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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 2019 to 31 March 2020.

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

TLRS Monitoring Report Apr 2018 to Mar 2019, Feb 2020

TfL Lane Rental Scheme Supplementary Guidance V5.0, Jul 2016

<u>Department for Transport Lane Rental Schemes Guidance for English Local Highway Authorities, Aug 2018</u>

1.4 Distribution

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1.5 Document Quality Assurance

Step	Step Description	Undertaken by	Date	Remarks
0.1	First draft	J MacInnis	23/02/2021	
0.2	Review of first draft	R Davis / A Emmonds	24/02/2021	
0.3	Review	K Kulasingam	14/04/2021	

2. Executive Summary

This is the latest in the series of statistical evaluation reports covering the period of 1 April 2019 to 31 March 2020 which monitors the Transport for London Lane Rental Scheme (TLRS).

Analysis has shown that for the period 1 April 2019 to 31 March 2020:

- 98 per cent of TfL works and 85 per cent of utility works taking place in TLRS segments avoided incurring a TLRS charge
- A total of 124 applications to waive Lane Rental charges were submitted with 88 receiving approval (£2.4 million waived charges)
- The Lane Rental surplus funded 3 applications totalling over £1 million for roadworks congestion busting projects. The surplus also funded 8 Fast Track applications and 3 Extraordinary Measures totalling £900,000 and £240,000 respectively
- 1,638 days of Lane Rental were saved through early discussions with works promoters, with an estimated value of over £3 million in charges avoided an increase of 24 per cent compared to the previous reporting year

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

- Since October 2013 over 11,500 days of Lane Rental were saved through early discussions with works promoters
- Average number of collaborative work sites per period have increased by 31 per cent
- There has been a 30 percentage point increase in planned utility works taking place overnight on TLRS segments since the scheme was implemented (from 11 to 41 per cent)
- The total number of works undertaken has decreased by 22 and 29 per cent in TLRS and non-TLRS segments respectively. Between 2016/17 and 2019/20 there has been a 41 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 2019/20 across the entire TLRN. This significant drop in works is not reflected in an improvement in journey times and journey time reliability (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 the greatest improvements in customer satisfaction since the TLRS was implemented (down 27, 24 and 23 percentage points respectively). It is reasonable to assume that the implementation of TLRS has had a positive influence on these results.

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 I 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.

Transport for London Lane Rental Scheme (TLRS)

Within 2019/20...



£1 million

investment approved to improve roadworks



98% TfL 85% Utility



Lane Rental Days saved



Average number of collaborative work sites per period



Average number of days of disruption avoided per period



Lane Rental waivers approved totalling £2.4 million

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



Works completed within TLRS segments

-32% TfL +7% Utility



Works taking place overnight in TLRS +30% segments

+ 1% Increase in vehicles within TLRS Segments

+6-12% Increase in journey times in both TLRS and non-TLRS segments.

Customer Satisfaction improved by the following percentage points



'Repeated roadworks on the same stretch of road within the same year'



'Seeing streets partially closed, but no-one working there'



'Takes too long to carry out the work'



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 trafficsensitive 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 development of the TLRS, 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	T	Daily	Typical Charging Times		
Band	Туре	Charge	Monday to Friday	Saturday and Sunday	
ı	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.

A series of changes to TfL's Lane Rental scheme are set to come into force from May 2021 after TfL's plans to improve the scheme were approved by the Department for Transport (DfT) in February 2021. These include an expansion of the area it covers and incentives for the highest safety standards.

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 to 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.

Lane Rental Segments

Low Charge (£8,500/day)

High Charge (£2,500/day)

High Charge (£2,500/day)

High Charge Pinch Points (£2,500/day)

High Charge Pinch Points (£2,500/day)

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

3.2 Reporting Periods

This report is an annual monitoring report which aligns to TfL's financial year and covers the period of I April 2019 to 31 March 2020. A baseline of I 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 webpage¹.

