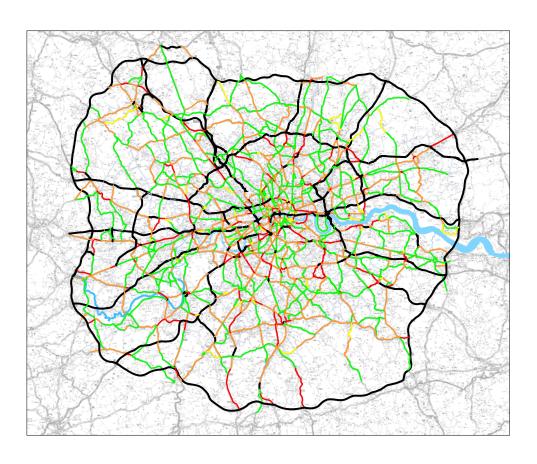
# **Network Performance Traffic Analysis Centre**

## TAC Traffic Note 1 March 2012

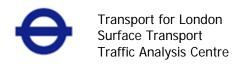
## Traffic levels on major roads in Greater London 1993 - 2010



## Précis:

An analysis of traffic levels in Greater London, 1993 to 2010, using DfT traffic flow data. This data is for major roads only and summarises trends for all vehicle classification types.





#### 0 Document Control

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## 0.4 Document Summary

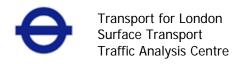
This document provides an analysis of traffic levels in Greater London, 1993 to 2010, using DfT traffic flow data. This data is for major roads only and summarises trends for all vehicle classification types.

## 0.5 Document History

Version	Date	Changes since previous issue
0.1	20/12/2011	Update of previous report using 2010 DfT traffic flow data
0.2	27/01/2012	Checked over and finalised
0.3	02/03/2012	Chief Traffic Analyst comments
1.0	02/03/2012	

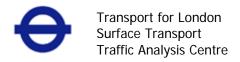
#### 0.5 Distribution

Tony Earl (Head of Network Performance) Mike Tarrier (Chief Traffic Analyst) TAC Traffic note distribution list Intranet and TfL website



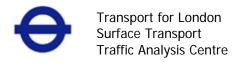
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## 1 Executive Summary

- 1.1 The report provides a historical summary and analysis of traffic counts recorded through the DfT National Road Traffic Count programme from 1993 to 2010. The report summarises the trends in traffic volume on major roads broken down by vehicle type and London Borough. Highlights from the 2010 surveys show that:
  - Overall the number of all motor vehicle kilometres travelled on London's major road network is 19.4 billion, its lowest level since 1993
  - The total motor vehicle kilometres travelled on all roads in London is 31.4 billion, its lowest level since 1995
  - Over the longer term, measured by comparison to the 1994-1999 base average, there has been a decrease of 3.9% in major road traffic within Greater London, with decreases of 21.1%, 8.2% and 1% recorded in central, inner and outer London respectively
  - Analysis by borough shows that all motor vehicle traffic has increased in the areas to the east and some to the north whereas central, southern and western areas have decreased (with the exception of RB Kingston)
  - Over 9.6 billion vehicle kilometres were travelled on the TLRN, accounting for over 30% of vehicle kilometres travelled on all London's roads
  - Bus and Coach vehicle kilometres travelled on London's major roads has shown over a 30% increase compared to the 1994-99 base average
  - Over the last 4 years there have been significant reductions in light goods vehicle kilometres travelled on major roads across all areas of London
- 1.2 The note is updated annually by the Traffic Analysis Centre who manage the TfL database which holds DfT traffic count data for the London area.

