



# Performance Report

Quarter 4 2014/15

MAYOR OF LONDON



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## Summary of Network Performance for Quarter 4 2014/15

In Q4 2014/15 compared to Q4 2013/14, there was a 0.7 index point (0.7%) increase in the volume of traffic on London's major roads. Traffic flows across all quarters over the full year are up 1.3 index points or 1.4% compared to the previous year. The underlying trend growth across London is clearly upwards – and has been since April 2013. Since then, traffic volumes across London have increased by 3.2%.

In Q4 we saw a correlating drop in speeds. London-wide traffic speeds (07:00 to 19:00) decreased by 0.7mph to 18.4mph compared to Q4 last year. Full year results show a 0.6mph decrease compared to the previous year. This continues the trend first observed in April 2013. Average year-to-date speeds have fallen by 1.4 mph since then - a drop of approximately 7%.

Journey Time Reliability (JTR) on the Transport for London Road Network (TLRN) in the AM peak in all directions for Q4 was 88.2%; this is 0.6 percentage points lower than the same quarter in 2013/14. The full year JTR in Q4 2014/15 is 88.3%. This is 0.5 percentage points lower than the year-end target of 88.8%, and 0.7 percentage points below 2013/14.

Traffic analysis shows that, given constant road capacity, for every 1% growth in traffic volume we would expect to see a minimum of a 0.25% reduction in JTR. Therefore given a 1.4% increase in traffic volumes, we would have expected to have seen an overall deterioration in year-to-date JTR of around 0.35% at quarter 4, based on the traffic volume increases alone. However, in addition to increased volumes and numerous incidents during Q4 (including an increase in collisions and breakdowns, two bus strikes and snow), there was also a significant increase in major works activity across the network as TfL's Roads Modernisation Plan moved into a period of increased delivery on the ground, alongside increased investment by developers, boroughs and utility companies<sup>1</sup>.

We have estimated that the disruption caused by works undertaken as part of the Road Modernisation Plan and other major development works in London, has a similar level of impact as the increased traffic volumes, at around 0.4%. Therefore you would expect to see an overall decline of 0.75% to 0.8%. The fact that the actual deterioration (of 0.7% for the full year) is slightly less than the combined impact of traffic volume increases and the impact of the roads build programme, indicates that we are still seeing slight improvements in the performance of the road network due to operational management actions.

Activities which have contributed to sustaining this level of performance have included:

- A continuous data-led assessment of each TLRN corridor to identify their ten worst performing corridor links. The rolling investigations identify the causes of poor JTR performance, as well as simple measures which could help

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<sup>1</sup> In Q4 2014/15, there was a significant increase in the hours of serious and severe disruption on the TLRN, which was recorded at 1,214 hours compared with 833 hours in Q4 2013/14. This increase of 381 hours (46%) year-on-year is due to a higher number of larger-scale, disruptive planned and unplanned incidents across the network.

resolve the issues (including a review of signal timings, or fixing an underlying signal fault). An example of this approach can be seen at the A406 Brentfield Road. Improvements at this location will result in an up to 3 minute journey time saving, reduced queues, and a 6% improvement in JTR on London's highest flow traffic corridor over this specific link.

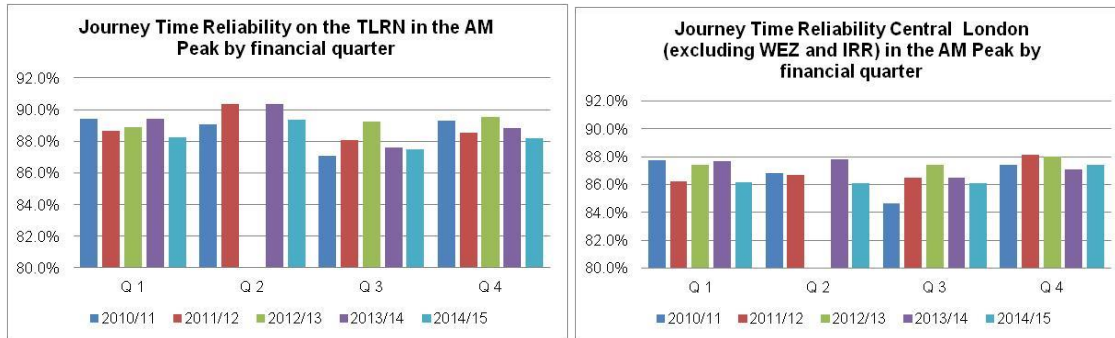
- Continued roll-out of SCOOT technology.
- Ongoing benefits realised from the signal timing review programme, which seeks to balance the needs of all road users and ensure the network operates safely and efficiently.

#### **Other notable highlights of this report include**

- Cycle flows on the TLRN in Q4 2014/15 stand at an index level of 263.4. This is 8.3 index points (3.0%) lower than the same quarter last year. However, compared to 2013/14, average cycling levels on the TLRN at the end of 2014/15 were 11.5% higher.
- The number of killed and seriously injured casualties from road collisions on the TLRN decreased compared to the previous year, and decreased by 37.5% compared to the 2005-2009 Q4 baseline.
- Overall satisfaction with TLRN in Q4 2014 remains at 74, a similar level to the score of 75 in Q1 and Q2 2014 (and also Q3 2013).

## 1. RELIABILITY

The key measure set out in the Mayor's Transport Strategy for monitoring traffic flow is JTR. It is defined as the percentage of journeys completed within an allowable excess of 5 minutes for a standard 30 minute journey during the AM peak. This is calculated from recorded journey times between Automatic Number Plate Recognition (ANPR) camera pairings across the TLRN.



The TLRN JTR in the AM peak in all directions for Q4 was 88.2%; this is 0.4 percentage points lower than target and 0.6 points lower than the same quarter last year. Within the quarter performance was mixed: period 10 was 0.2 points above target, period 11 was 0.4 percentage points below target, period 12 was 0.3 percentage points below target and period 13 was 1.1 percentage points below target.

The JTR for Central London (excluding WEZ and the Inner Ring Road) in the AM peak for Q4 was 87.4%; this is 0.3 percentage points higher than the same quarter in 2013/14.

In Q4, average 24-hour weekday traffic flows across London increased 0.7% compared to the same quarter last year.

The full year JTR on the TLRN (all directions) was 88.3%, 0.5 points below the financial year target and 0.7 points below the previous financial year. Much of the overall reduction came in periods 2 to 5, which affected most parts of London, in particular the East and central areas which showed a strong correlation in performance changes. A key driver was again the impact of increasing demand. However, in the last three periods performance in the East area has been primarily responsible for overall JTR deterioration, due to the large volume of construction works in this sector involving temporary signals and lane reductions. A similar pattern is expected in other areas as the build programme for the Road Modernisation Plan and other major development works, intensifies in 2015/16.

Across Q4, numerous planned works, incidents, and increases in traffic flows impacted the JTR results:

- The JTR on the TLRN in the AM peak in all directions for period 10 was 90.2%. This is 0.2 percentage point above the target and a 3.0 percentage point decrease on the previous period. Performance for this period was affected by the full closure of the M25 on 9 December 2014 leading to an

increase in traffic on the network and delays to the North Circular, IRR, A12 and A406. The A13 Commercial Road/Newham Way saw delays of over 40 minutes on the 8, 11 and 12 December 2014 due to numerous collisions and an object on the carriageway. The impact of these incidents, particularly on the North Circular, is thought to have reduced the overall TLRN performance by approximately 0.5 percentage points.

