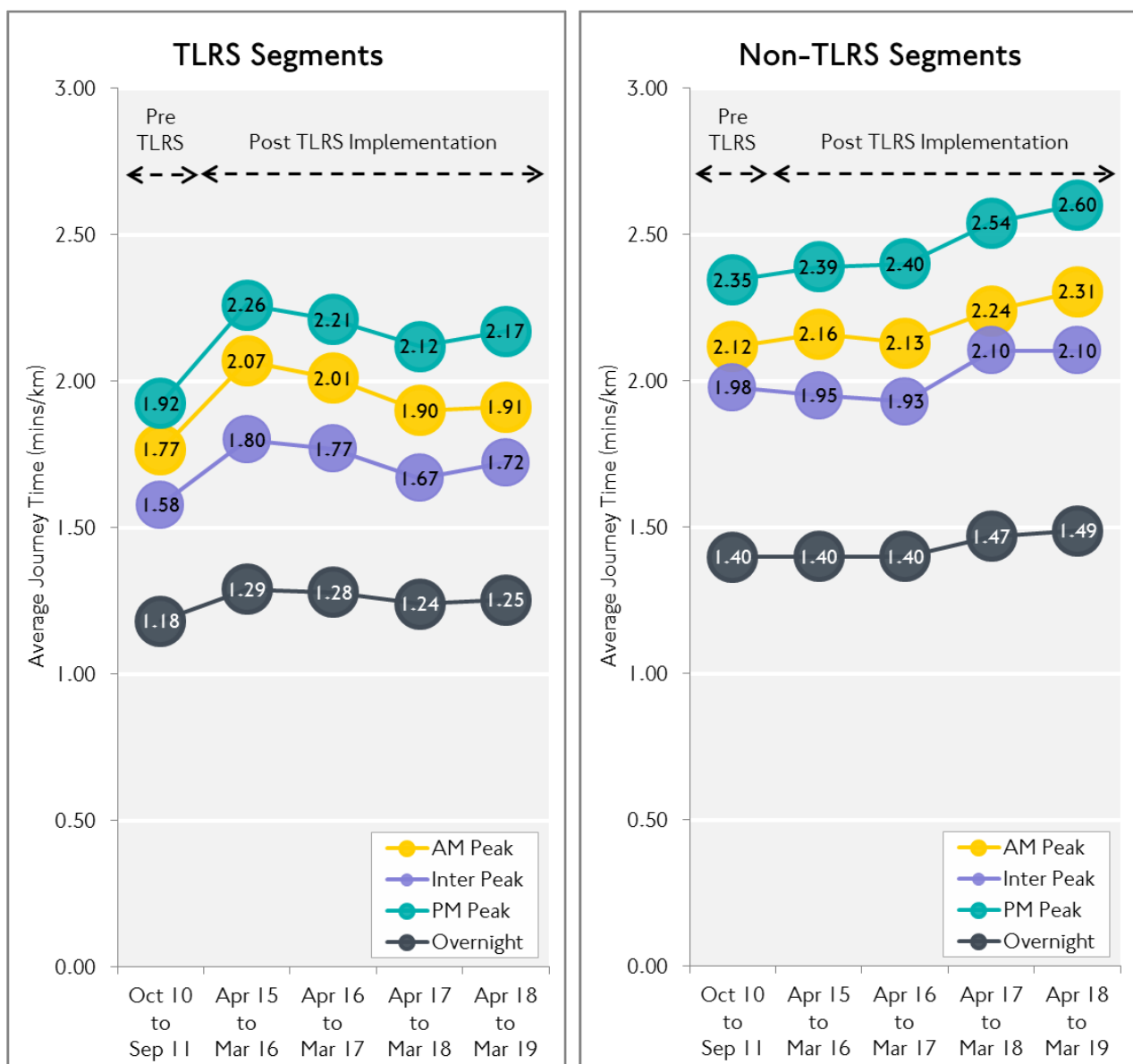
As with JTR, journey times have deteriorated across the TLRN. Figure 4 shows that the largest negative impact in TLRs segments occurred during the PM peak (journey times increased by nearly 13 per cent when compared to the baseline). The sections of the A406 North Circular as detailed above (Figure 3) accounted for 28 per cent in the AM peak, 22 per cent in the inter peak and 17 per cent in the PM peak in the overall journey time results for TLRs segments.

<sup>4</sup> TfL Lane Rental Scheme Monitoring Reports- <https://tfl.gov.uk/info-for/urban-planning-and-construction/lane-rental-scheme>

Average journey times have increased when compared to 2017/18 but have improved since 2015/16 which was during the height of the build programme as detailed in Section 4. Average journey times particularly during the AM and PM peaks within non-TLRS segments have continued to increase over the past few financial years – at a much steeper rate when compared to TLRS segments.

The TLRS has had a positive impact in reducing congestion overall but since the start of the scheme this positive impact has been eroded as TLRS segments now carry 2 per cent more vehicles than the baseline in 2011 (Figure 5). If this congestion benefit had been locked away by removing the extra demand the TLRS has enabled, the congestion benefit would have remained, and we would have likely been able to report a substantial improvement in journey times or reduction in congestion.

Figure 4: Average Journey Times (mins/km)