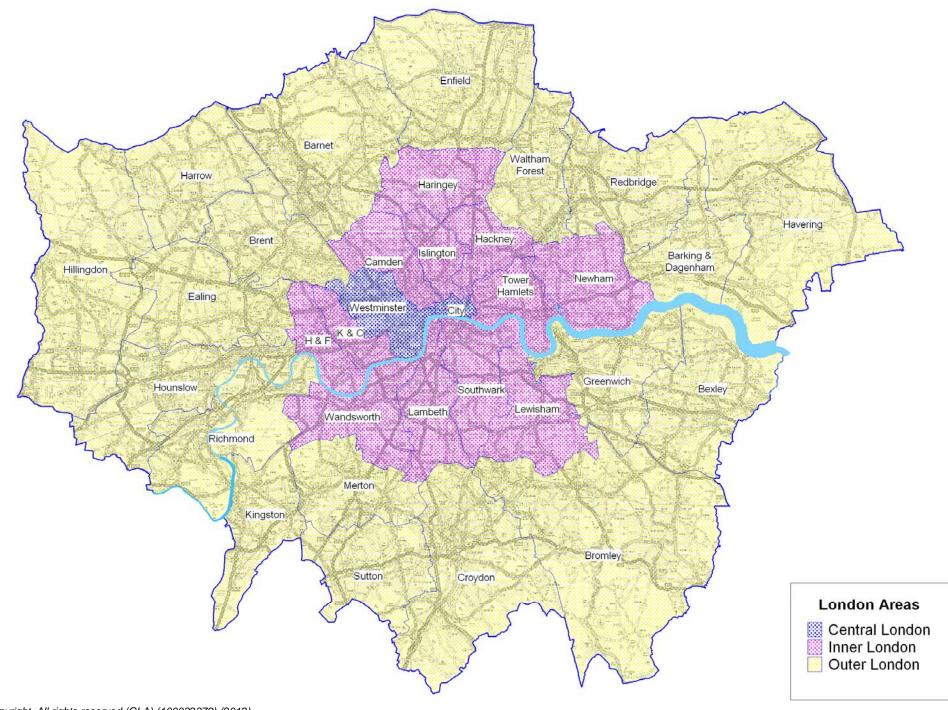


#### 2 Introduction

- 2.1 This traffic note, produced by the Traffic Analysis Centre (TAC) within London Streets, provides a summary and analysis of road traffic levels on major roads within Greater London for 1993 to 2010 measured through the Department for Transport (DfT) National Road Traffic Census Count (NRTCC) programme. Comparisons are made between 2010 (the latest year for which finalised data is available) and the average for 1994-1999. It summarises traffic levels broken down by different vehicle classifications and areas of London. Section 8 summarises traffic levels specifically for the Transport for London Road Network (TLRN). This note will be updated annually by TAC who manage the TfL database which holds DfT traffic count data for the London area.
- 2.2 The DfT monitoring network within London is made up of approximately 1780 km of major roads (all 'M' and 'A' numbered roads) split into 1850 links. For each link, 12 hour 7am to 7pm classified manual counts are undertaken on a 1, 2, 4 or 8 year frequency depending on the variability and level of traffic. These counts are combined with information from Automatic Traffic Counters (ATCs) to derive expansion factors which are used to calculate an annual average daily traffic flow estimate (AADF) for each link. In years when a link is not counted, a current AADF is calculated by applying growth factors to the previous year's AADF. These are 7 day 24 hour averages and are aggregated to estimate the number of vehicle kilometres travelled on the network. Although an attempt is made to estimate minor road traffic, the DfT methodology used is less robust as it is not feasible to measure it in terms of links. Instead minor road traffic is estimated by grouping the network into one of six minor road classes and measuring the average flow for each of these. This is not included in this report, except in Table 1 for a general comparison.
- 2.3 The DfT vehicle classification includes all motor vehicles split into car and taxi, bus and coach, heavy goods vehicles (HGV), light goods vehicles (LGV), and powered two wheelers. Each of these is analysed in this traffic note. In addition pedal cycles are also counted.
- 2.4 More detailed information on how national road traffic estimates are made by the DfT can be found on their website:

  <a href="http://assets.dft.gov.uk/statistics/releases/traffic-estimates-2010/traffic-estimates-2010-methodology.pdf">http://assets.dft.gov.uk/statistics/releases/traffic-estimates-2010/traffic-estimates-2010-methodology.pdf</a>
- 2.5 Figure 1 on the next page shows the boundaries of the Central, Inner and Outer London areas that are used throughout this report to summarise the traffic trends. The 3 areas are based on London Borough boundaries with:
  - Central London comprising of Westminster and the City of London;
  - Inner London comprising of Camden, Hackney, Hammersmith & Fulham, Haringey, Islington, Kensington & Chelsea, Lambeth, Lewisham, Newham, Southwark, Tower Hamlets and Wandsworth; and
  - Outer London comprising of Barking & Dagenham, Barnet, Bexley, Brent, Bromley, Croydon, Ealing, Enfield, Greenwich, Harrow, Havering, Hillingdon, Hounslow, Kingston, Merton, Redbridge, Richmond, Sutton and Waltham Forest.

Figure 1 – Map of Central, Inner and Outer London Areas used for reporting traffic trends measured through DfT NRTCC programme



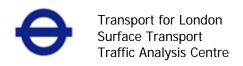


Table 1 – Total Motor Traffic Volume London & Great Britain, 1993 to 2010

Billion vehiclekilometres per year

				miomodo por you
	London Major Roads	London Minor Roads	All Roads London (DfT)	All Roads Great Britain
1993	19.6	11.1	30.7	412.3
1994	20.0	11.2	31.1	421.5
1995	20.0	11.2	31.2	429.7
1996	20.1	11.3	31.5	441.1
1997	20.3	11.4	31.7	450.3
1998	20.3	11.6	31.9	458.5
1999	20.8	11.9	32.7	467.0
2000	20.7	11.9	32.6	467.1
2001	20.6	12.1	32.7	474.4
2002	20.3	12.5	32.8	486.5
2003	20.2	12.6	32.8	490.4
2004	20.0	12.6	32.7	498.6
2005	20.0	12.6	32.7	499.4
2006	20.5	12.5	33.0	507.6
2007	20.0	12.9	32.9	513.0
2008	19.5	12.7	32.2	508.9
2009	19.5	12.5	31.9	504.0
2010	19.4	12.0	31.4	495.9

Table 2 – Average daily traffic flows on major roads in London by vehicle type, 1993 to 2010

Thousand vehicles per day

			rnousana	vehicles per day			
	Pedal		Cars &			Buses &	All motor
	Cycles	Motorcycles	Taxis	LGV	HGV	Coaches	Vehicles
1993	0.26	0.58	24.8	3.10	1.30	0.44	30.3
1994	0.27	0.61	25.2	3.24	1.28	0.47	30.8
1995	0.26	0.60	25.1	3.42	1.25	0.50	30.8
1996	0.29	0.62	25.3	3.33	1.33	0.51	31.1
1997	0.28	0.67	25.4	3.36	1.34	0.51	31.3
1998	0.26	0.68	25.4	3.30	1.48	0.50	31.3
1999	0.26	0.74	25.8	3.50	1.40	0.53	31.9
2000	0.25	0.72	25.6	3.52	1.44	0.52	31.8
2001	0.27	0.75	25.5	3.58	1.40	0.52	31.7
2002	0.26	0.71	25.2	3.42	1.35	0.56	31.2
2003	0.33	0.78	24.7	3.70	1.35	0.59	31.1
2004	0.33	0.74	24.5	3.50	1.37	0.62	30.8
2005	0.40	0.74	24.5	3.57	1.40	0.62	30.8
2006	0.47	0.84	24.4	4.18	1.37	0.69	31.5
2007	0.43	0.81	23.7	4.28	1.36	0.67	30.8
2008	0.44	0.74	23.3	3.86	1.38	0.66	29.9
2009	0.43	0.70	23.6	3.69	1.31	0.67	29.9
2010	0.46	0.66	23.7	3.55	1.34	0.66	29.9

2.6 Table 1 on the previous page shows overall motor vehicle traffic trends for 1993 to 2010. It highlights how London traffic on all roads has remained relatively unchanged over recent years, although there has been a slight overall reduction in traffic on major roads. Table 2 on the previous page shows average daily traffic flows on major roads in Greater London broken down by vehicle classification for 1993 to 2010. Figure 2 below specifically shows flows for all motor vehicles which have steadily increased from 1993, peaking in the late nineties and reducing thereafter in the long term until 2010. Figure 3 below shows the proportion of traffic on London's major roads by vehicle type in 2010 with car and taxi traffic contributing 79%.