- The JTR on the TLRN in the AM peak for period 11 (all directions) was 87.9%, 0.4 points below the period target and 2.3 points below the previous period. Performance this period was affected by a bus strike on 13 January 2015, thought to have reduced overall TLRN performance by approximately 0.4 percentage points. The bus strike resulted in increased flows and journey times in Inner and Outer London. There were delays of 45 minutes on 16 January on the A406 South Chingford due to a collapsed manhole at Colney Hatch. This incident caused numerous breakdowns as drivers attempted to drive over the collapsed manhole. Traffic on Wandsworth gyratory westbound (Latchmere Road) experienced delays of 10 minutes approaching from the A3, A3036 and A3205, plus up to 30 minutes on Latchmere Road. This was primarily due to temporary signals on Latchmere Road, at the junction with Battersea Park Road, while a collapsed sewer was repaired, as well as a result of works on Huguenot Bridge.
- The JTR on the TLRN (all directions) for period 12 was 87.4%, 0.3 points below the period target and 0.5 points below the previous period. This period was affected by generally poor performance in the East area where JTR was down 2.0 percentage points, particularly on the A2 (which frequently saw delays of up to 45 minutes), A20 and A205 - primarily a result of construction works involving temporary signals or lane reductions. Traffic on the A12 Eastern Avenue also experienced several days with high delays. However it was the A13 outbound that contributed the most to the JTR reduction. Overall, the East accounted for a drop of 0.6 percentage points in TLRN JTR. Poor performance on 3 February and 5 February 2015 resulted from snowfall on both days, and a second bus strike on the 5 February. These two days contributed a further approximate 1.0 percentage point drop in TLRN JTR.
- The JTR on the TLRN (all directions) for period 13 was 87.3%, 1.1 points below the period target and 0.1 points below the previous period. Again, this period was affected by generally poor performance in the East area where JTR was down 3.4 percentage points, particularly on the A2 (which often saw delays of over 30 minutes), A20 and A205 - primarily due to construction works involving temporary signals or lane reductions. Traffic on the A12 inbound also experienced several days with high delays, contributing to the drop in JTR. As with Period 12, poor performance on the A13 contributed to the reduction due to moderate delays caused by ongoing construction work on Cycle Superhighway route 2. Overall the East area contributed a drop of 0.6 percentage points in TLRN JTR. There was poor performance in the first week on 5 March and in the fourth week on 26 March 2015. These two days contributed a further drop in TLRN JTR of over 0.5%.

## Journey Time Reliability on the TLRN

The JTR values on each of the main radial routes on the TLRN in the AM and PM peaks in both directions are:

AM Peak		Inbound								Outbound							
Route Type	Corridor	2013/14 Q1	2013/14 Q2	2013/14 Q3	2013/14 Q4	2014/15 Q1	2014/15 Q2	2014/15 Q3	2014/15 Q4	2013/14 Q1	2013/14 Q2	2013/14 Q3	2013/14 Q4	2014/15 Q1	2014/15 Q2	2014/15 Q3	2014/15 Q4
Radial	A4	90.2%	89.5%	90.7%	89.5%	87.6%	90.9%	89.0%	90.5%	94.3%	93.2%	89.3%	92.5%	91.9%	93.5%	91.0%	93.2%
Radial	A40	77.8%	80.9%	78.0%	78.6%	80.8%	81.3%	79.1%	80.1%	94.2%	95.9%	92.5%	92.4%	91.9%	94.6%	92.4%	91.4%
Radial	A41	87.7%	89.2%	85.8%	86.4%	84.1%	88.0%	83.1%	87.4%	89.6%	90.6%	89.6%	90.5%	91.6%	93.0%	90.7%	90.2%
Radial	A1	82.9%	81.3%	79.3%	82.4%	80.6%	80.0%	77.0%	82.8%	90.6%	93.5%	88.3%	88.9%	90.1%	93.1%	87.9%	87.7%
Radial	A10	85.8%	87.1%	83.8%	82.7%	86.0%	88.3%	84.5%	84.5%	88.7%	89.7%	87.1%	88.5%	90.0%	90.5%	88.2%	87.5%
Radial	A12	86.8%	89.4%	81.9%	86.7%	85.5%	87.6%	82.1%	84.6%	96.3%	96.3%	95.5%	94.8%	95.9%	95.1%	95.5%	94.9%
Radial	A13	87.2%	87.6%	78.6%	85.8%	85.4%	85.7%	81.4%	83.8%	97.2%	98.9%	98.0%	97.4%	98.5%	98.3%	98.0%	96.2%
Radial	A2	87.8%	89.4%	83.2%	84.5%	83.1%	85.9%	80.8%	81.4%	97.7%	98.0%	96.7%	97.2%	97.6%	97.5%	96.9%	96.2%
Radial	A20	89.5%	91.6%	85.6%	87.3%	86.0%	88.4%	85.5%	84.2%	95.7%	95.6%	93.7%	93.1%	92.7%	95.4%	95.0%	90.4%
Radial	A21	87.2%	89.4%	86.6%	87.6%	87.9%	93.1%	85.1%	86.1%	92.6%	93.8%	91.4%	91.5%	92.2%	96.3%	92.5%	91.6%
Radial	A23	89.1%	89.7%	87.5%	87.7%	85.7%	88.7%	86.5%	86.3%	91.4%	91.7%	89.3%	90.1%	91.3%	91.7%	89.8%	88.5%
Radial	A24	86.2%	89.2%	84.1%	85.9%	84.0%	89.6%	83.2%	83.9%	92.7%	94.3%	90.6%	93.7%	91.4%	94.0%	92.8%	93.5%
Radial	A3	87.7%	91.3%	89.2%	89.2%	86.7%	89.6%	86.7%	90.2%	96.5%	96.3%	94.2%	95.3%	95.5%	95.9%	93.9%	95.7%
Radial	A316	84.0%	92.4%	85.9%	88.0%	83.9%	87.1%	87.0%	88.3%	98.2%	96.4%	93.2%	94.9%	95.9%	96.4%	95.6%	98.3%

PM Peak		Inbound								Outbound							
Route Type	Corridor	2013/14 Q1	2013/14 Q2	2013/14 Q3	2013/14 Q4	2014/15 Q1	2014/15 Q2	2014/15 Q3	2014/15 Q4	2013/14 Q1	2013/14 Q2	2013/14 Q3	2013/14 Q4	2014/15 Q1	2014/15 Q2	2014/15 Q3	2014/15 Q4
Radial	A4	91.1%	91.6%	88.3%	90.6%	89.6%	89.4%	86.4%	90.0%	81.1%	83.0%	80.2%	80.1%	79.7%	81.6%	78.8%	81.3%
Radial	A40	86.3%	83.8%	83.0%	86.4%	84.5%	84.6%	82.6%	84.6%	83.5%	86.3%	82.1%	83.8%	85.2%	84.7%	83.0%	82.8%
Radial	A41	91.4%	91.2%	90.1%	92.6%	90.5%	92.0%	90.0%	91.0%	84.7%	85.2%	82.3%	83.4%	85.0%	83.3%	81.4%	84.0%
Radial	A1	85.6%	85.3%	81.7%	86.6%	85.8%	84.3%	82.1%	87.0%	85.0%	84.6%	80.2%	82.3%	81.9%	85.3%	81.9%	83.5%
Radial	A10	90.5%	90.4%	87.1%	87.6%	89.5%	89.6%	88.9%	88.2%	82.3%	83.3%	80.3%	81.0%	80.2%	81.9%	80.6%	78.4%
Radial	A12	87.6%	87.3%	85.2%	87.4%	88.3%	87.5%	83.9%	88.0%	85.7%	86.1%	83.6%	84.1%	84.8%	83.2%	82.7%	83.6%
Radial	A13	92.6%	92.1%	90.2%	89.9%	92.7%	90.8%	90.0%	93.7%	84.1%	84.3%	86.7%	86.1%	87.1%	83.4%	85.5%	83.6%
Radial	A2	92.5%	91.5%	91.1%	93.2%	89.7%	91.5%	91.0%	92.9%	85.1%	86.8%	84.3%	84.6%	81.7%	84.9%	82.2%	82.4%
Radial	A20	92.1%	93.0%	90.2%	91.2%	90.2%	88.3%	90.9%	91.0%	89.7%	90.3%	89.4%	89.4%	88.6%	88.5%	89.3%	89.0%
Radial	A21	97.3%	96.4%	95.6%	94.6%	95.4%	98.1%	91.6%	95.0%	89.6%	89.9%	90.0%	88.5%	89.5%	92.7%	87.3%	88.3%
Radial	A23	90.9%	90.7%	89.5%	89.6%	89.5%	89.5%	89.4%	89.9%	83.3%	82.2%	81.0%	82.8%	82.1%	83.6%	81.3%	82.7%
Radial	A24	91.9%	91.9%	90.7%	91.5%	92.2%	92.6%	91.6%	94.5%	89.6%	91.4%	87.0%	88.0%	88.4%	92.1%	87.5%	89.1%
Radial	A3	94.5%	94.8%	92.8%	93.9%	93.6%	93.3%	92.6%	94.0%	90.6%	92.1%	86.7%	86.4%	89.7%	92.5%	86.4%	89.3%
Radial	A316	93.2%	94.5%	88.6%	90.5%	92.2%	88.4%	90.4%	88.6%	92.2%	93.2%	90.3%	92.4%	91.3%	91.2%	93.0%	91.7%

The JTR values on each of the main orbital routes on the TLRN in the AM and PM peaks in both directions are:

