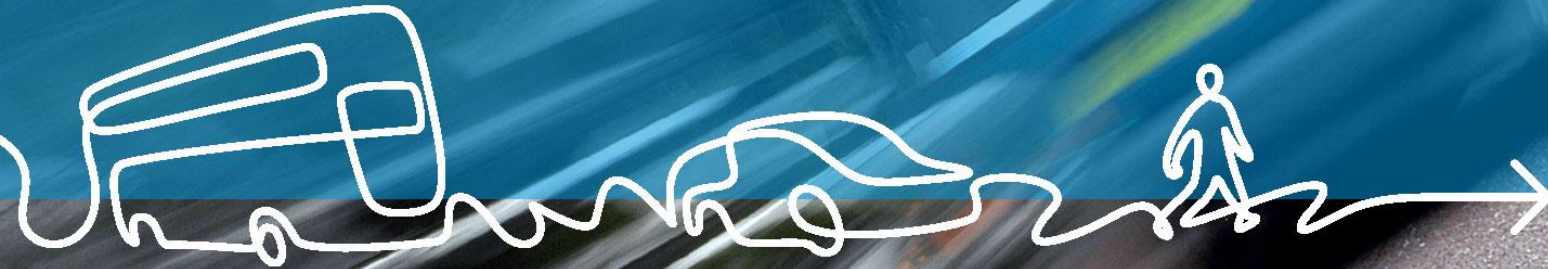


# Getting More From London's Road Network

Garrett Emmerson  
Chief Operating Officer: London Streets





# TfL's Traffic Responsibilities

- Full operational responsibility for the Transport For London Road Network (TLRN – the 'Red Routes'), consisting of:
  - 4% (580km) of London's total road length, but;
  - Carrying over 30% of its traffic, and;
  - Up to 40% of the total economic value (GVA) of traffic movement across the city.
- Through the Traffic Management Act, a strategic responsibility for coordinating works and ensuring the free flow of traffic on the Strategic Road Network (SRN) – a further 500 km of Borough maintained and heavily trafficked major ('A') roads.
- Responsibility for the maintenance, management and operation of all of London 6000 traffic signals on all roads across London, and for the real time operational control of the road network through the London Streets Traffic Control Centre (LSTCC).

# Economic Significance of the Road Network in London

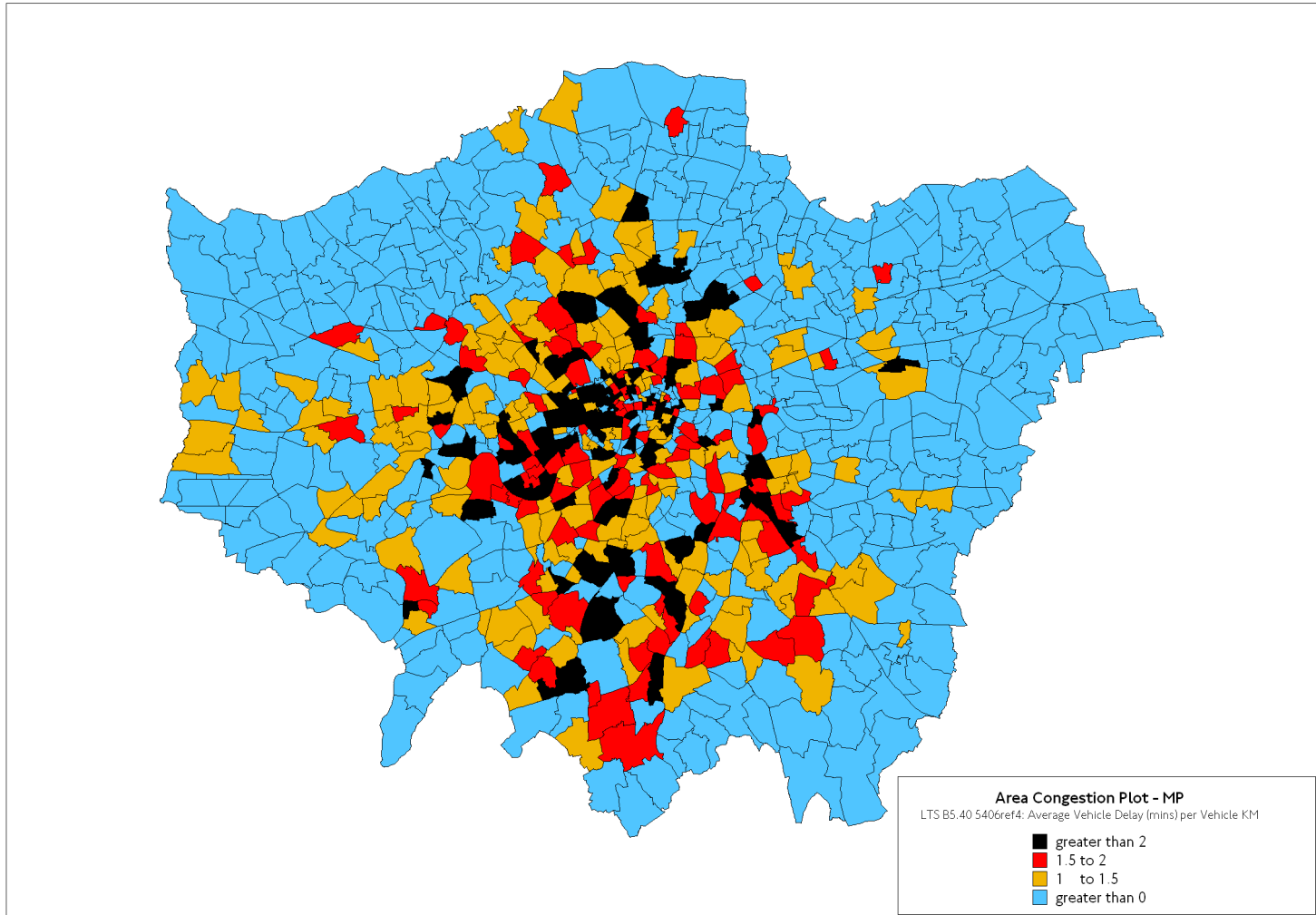
- Over 80% of all passenger journeys (including around 10m car trips/day), and nearly all freight movements, use the road network in London
- London's strategic roads are on average 40% more densely trafficked than roads in other UK conurbations
- London has around 20% of the UK congestion, costing London's economy at least £2bn a year
- Over 3/4 of this is on the Transport for London and Borough Principal Road Networks.
- 15% of UK congestion is therefore concentrated on around 1500km of the country's 400,000km of road network!