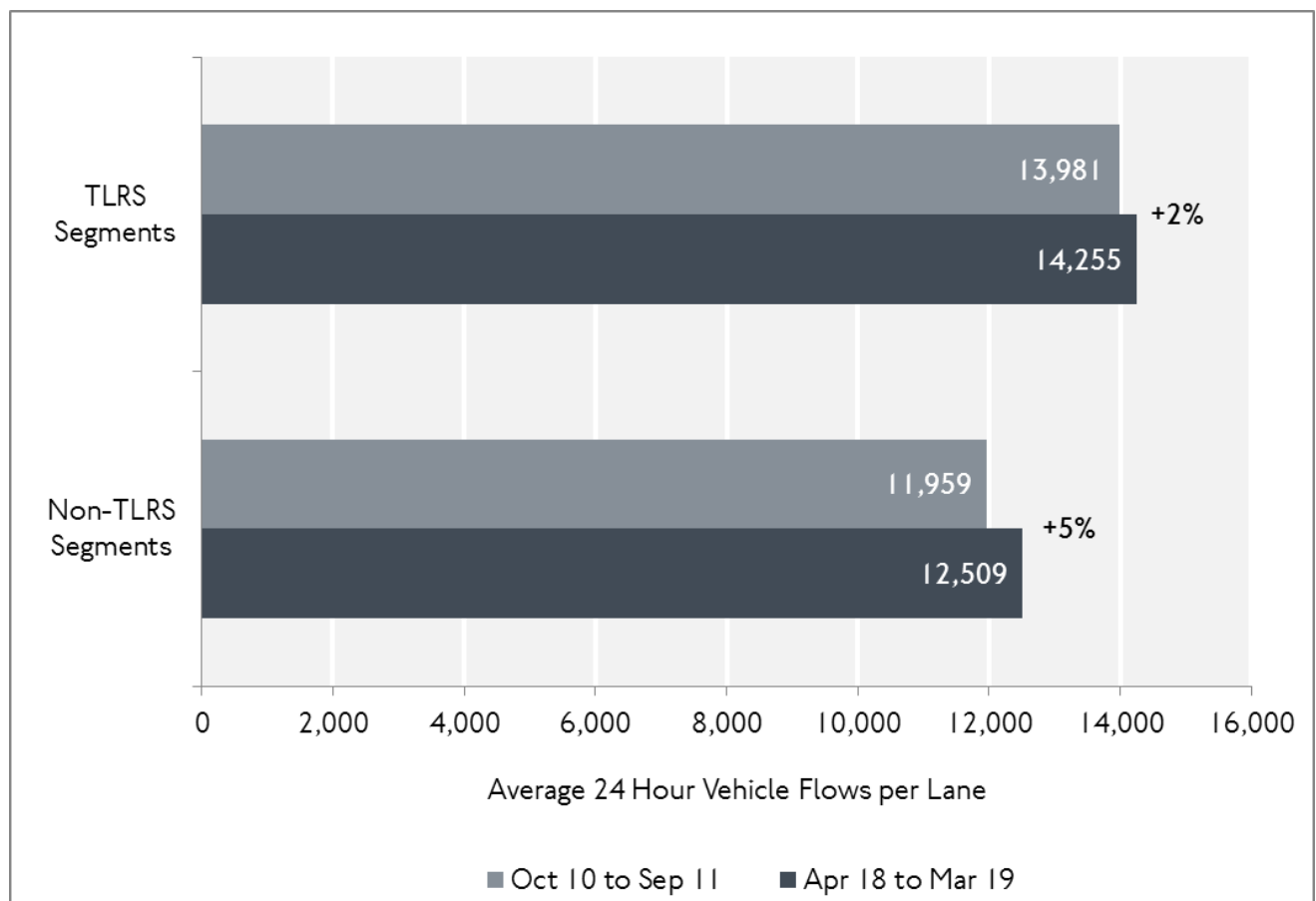
## 5.5 Vehicle Flows

Figure 5 shows the average 24 hour vehicle flows over the monitoring period (April 2018 to March 2019) and compared to the baseline (October 2010 to September 2011) as measured from Automatic Traffic Counters (ATCs) located in TLRS and non-TLRS segments. Vehicle flow averages were calculated using weekday flow data only (i.e. excluding weekends and bank holidays), where there is data available for both the monitoring period and equivalent dates in the baseline period.

Vehicle flows within TLRS segments have much higher flows per lane than non-TLRS segments, approximately 14 per cent higher (as shown in Figure 5). This is logical, as vehicle flows were one component used to determine the TLRS segments, as they are expected to be more susceptible to congestion and disruption as a result of incidents such as roadworks.

Average 24 hour vehicle flows increased within TLRS segments by 2 per cent whilst flows within non-TLRS segments increased by 5 per cent. The combination of both increasing vehicle flows over time and much higher average 24 hour flows when compared to non-TLRS segments, has led to increasing pressure on TLRS segments. This has been a major contributing factor to the deterioration in JTR and journey time in TLRS segments.

Figure 5: Average 24 Hour Vehicle Flow per Lane



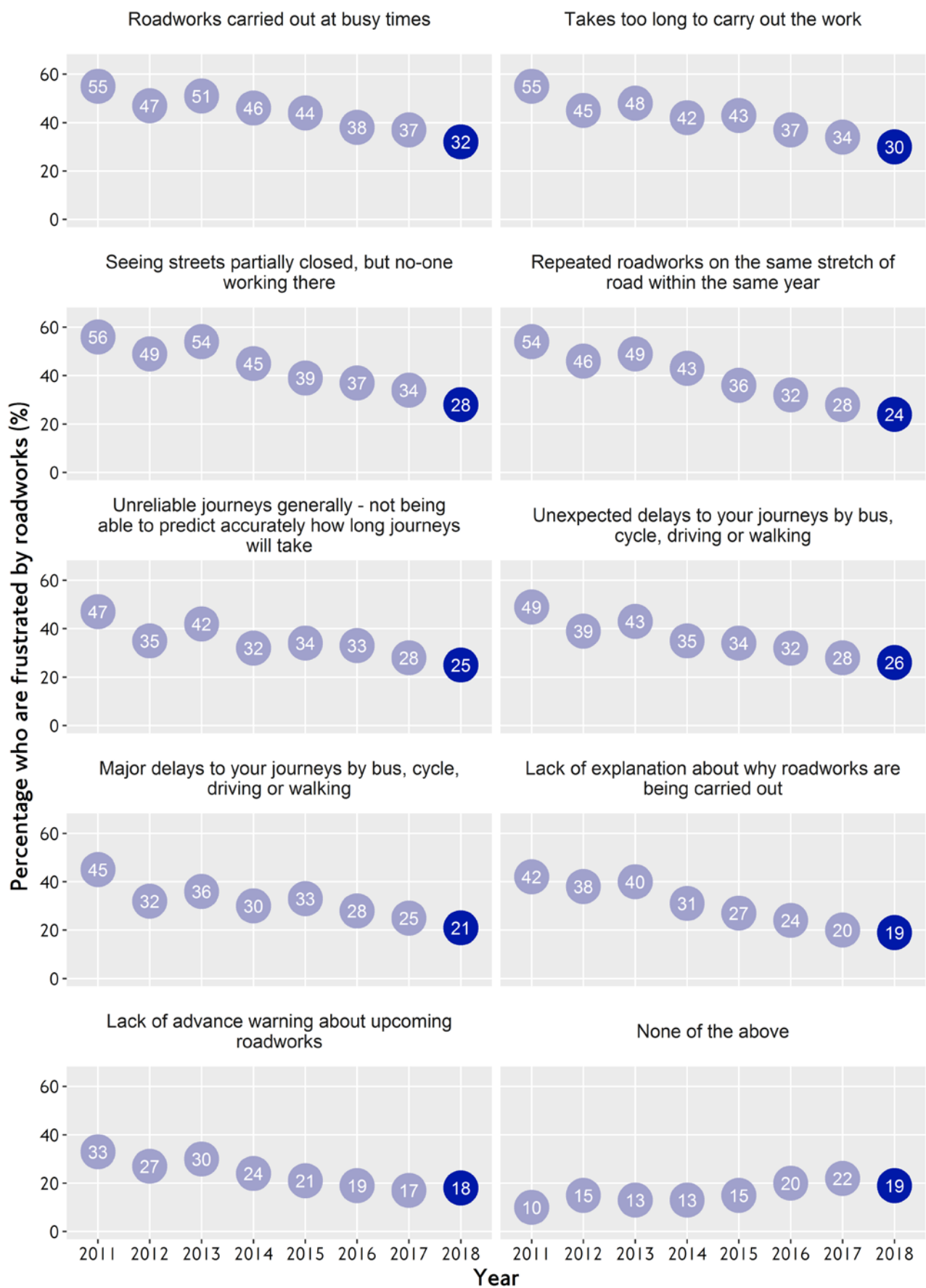
## 6. Customer Satisfaction

Using an online survey, TfL records the most frustrating aspects of roadworks for TLRN users (Figure 6).

Customer satisfaction has improved in all areas since the survey began. The greatest improvement in customer satisfaction between 2017/18 and 2018/19 was 'seeing streets partially closed, but no-one working there' (down 6 percentage points).

Frustrations associated with 'Repeated roadworks on the same stretch of road within the same year', 'Seeing streets partially closed, but no-one working there' and 'Takes too long to carry out the work' have experienced the greatest improvements in customer satisfaction since the TLRN was implemented (down 30, 28 and 25 percentage points respectively). It is reasonable to assume that the implementation of TLRN has had a positive influence on these results.