AM Peak		Anti-Clockwise								Clockwise							
Route Type	Corridor	2013/14 Q1	2013/14 Q2	2013/14 Q3	2013/14 Q4	2014/15 Q1	2014/15 Q2	2014/15 Q3	2014/15 Q4	2013/14 Q1	2013/14 Q2	2013/14 Q3	2013/14 Q4	2014/15 Q1	2014/15 Q2	2014/15 Q3	2014/15 Q4
Orbital	A102 B. Tunnel	76.4%	77.2%	77.1%	82.2%	80.1%	76.6%	77.3%	78.6%	98.0%	98.7%	97.7%	97.9%	97.2%	97.4%	94.5%	96.3%
Orbital	A406	86.1%	86.4%	84.0%	86.6%	86.6%	85.6%	85.4%	85.0%	89.1%	90.6%	88.0%	89.0%	87.6%	89.0%	86.7%	87.6%
Orbital	A205	86.1%	89.9%	87.3%	87.5%	86.4%	86.2%	85.4%	86.9%	82.6%	83.5%	82.6%	83.5%	83.2%	82.0%	82.6%	83.6%
Orbital	Inner Ring	84.2%	83.3%	84.1%	85.0%	82.1%	83.9%	83.9%	84.4%	85.4%	85.1%	83.8%	85.9%	83.3%	84.4%	85.6%	85.6%

PM Peak		Anti-Clockwise								Clockwise							
Route Type	Corridor	2013/14 Q1	2013/14 Q2	2013/14 Q3	2013/14 Q4	2014/15 Q1	2014/15 Q2	2014/15 Q3	2014/15 Q4	2013/14 Q1	2013/14 Q2	2013/14 Q3	2013/14 Q4	2014/15 Q1	2014/15 Q2	2014/15 Q3	2014/15 Q4
Orbital	A102 B. Tunnel	80.5%	78.5%	80.6%	78.4%	74.5%	73.5%	73.6%	78.9%	82.2%	84.4%	80.3%	81.6%	81.3%	81.1%	78.6%	78.7%
Orbital	A406	86.3%	85.1%	81.3%	84.7%	83.9%	86.1%	83.0%	83.9%	83.6%	85.0%	81.4%	83.2%	83.4%	81.6%	81.5%	84.1%
Orbital	A205	84.0%	85.1%	82.1%	83.6%	83.2%	83.6%	81.6%	85.1%	86.3%	87.5%	84.9%	86.7%	86.9%	87.2%	84.8%	87.1%
Orbital	Inner Ring	78.2%	78.7%	78.4%	80.6%	78.2%	75.4%	77.6%	80.2%	81.3%	81.2%	79.6%	83.0%	80.8%	81.3%	80.3%	80.6%

The JTR values on the TLRN and in Central London all directions combined in the AM and PM peaks are:

Central London	2013/14	2013/14	2013/14	2013/14	2014/15	2014/15	2014/15	2014/15
All Directions	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
AM Peak	87.7%	87.8%	86.5%	87.1%	86.1%	86.1%	86.1%	87.4%
PM Peak	84.4%	85.8%	82.4%	84.1%	83.1%	84.8%	80.5%	83.5%

TLRN	2013/14	2013/14	2013/14	2013/14	2014/15	2014/15	2014/15	2014/15
All Directions	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
AM Peak	89.4%	90.3%	87.6%	88.8%	88.2%	89.4%	87.5%	88.2%
PM Peak	86.5%	86.9%	84.4%	86.0%	85.7%	85.9%	84.2%	85.8%

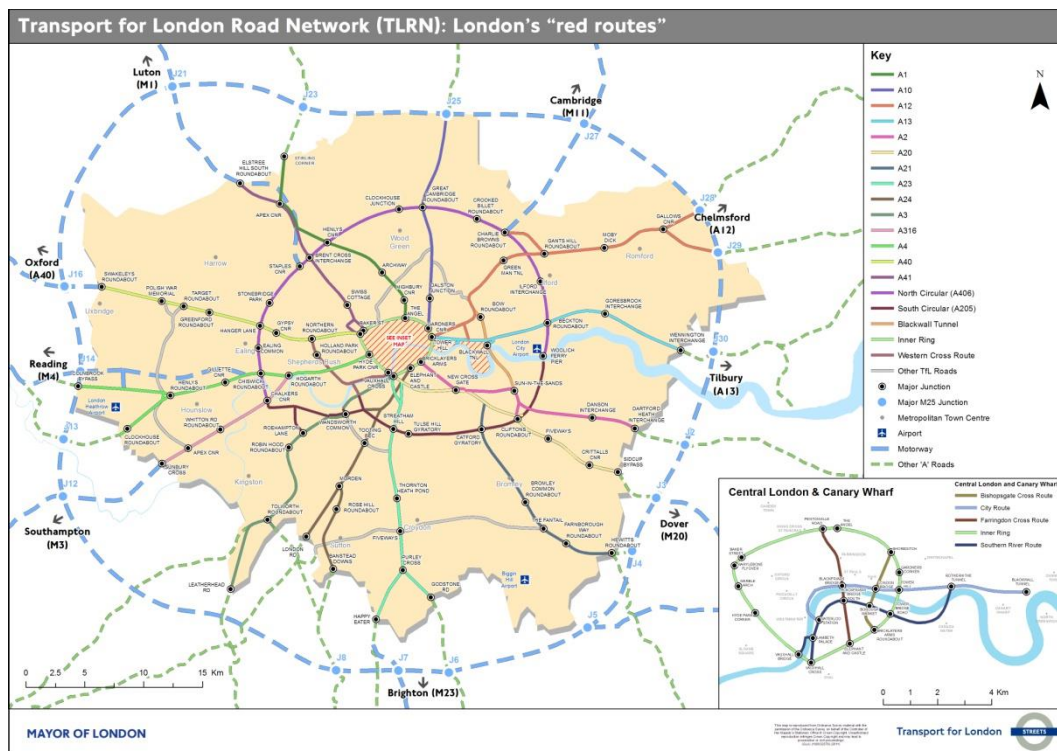
**Legend**

**Journey Time Reliability**

>=90%	More than 9 out of 10 journeys are "on time"
80%-89.9%	
<80%	Less than 4 out of 5 journeys are "on time"

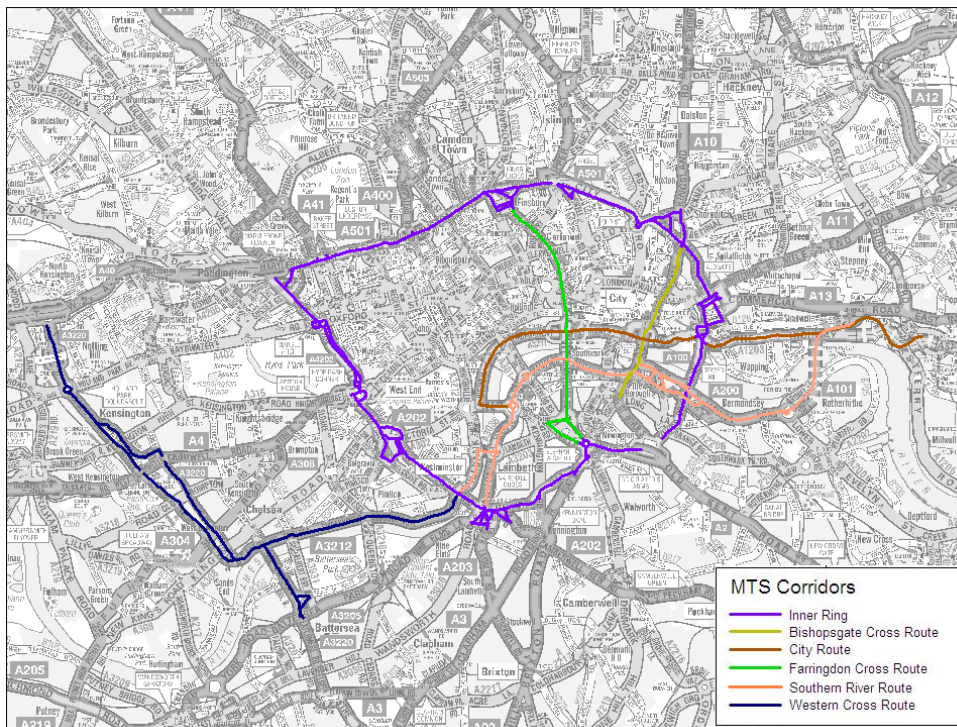


## Map showing the TLRN by MTS Corridors across London



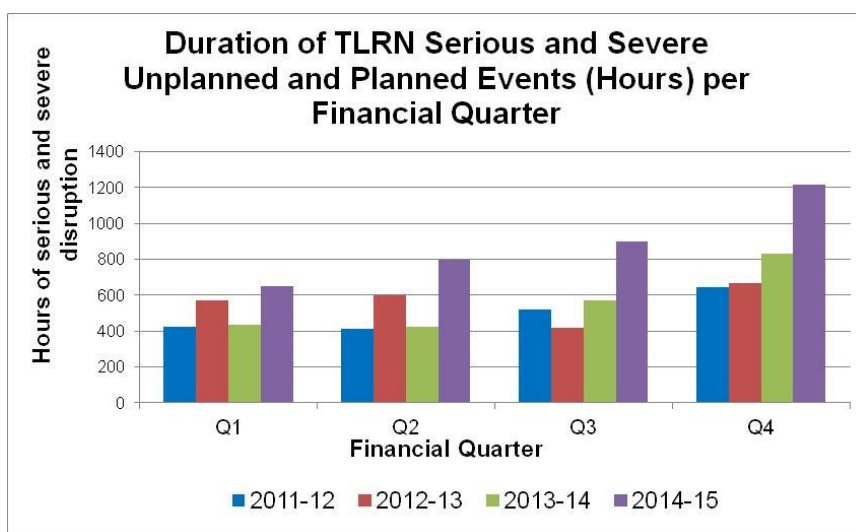
Note: The named corridors do not exactly replicate the road number in the legend, but reflect the strategic radial and orbital corridors set out in the Mayor’s Transport Strategy. (eg the “A12 corridor” includes the A11 Mile End Road into Central London).