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

4. Road Network Context

Motorised road traffic fell rapidly from mid-March 2020, as businesses and individuals adapted to the Covid-19 pandemic. At the lowest levels, in the week following the lockdown announcement, TLRN road traffic vehicle kilometres fell to around 50 per cent of pre-pandemic levels on weekdays and 35 per cent on weekends. As a result, the road network and associated strategies completely changed from March 2020 onwards — which will be considered in next year's report. The changes in vehicle traffic mentioned above only affected the last 2 weeks of this evaluation report period and therefore do not materially affect the overall results of this report.

Below is a summary from the Mayor's Transport Strategy² which looks at the challenges London and its road capacity will face in the future³.

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, began 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 to the 'Healthy Streets Approach', there have been changes to allocation of capacity and associated changes in traffic sensitivity as schemes have been introduced to facilitate movement of people by sustainable modes to make best use of the limited space, we have on the

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

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

road network. 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 (JTR) across the network, making effective traffic management, including operating the TLRS, more vital than ever.

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, JTR, vehicle flows, and the number of works on the TLRN during the financial year 2019/20 (1 April 2019 to 31 March 2020) 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 during 2018/19, 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 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 between this report and within the Lane Rental Monitoring Report 2015/16, 2016/17, 2017/18 and 2018/19. 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 2019/20 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 $20\,19/20$ and the figures reported for the previous four financial years. As explained above each of the figures will not cover the exact same LCAP links or dates.

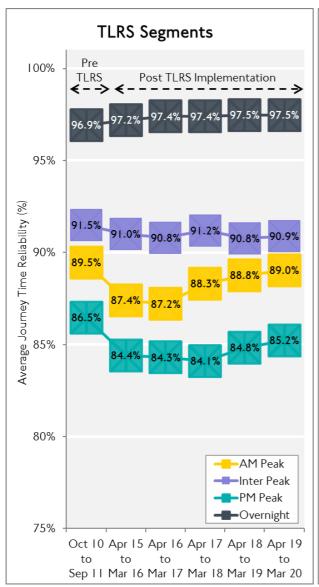
5.3 TLRN Journey Time Reliability

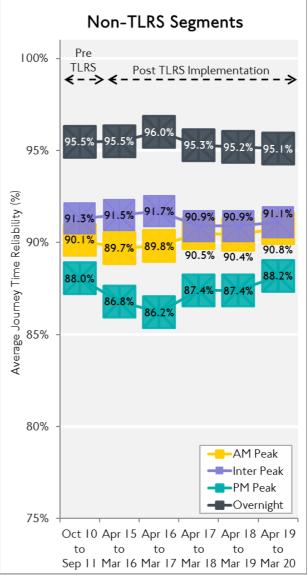
A comparison of JTR for TLRS and non-TLRS segments on the TLRN has been performed. The results are summarised in Figure 2.

Figure 2 shows that both TLRS and non-TLRS segments have seen a decrease in JTR (compared to the baseline) except for the AM peak in non-TLRS segments and overnight within TLRS segments. The overall decline in JTR has been more marked on TLRS segments in the PM peak (1.3 percentage point deterioration). However, JTR has generally improved over the previous four financial years (except for the Inter peak which was better in 2015/16 and 2017/18).

Overnight JTR has remained stable within TLRS segments for the past five financial years – even with an increase of night-time working by 30 percentage points when compared to the 2010/11 baseline (Table 5).

Figure 2: Average Journey Time Reliability





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Investigation was carried out to identify reasons for the overall deterioration in JTR since the baseline period. 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, 2017/18 and 2018/19 reports⁴. There are no traffic signals on the eastern side of the A406 therefore JTR is heavily influenced by the severity of incidents.

Sections of the A406 accounted for 34 and 25 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. These sections would also be affected by incidents which have occurred on any of the three motorways which feed into the A406. All the above highlights the pressures the A406 has seen during the past few financial years, which in turn have had a significant impact on the overall JTR results.