Figure 6: Roadworks Related Frustrations for TLRN Users





## 7. Behaviour Change

### 7.1 Number of Works Taking Place

Using data obtained from the Local Streetworks Register (LSWR), Table 3 shows the number of works that were completed within TLRS and non-TLRS segments, separated into highway authority (TfL) and utility works, regardless of time of day and whether traffic-sensitive or not.

Table 3: Number of Works on TLRS and Non-TLRS Segments

Number of Works Completed on TLRS and Non-TLRS Segments			
	Oct 10 to Sept 11	Apr 18 to Mar 19	% Change
<b>Highway Authority (TfL) Total</b>	<b>21,300</b>	<b>13,808</b>	<b>-35%</b>
TLRS Segments	17,202	11,309	-34%
Non-TLRS Segments	4,098	2,499	-39%
<b>Utility Companies Total</b>	<b>7,814</b>	<b>6,620</b>	<b>-15%</b>
TLRS Segments	5,933	5,147	-13%
Non-TLRS Segments	1,881	1,473	-22%
<b>Grand Total</b>	<b>29,114</b>	<b>20,428</b>	<b>-30%</b>
TLRS Segments	23,135	16,456	-29%
Non-TLRS Segments	5,979	3,972	-34%

Note that the 'grand total' reflects only TLRS and non-TLRS categories as described in Section 3.1 and does not represent the entire TLRN.

The total number of works undertaken on TLRS and non-TLRS segments combined has decreased by 30 per cent with non-TLRS segments experiencing a larger decrease (34 per cent). Between 2017/18 and 2018/19 there has been 29 per cent reduction in the total number of permits or variations for works on the TLRN which were received, demonstrating that there has been a significant drop in the number of works taking place across the entire TLRN (Figure 7).

Figure 7: Permits / Variations Received for the Entire TLRN

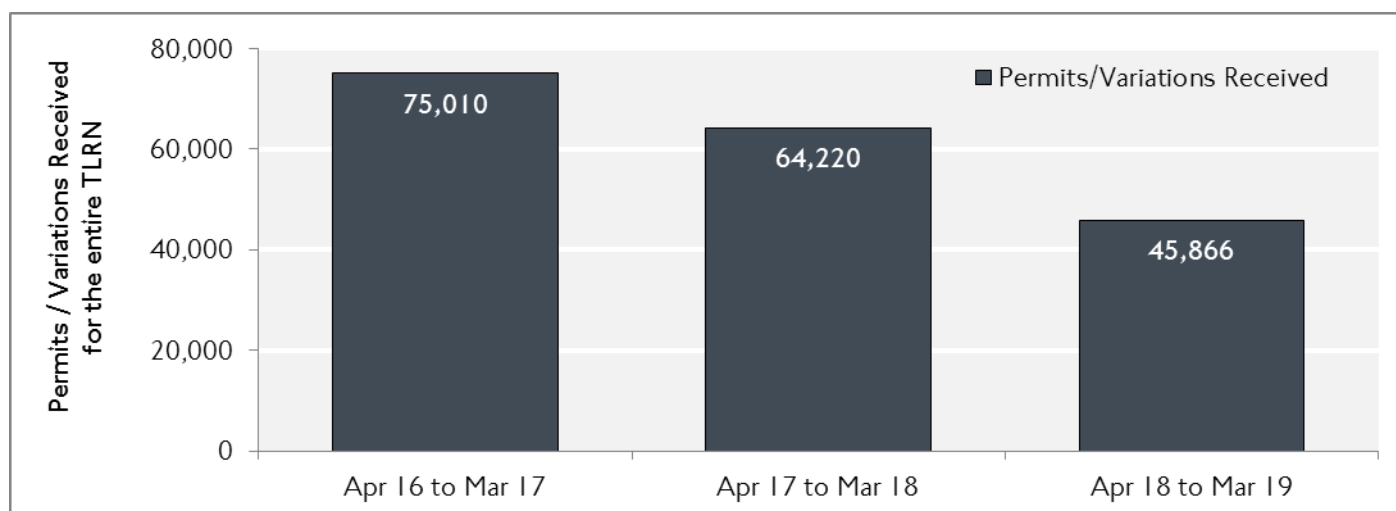


Figure 8 and Figure 9 show that the number of works completed has continued to decline over the past four financial years when compared to the 2010/11 baseline. Highway authority (TfL) works completed in 2018/19 had the largest decline in both TLRS and non-TLRS segments (34 and 39 per cent respectively).