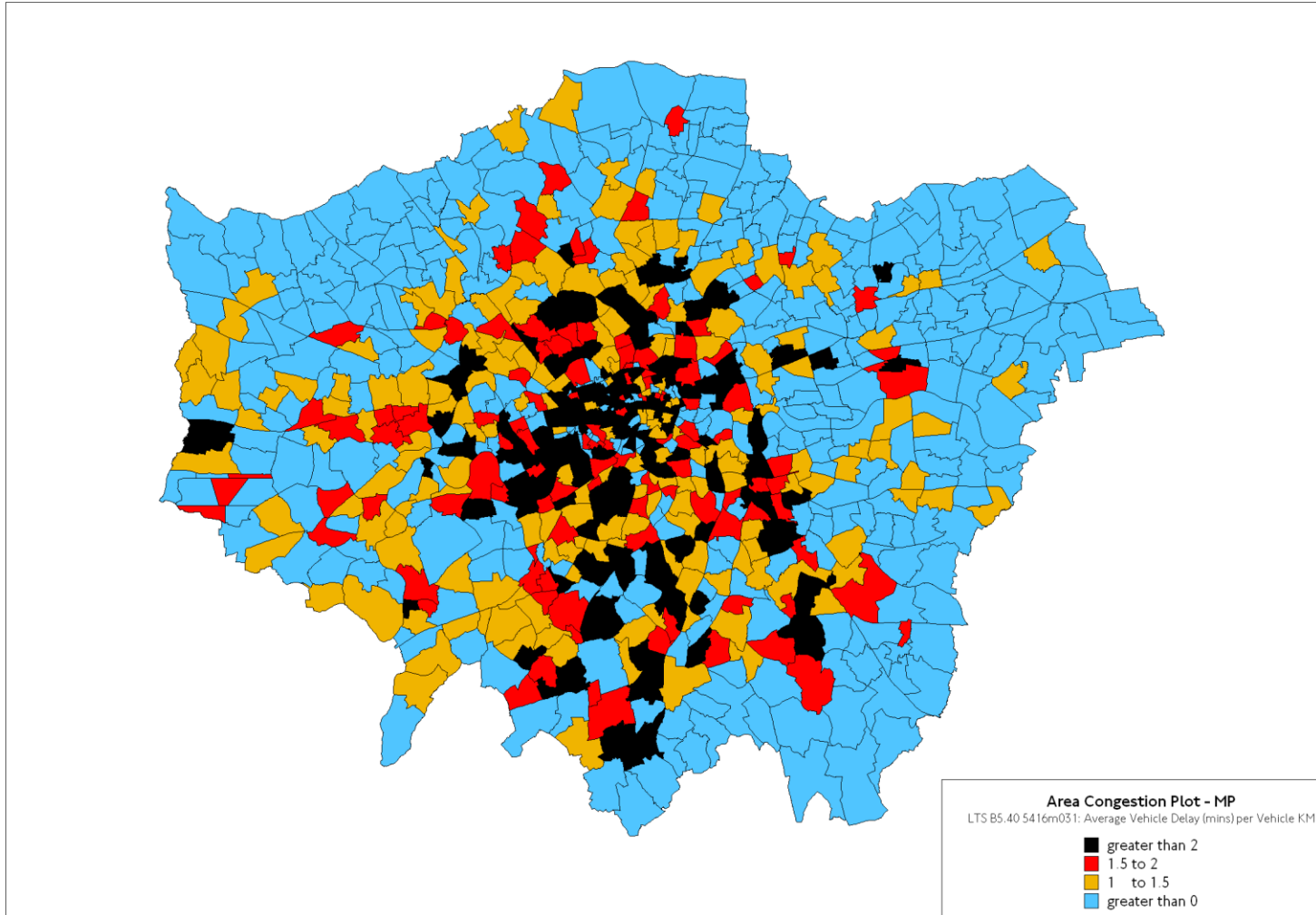


**But what exactly is congestion,  
and how can we make a difference?**

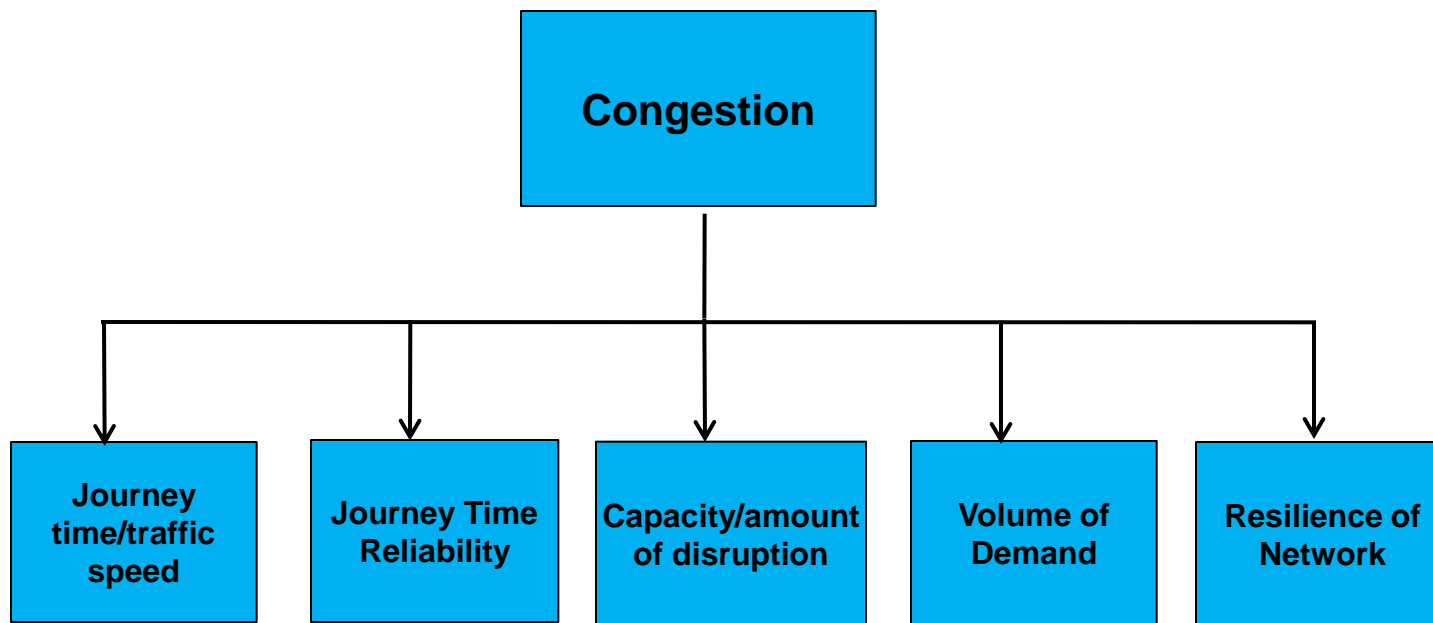
# Road congestion in London 2006



# Road congestion in London 2017



*In reality, congestion is a more complex phenomenon .....*



# The Mayor's Transport Strategy

May 2010

## Mayor's Transport Strategy



MAYOR OF LONDON



# Managing the Road Network Chapter



*6 Key elements:*

- **Maximising the efficient and reliable operation of the road network**
- **Minimising the impact of planned interventions** on the road network with the potential to disruption traffic flows
- **Minimising disruption from unplanned events** (accidents, emergencies etc) in 'real time' as they occur and returning the network quickly and efficiently to its planned steady state operation as soon as possible.