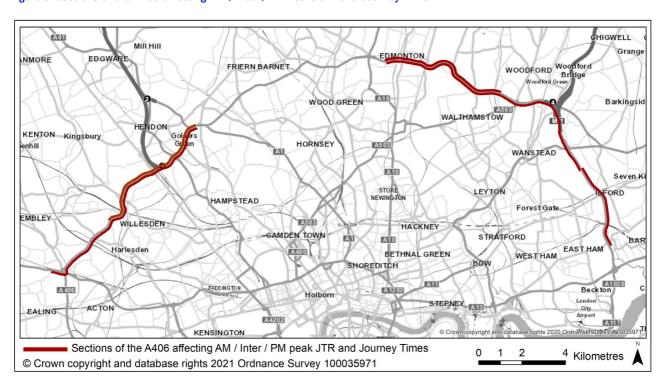


Figure 3: Sections of the A406 affecting AM / Inter / PM Peaks JTR and Journey Time

5.4 TLRN Journey Time

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

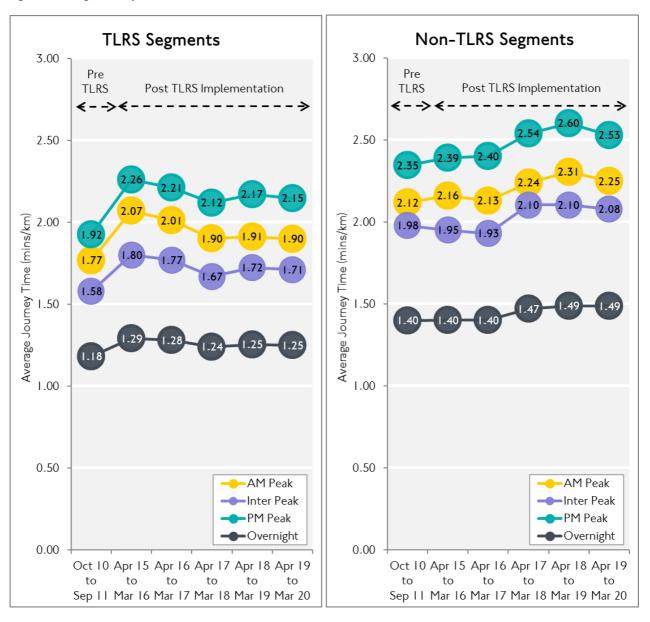
As with JTR, journey times have deteriorated across the TLRN. Figure 4 shows that the largest negative impact in TLRS segments occurred during the PM peak (journey times increased by 12 per cent when compared to the baseline). The sections of the A406 North Circular as detailed above

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

(Figure 3) accounted for 45 per cent of the AM, Inter and PM peak overall journey time results for TLRS segments.

In TLRS segments, 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. Both TLRS and non-TLRS journey times decreased when compared to 2018/19.

Figure 4: Average Journey Times (mins/km)



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 I per cent or 83 more vehicles per lane 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.

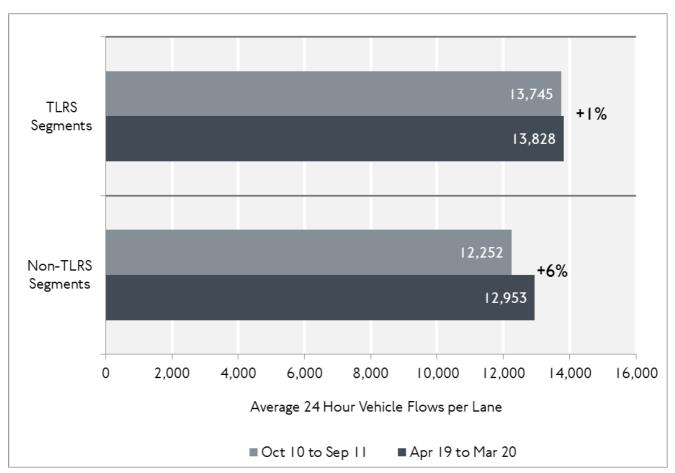
5.5 Vehicle Flows

Figure 5 shows the average 24 hour vehicle flows over the monitoring period compared to the baseline) 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 7 per cent higher (as shown in Figure 5). This is logical, as vehicle flows were one component used to determine the TLRS segments, which 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 I per cent whilst flows within non-TLRS segments increased by 6 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.