Figure 8: Number of Works Completed within TLRS Segments

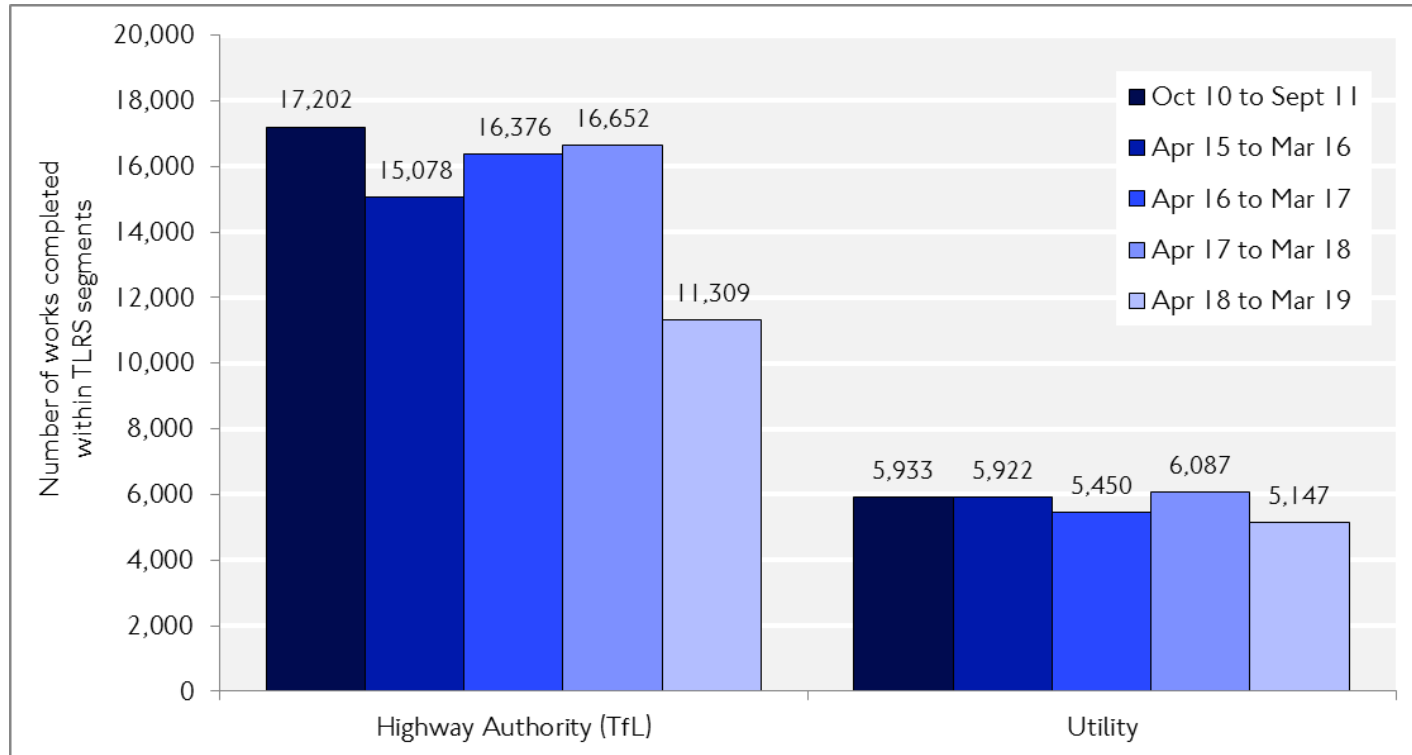
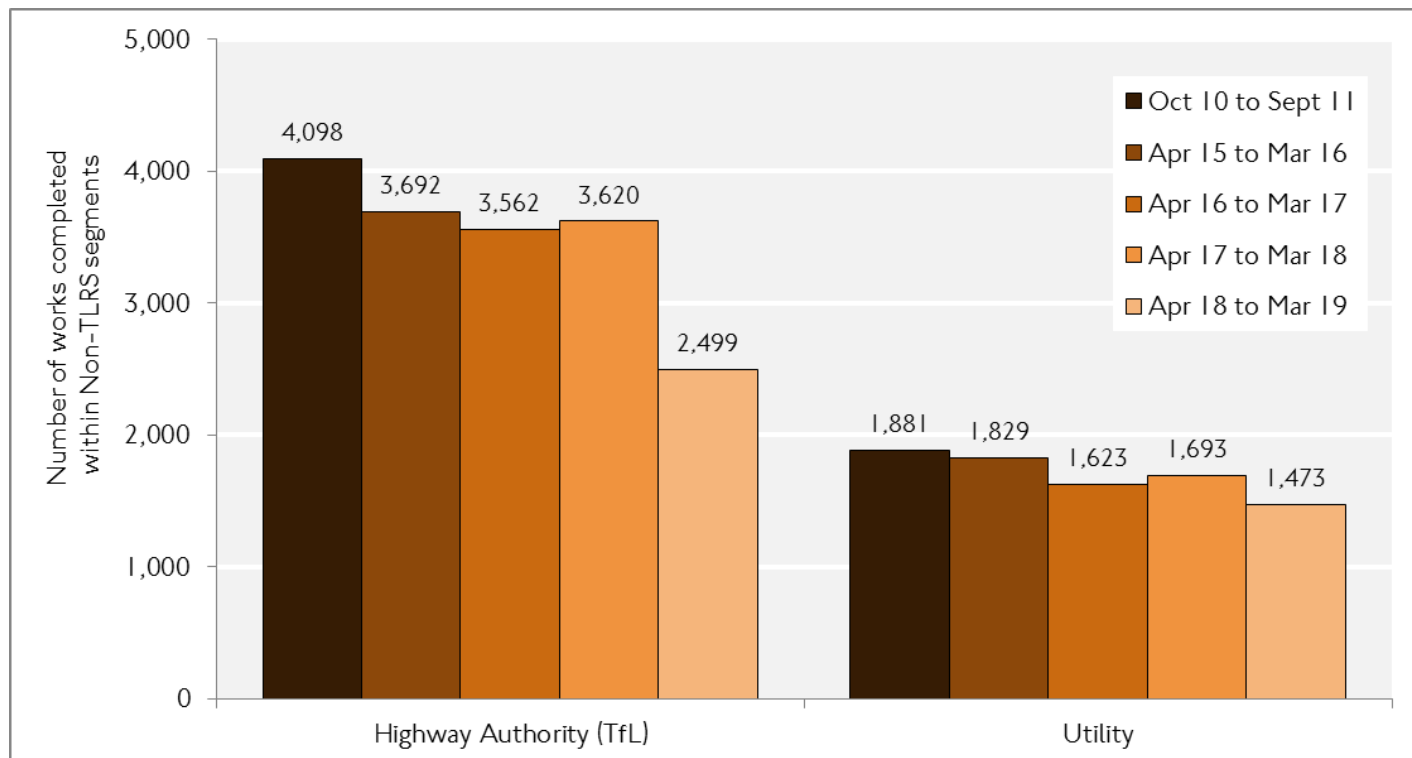


Figure 9: Number of Works Completed within Non-TLRS Segments



It is worth noting that, while there were over 13,000 highway authority (TfL) works completed and over 5,000 utility works in TLRS segments, 99 per cent and 84 per cent of these works did not attract a Lane Rental charge (as shown in Section 9.1). This indicates that while a relatively large number of works took place, they are generally restricted to:

- Overnight or 'off-peak' hours (i.e. less traffic-sensitive times of day)
- Took part in other measures such as collaborative working to avoid the Lane Rental charge

To further encourage more work to be carried out outside of TLRS chargeable times, TfL began implementing block closures. This is where certain sections of road are shut overnight or off-peak and as many routine maintenance works are carried out at the same time as possible thus avoiding the disruption the works would have had if they have been carried out individually or during different parts of the day.

The block closure programme has expanded to include direct working with utility companies, other highway authorities and third parties to offer them the opportunity to carry out their own maintenance activities within these sites. Increasing the number of utility works and sites within the block closure programme will result in multiple unnecessary work sites being avoided, hundreds of hours of disruption saved for the public, and with no Lane Rental charges being incurred.

## 7.2 Changes to Planned Carriageway Works

Lane Rental days are those where works took place during chargeable hours. Table 4 shows the total number of Lane Rental days for carriageway works that utility companies applied for and were approved in the monitoring period. The analysis is based on when the discussion between TfL and utility companies took place and not when the works were carried out.

The system used to record Lane Rental days changed during 2016/17 and there have been some data quality issues since. Therefore the following results should be used as an indication only.

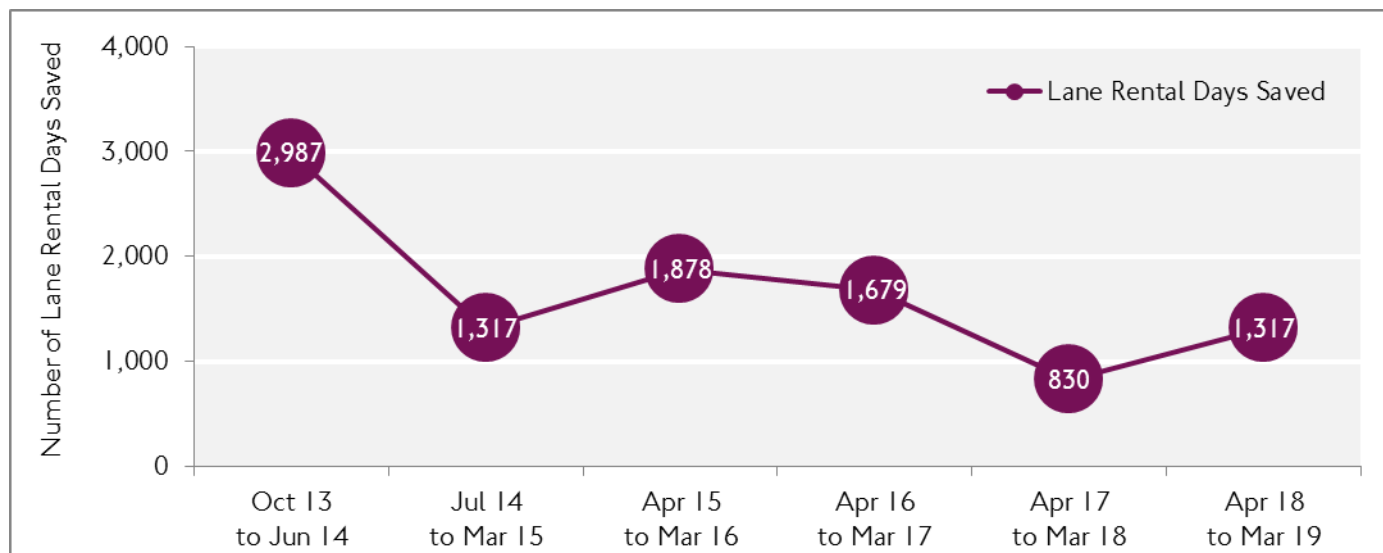
**Table 4: Planned Carriageway Utility Works on TLRS Segments (LR Days)**