- **Achieving modal shift** away from car based traffic movements towards more sustainable modes to reduce traffic growth pressures on the network
- Where feasible, and where there is an overall congestion reduction and local economic benefit, **developing the road network**
- **Maintaining road network assets** in a good state of repair



# Key outcomes for the MTS and London Streets

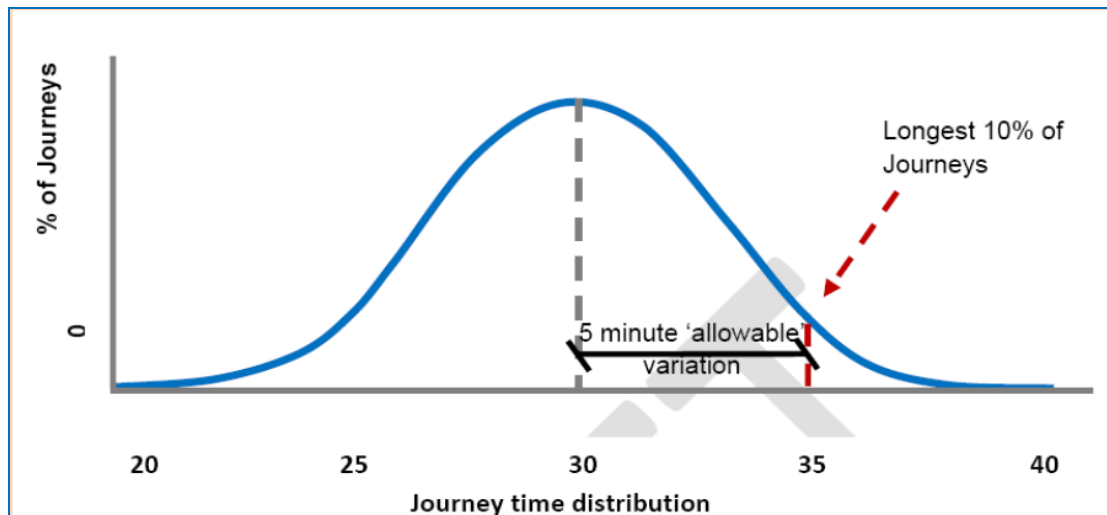
<b>MTS Policy Objective</b>	<b>Key Operational Outcomes</b>
• Efficient and reliable operation of the road network	1. Journey time reliability 2. Signal junction efficiency
• Minimising the impact of roadworks and planned interventions	3. Disruption due to planned interventions
• Minimising the impact of unplanned events and emergencies	4. Disruption due to emergencies & unplanned events