## Map showing the TLRN by MTS Corridors in Central London



## 2. NETWORK DISRUPTION

### Total Serious and Severe (S&S) unplanned and planned disruption hours on the TLRN

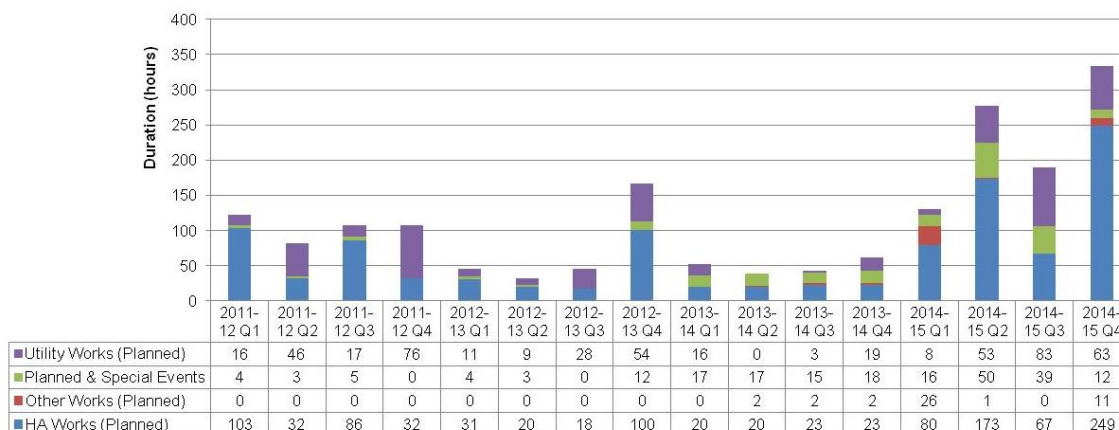


In Q4 there was a total of 1,214 hours of serious and severe disruption resulting from unplanned and planned events spread across 445 separate incidents. This is an increase of 381 hours compared to Q4 2013/14, attributable to an increase of 272 planned S&S disruption hours and 109 unplanned S&S disruption hours.

The main drivers for the increase in planned S&S disruption included junction works on the A13, and Highway Authority maintenance works at Fore Street Tunnel and Chiswick Bridge. The main drivers for the increase in unplanned S&S disruption include increased traffic collisions, breakdowns, unplanned emergency works, and infrastructure issues. The duration of S&S disruption per unplanned event, a measure of how effectively unplanned incidents were resolved, was 2.2 hours - an increase from 2.1 hours per event in Q4 last year.

## Planned Incidents and Events – TLRN<sup>2</sup>

Duration of TLRN Planned Serious and Severe Incidents and Events (Hours) by Financial Quarter



In Q4 2014/15 there were 334 hours of S&S disruption from planned events spread across 41 separate events (an average of 8 hours 9 minutes duration per event), which was largely due to a number of Highway Authority (HA) works across the quarter. This compared to 62 hours spread across 26 events (an average of 2 hours 23 minutes duration per event) in Q4 of the previous year 2013/14.

The highest impact S&S planned events in Q4 were:

- Junction works on the A13 Ripple Road at the Lodge Avenue Flyover, causing a total of 75.3 hours of disruption
- HA maintenance and refurbishment works taking place overnight in the Fore Street Tunnel, causing 59.8 hours of disruption
- HA maintenance on Chiswick Bridge (both directions), causing 37.3 hours of disruption

There were a total of 931 S&S hours at year end, below the forecast of 1,000 hours.

### TLRN planned events recording over 10 hours of serious and severe disruption

In Q4 there were 8 planned events recording more than 10 hours of serious and severe disruption:

- On 13 February 2014 junction improvement works took place on the A13 Ripple Road at the Lodge Avenue Flyover. All eastbound lanes on the A13 were closed following ongoing improvement works at the Renwick Road junction. Traffic tailed back to Beckton Roundabout with southbound tailbacks

<sup>2</sup> NB: Data prior to 2013/14 was recorded using LTIS. This was replaced in April 2013 with TIMS. The two systems record incidents and events using different categorisations and are not directly comparable. In the chart above, the LTIS data has been aligned to the new TIMS categories for information only.

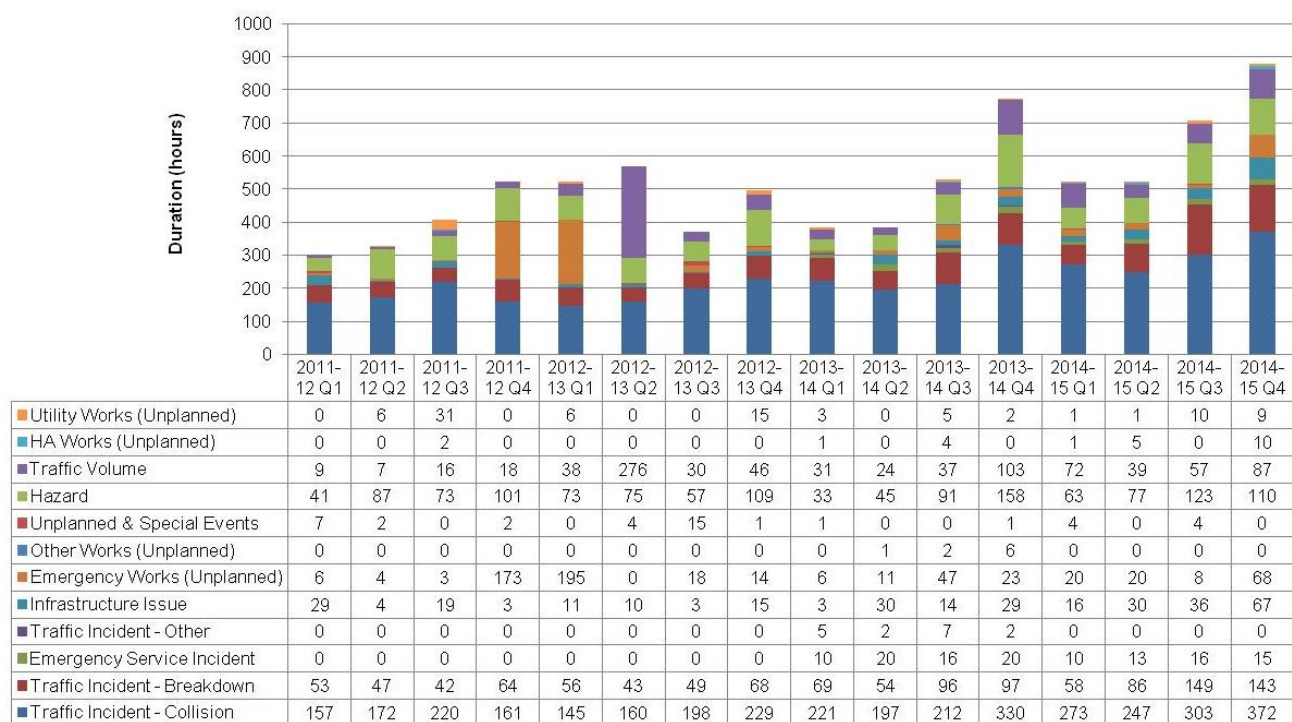
on the A406 North Circular Road to Ilford Flyover. This caused 41.3 hours of S&S disruption in P13 and 34.0 hours in P12 (75.3 total).