Planned Carriageway Utility Works on TLRS Segments (Lane Rental Days)					
Reporting Period	Total Requested Lane Rental Days	Agreed Lane Rental Days		Lane Rental Days Saved	
		Number	Proportion	Number	Proportion
Oct 13 to Jun 14	3,900	1,003	26%	2,987	74%
Jul 14 to Mar 15	2,736	1,419	52%	1,317	48%
Apr 15 to Mar 16	4,940	3,088	62%	1,878	38%
Apr 16 to Mar 17	5,822	4,487	73%	1,679	27%
Apr 17 to Mar 18	5,077	4,541	85%	830	15%
Apr 18 to Mar 19	6,310	5,286	80%	1,317	20%

As it can be seen from Table 4 above a total of 1,317 Lane Rental days were saved between April 2018 and March 2019 due to TfL liaising with promoters to reduce the length of time and the time of day that the carriageway is occupied. For example, if the works were proposed to take place during the day and then through discussions the works were changed to take place overnight instead, this would be a Lane Rental day saved. Although there has been a decrease in the overall

number of Lane Rental days saved from Oct 13 to Jun 14 there were a total of 2,410 more days being requested (Figure 10). This indicates a positive behaviour change amongst promoters whereby duration and timings are being considered when first applying to carry out works, to avoid both TLRS charges where possible and minimise disruption.

Figure 10: Lane Rental Days Saved



The charges recovered between April 2018 and March 2019 were on average made up of 30 per cent low charge band and 70 per cent high charge band (Table 10). Assuming the ratio between low and high charge bands on the network is 30:70 then there would be an average daily charge of £1,800, resulting in £2.4 million worth of charges avoided.

### 7.3 Changes to Works in Traffic Sensitive Times

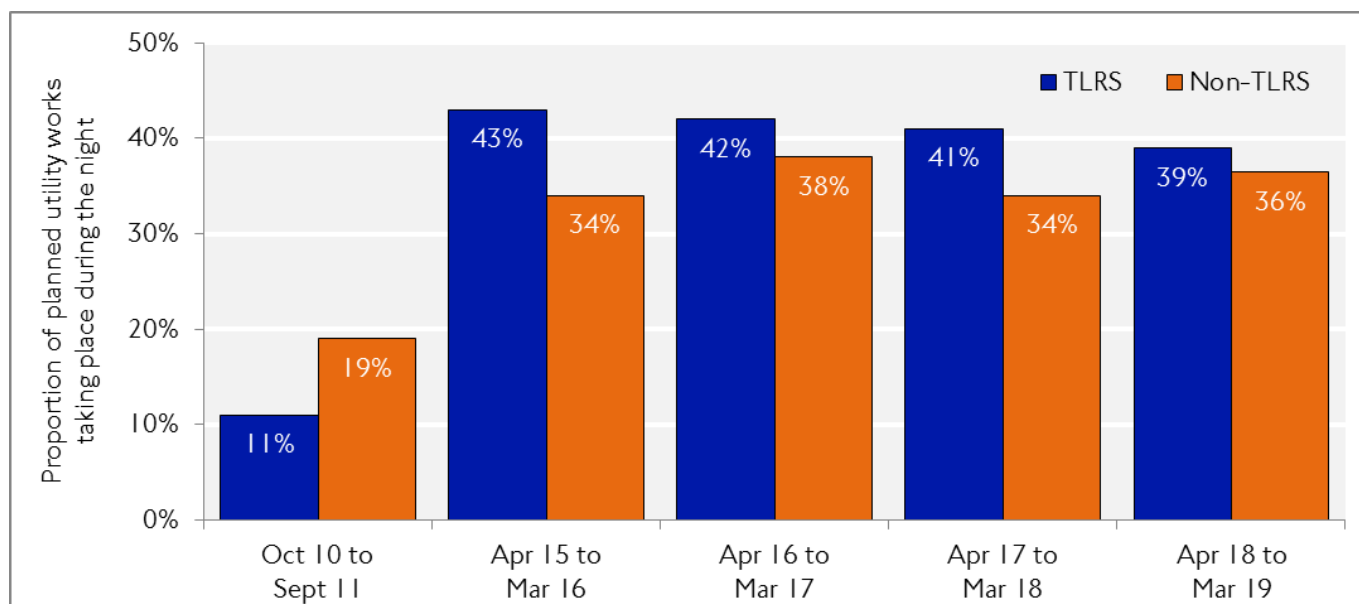
Table 5 shows that the proportion of utility works taking place at night has increased from 11 to 39 per cent in TLRS segments. Night-time works also increased in non-TLRS segments, albeit to a lesser extent. The increase was 11 percentage points higher in TLRS segments than non-TLRS segments, showing that the TLRS is having a direct impact on the time of day that works take place in the TLRS; whilst the TLRN-wide increase hints at a wider indirect impact.

Table 5: Proportion of Day Time or Night-Time Planned Utility Works

Proportion of Planned Utility Works Taking Place During the Day or Night					
	Oct 10 to Sept 11		Apr 18 to Mar 19		Percentage point increase in night-time works
	Daytime	Night-Time	Daytime	Night-Time	
TLRS Segments	89%	11%	61%	39%	28%
Non-TLRS Segments	81%	19%	64%	36%	17%

Figure 11 shows the proportion of night-time works taking place in TLRS segments has remained above 39 per cent over the past four financial years.

Figure 11: Proportion of Planned Utility Works Taking Place during the Night



## 8. Other Benefits of the Scheme

### 8.1 Collaborative Working

As discussed earlier, the TLRS encourages works promoters to minimise their duration of occupation of the street during traffic-sensitive times. One of the ways this can be achieved is through collaborative working, where promoters work within the same traffic management footprint or share trenches in order to avoid having to dig up the road a number of times. To further encourage collaborative works, as of June 2015, all charges are waived for the period of collaboration where prior agreement has been given.

Collaborative works that have taken place across the whole of the TLRN have been examined and are shown in Figure 12 and Figure 13. While it is not possible to separate out the numbers for the TLRS, these figures give a good indication of changes which have occurred in these segments.

Figure 12 and Figure 13 show that both the total number of collaborative work sites and days of disruption saved increased significantly during 2015/16 but have returned to similar levels to 2014/15. This is due to the huge build programme which was seen during 2015/16 whereby there were considerably more major impact schemes.