# 1. Journey Time Reliability

The new MTS identifies the need for such a measure, and defines it as:

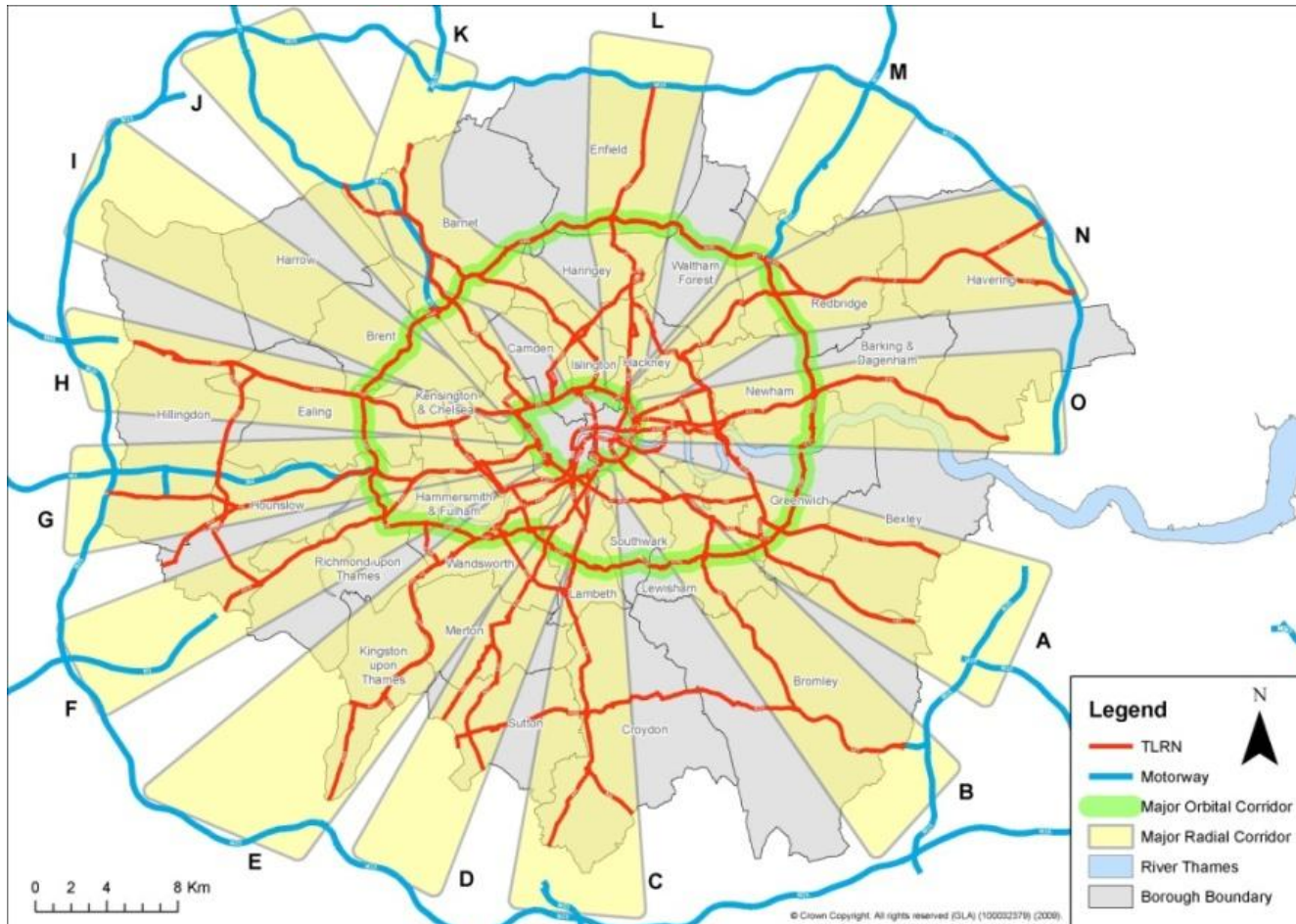
*'...the Percentage of journeys completed within 5 minutes of an average 30 minute journey time'*