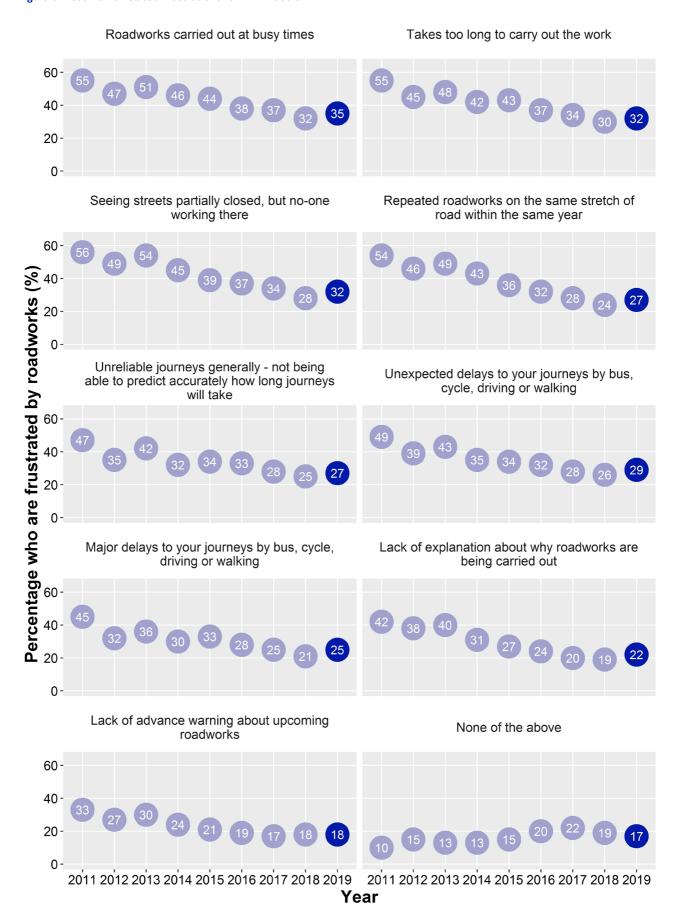
6. Customer Satisfaction

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

Frustrations in all categories have deteriorated or remained the same between 2018/19 and 2019/20. TLRN users are less satisfied with the overall roadworks management on the A3, A406, A13, A2/A20, and London Inner Ring Road than last year. Satisfaction with management of roadworks on A4, A41, A40, A21 and A316 has increased or remained the same.

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 TLRS was implemented (down 27, 24 and 23 percentage points respectively). It is reasonable to assume that the implementation of TLRS has had a positive influence on these results.

Figure 6: Roadworks Related Frustrations for TLRN Users



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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 19 to Mar 20 % Chang					
Highway Authority (TfL) Total	21,300	14,162	-34%			
TLRS Segments	17,202	11,663	-32%			
Non-TLRS Segments	4,098	2,499	-39%			
Utility Companies Total	7,814	8,102	4%			
TLRS Segments	5,933	6,332	7%			
Non-TLRS Segments	1,881	1,770	-6%			
Grand Total	29,114	22,264	-24%			
TLRS Segments	23,135	17,995	-22%			
Non-TLRS Segments	5,979	4,269	-29%			

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 24 per cent with non-TLRS segments experiencing a larger decrease (29 per cent). Between 2016/17 and 2019/20 there has been a 41 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

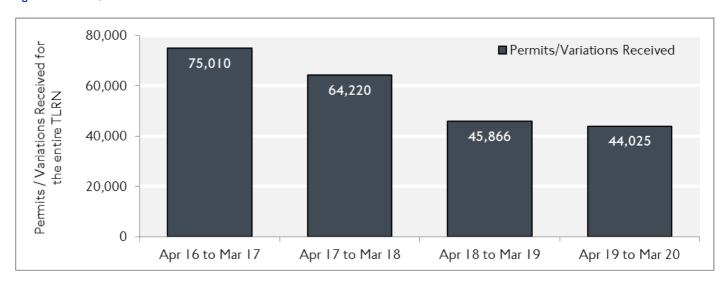


Figure 8 and Figure 9 show that the number of works completed has continued to decline over the past five financial years when compared to the 2010/11 baseline — with the exception of utility works in TLRS segments which were 7 per cent higher when compared to the baseline. Highway authority (TfL) works completed in 2019/20 had the largest decline in both TLRS and non-TLRS segments (32 and 39 per cent respectively).