Figure 12: Collaborative Work Sites per TfL Period

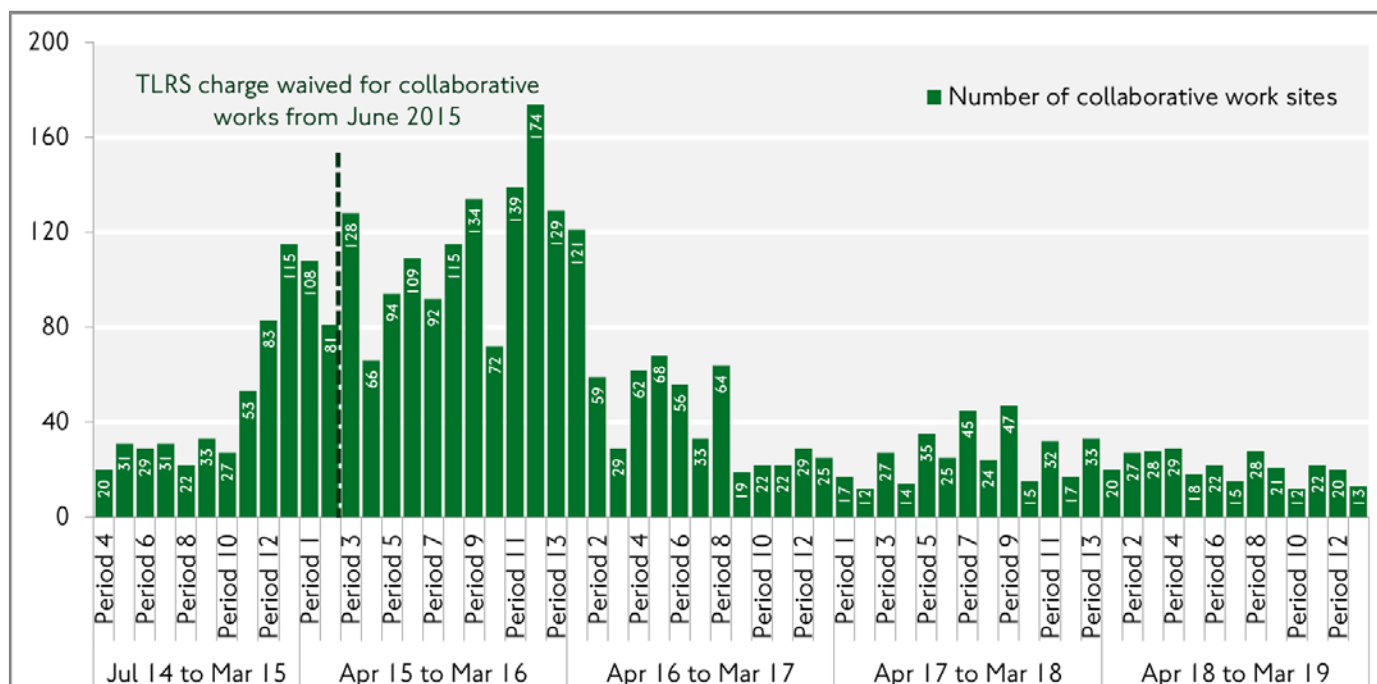
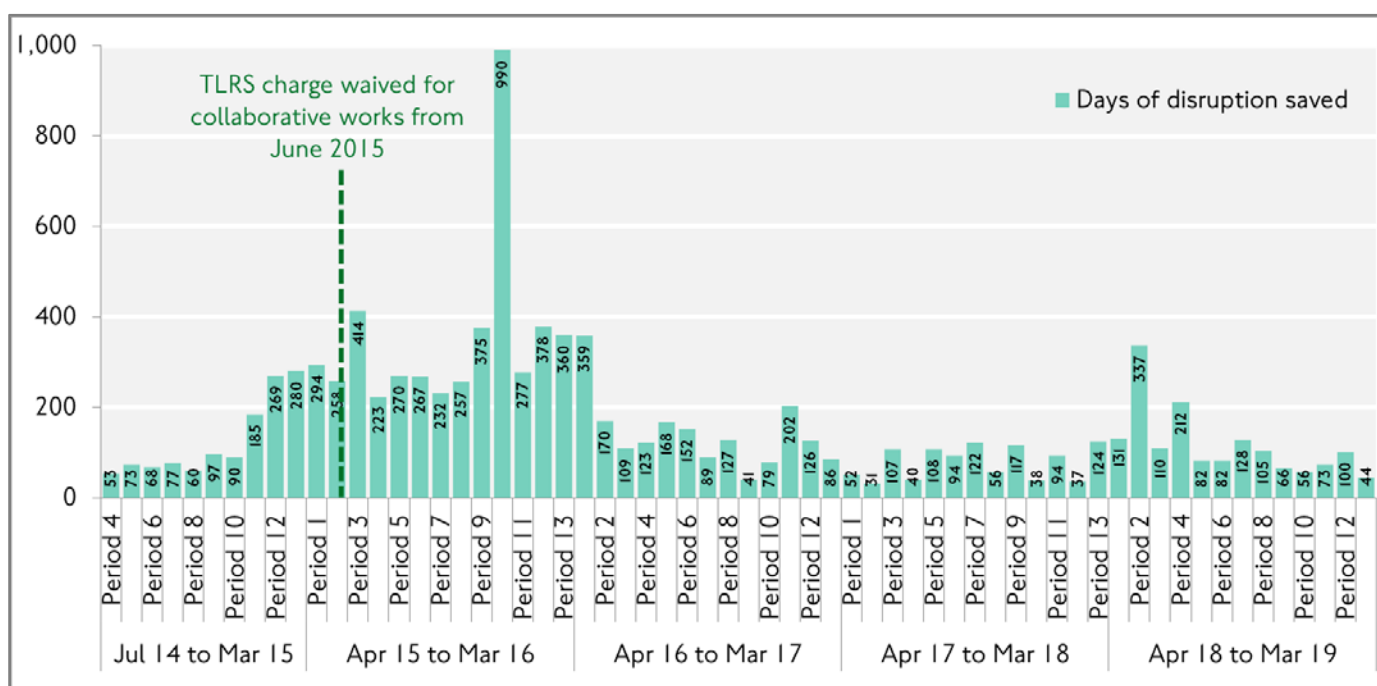


Figure 13: Days of Disruption Saved per TfL Period



## 8.2 Reduced or Waived TLRS Charges

As mentioned above the TLRS charge is waived for collaborative working. There are a number of other scenarios where consideration will be given to reduce or waive TLRS charges, all scenarios can be found in the Supplementary Guidance<sup>5</sup>. Table 6 provides a summary of all waiver applications received. Information prior to 2015/16 is unavailable.

<sup>5</sup> Transport for London Lane Rental Scheme Supplementary Guidance V5.0 July 2016 - <http://content.tfl.gov.uk/tlrs-supplementary-guidance....pdf>

Table 6: Summary of Waiver Applications

Financial Year	Total waiver applications	Percentage receiving approval
Apr 15 to Mar 16	138	61%
Apr 16 to Mar 17	187	81%
Apr 17 to Mar 18	134	90%
Apr 18 to Mar 19	95	61%

### 8.3 Improving Roadworks

The Lane Rental Governance Committee (LRGC) is formed of senior managers from TfL and utility companies who have responsibility for ensuring that the expenditure of surplus income generated from the TLRS is in accordance with DfT regulations. The LRGc meet quarterly to review requests for funding from the net proceeds, which must be used for purposes intended to reduce the disruption and other adverse effects caused by street works (Table 7).

In August 2018, two new processes were established by the LRGc to allow funds to be accessed more rapidly. These fall into two main categories of Fast Track and Extraordinary Measures. Further information and examples of previous approved funding applications can be found on the TfL Lane Rental website<sup>6</sup>.