Figure 2 – All motor vehicle annual average daily traffic flows on London's major roads, 1993-2010

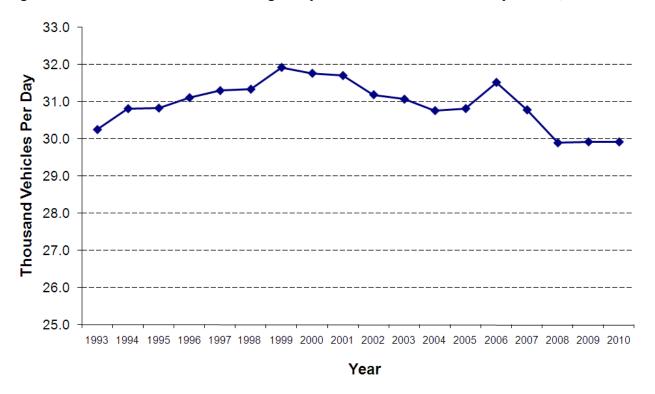
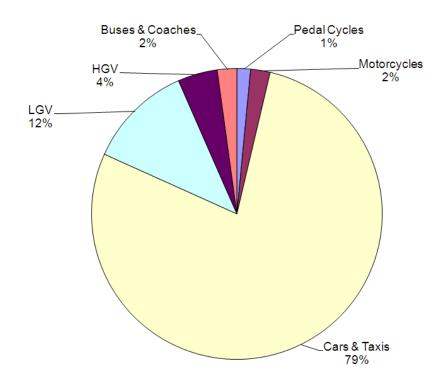


Figure 3 – 2010 proportion of traffic on London's major roads by vehicle type

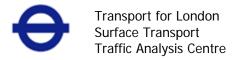


## 3 All motor vehicle traffic on London's major roads

3.1 The all motor vehicle (AMV) traffic grouping is made up of all the DfT vehicular classifications with the exception of pedal cycles. Table 3 shows the number of Million Vehicle Kilometres (MVkm) travelled on London's major roads for each year from 2005 to 2010. The base average figure for the period 1994 to 1999 is also shown for comparison purposes.

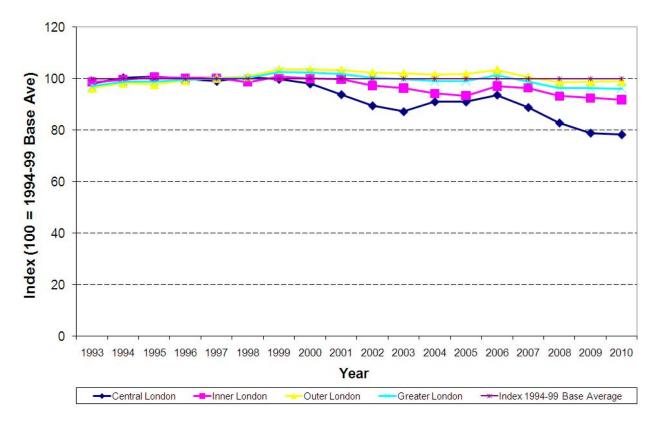
Table 3 – All motor vehicle traffic on London's major roads by Borough