**Average Journey Time and 'Allowable' Variation from the Mean**





# 1. Journey Time Reliability on the TLRN



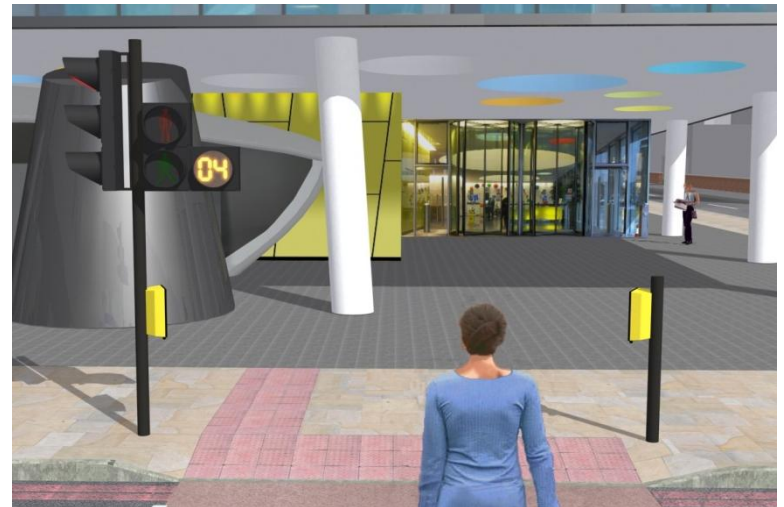
# 1. Journey Time Reliability on the TLRN

TLRN Corridor Performance (7 – 10am peak period)

AM Peak		Year / Period	2009/10													2010/11
Route Type	Corridor	Direction	1	2	3	4	5	6	7	8	9	10	11	12	13	1
Radial	A10	Inbound	83.8%	89.5%	90.2%	89.6%	90.2%	87.2%	89.9%	88.9%	90.4%	87.1%	88.3%	86.2%	89.3%	86.1%
Radial	A12	Inbound	89.5%	88.5%	88.1%	83.9%	89.9%	90.1%	88.4%	87.5%	87.4%	91.4%	86.9%	88.2%	87.5%	86.4%
Radial	A13	Inbound	89.2%	86.5%	87.0%	85.4%	85.1%	88.5%	84.5%	87.7%	92.1%	89.7%	91.6%	90.9%	87.9%	90.6%
Radial	A2	Inbound	86.1%	84.3%	85.7%	84.8%	89.1%	84.4%	85.3%	83.1%	85.5%	85.2%	86.1%	85.5%	87.4%	85.1%
Radial	A21	Inbound	88.4%	84.0%	90.8%	92.4%	96.8%	91.7%	90.2%	84.2%	84.2%	88.9%	88.2%	86.8%	89.8%	83.8%
Radial	A23	Inbound	84.3%	86.8%	86.9%	87.1%	91.1%	84.4%	86.6%	85.8%	87.5%	88.6%	87.6%	84.9%	87.7%	83.5%
Radial	A24	Inbound	86.5%	85.2%	87.9%	93.7%	96.5%	92.6%	89.8%	90.0%	95.4%	83.5%	93.6%	88.2%	93.6%	87.9%
Radial	A3	Inbound	85.2%	87.7%	89.7%	91.6%	92.4%	84.4%	83.6%	86.1%	83.8%	88.2%	85.8%	84.1%	78.8%	86.9%
Radial	A316	Inbound	80.2%	85.3%	81.8%	85.9%	89.5%	87.3%	87.5%	81.5%	81.5%	91.0%	90.5%	86.5%	85.3%	82.0%
Radial	A4	Inbound	83.1%	86.2%	88.8%	89.1%	97.8%	92.2%	91.3%	93.3%	91.3%	95.1%	92.5%	91.2%	92.0%	91.7%
Radial	A40	Inbound	78.4%	81.7%	78.8%	82.4%	82.7%	79.7%	79.7%	78.0%	83.1%	78.0%	82.4%	83.6%	81.3%	82.2%
Radial	A41	Inbound	81.4%	84.4%	81.0%	88.0%	92.9%	85.9%	86.9%	83.2%	87.8%	84.2%	84.6%	81.9%	86.4%	81.6%
Orbital	A406	Clockwise	91.3%	93.7%	90.9%	91.8%	94.9%	91.5%	89.1%	86.3%	89.7%	90.4%	86.6%	86.4%	89.7%	90.5%
Orbital	A406	Anti-clockwise	85.1%	89.6%	87.4%	86.7%	88.5%	89.2%	88.7%	88.5%	86.4%	86.3%	87.3%	90.8%	89.6%	88.6%
Orbital	A205	Clockwise	83.8%	77.7%	86.1%	85.5%	89.4%	83.7%	82.6%	79.9%	83.2%	82.0%	83.8%	80.5%	81.9%	83.3%
Orbital	A205	Anti-clockwise	86.6%	88.1%	88.5%	88.4%	94.3%	85.9%	90.2%	87.6%	89.9%	88.4%	89.3%	85.1%	87.6%	84.8%
Cross routes	Cross rou	Clockwise	88.2%	89.8%	88.3%	84.2%	93.9%	89.8%	91.0%	84.6%	84.1%	91.9%	89.6%	83.7%	88.1%	84.8%
Cross routes	Cross rou	Anti-clockwise	90.4%	89.9%	88.2%	88.6%	89.8%	90.0%	90.6%	87.5%	89.7%	86.6%	91.7%	86.8%	89.3%	85.8%
Central	Central	WEZ / IRR	85.1%	85.8%	85.5%	88.3%	88.9%	87.8%	89.5%	87.6%	87.8%	87.7%	86.9%	87.7%	89.9%	91.2%
TLRN	All Above	All Above	85.6%	86.6%	86.9%	87.6%	91.2%	87.7%	87.7%	85.9%	87.4%	87.6%	88.1%	86.3%	87.5%	86.1%
TLRN	All Above	All Directions	88.6%	89.6%	89.9%	90.4%	93.0%	90.1%	90.0%	88.6%	89.7%	90.5%	90.4%	89.1%	90.1%	88.9%
Pan London	All	All Directions	89.6%	90.5%	90.1%	90.4%	92.7%	90.6%	90.4%	89.1%	90.0%	89.8%	89.5%	89.4%	90.4%	89.9%