- Since 19 May 2014, planned HA maintenance and refurbishment overnight works have been undertaken in the Fore Street Tunnel on Monday to Friday nights between 22:00 and 05:30. These are due to complete by 31 October 2015. These works caused 31.0 hours of S&S disruption in P13 and 28.8 hours in P12 (59.8 total).
- Since 16 May 2014, planned HA maintenance works have been undertaken on Chiswick Bridge (both directions). Additionally, there was a northbound closure of Clifford Avenue at Lower Richmond Road, and Great Chertsey Road was closed southbound at Harlington Road. Congestion was further exacerbated by a crane operation on Hammersmith Gyratory. This caused 23.6 hours of S&S disruption in P13 and 13.8 hours in P12 (37.3 total S&S hours).
- On 26 December 2014, planned National Grid gas works took place on Kennington Lane overnight. Kennington Lane was closed eastbound from Albert Embankment, and Albert Embankment was closed southbound from Black Prince Road to facilitate these works, which were expected to be ongoing until 1 January 2015. Network Rail bridge inspection works and Cycle Superhighway enabling works were also taking place within the closure. The works took place during the Congestion Charge exempt period so there were no issues with vehicles diverting into the zone. Extended working hours were arranged to minimise the duration of the works and bus access to Kennington Lane was maintained. Works completed ahead of schedule on 31 December 2014. This caused 25.8 hours of S&S disruption.
- From 27 to 29 March planned maintenance works took place overnight on the A406 Lea Valley Viaduct. The viaduct was closed eastbound to facilitate bridge joint replacement works. There were also two broken down vehicles in the Fore Street Tunnel, which exacerbated delays. This caused 33.1 hours of S&S disruption.
- From 20 to 22 March planned water works took place on the A406 North Circular Road at Pinkham Way. Lane one (of three) was closed westbound, between Bounds Green Road and Orion Road to facilitate the works. Serious traffic congestion resulted as far as the Great Cambridge Underpass. This caused 14.9 hours of S&S disruption.
- From 6 to 18 March planned infrastructure works took place on the A406 Ilford Flyover. The flyover was closed northbound at night to facilitate phase 1 of an expansion joint replacement scheme. Traffic experienced northbound tailbacks through Barking Roundabout, which in turn caused heavy congestion southbound. This caused 13.1 hours of S&S disruption.
- From 23 to 28 December planned Network Rail bridge replacement works took place on A10 High Road, which was closed in both directions at the

junction with Crowland Road. Traffic and Buses experienced serious delays in the area. This caused 10.8 hours of S&S disruption.

## Unplanned Incidents and Events - TLRN<sup>3</sup>

Duration of TLRN Planned Serious and Severe Incidents and Events (Hours) by Financial Quarter



In Q4 2014/15, on the London-wide TLRN, there were 880 hours of unplanned S&S disruption, spread across 404 separate events (an average of 2 hour 11 minutes duration per event). This compares to 771 hours, spread across 367 events (an average of 2 hour 6 minutes duration per event) in Q4 2013/14.

There were a total of 2,624 unplanned S&S hours at year end, below the forecast of 2,660 hours.

### TLRN unplanned incidents recording over 10 hours of serious and severe disruption

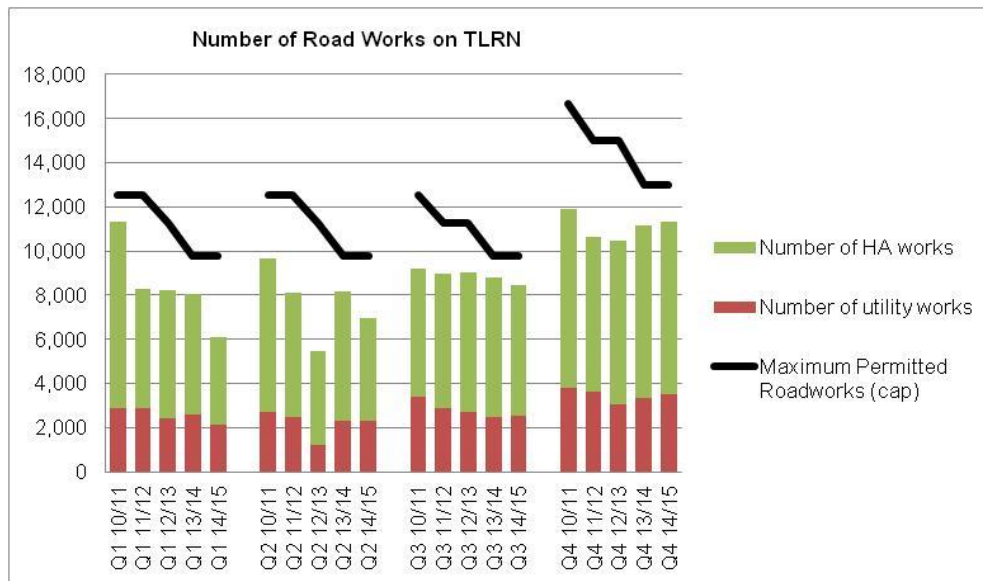
In Q4 there were 6 unplanned incidents recording over 10 hours of serious and severe disruption:

- On 9 January 2015, at 10:40 in the morning, emergency Thames Water works took place in the eastbound carriageway of Battersea Park Road at the junction with Latchmere Road. Traffic impacts were serious with congestion in both directions on Battersea Bridge Road and slow moving traffic on Latchmere Road and Battersea Bridge Road. Repairs were completed by 12:20 on the afternoon of 1 February. This caused 36.3 hours of S&S disruption.

<sup>3</sup> NB: Data prior to 2013/14 was recorded using LTIS. This was replaced in April 2013 with TIMS. The two systems record incidents and events using different categorisations and are not directly comparable. In the chart above, the LTIS data has been aligned to the new TIMS categories for information only.

- On 21 January 2015 at 10:40, an HGV collision and fuel spillage occurred on the A406 North Circular Road. The A406 was closed northbound at Redbridge Roundabout and lanes 3 and 4 were closed southbound. Traffic impacts were severe with northbound queues extending beyond Ilford. The incident was cleared by 02:45 the next morning, 22 January. This caused 12.5 hours of S&S disruption.
- On 24 January 2015, shortly after 14:00, a burst water main occurred on Kennington Lane at the junction with Courtenay Street. Kennington Lane was closed eastbound from Durham Street. Works which were taking place to repair another burst water main at the junction with Montford Place were suspended, as the incident at the junction with Courtenay Street was considered more urgent and was therefore prioritised. Lane restrictions were also in place at the junction of Durham Street to facilitate overnight Cycle Superhighway works between 21:00 and 05:00 each night until 23 February. The burst water main was repaired by 16:00 on 27 January. This caused 11.7 hours of S&S disruption.
- On 27 February at 07:00, a gas leak occurred on Devonshire Road at the junction with London Road. This resulted in westbound lane restrictions and the need for temporary traffic signals. Traffic flowed using single alternate lane working, with severe impacts on journey times. Westbound congestion was also experienced on the approach to the Catford one-way system, as well as westbound tailbacks towards Clifton's Roundabout, further compounded by the temporary traffic lights and works at Minard Road. Emergency works were complete by 11:40 on 1 March. This caused 19.2 hours of S&S disruption.
- On 2 February at 14:25, a burst water main occurred on A100 Tower Hill. Tower Hill was reduced to one lane eastbound and Shorter Street was closed due to emergency carriageway repairs. There were also restrictions on Mansell Street and Goodman's Yard. Traffic was slow moving on the approach and at Goodman's Yard, with tailbacks reaching Blackfriars Underpass. Works completed by 06:00 on 5 February. This caused 14.6 hours of S&S disruption.
- On 26 February at 10:15, the northbound bore of the Blackwall Tunnel was reduced to one lane from two due to a loose expansion joint at the entrance of the tunnel. Traffic impacts were serious with northbound congestion beyond Sun-in-the-Sands. Repair works were completed by 05:25 the next morning on 27 February. This caused 13.3 hours serious and severe disruption.

## Number of Road Works on the TLRN



In Q4 of 2014/15 the total number of road works on the TLRN was 11,347, an increase of 179 (1.6%) on the total of 11,168 reported in Q4 of 2013/14.

The London Permit Scheme (LoPS) for road works was introduced in February 2010. Its purpose was to improve Highway Authorities abilities to minimise disruption from planned highway works, requiring works promoters to apply for a permit to work in the highway. Highway Authorities own works are also included in the scheme.

To manage the cumulative impact of road works on the TLRN, the total number of new road works permitted in any one period was capped to 4,170 from the start of 2010/11. This was 20% below the peak level of road works activity experienced in 2009/10 (5,212 works in period 12 of that year). This was then reduced in period 7 2011/12 to 3,753 per period.