Figure 8: Number of Works Completed within TLRS Segments

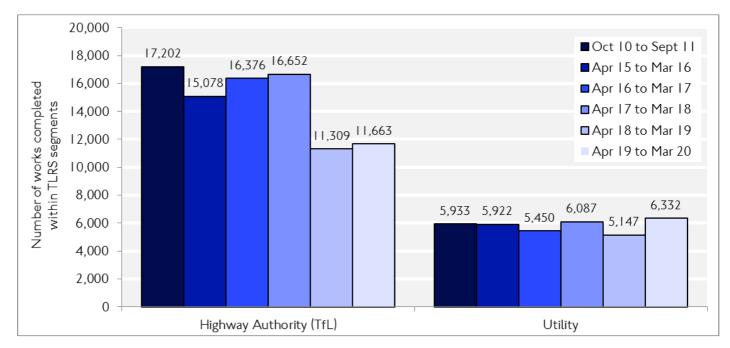
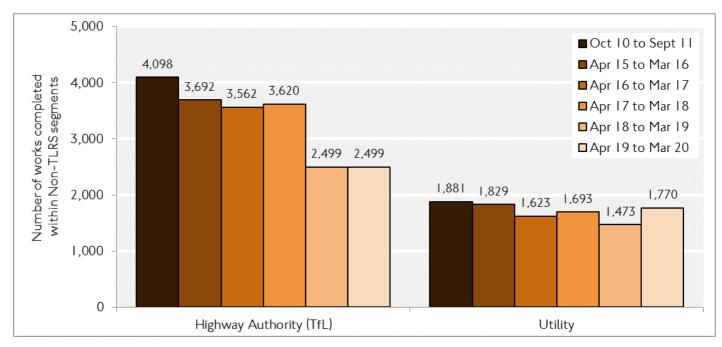


Figure 9: Number of Works Completed within Non-TLRS Segments



It is worth noting that, while there were over 11,000 highway authority (TfL) works completed and over 6,000 utility works in TLRS segments, 98 per cent and 85 per cent respectively 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 generally:

- Took place overnight or during '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 had 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 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.

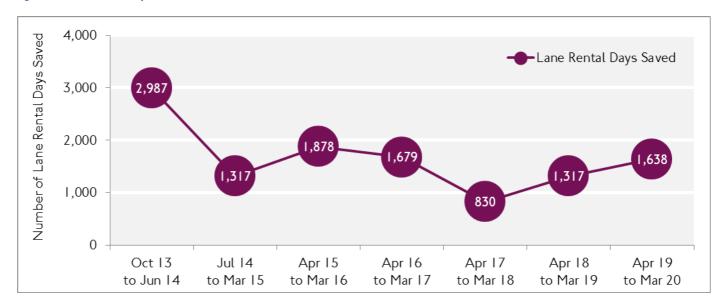
The system used to record Lane Rental days changed during 2016/17 and there have been some data quality issues since. Therefore, the following results should be used as an indication only.

Table 4: Planned Carriagewa	v Utilitv Works or	n TLRS Segments	(LR Davs)

Planned Carriageway Utility Works on TLRS Segments (Lane Rental Days)						
Donostina Dovind	Total Dogwastad Lana Bantal Dave	Agreed Lar	ne Rental Days	Lane Rental Days Saved		
Reporting Period	Total Requested Lane Rental Days	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%	
Apr 19 to Mar 20	7,387	6,160	79%	1,638	21%	

As it can be seen from Table 4 above a total of 1,638 Lane Rental days were saved between April 2019 and March 2020 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.

Figure 10: Lane Rental Days Saved



To put this into perspective, these 1,638 Lane Rental Days Saved equate to over £3 million of avoided charges⁵.

7.3 Changes to Works in Traffic Sensitive Times

Table 5 shows that the proportion of planned utility works taking place at night has increased from 11 to 41 per cent in TLRS segments. Night-time works also increased in non-TLRS segments. The increase was 6 percentage points higher in TLRS segments than non-TLRS segments, indicating that the TLRS is having an impact on the time of day that works take place in the TLRS. The TLRN-wide (non-TLRS segments) increase hints at a wider indirect impact of the scheme.