Table 7: Summary of LRGc Approved Funding Applications

Financial year	Total approved funding applications	Total monetary amount approved
Apr 12 to Mar 13	n/a	n/a
Apr 13 to Mar 14	n/a	n/a
Apr 14 to Mar 15	8	£1,818,936
Apr 15 to Mar 16	13	£2,059,759
Apr 16 to Mar 17	19	£4,350,031
Apr 17 to Mar 18	18	£4,320,634
Apr 18 to Mar 19	21	£6,164,756
<b>Total</b>	<b>79</b>	<b>£18,714,116</b>

For 50 of the approved funding applications, it has been possible to calculate the estimated social cost of delay saved (Table 8) - this exceeds £100 million and gives a benefit cost ratio of 9.8. The surplus funds generated from the scheme are considered to be a highly valuable ring-fenced source that can be reinvested into facilitating continuous innovation and improvements within the industry for the purposes of reducing road network disruption.

Table 8: Summary of estimated social cost of delay saved

Total approved funding applications*	Total monetary amount approved	Estimated social cost of delay saved	Benefit Cost Ratio
50	£10,273,054	£100,917,197	9.8

\*Total number of applications where it has been possible to calculate a cost benefit

<sup>6</sup> Transport for London Lane Rental Scheme - <https://tfl.gov.uk/info-for/urban-planning-and-construction/lane-rental-scheme>



## 9. The Financial Impact of the TLRS

Although TLRS charges do not apply 24 hours of the day, the scheme has increased the cost of carrying out works on the TLRN. This can be in the form of charges for undertaking works during traffic-sensitive times in TLRS segments, or as a result of changing working practices to avoid working during these periods of the day, such as additional overtime for staff working at night.

### 9.1 Number of Works Avoiding TLRS Charges

Table 9 shows the proportion of works in TLRS segments which avoided a TLRS charge. This is where works took place within TLRS segments but were planned to take place outside the chargeable, traffic-sensitive hours of the day or took additional measures such as collaborative working to avoid the TLRS charge.

There has been no change in the proportion of TfL works avoiding a TLRS charge within TLRS segments whereas there were 4 per cent more utility works being charged compared to 2015/16. Telecoms and Network Rail avoided the highest number of works incurring TLRS charges during 2018/19 with 1,966 and 87 works avoiding a charge (94 and 99.99 per cent respectively). Gas promoters had the lowest proportion of works avoiding a charge (67 per cent).

Table 9: Proportion of Works Avoiding TLRS Charges

Proportion of Works in TLRS Segments Avoiding TLRS Charges				
Promoter	Apr 15 to Mar 16	Apr 16 to Mar 17	Apr 17 to Mar 18	Apr 18 to Mar 19
Transport for London	99%	99%	99%	99%
Utility	88%	87%	85%	84%
Utility Breakdown				
Telecoms	94%	94%	93%	94%
Water	86%	83%	87%	85%
Electric	87%	85%	77%	77%
Gas	76%	69%	76%	67%
Network Rail	n/a	n/a	n/a	99.99%

### 9.2 Number of Works Incurring TLRS Charges

Table 10 relates to the value of TLRS charges invoiced between 1 April 2018 and 31 March 2019, regardless of whether the work took place in this period or earlier.

Table 10: Charges Invoiced (April 2018 – March 2019) from Works Incurring a TLRS Charge

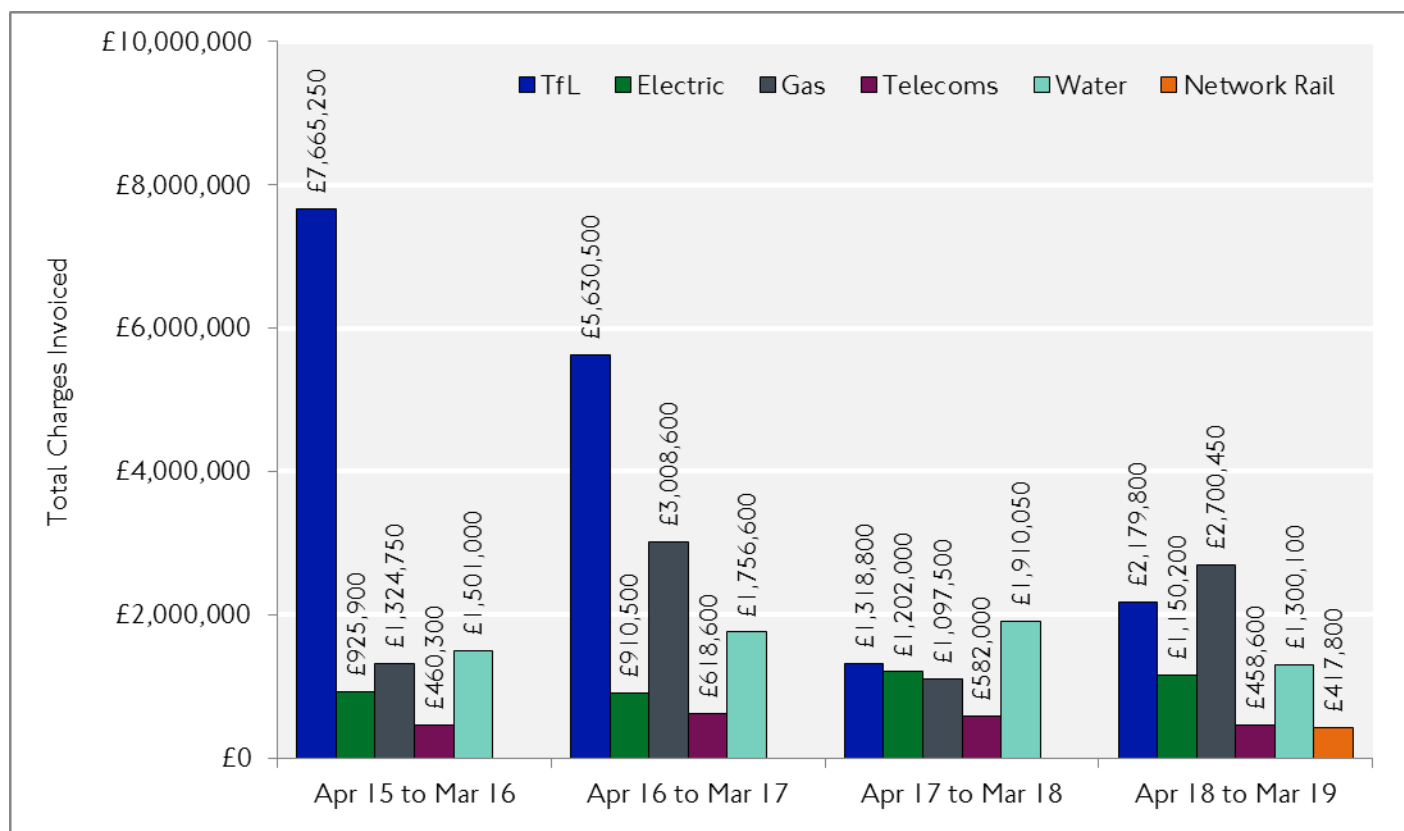
Sector	No. of Works for which Charges were Invoiced	Number of Days	% Low Charges (£800/day)	% High/PP Charges (£2,500/day)	Total Charges Invoiced	Average Charges per Work	% of Total Charges Invoiced
TfL	120	1,492	25%	75%	£2,179,800	£18,165	27%
Telecoms	125	297	29%	71%	£458,600	£3,669	6%
Water	259	790	24%	76%	£1,300,100	£5,020	16%
Electric	182	813	36%	64%	£1,150,200	£6,320	14%
Gas	207	1,858	29%	71%	£2,700,450	£13,046	33%
Network Rail	1	246	0	100%	£417,800	£417,800	5%
<b>Total</b>	<b>894</b>	<b>5,496</b>			<b>£8,206,950</b>		<b>100%</b>

Despite 99 per cent of TfL works avoiding a TLRS charge, over £2.1 million has been invoiced for 2018/19 accounting for 27 per cent of the total of the charges invoiced. The number of works days is almost 1,500, which is 27 per cent of the total number of days invoiced for. This helps to explain that whilst there are fewer major schemes taking place overall, there are still some which are part of the largest ever investment in London's streets (as detailed in Section 4).