At the beginning of Q1 2013/14, the maximum permissible total number of road works allowed on the TLRN was lowered to 3,250 per period. This was a reduction of 13.4% from the previous cap per period of 3,753 (period 7 2011/12 to period 13 2012/13).

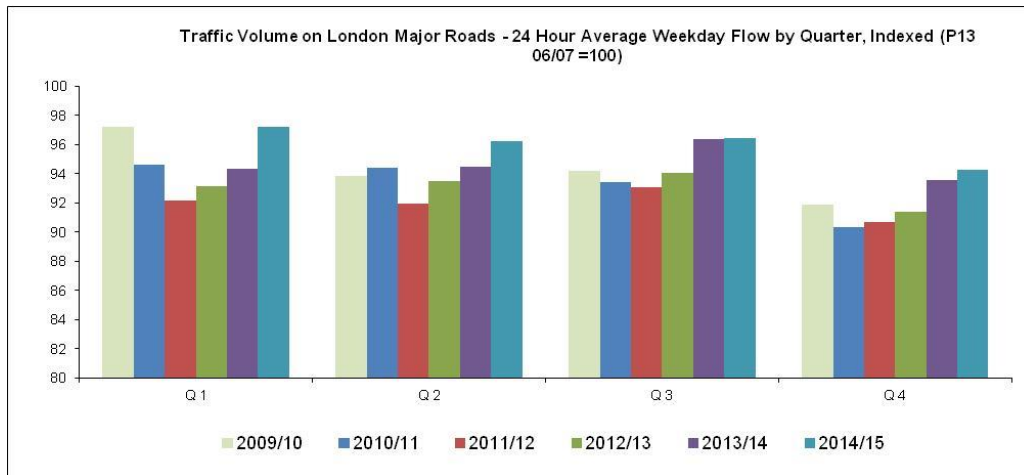
The volume of road works on the network stayed below the 'cap' throughout 2013/14.



### 3. TRAFFIC VOLUMES

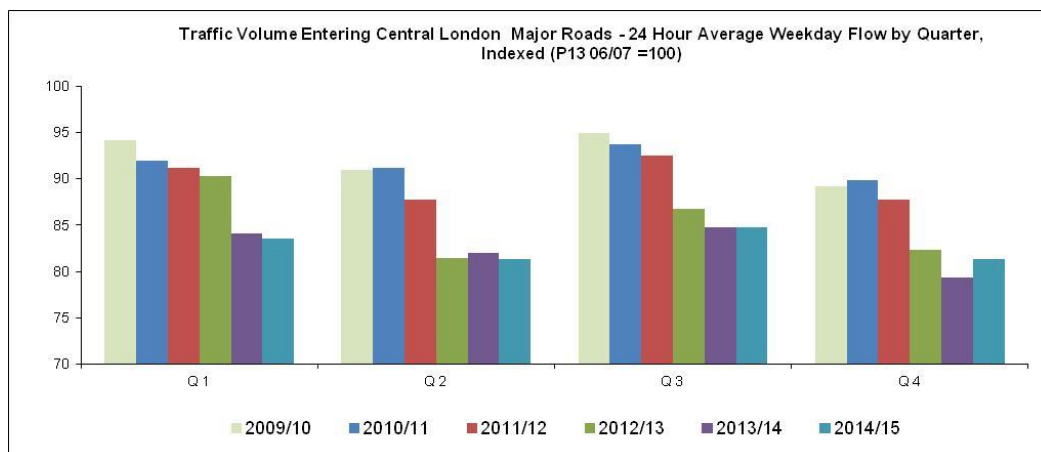
#### Vehicular Traffic Volumes on London Major Roads

The pan-London traffic flow index stands at 94.2 in Q4 2014/15. This is 0.7 index points up from the same quarter last year, and 2.9 index points up from the same quarter two years ago. At the end of Q4 (period 13) 2014/15 traffic in London showed a net decrease of 2.8% since Q4 2008. The chart below shows traffic flows relative to an index of 100 in period 13 in 2006/07.



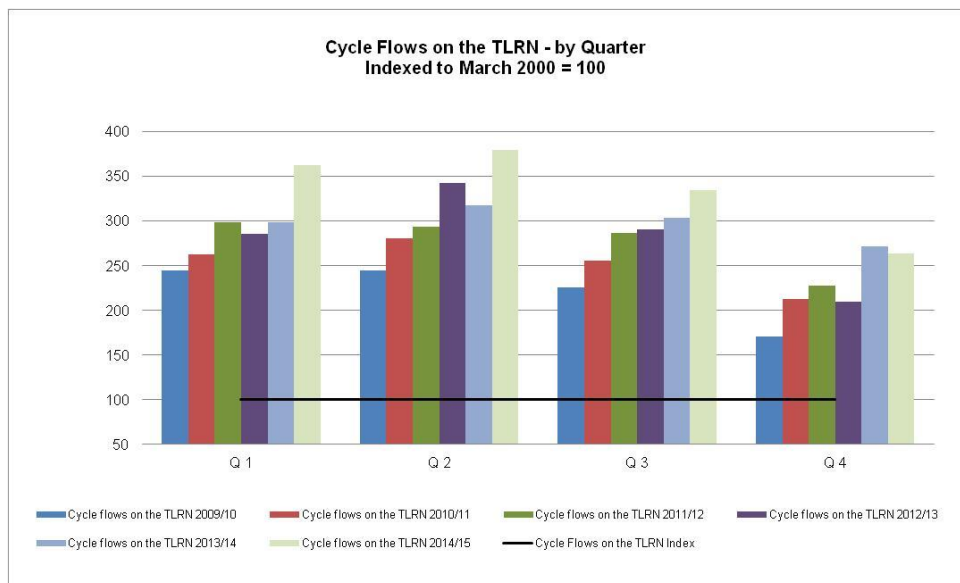
#### Vehicular Traffic Entering Central London Major Roads

The Central London traffic flow index stands at 81.3 in Q4 2014/15. This is 1.9 index points up from the same quarter last year and 1.0 index points down from the same quarter two years ago. In Q4 (period 13) Central London traffic has fallen by 14.8% since Q4 2008. The chart below shows traffic flows relative to an index of 100 in period 13 2006/07.



## Volume of Cycling on the TLRN

The chart below shows cycle levels on the TLRN relative to an index of 100 in March 2000.



Cycle flows on the TLRN in Q4 2014/15 stand at an index level of 263.4. This is 8.28 index points (3.0%) lower than the same quarter last year.

Recorded temperatures were average across the whole of Q4. Rainfall across all 4 periods was below average.

Between March 2000 and the end of 2014/15 cycle flows on the TLRN increased by 230%. Compared to 2013/14, average cycling levels on the TLRN at the end of 2014/15 were 11.5% higher.

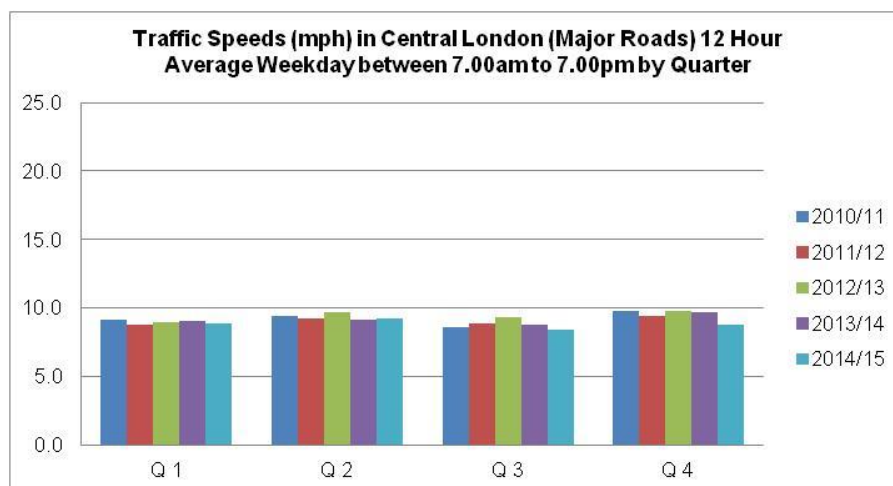
## 4. TRAFFIC SPEEDS

### Traffic Speeds in London



Average traffic speed for the 12 hours between 07:00 to 19:00 across London in Q4 was 18.4mph, compared to the 19.1mph observed in Q4 last year, a 3.5% decrease year-on-year.