City of London         130           Westminster         701           Total Central London         831           % of Greater London         4.2           Camden         308           Hackney         312           Hammersmith and Fulham         425           Haringey         319           Islington         266           Kensington and Chelsea         371           Lambeth         469           Lewisham         369           Newham         676           Southwark         447           Tower Hamlets         572           Wandsworth         560           Total Inner London         5,093           % of Greater London         25.4           Barking and Dagenham         430           Barnet         1274           Bexley         716           Bromley         696           Croydon         622           Ealing         860           Enfield         1256           Greenwich         754           Harrow         338           Havering         1029           Hillingdon         1319	2006 135 720 855 4.2 319 336 445 328 275 388 479	2007 131 680 811 4.1 317 335 439	2008 119 637 756 3.9 301 327	2009 111 609 720 3.7	109 605 714	94-99 average 149 764	<b>2009</b> -1.3	94-99 average
City of London         130           Westminster         701           Total Central London         831           % of Greater London         4.2           Camden         308           Hackney         312           Hammersmith and Fulham         425           Haringey         319           Islington         266           Kensington and Chelsea         371           Lambeth         469           Lewisham         369           Newham         676           Southwark         447           Tower Hamlets         572           Wandsworth         560           Total Inner London         5,093           % of Greater London         25.4           Barking and Dagenham         430           Barnet         1274           Bexley         716           Bromley         696           Croydon         622           Ealing         860           Enfield         1256           Greenwich         754           Harrow         338           Havering         1029           Hillingdon         1319           Hounslow	135 720 855 4.2 319 336 445 328 275 388 479	131 680 811 4.1 317 335	119 637 756 3.9 301	111 609 720 3.7	109 605 714	149 764		
Westminster         701           Total Central London         831           % of Greater London         4.2           Camden         308           Hackney         312           Hammersmith and Fulham         425           Haringey         319           Islington         266           Kensington and Chelsea         371           Lambeth         469           Lewisham         369           Newham         676           Southwark         447           Tower Hamlets         572           Wandsworth         560           Total Inner London         5,093           % of Greater London         25.4           Barking and Dagenham         430           Barnet         1274           Bexley         716           Brent         595           Bromley         696           Croydon         622           Ealing         860           Enfield         1256           Greenwich         754           Harrow         338           Havering         1029           Hillingdon         1319           Hounslow         <	720 855 4.2 319 336 445 328 275 388 479	680 811 4.1 317 335	637 756 3.9 301	609 720 3.7	605 714	764	-1.3	26.6
Total Central London         831           % of Greater London         4.2           Camden         308           Hackney         312           Hammersmith and Fulham         425           Haringey         319           Islington         266           Kensington and Chelsea         371           Lambeth         469           Lewisham         369           Newham         676           Southwark         447           Tower Hamlets         572           Wandsworth         560           Total Inner London         5,093           % of Greater London         25.4           Barking and Dagenham         430           Barnet         1274           Bexley         716           Bromley         696           Croydon         622           Ealing         860           Enfield         1256           Greenwich         754           Harrow         338           Havering         1029           Hillingdon         1319           Hounslow         1110           Kingston         602           Merton <t< td=""><td>855 4.2 319 336 445 328 275 388 479</td><td>811 4.1 317 335</td><td>756 3.9 301</td><td>720 3.7</td><td>714</td><td></td><td></td><td>-26.6</td></t<>	855 4.2 319 336 445 328 275 388 479	811 4.1 317 335	756 3.9 301	720 3.7	714			-26.6
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Camden       308         Hackney       312         Hammersmith and Fulham       425         Haringey       319         Islington       266         Kensington and Chelsea       371         Lambeth       469         Lewisham       369         Newham       676         Southwark       447         Tower Hamlets       572         Wandsworth       560         Total Inner London       5,093         % of Greater London       25.4         Barking and Dagenham       430         Barnet       1274         Bexley       716         Bromley       696         Croydon       622         Ealing       860         Enfield       1256         Greenwich       754         Harrow       338         Havering       1029         Hillingdon       1319         Hounslow       1110         Kingston       602         Merton       337	319 336 445 328 275 388 479	317 335	301		2.7	913	-0.8	-21.8
Hackney       312         Hammersmith and Fulham       425         Haringey       319         Islington       266         Kensington and Chelsea       371         Lambeth       469         Lewisham       369         Newham       676         Southwark       447         Tower Hamlets       572         Wandsworth       560         Total Inner London       5,093         % of Greater London       25.4         Barking and Dagenham       430         Barnet       1274         Bexley       716         Brent       595         Bromley       696         Croydon       622         Ealing       860         Enfield       1256         Greenwich       754         Harrow       338         Havering       1029         Hillingdon       1319         Hounslow       1110         Kingston       602         Merton       337	336 445 328 275 388 479	335		200	3.7	4.5		
Hammersmith and Fulham         425           Haringey         319           Islington         266           Kensington and Chelsea         371           Lambeth         469           Lewisham         369           Newham         676           Southwark         447           Tower Hamlets         572           Wandsworth         560           Total Inner London         5,093           % of Greater London         25.4           Barking and Dagenham         430           Barnet         1274           Bexley         716           Brent         595           Bromley         696           Croydon         622           Ealing         860           Enfield         1256           Greenwich         754           Harrow         338           Havering         1029           Hillingdon         1319           Hounslow         1110           Kingston         602           Merton         337	445 328 275 388 479		227	308	295	355	-4.3	-16.9
Haringey       319         Islington       266         Kensington and Chelsea       371         Lambeth       469         Lewisham       369         Newham       676         Southwark       447         Tower Hamlets       572         Wandsworth       560         Total Inner London       5,093         % of Greater London       25.4         Barking and Dagenham       430         Barnet       1274         Bexley       716         Brent       595         Bromley       696         Croydon       622         Ealing       860         Enfield       1256         Greenwich       754         Harrow       338         Havering       1029         Hillingdon       1319         Hounslow       1110         Kingston       602         Merton       337	328 275 388 479	439	321	317	316	324	-0.2	-2.4
Islington         266           Kensington and Chelsea         371           Lambeth         469           Lewisham         369           Newham         676           Southwark         447           Tower Hamlets         572           Wandsworth         560           Total Inner London         5,093           % of Greater London         25.4           Barking and Dagenham         430           Barnet         1274           Bexley         716           Brent         595           Bromley         696           Croydon         622           Ealing         860           Enfield         1256           Greenwich         754           Harrow         338           Havering         1029           Hillingdon         1319           Hounslow         1110           Kingston         602           Merton         337	275 388 479		417	423	417	437	-1.5	-4.6
Kensington and Chelsea         371           Lambeth         469           Lewisham         369           Newham         676           Southwark         447           Tower Hamlets         572           Wandsworth         560           Total Inner London         5,093           % of Greater London         25.4           Barking and Dagenham         430           Barnet         1274           Bexley         716           Brent         595           Bromley         696           Croydon         622           Ealing         860           Enfield         1256           Greenwich         754           Harrow         338           Havering         1029           Hillingdon         1319           Hounslow         1110           Kingston         602           Merton         337	388 479	326	305	293	291	345	-0.6	-15.8
Lambeth       469         Lewisham       369         Newham       676         Southwark       447         Tower Hamlets       572         Wandsworth       560         Total Inner London       5,093         % of Greater London       25.4         Barking and Dagenham       430         Barnet       1274         Bexley       716         Brent       595         Bromley       696         Croydon       622         Ealing       860         Enfield       1256         Greenwich       754         Harrow       338         Havering       1029         Hillingdon       1319         Hounslow       1110         Kingston       602         Merton       337	479	272	266	258	254	308	-1.7	-17.6
Lewisham         369           Newham         676           Southwark         447           Tower Hamlets         572           Wandsworth         560           Total Inner London         5,093           % of Greater London         25.4           Barking and Dagenham         430           Barnet         1274           Bexley         716           Brent         595           Bromley         696           Croydon         622           Ealing         860           Enfield         1256           Greenwich         754           Harrow         338           Havering         1029           Hillingdon         1319           Hounslow         1110           Kingston         602           Merton         337		362	352	352	356	403	1.3	-11.6
Newham         676           Southwark         447           Tower Hamlets         572           Wandsworth         560           Total Inner London         5,093           % of Greater London         25.4           Barking and Dagenham         430           Barnet         1274           Bexley         716           Brent         595           Bromley         696           Croydon         622           Ealing         860           Enfield         1256           Greenwich         754           Harrow         338           Havering         1029           Hillingdon         1319           Hounslow         1110           Kingston         602           Merton         337		472	461	440	427	566	-2.9	-24.5
Southwark         447           Tower Hamlets         572           Wandsworth         560           Total Inner London         5,093           % of Greater London         25.4           Barking and Dagenham         430           Barnet         1274           Bexley         716           Brent         595           Bromley         696           Croydon         622           Ealing         860           Enfield         1256           Greenwich         754           Harrow         338           Havering         1029           Hillingdon         1319           Hounslow         1110           Kingston         602           Merton         337	381	375	369	360	357	410	-0.9	-12.9
Tower Hamlets         572           Wandsworth         560           Total Inner London         5,093           % of Greater London         25.4           Barking and Dagenham         430           Barnet         1274           Bexley         716           Brent         595           Bromley         696           Croydon         622           Ealing         860           Enfield         1256           Greenwich         754           Harrow         338           Havering         1029           Hillingdon         1319           Hounslow         1110           Kingston         602           Merton         337	708	716	705	734	711	637	-3.1	11.6
Wandsworth         560           Total Inner London         5,093         5           % of Greater London         25.4         3           Barking and Dagenham         430         3           Barnet         1274         3           Bexley         716         3           Brent         595         3           Bromley         696         6           Croydon         622         6           Ealing         860         6           Enfield         1256         6           Greenwich         754         7           Harrow         338         7           Havering         1029         1110           Kingston         602         602           Merton         337	460	441	418	413	405	498	-2.1	-18.8
Total Inner London         5,093         5           % of Greater London         25.4           Barking and Dagenham         430           Barnet         1274           Bexley         716           Brent         595           Bromley         696           Croydon         622           Ealing         860           Enfield         1256           Greenwich         754           Harrow         338           Havering         1029           Hillingdon         1319           Hounslow         1110           Kingston         602           Merton         337	609	615	593	598	617	536	3.3	15.1
% of Greater London       25.4         Barking and Dagenham       430         Barnet       1274         Bexley       716         Brent       595         Bromley       696         Croydon       622         Ealing       860         Enfield       1256         Greenwich       754         Harrow       338         Havering       1029         Hillingdon       1319         Hounslow       1110         Kingston       602         Merton       337	566	588	571	548	563	636	2.8	-11.4
Barking and Dagenham       430         Barnet       1274         Bexley       716         Brent       595         Bromley       696         Croydon       622         Ealing       860         Enfield       1256         Greenwich       754         Harrow       338         Havering       1029         Hillingdon       1319         Hounslow       1110         Kingston       602         Merton       337	5,294	5,258	5,085	5,044	5,009	5,456	-0.7	-8.2
Barnet       1274         Bexley       716         Brent       595         Bromley       696         Croydon       622         Ealing       860         Enfield       1256         Greenwich       754         Harrow       338         Havering       1029         Hillingdon       1319         Hounslow       1110         Kingston       602         Merton       337	25.9	26.3	26.1	25.9	25.8	27.0		
Bexley       716         Brent       595         Bromley       696         Croydon       622         Ealing       860         Enfield       1256         Greenwich       754         Harrow       338         Havering       1029         Hillingdon       1319         Hounslow       1110         Kingston       602         Merton       337	461	447	408	443	435	393	-1.6	10.9
Brent         595           Bromley         696           Croydon         622           Ealing         860           Enfield         1256           Greenwich         754           Harrow         338           Havering         1029           Hillingdon         1319           Hounslow         1110           Kingston         602           Merton         337	1311	1290	1346	1301	1347	1257	3.5	7.1
Bromley         696           Croydon         622           Ealing         860           Enfield         1256           Greenwich         754           Harrow         338           Havering         1029           Hillingdon         1319           Hounslow         1110           Kingston         602           Merton         337	707	696	686	689	677	625	-1.8	8.2
Croydon         622           Ealing         860           Enfield         1256           Greenwich         754           Harrow         338           Havering         1029           Hillingdon         1319           Hounslow         1110           Kingston         602           Merton         337	596	571	510	499	553	558	10.7	-1.0
Ealing       860         Enfield       1256         Greenwich       754         Harrow       338         Havering       1029         Hillingdon       1319         Hounslow       1110         Kingston       602         Merton       337	705	674	665	657	643	668	-2.2	-3.8
Ealing       860         Enfield       1256         Greenwich       754         Harrow       338         Havering       1029         Hillingdon       1319         Hounslow       1110         Kingston       602         Merton       337	629	622	576	561	551	681	-1.8	-19.1
Enfield       1256         Greenwich       754         Harrow       338         Havering       1029         Hillingdon       1319         Hounslow       1110         Kingston       602         Merton       337	870	801	802	806	797	826	-1.1	-3.5
Greenwich         754           Harrow         338           Havering         1029           Hillingdon         1319           Hounslow         1110           Kingston         602           Merton         337	1304	1296	1251	1267	1305	1241	3.0	5.1
Harrow       338         Havering       1029         Hillingdon       1319         Hounslow       1110         Kingston       602         Merton       337	748	734	703	701	696	700	-0.7	-0.6
Havering         1029           Hillingdon         1319           Hounslow         1110           Kingston         602           Merton         337	333	320	318	307	301	332	-2.2	-9.5
Hillingdon         1319           Hounslow         1110           Kingston         602           Merton         337	1109	1070	1067	1109	1074	1009	-3.2	6.5
Hounslow         1110           Kingston         602           Merton         337	1319	1279	1321	1359	1298	1332	-4.5	-2.5
Kingston 602 Merton 337	1148	1079	1075	1081	1053	1182	-2.6	-10.9
Merton 337	586	588	581	580	646	634	11.2	1.8
	340	335	329	321	320	357	-0.2	-10.3
- <del>3</del> -	851	843	795	803	816	735	1.6	11.0
Richmond upon Thames 496	490	486	468	456	448	523	-1.9	-14.5
Sutton 268		266	225	236	228	272	-3.4	-16.3
Waltham Forest 562		542	517	515	534	530	3.5	0.6
Total Outer London 14,089 1	265					13,855	0.2	-1.0
	265 558	69.7	70.0	70.4	70.6	68.5		
Total Greater London 20,013 2	265 558						-0.1	-3.9