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 Percent					Percentage point increase in	
	Daytime	Night-Time	Daytime	Night-Time	night-time works	
TLRS Segments	89%	11%	59%	41%	30%	
Non-TLRS Segments	81%	19%	57%	43%	24%	

Figure 11 shows the proportion of night-time works taking place in TLRS segments has remained around 40 per cent over the past four financial years.

 $^{^5}$ Assuming the ratio between the low and high charge bands on the network is 30:70 then there would be an average daily charge of £1,990

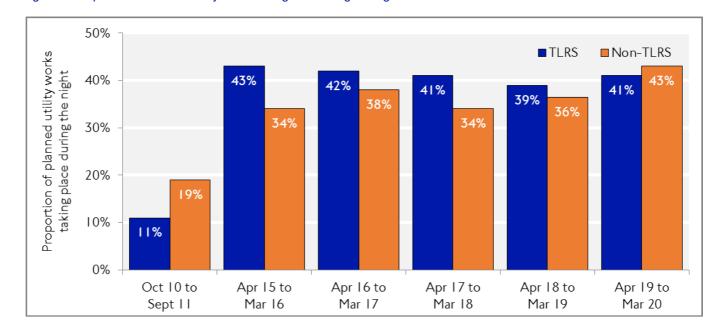


Figure 11: Proportion of Planned Utility Works Taking Place during the Night

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 digging up the road several times. To further encourage collaborative works, as of June 2015, all charges have been 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 since returned to 2014/15 levels. 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

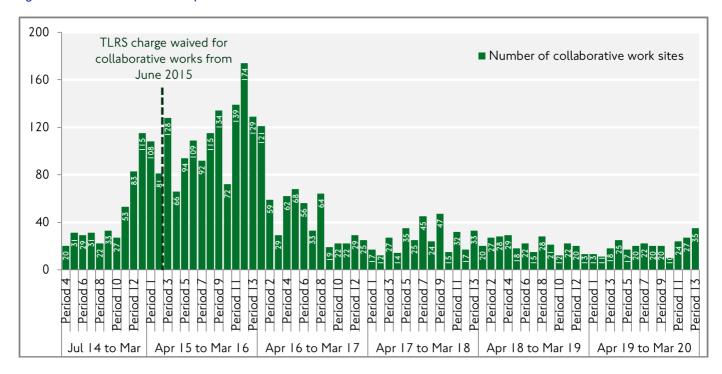
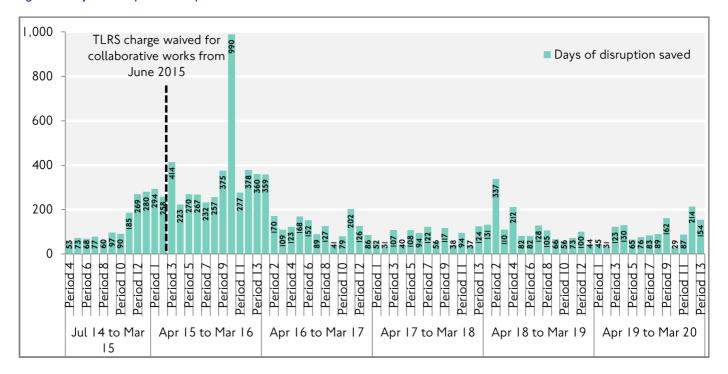


Figure 13: Days of Disruption Saved per TfL Period



8.2 Reduced or Waived TLRS Charges

As well as for collaborative working there are several other scenarios where consideration will be given to reduce or waive TLRS charges; all scenarios can be found in the Supplementary Guidance⁶. Table 6 provides a summary of all waiver applications received. Information prior to 2015/16 is unavailable.

⁶ 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%
Apr 19 to Mar 20	124	88%

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).

Table 7: Summary of LRGC Approved Funding Applications

Financial year	Total approved funding applications	Total funding 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
Apr 19 to Mar 20	3	£1,035,168
Total	82	£19,749,284

Further information and examples of previously approved funding applications can be found on the TfL Lane Rental website⁷.