# Improving Journey Time Reliability

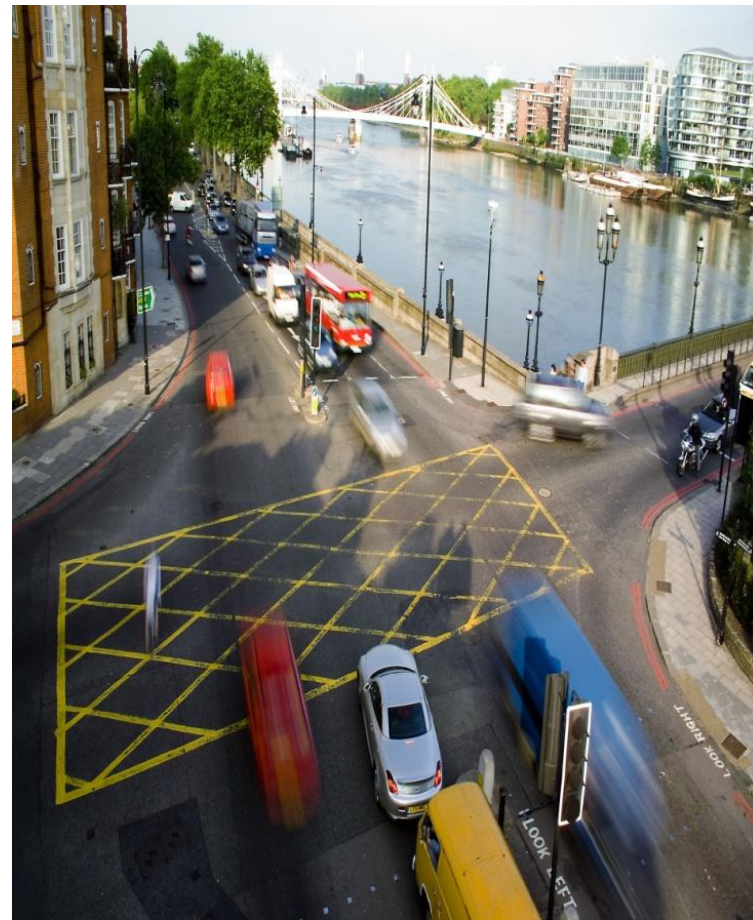
- Corridor Management Approach
- SCOOT Programme
- Pedestrian countdown
- Removal of unnecessary traffic signals
- Review of traffic signal timings



## 2. Signal Junction Efficiency

Performance of 1003 signal timing reviews completed and reviewed in Financial Year 09/10:

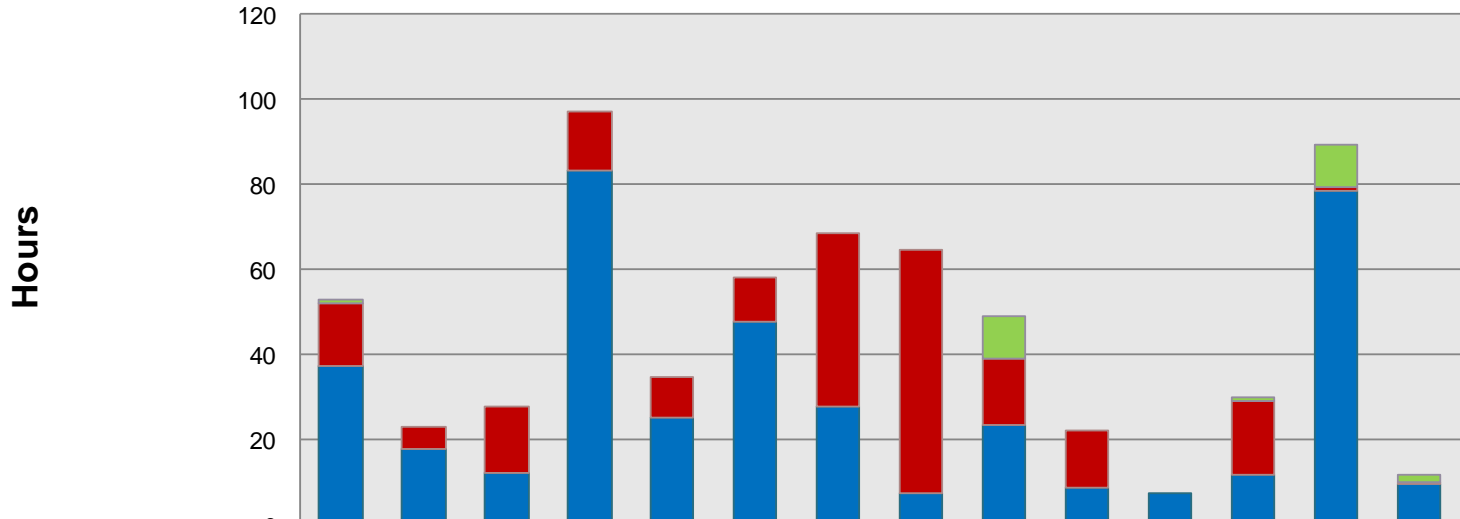
	Before	After	Improvement
%age of occasions when vehicles clear traffic signals on first green phase	71.7%	77.6%	<b>+5.9%</b>
%age of occasions when pedestrians clear footway during green man phase	94.3%	94.6%	<b>+0.3%</b>