- 3.2 Table 3 shows that overall traffic volume in 2010 has shown no change when compared to the previous year. Outer London makes up the majority of AMV traffic within Greater London (71%), followed by Inner London (26%) and Central London (4%). Compared to the 1994-1999 average, Central London shows the largest reduction in MVkm travelled of 22%, followed by an 8% decrease in Inner London, and a decrease of 1% in Outer London, leading to an overall decrease of 4% in total for Greater London. Figure 4 below shows the trends in all motor vehicle traffic for Central, Inner and Outer London for 1993 to 2010 compared to the 1994-99 base average.
- 3.3 In recent years, since 2006 AMV Traffic has decreased across all areas of London. In particular over the 2006 to 2009 period Central London has shown significant year on year reductions, which is also mirrored in TfL's long term surveys of the Central Cordon (See TAC Traffic Note 3 TfL Cordon and Screenline Surveys 1971-2011).
- 3.4 Within Outer London the boroughs of Barking and Dagenham and Redbridge (+11 show particularly large increases in 2010 AMV traffic compared to the 1994-99 base average whereas the boroughs of Croydon (-19%), Sutton (-16%) and Richmond Upon Thames (-15%) show particularly large decreases. Within Inner London the majority of boroughs show significant reductions in AMV traffic, particularly Lambeth (-25%), Southwark (-19%), Islington (-18%), Camden (-17%), and Haringey (-16%).

Figure 4 – All motor vehicle traffic on London's major roads, 1993 to 2010



3.5 The thematic maps on the next two pages show the distribution of all motor vehicle traffic on major roads for the Greater London area (out to and including the M25) (Figure 5) and the percentage change in 2010 by borough compared to the 1994-99 base average (Figure 6). Figure 6 shows that the majority of decreases in AMV traffic have occurred in the South West and Inner London boroughs. The largest increases are shown in the Inner and Outer London boroughs to the East.