In August 2018, two new processes were established by the LRGC to allow funds to be accessed more rapidly: Fast Track and Extraordinary Measures. Table 8 shows that in the previous two financial years $\pounds 2.2$ million has been approved for Fast Track applications and $\pounds 250,000$ has been approved for Extraordinary Measures.

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⁷ Transport for London Lane Rental Scheme - https://tfl.gov.uk/info-for/urban-planning-and-construction/lane-rental-scheme

Table 8: Summary of Approved Fast Track and Extraordinary Measures Funding Applications

Financial year	Total approved funding applications	Total funding approved						
	Fast Track Approved							
Apr 18 to Mar 19	9	£1,313,431						
Apr 19 to Mar 20	8	£904,550						
	Extraordinary Measures Approved							
Apr 18 to Mar 19	1	£6,500						
Apr 19 to Mar 20	3	£243,549						

For 55 of the 82 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 8.0. 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 9: Summary of estimated social cost of delay saved

Total approved funding applications*	Total funding approved	Estimated social cost of delay saved	Benefit Cost Ratio
55	£13,162,536	£105,379,461	8.0

^{*}Total number of applications where it has been possible to calculate a cost benefit

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 10 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.

Compared to 2015/16, there has been a 1 percent decrease in the proportion of TfL works avoiding a TLRS charge within TLRS segments whereas there were 3 per cent more utility works being charged. Network Rail had 79 works take place in Lane Rental areas but all of them avoided a Lane Rental charge. Telecoms avoided the highest number of works incurring TLRS charges during 2019/20 with 1,876 works avoiding a charge (94 per cent). Gas promoters had the lowest proportion of works avoiding a change (70 per cent).

Table 10: 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	Apr 19 to Mar 20			
Transport for London	99%	99%	99%	99%	98%			
Utility	88%	87%	85%	84%	85%			
Utility Breakdown								
Telecoms	94%	94%	93%	94%	94%			
Water	86%	83%	87%	85%	85%			
Electric	87%	85%	77%	77%	81%			
Gas	76%	69%	76%	67%	70%			
Network Rail	n/a	n/a	n/a	99.99%	100%			

9.2 Number of Works Incurring TLRS Charges

Table 11 relates to the value of TLRS charges invoiced between 1 April 2019 and 31 March 2020, regardless of whether the work took place in this period or earlier.

Table 11: Charges Invoiced (April 2019 - March 2020) 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	65	2,011	33%	67%	£2,920,600	£44,932	34%
Water	289	1,168	31%	69%	£1,769,100	£6,121	21%
Gas	162	1,883	40%	60%	£2,546,800	£15,721	30%
Electric	161	755	43%	57%	£988,200	£6,138	12%
Telecoms	110	225	33%	67%	£331,300	£3,012	4%
Total	787	6,042			£8,556,000		100%

Despite 98 per cent of TfL works avoiding a TLRS charge, over £2.9 million has been invoiced for 2019/20 accounting for 34 per cent of the total of the charges invoiced. The number of works days is over 2,000, which is 33 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).

Within the utility sector, Gas were invoiced the highest amount of charges which exceeded £2.5 million – over £750,000 more than any other utility sector. TfL and Gas had the highest average charges per work (£44,900 and £15,700 compared with £6,100 for Electric and Water and £3,000 for Telecoms). Water had the highest number of works accounting for 37 per cent of the total.

Figure 14 shows that TfL incurred over £19.7 million in TLRS charges over the last five financial years, again reflecting the scale of the investment programme taking place to transform London's roads. TfL charges have reduced by 62 per cent from 2015/16 to 2019/20 which also demonstrates that the most impactful build phase is now over. With the exception of TfL and Water, all other sectors have had a decrease in the levels of charges invoiced between 2018/19 and 2019/20. There

has been a 4 per cent increase in the total amount of charges invoiced overall between 2018/19 and 2019/20 (up by £350,000).