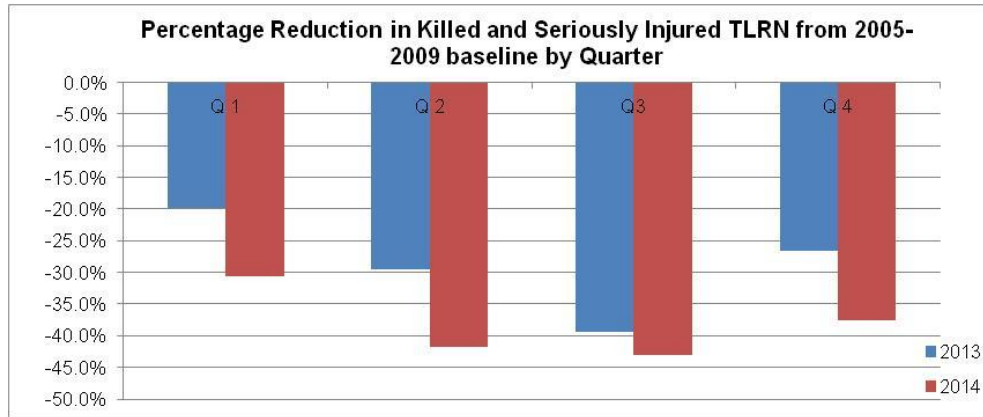
### Traffic Speeds in Central London



Average traffic speeds for the 12 hours between 07:00 to 19:00 across Central London in Q4 was 8.8mph compared to the 9.6mph observed in Q4 last year, an 8.4% decrease year-on-year.

## 5. ROAD SAFETY

### Killed and Seriously Injured casualties on the TLRN

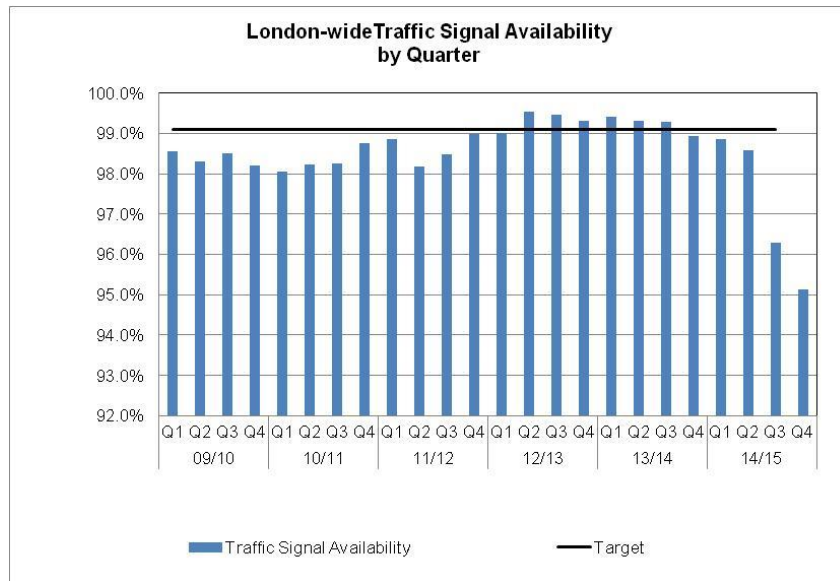


The graph above shows the percentage change in KSI casualties on the TLRN from the 2005-09 baseline for the period 2013/14 to 2014/15. In this data set, Q4 is defined as the three month period from September to November.

Provisional data for Q4 2014/15 indicates that there were 168 KSI casualties on London's roads, a 37.5% reduction from the 2005-09 Q4 baseline. Compared with the 200 KSIs in Q4 2013/14, there was a decrease of 11.0 percentage points year-on-year.

Comparing Q4 2014/15 with Q4 2012/13 shows a decrease of 27.7% in KSI casualties on the TLRN (235 to 170).

## 6. ASSET AVAILABILITY



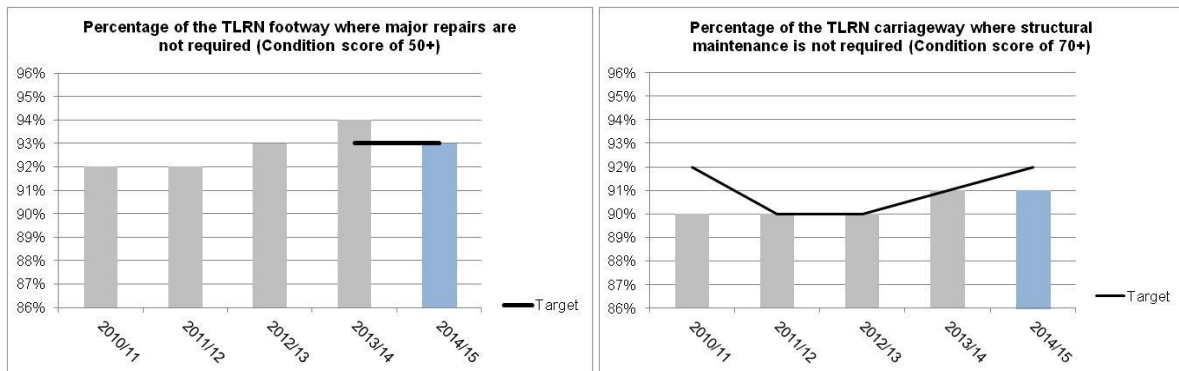
During Q4 2014/15, the availability of traffic signals London-wide was 95.1% compared to 98.9% reported in Q4 2013/14. Performance is expected to improve in the long-term as the new contractors increase resources and continue to train new staff.

The target for this indicator is set at 99.1%, representing the availability of all functions of traffic signal equipment. The failure to meet this performance target is primarily due to poor performance from one of the contractors covering the east and south areas. Where full availability is not maintained, abatements are applied to contract payments. This is a demanding target for the three contractors responsible for maintaining London's Traffic Signal equipment - and overall, traffic signal assets are in good condition.

It is worth noting that TfL's current focus remains on carrying out preventative maintenance. This is having a detrimental effect on availability scores in the short-term as more faults are raised – however, this strategy will lead to improved availability longer term.

## 7. STATE OF GOOD REPAIR

The State of Good Repair (SOGR) metrics for the TLRN carriageways and footways are reported annually at the end of each financial year. SOGR represents the percentage of the TLRN where structural maintenance/major repairs are not required; it is based on asset condition scores from structural surveys analysed using the national Rules and Parameters from the UK Pavement Management System (UKPMS).



The percentage of the TLRN in structurally normal condition was 90% in 2011/12 and 2012/13, and 91% in 2013/14 and 2014/15.

The percentage of the TLRN footway network where the structural condition was normal was 92% in 2011/12, 93% in 2012/13, 94% in 2013/14 and 93% in 2014/15.

## **8. CUSTOMER SATISFACTION – TLRN**

The customer satisfaction survey has been conducted annually between 2010 and 2013 (with fieldwork conducted from mid-Oct to mid-Nov). Since 2014, the survey has been carried out quarterly to enable the road network to be assessed during different seasons, building up a more representative picture over the year.

In Q4 2014 an online customer satisfaction survey was conducted among people who had used the TLRN in the last month using any of the following modes: car, pedestrian, bus, motorcycle/scooter/moped, taxi/commercial delivery/emergency vehicle, cycle. In Q4 2014 a total of 3,304 TLRN users were interviewed (3,004 in London and 300 in South East England), recording details of 7,827 trips (which includes multiple trips from some respondents). Satisfaction questions are scored on a scale of 0-10, where 10 is extremely satisfied and 0 is extremely dissatisfied. Mean scores (e.g. 7.4) are then multiplied by 10 to provide a score out of 100 (e.g. 74).

Overall satisfaction with TLRN in Q4 2014 is at 74, the same score as Q3 and one point lower than Q1 and Q2.

Levels of satisfaction with most aspects of the experience were stable, apart from lower scores for speed and condition/clarity of road markings.

Pedestrian satisfaction dropped to 72 in Q4, (back to the same level as Q3 2013), with no changes for the other modes. There were lower scores among pedestrians for speed, estimating journey length, working condition of traffic lights, condition/clarity of road markings and pavements free from flooding.

Commercial vehicle drivers had lower satisfaction for road works management, speed of fixing unusual traffic problems, condition/clarity of road markings, road free from flooding and street lighting.

However, satisfaction improved among car drivers for roads free from flooding and improved among cyclists for estimating journey length.

### Satisfaction with different aspects:

Scores for condition of road markings, speed of journey and pavement flooding have declined in Q4. Compared to Q4 last year, many scores fell; however, there was no change in overall satisfaction.