Figure 5 – 2010 Map of Annual Average Daily Flow Estimates – All motor vehicles

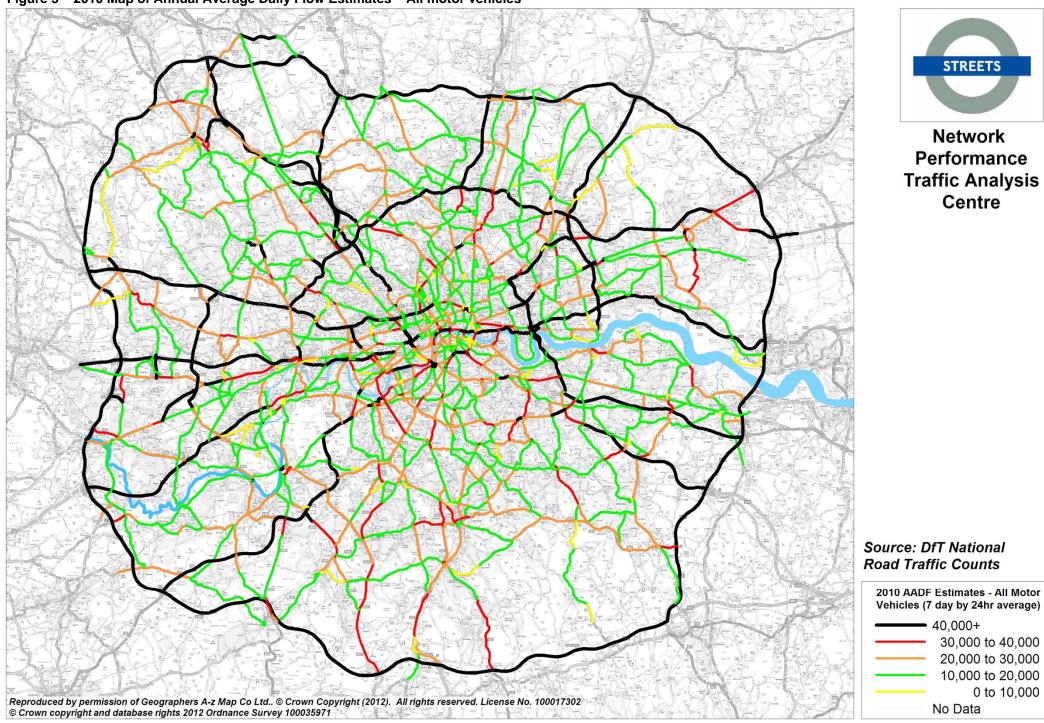
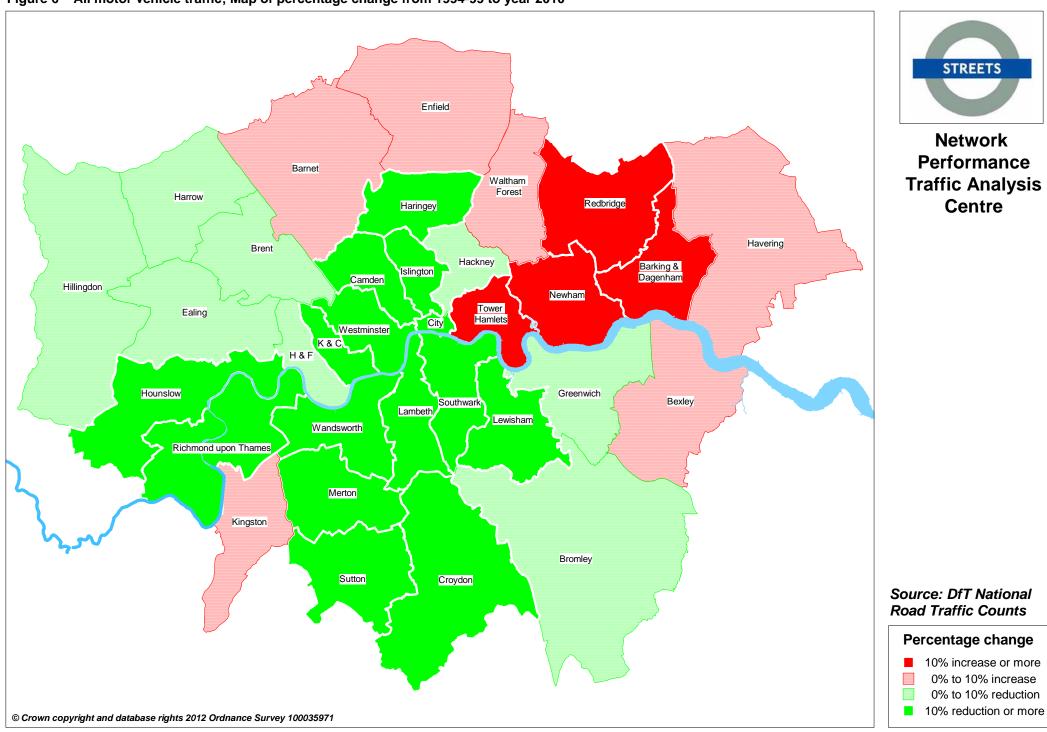


Figure 6 - All motor vehicle traffic; Map of percentage change from 1994-99 to year 2010

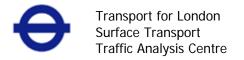


## 4 Car and Taxi traffic on London's major roads

4.1 The DfT vehicle classification for Cars and Taxis (Car) includes estate cars, passenger vehicles of up to 3.5 tonnes gross vehicle weight with 9 or fewer seats, three-wheeled cars, Land Rovers, Range Rovers and Jeeps. Cars pulling caravans or trailers are recorded as one vehicle. Table 4 below shows the number of Car Million Vehicle Kilometres (MVkm) travelled on London's major roads for each year from 2005 to 2010. The base average figure for the period 1994 to 1999 is also shown for comparison purposes.