### 3. Disruption due to planned Interventions (TLRN)

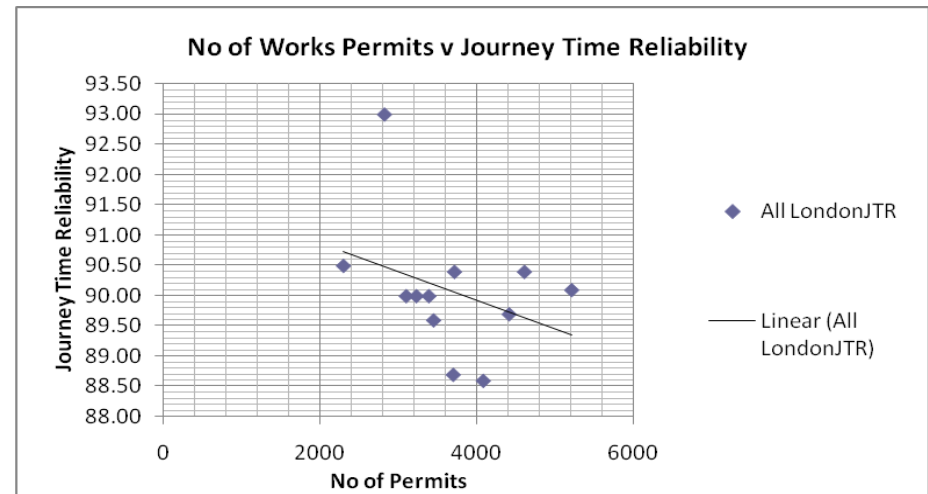
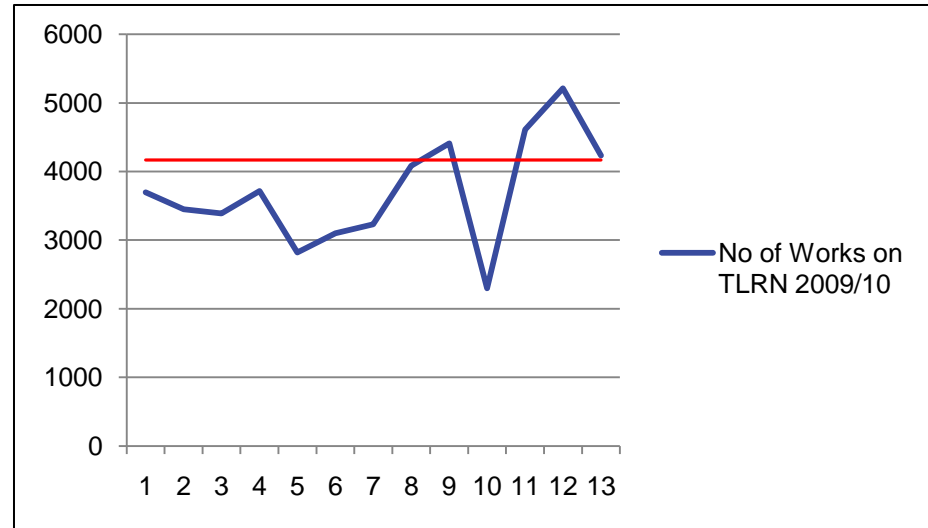
**TLRN Duration (hours) of Serious & Severe Planned Events by Category**



	P1 09/10	P2 09/10	P3 09/10	P4 09/10	P5 09/10	P6 09/10	P7 09/10	P8 09/10	P9 09/10	P10 09/10	P11 09/10	P12 09/10	P13 09/10	P01 10/11
Special Events-Planned	1	0	0	0	0	0	0	0	10	0	0	1	10	2
Planned Utility	15	5	16	14	9	10	41	57	16	13	0	18	1	1
Highway Authority-Planned Works	37	18	12	83	25	48	27	7	23	8	7	11	78	9