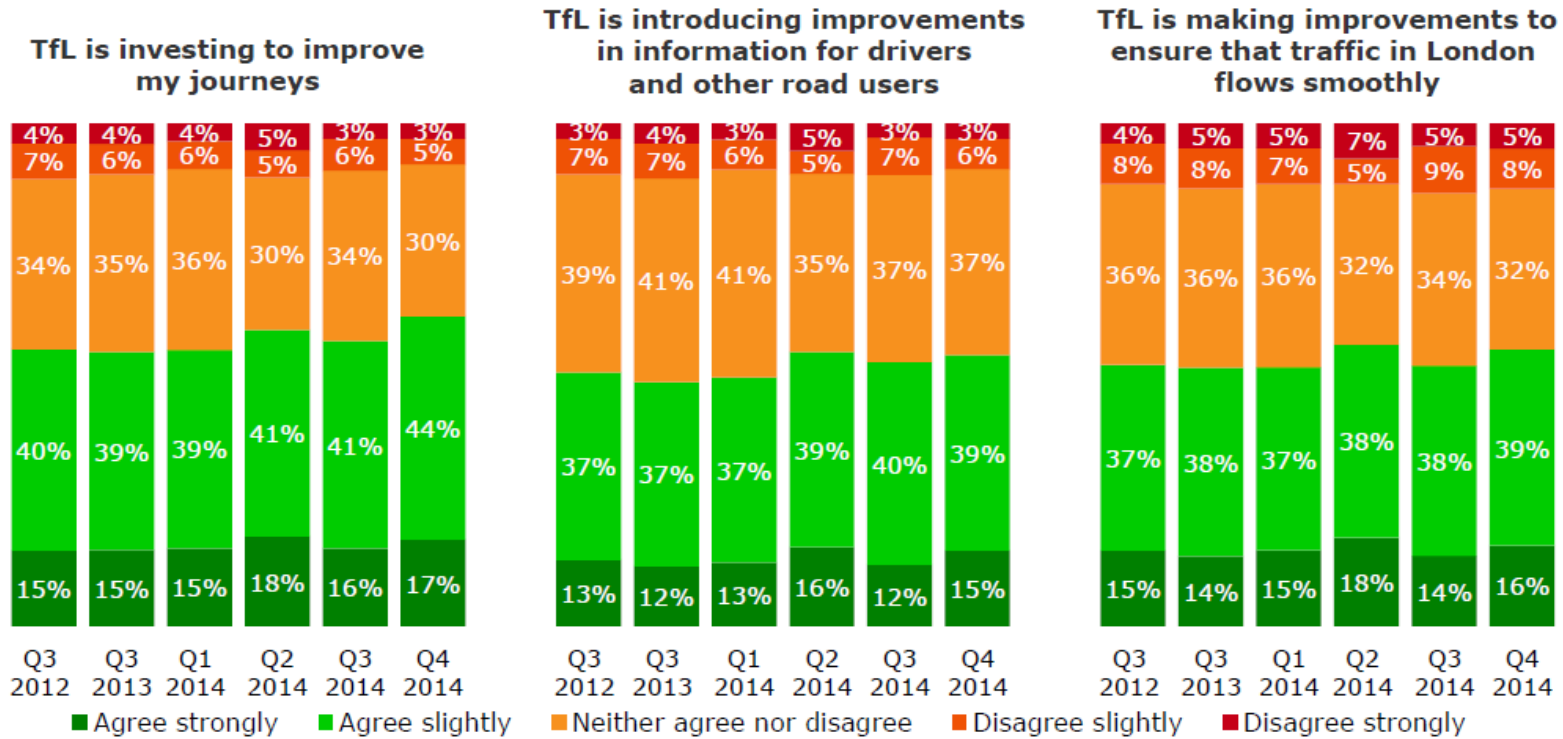
Q3 2011	Q3 2012	Q3 2013	Q1 2014	Q2 2014	Q3 2014	Q4 2014	
77	78	77	79	79	79	78	Working condition of the traffic lights
77	77	76	78	78	77	77	Street lighting
77	77	75	78	78	76	76	Roads are well drained and free from water & flooding
75	76	75	77	77	76	76	Amount and clarity of road signs giving route directions
75	76	75	77	77	76	76	Condition and clarity of road markings
72	75	74	75	75	74	74	<i>Amount and clarity of road signs about delays and disruptions</i>
73	74	73	75	75	74	74	<i>Could estimate accurately how long your journey would take</i>
75	76	75	75	75	74	74	OVERALL SATISFACTION
73	73	73	74	74	73	73	<i>Traffic light timings</i>
72	74	73	74	74	74	73	<i>Speed</i>
72	73	73	73	74	73	73	<i>Speed of response for fixing unusual traffic problems</i>
72	74	72	74	74	73	73	<i>Up-to-the-minute information</i>
70	73	71	71	72	72	72	Condition of road surfaces
70	73	71	73	74	72	72	<i>Management of road works</i>
67	69	67	69	70	67	68	<i>Traffic congestion</i>

**KEY** *Road Space Management*      Asset Management



Between 50% and 60% of TLRN users agree that 'TfL is investing to improve journeys, improve information and improve traffic flow'. In Q4, there was a higher level of agreement with 'investing to improve journeys', reaching a peak compared to previous quarters.

### Attitudes towards Transport for London

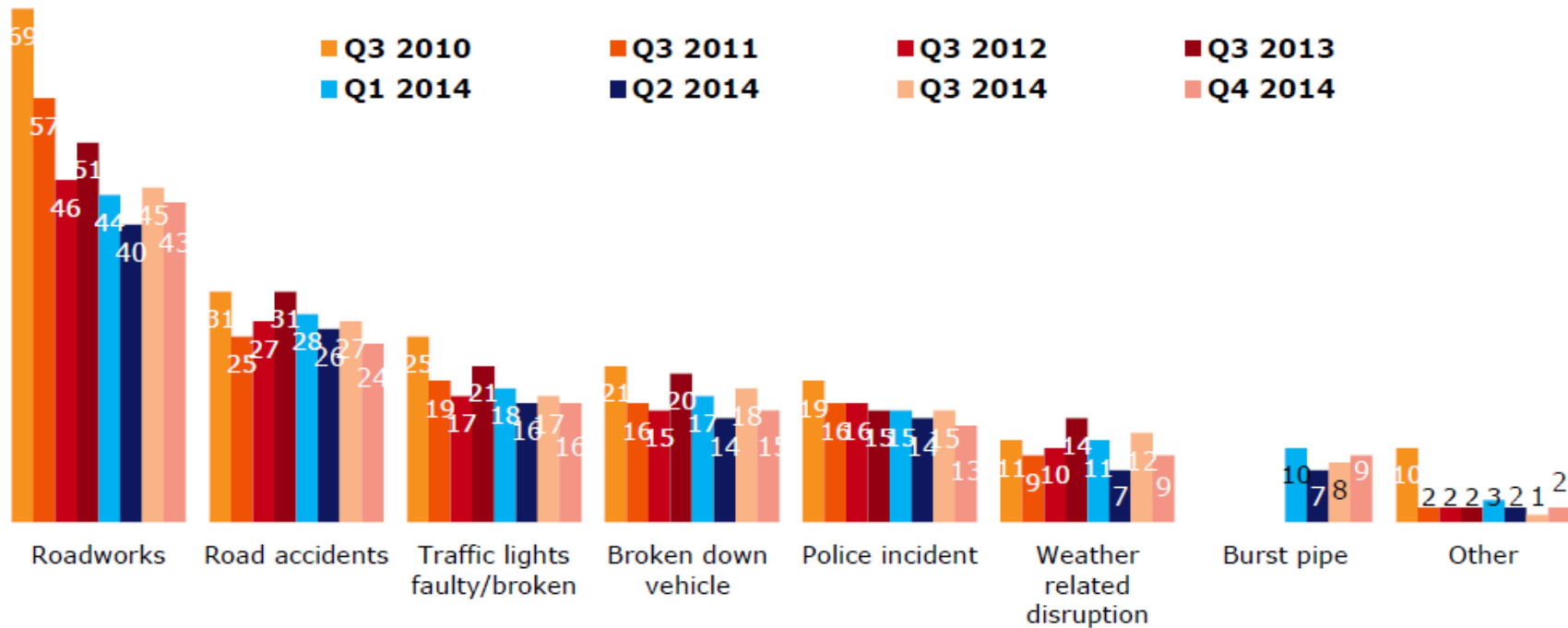


Base Q4 2014: All residents (3,304)

Experience of disruption is slightly lower in Q4 compared to Q3. Results for South East residents (not shown) are very similar, except that they are slightly less likely than Londoners to have experienced disrupted journeys in the last 3 months.

**Type of disruption on TLRN experienced in last 3 months**

**TLRN survey – London Residents  
(% experienced disruption in last 3 months)**



Base in Q4 2014: All London residents (3,004)