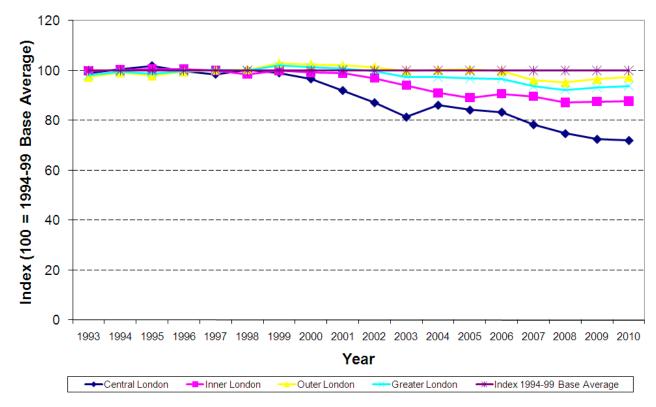
Table 4 – Car and Taxi traffic on London's major roads by Borough

		Numbe		Percentage change in 2010 over					
							94-99		94-99
Local Authority Name	2005	2006	2007	2008	2009	2010	average	2009	average
City of London	91	89	85	79	74	73	112	-0.9	-34.5
Westminster	500	496	465	446	435	432	589	-0.6	-26.7
Total Central London	591	585	550	525	509	505	701	-0.7	-28.0
% of Greater London	3.7	3.7	3.6	3.5	3.3	3.3	3.6		
Camden	225	225	222	212	219	210	277	-3.9	-24.2
Hackney	233	242	240	236	232	231	253	-0.6	-8.6
Hammersmith and Fulham	329	332	325	315	320	316	354	-1.1	-10.6
Haringey	250	252	250	234	225	225	279	0.2	-19.3
Islington	190	193	188	182	177	174	234	-1.4	-25.7
Kensington and Chelsea	282	292	267	258	260	266	319	2.2	-16.6
Lambeth	342	342	335	325	312	303	447	-2.7	-32.2
Lewisham	287	291	284	281	277	275	330	-0.7	-16.8
Newham	530	547	556	557	594	579	499	-2.5	16.1
Southwark	322	324	308	292	291	285	386	-2.1	-26.3
Tower Hamlets	417	437	442	428	445	472	407	6.0	15.9
Wandsworth	425	420	439	429	415	437	514	5.3	-15.1
Total Inner London	3,831	3,898	3,855	3,750	3,766	3,773	4,300	0.2	-12.3
% of Greater London	24.1	24.5	25.1	24.7	24.6	24.5	26.2		
Barking and Dagenham	346	360	342	318	349	347	310	-0.3	11.9
Barnet	1,053	1,064	1,033	1,087	1,061	1,108	1,054	4.5	5.2
Bexley	583	557	542	539	547	536	512	-2.2	4.6
Brent	490	474	448	407	400	452	466	13.1	-2.9
Bromley	582	575	541	540	537	524	570	-2.4	-8.1
Croydon	510	504	496	467	456	449	569	-1.5	-21.0
Ealing	700	679	622	644	655	646	697	-1.4	-7.3
Enfield	981	1014	996	943	972	1037	971	6.7	6.8
Greenwich	590	564	545	527	530	526	551	-0.8	-4.6
Harrow	291	283	269	269	260	255	288	-2.1	-11.3
Havering	776	820	783	795	846	836	771	-1.1	8.5
Hillingdon	1,102	1,075	1,044	1,098	1,143	1,061	1,120	-7.2	-5.2
Hounslow	931	955	883	896	907	886	1000	-2.3	-11.4
Kingston	511	480	486	481	493	550	546	11.7	0.7
Merton	269	271	262	259	256	258	296	0.8	-12.9
Redbridge	668	671	660	642	650	672	604	3.4	11.2
Richmond	413	401	392	384	379	371	446	-2.1	-16.8
Sutton	225	213	216	187	194	189	233	-2.5	-18.6
Waltham Forest	457	435	418	406	407	424	424	4.3	0.1
Total Outer London		11,397			11,041		11,427	0.8	-2.6
% of Greater London	72.2	71.8	71.4	71.8	72.1	72.2	69.6		
Total Greater London		15,879					16,428	0.6	-6.2



- 4.2 Car vehicle traffic in all areas of London has remained relatively unchanged in 2010 compared to 2009. Table 4 shows that over the longer term car vehicle traffic has reduced in all areas when comparing 2010 with the 1994-99 base average, with Central London and Inner London recording decreases of 28% and 12% respectively. Figure 7 below shows the trends in car vehicle traffic for Central, Inner and Outer London for 1993 to 2010 compared to the 1994-99 base average.
- 4.3 The majority of boroughs within Inner London show a reduction in car vehicle traffic in 2010 relative to the 1994-99 base average. The most notable is Lambeth with a reduction of 32%. Compared to the 1994-99 base average the boroughs of Southwark (-26%), Islington (-26%), Camden (-24%), Haringey (-19%), Kensington and Chelsea (-17%), Lewisham (-17%) and Wandsworth (-15%) have also shown significant reductions in car vehicle traffic in 2010. Only the boroughs of Newham and Tower Hamlets (+16% in both cases) show an increase in car vehicle traffic compared to the 1994-99 base average.
- 4.4 Of the Outer London boroughs, Croydon, Harrow, Hounslow, Merton, Richmond and Sutton have shown the biggest reductions in 2010 car vehicle traffic compared to the 1994-99 base average (all over 10%). The boroughs of Barking & Dagenham (+12%) and Redbridge (+11%) have shown the most significant increases in car vehicle traffic in 2010 compared to the 1994-99 base average.

Figure 7 – Car and Taxi traffic on major roads in London, 1993 to 2010



4.5 The thematic maps on the next two pages show the distribution of car vehicle traffic on major roads for the Greater London area (out to and including the M25) (Figure 8) and the percentage change in 2010 by borough compared to the 1994-99 base average (Figure 9). Figure 9 in particular shows that the most significant increases in car vehicle traffic have occurred in the eastern boroughs of London and that the most significant decreases have occurred in Central & Inner London boroughs and Outer boroughs to the South West.

Figure 8 – 2010 Map of Annual Average Daily Flow Estimates – Car and Taxi vehicles