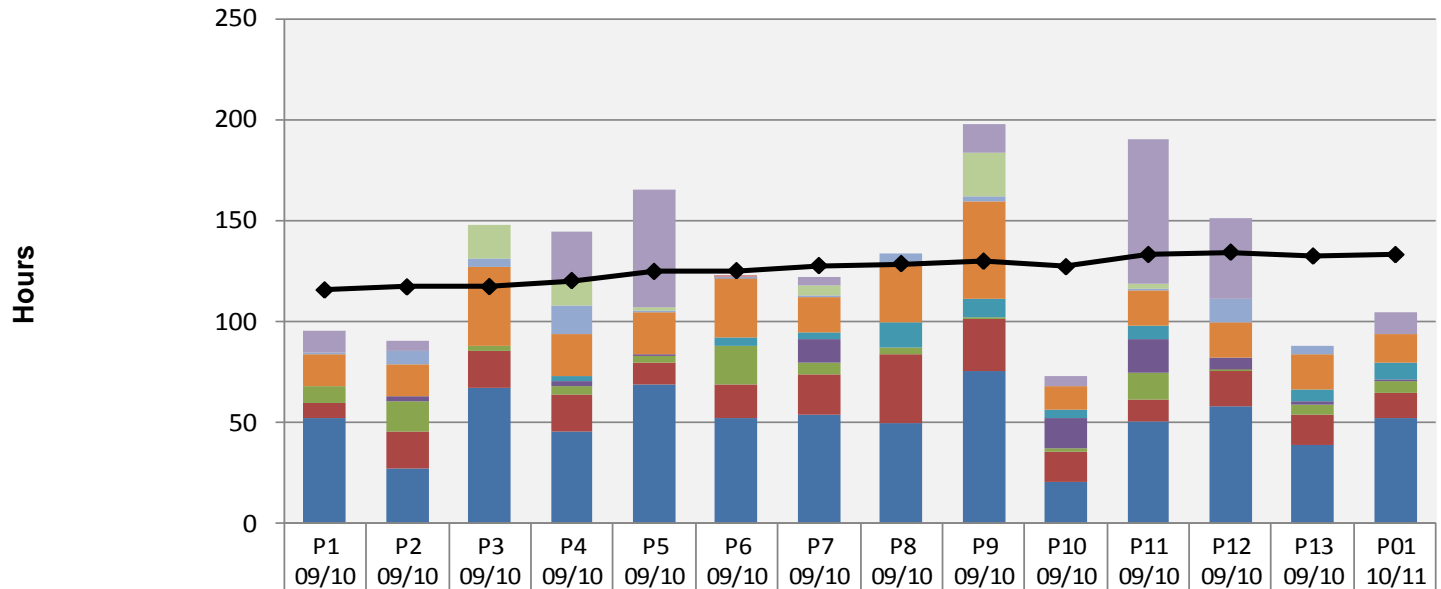
# Minimising the Impact of Roadworks & Planned Interventions

- Mayor's Code of Conduct on Roadworks
- London Permit Scheme
- Lane rental and greater 'overstay' charges
- Improving enforcement
- Workathons/extended hours and 24/7 working



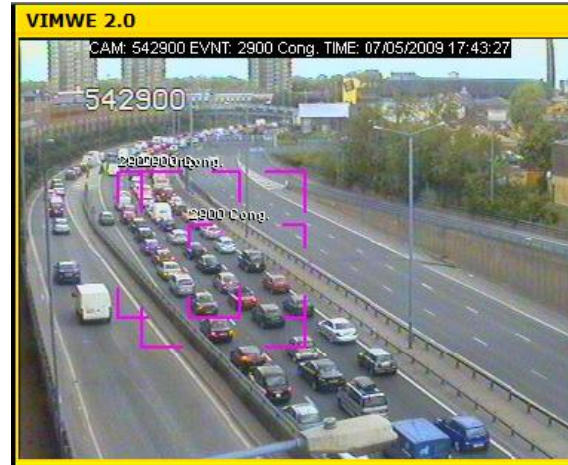
# 4. Disruption due to Emergencies & Unplanned Events (TLRN)

**TLRN Duration (hours) of Serious & Severe Unplanned Events by Category**



	P1 09/10	P2 09/10	P3 09/10	P4 09/10	P5 09/10	P6 09/10	P7 09/10	P8 09/10	P9 09/10	P10 09/10	P11 09/10	P12 09/10	P13 09/10	P01 10/11
Utility Emergency Works	10	5	0	24	58	0	4	0	14	5	72	39	0	11
Unplanned Utility	0	0	17	13	2	0	5	0	22	0	2	0	0	0
Special Events-Unplanned	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Security/Police Checks	1	7	4	14	1	0	1	5	2	0	1	11	4	0
Other	16	15	39	21	20	30	18	29	48	12	18	17	17	14
Highway Authority Unplanned Works	0	0	0	2	0	5	4	12	9	4	6	0	5	8
Highway Authority Emergency Works	0	3	0	2	1	0	11	0	0	15	17	6	2	1
Control Devices	8	15	3	4	3	19	6	3	1	2	13	0	5	6
Breakdowns	7	18	18	18	11	17	20	34	26	14	11	18	15	13
Accident	53	28	68	46	69	52	54	50	76	21	51	58	39	52
Rolling 13 period average	116	117	118	120	125	125	128	129	130	127	133	134	132	133

# Minimising the Impact of Unplanned Events & Emergencies



- **Surface Transport and Traffic Operational Control Centre (STTOCC)**
- **Image Recognition and Incident Detection (IRID) cameras**
- **Improving incident response**
- **Improving real-time public information**



**..... In Conclusion**