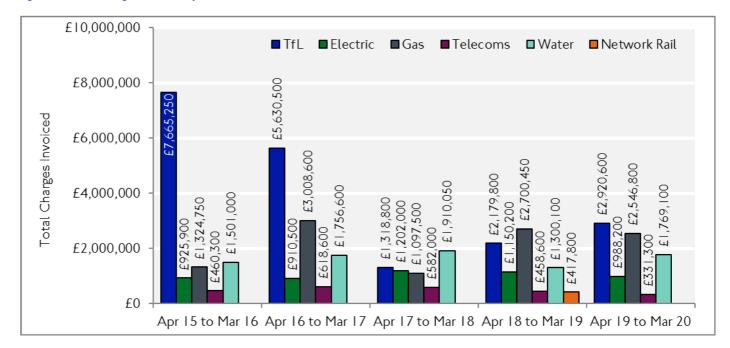


Figure 14: Total Charges Invoiced By Sector

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 TLRS has had, is that the TLRS was not designed to mitigate or manage the substantial number of major works which has been seen in the last five years during the largest ever investment in London's streets. This investment 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 reduced car use and more walking, cycling and public transport use; this in some cases will result in road capacity loss for cars and therefore will impact on road network performance.

TLRS and non-TLRS segments have seen a decrease in JTR (compared to the baseline) except for the AM peak in non-TLRS segments and overnight within TLRS segments. The overall decline in JTR has been more marked on TLRS segments in the PM peak (1.3 percentage point deterioration). However, JTR has generally improved over the previous four financial years (except for the Inter peak which was better in 2015/16 and 2017/18). Overnight JTR has remained stable within TLRS segments for the past five financial years — even with an increase of night-time working by 30 percentage points when compared to the 2010/11 baseline

As with JTR, journey times have deteriorated across the TLRN. 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. Both TLRS and non-TLRS journey times decreased when compared to 2018/19.

Vehicle flows have increased in both TLRS and non-TLRS segments (I and 6 per cent respectively). Vehicle flows in TLRS segments were found to be 7 per cent higher per lane than non-TLRS segments; this highlights the need for the TLRS due to the increasing demand over time compared to other parts of the network. The TLRS 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 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. Instead increased vehicle flows have contributed to the overall deterioration of the road network.

Since the TLRS scheme commenced a total of 82 applications for funding have been approved by the LRGC with a funding value of around £20 million and, where it has been possible to estimate, the social cost of delay saved through use of the funding exceeds £105 million.

Over 1,600 Lane Rental days were saved between April 2019 and March 2020 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.

Overall the analysis of the TLRS 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 TLRS was designed to address has increased significantly indicating that the TLRS is having a positive impact on London residents.

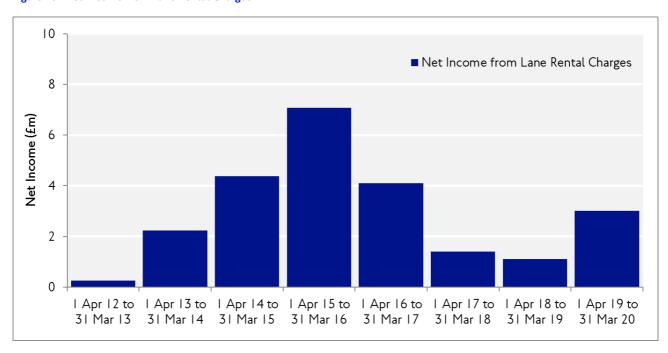
The analysis also demonstrates increased use of innovative traffic management and works techniques, leading to substantial savings in delay to road users. London's growing population and TfL's ongoing investment programme means the TLRS is more critical than ever in minimising the impact this extra utilisation of the road network will bring.

Appendix 1: Financial Summary

Table 12: Financial Summary

£m	Income	Scheme Development, Running Cost and Lane Rental Governance Funding Approved Bids	Net Income from Lane Rental Charges
I Apr I2 to 31 Mar I3	1.9	-1.6	0.3
I Apr I3 to 31 Mar I4	3.6	-1.4	2.2
I Apr I4 to 31 Mar I5	6.3	-1.9	4.4
I Apr I5 to 31 Mar I6	12.0	-4.9	7.1
I Apr 16 to 31 Mar 17	8.1	-4.0	4.1
I Apr 17 to 31 Mar 18	6.1	-4.7	1.4
I Apr 18 to 31 Mar 19	7.8	-6.7	1.1
I Apr 19 to 31 Mar 20	9.1	-6.1	3.0

Figure 15: Net Income from Lane Rental Charges



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