Gas were invoiced the highest amount of charges which exceeded £2.7 million – over £500,000 more than any other sector. With the exception of Network Rail, TfL and gas had the highest average charges per work (£18,000 and £13,000 compared with £6,300 for electric, £5,000 for water and £3,700 for telecoms). Water had the highest number of works accounting for 29 per cent of the total.

Figure 14 shows that TfL incurred over £16.5 million in TLRS charges over the last four financial years. This highlights the scale of the huge investment programme taking place to transform London's roads. TfL charges have reduced by 72 per cent from 2015/16 to 2018/19 which also demonstrates that the most impactful build phase is now over. With the exception of TfL and gas, all other sectors have had a decrease in the levels of charges invoiced between 2017/18 and 2018/19. There has been a 34 per cent increase in the total amount of charges invoiced overall between 2017/18 and 2018/19 (up by £2 million).

Figure 14: Total Charges Invoiced Comparison



## 10. Summary

There is a complexity to the TLRN which is incomparable to many other cities within the UK. One major issue to consider when understanding the results of this report and the influence the TLRN has had, is that the TLRN was not designed to mitigate or manage the substantial number of major works which has been seen in the last four years during the largest ever investment which has taken place on London's streets. This has put a huge amount of pressure on the performance of the network and the results within this report reflect this. TfL has also adopted the Healthy Streets Approach which sets out how to move towards less car use and a move to more walking, cycling and the use of public transport; this in some cases will result in road capacity loss for cars and therefore will impact on road network performance.

Vehicle flows have increased in both TLRN and non-TLRN segments (2 and 5 per cent respectively). Vehicle flows in TLRN segments were found to be 14 per cent higher per lane than non-TLRN segments; this highlights the need for the TLRN due to the increasing demand over time compared to other parts of the network. TLRN has had a positive impact in reducing congestion overall but since the start of the scheme this positive impact has been eroded due to the increase in vehicles compared to the baseline in 2011. If this congestion benefit had been locked away by removing the extra demand the TLRN has enabled, the congestion benefit would have remained, and we would have likely been able to report a substantial improvement in journey times or reduction in congestion. Instead increased vehicle flows have contributed to the overall deterioration of the road network.

Since the TLRN scheme commenced a total of 68 applications for funding have been approved by the LRGF with a funding value of £17,749,280 and, where it has been possible to estimate, the social cost of delay saved through use of the funding exceeds £100 million.

Over 1,300 Lane Rental days were saved between April 2018 and March 2019 due to TfL supporting work promoters to identify alternative solutions that help reduce the length of time and the time of day that the carriageway is occupied. Although there has been an overall decrease in the number of Lane Rental days saved from Oct 13/Jun 14 there were a total of 2,410 more days being requested in 2018/19. This indicates a positive behaviour change amongst promoters whereby duration and timings are now being considered when first applying to carry out works to avoid both TLRN charges where possible and minimise disruption.

Overall the analysis of the TLRN segments adopted in July 2014 has shown benefits ranging from increased works overnight, increased collaborative working and an increase in Lane Rental days saved. Customer satisfaction with aspects that the TLRN was designed to address has increased significantly indicating that TLRN is having a positive impact on London residents.

This report shows that the TLRN has resulted in numerous benefits including increasing the amount of roadworks taking place during less traffic sensitive times and the increased use of innovative traffic management and works techniques, leading to substantial savings in delay to road users. London's growing population and TfL's ongoing investment programme means the TLRN is more critical than ever in minimising the impact this extra utilisation of the road network will bring.

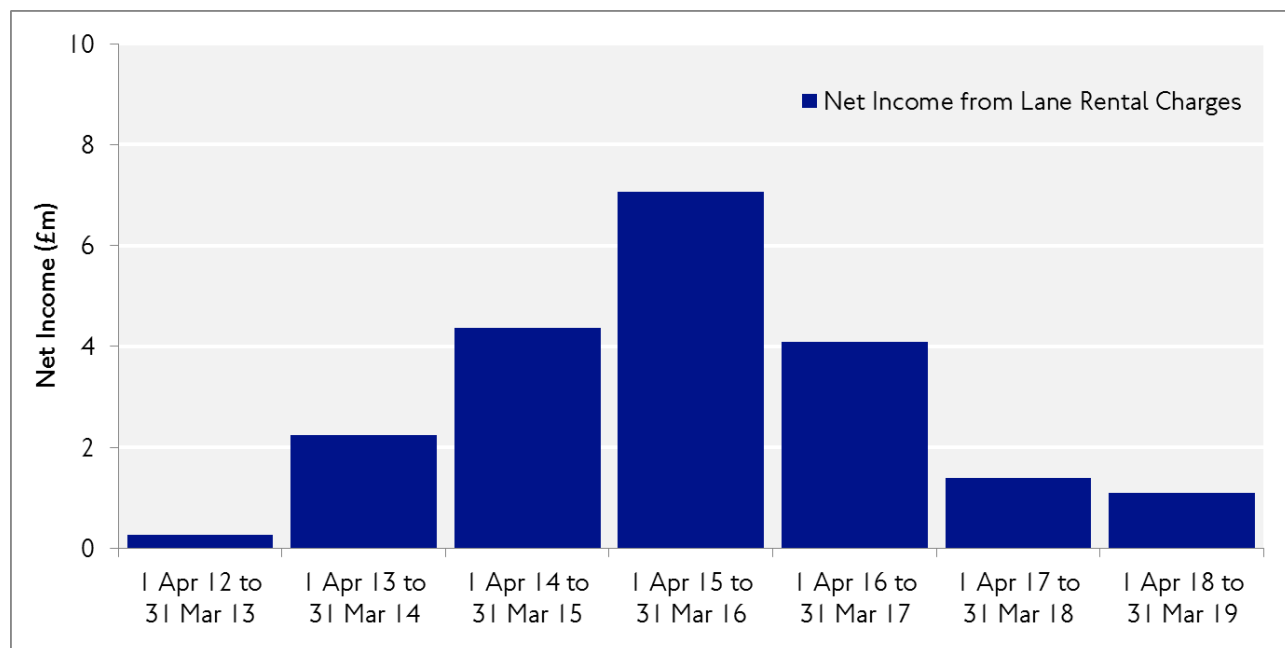
# Appendix 1: Financial Summary

Table 11 displays the financial summary of the TLRS by financial year.

Table 11: Financial Summary

£m	Income	Scheme Development, Running Cost and Lane Rental Governance Funding Approved Bids	Net Income from Lane Rental Charges
1 Apr 12 to 31 Mar 13	1.9	-1.6	0.3
1 Apr 13 to 31 Mar 14	3.6	-1.4	2.2
1 Apr 14 to 31 Mar 15	6.3	-1.9	4.4
1 Apr 15 to 31 Mar 16	12.0	-4.9	7.1
1 Apr 16 to 31 Mar 17	8.1	-4.0	4.1
1 Apr 17 to 31 Mar 18	6.1	-4.7	1.4
1 Apr 18 to 31 Mar 19	7.8	-6.7	1.1

Figure 15: Net Income from Lane Rental Charges



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