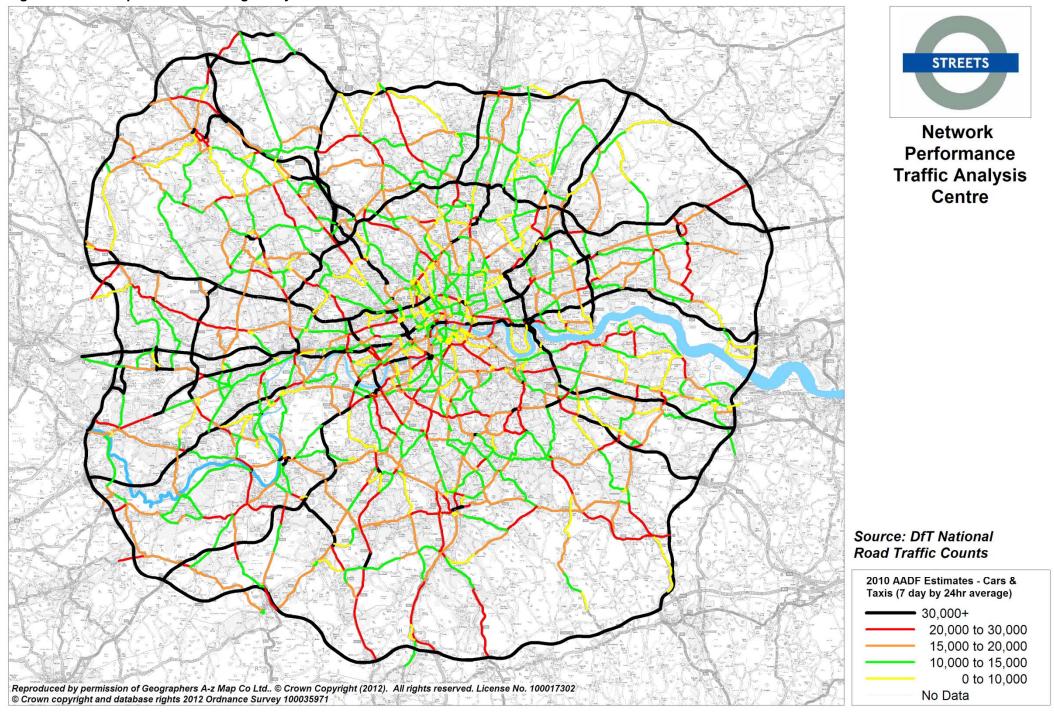
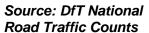


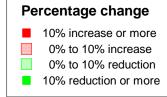
Figure 9 - Car and Taxi traffic; Map of percentage change from 1994-99 to year 2010 Enfield Barnet Waltham Forest Harrow Redbridge Haringey Havering Brent Hackney Barking & Dagenham Islington Camden Hillingdon Newham Tower Hamlets Ealing City Westminster K&C H&F Hounslow Greenwich Bexley Southwark Lambeth Lewisham Wandsworth Richmond upon Thames Merton Kingston Bromley Sutton Croydon

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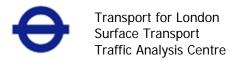


## 5 Bus and Coach traffic on London's major roads

5.1 The DfT vehicle classification for Bus and Coaches (Bus) includes all buses and coaches, public service vehicles and works buses. Table 5 below shows the number of Bus Million Vehicle Kilometres (MVkm) travelled on London's major roads for each year from 2005 to 2010. The base average figure for the period 1994 to 1999 is also shown for comparison purposes.

Table 5 – Bus and Coach traffic on London's major roads by Borough

		Numbe	er of mi	llion ve	hicle k	ilometı	res	Percentage change in 2010 over	
•							94-99		94-99
Local Authority Name	2005	2006	2007	2008	2009	2010	average	2009	average
City of London	5	5	5	5	5	5	4	4.3	36.3
Westminster	33	35	36	36	36	38	29	5.1	33.7
Total Central London	38	41	41	41	41	43	32	5.0	34.0
% of Greater London	9.4	9.0	9.4	9.6	9.5	10.1	9.9		
Camden	12	13	13	13	14	14	9	-0.9	44.5
Hackney	12	14	14	14	14	14	10	-4.4	38.6
Hammersmith and Fulham	10	12	11	11	13	12	8	-7.1	48.0
Haringey	11	12	12	13	13	13	8	-1.0	57.4
Islington	11	12	12	12	13	13	9	0.0	47.5
Kensington and Chelsea	10	11	10	11	11	11	9	-3.0	26.5
Lambeth	22	24	23	23	23	22	16	-3.3	35.4
Lewisham	12	14	13	13	13	13	11	-0.1	17.1
Newham	12	14	13	14	13	13	10	-5.5	32.3
Southwark	20	22	22	21	21	21	16	0.0	33.8
Tower Hamlets	10	11	11	11	12	11	9	-3.7	30.5
Wandsworth	14	15	14	15	15	15	11	-0.9	40.1
Total Inner London	158	173	168	171	175	170	125	-2.4	36.9
% of Greater London	39.2	38.5	38.6	39.6	40.2	39.7	38.2		
Barking and Dagenham	5	7	7	6	6	6	5	-9.6	10.4
Barnet	18	20	19	20	20	21	14	3.8	51.5
Bexley	10	12	11	11	11	11	8	-1.6	42.8
Brent	12	13	13	13	13	12	8	-8.9	43.1
Bromley	13	15	14	13	13	14	9	3.4	53.0
Croydon	13	13	13	12	12	13	12	2.1	9.0
Ealing	13	16	15	13	13	12	10	-5.8	25.9
Enfield	13	14	14	14	14	13	12	-7.9	4.0
Greenwich	15	16	16	15	15	15	11	2.7	40.4
Harrow	6	7	7	6	6	6	4	-2.5	40.1
Havering	8	12	9	9	9	9	9	1.5	1.4
Hillingdon	15	16	16	18	17	16	14	-7.2	10.6
Hounslow	18	19	18	17	17	17	16	-1.3	4.1
Kingston	8	8	8	8	8	8	6	5.1	51.1
Merton	9	9	9	9	8	8	6	-0.2	47.8
Redbridge	9	11	11	9	10	10	8	-0.8	26.9
Richmond	11	12	12	12	11	12	9	2.2	31.4
Sutton	5	5	5	4	5	5	3	-3.0	50.9
Waltham Forest	9	10	10	10	10	9	7	-5.6	33.5
Total Outer London	207	236	226	219	219	215	169	-1.6	27.1
% of Greater London	51.4	52.5	52.0	50.8	50.3	50.1	51.9		
Total Greater London	403	449	435	431	435	429	326	-1.3	31.5
. J.a. J. Jakor Ediladii	.00		.00		.50	0	<u> </u>		31.0



- 5.2 As Table 5 shows, bus vehicle traffic has continued to increase in all areas of London compared to the 1994-99 base average. Figure 10 illustrates the generally rising trend from 1993, slowing from 1998 to 2001 and more recently increasing significantly from 2001 through to 2010. In comparison to the 1994-99 base average, the Central, Inner and Outer London areas have shown significant increases of 34%, 37% and 27% respectively. As a result, Greater London bus vehicle traffic increased by 32% in 2010 compared to the 1994-99 base average.
- 5.3 Within the individual boroughs, all boroughs saw an increase in bus vehicle traffic compared to the 1994-99 base average (Table 5). All of the Inner London boroughs have shown increases of more than 15% in 2010 bus vehicle traffic compared to the 1994-99 base average with Camden, Hammersmith and Fulham, Haringey, Islington and Wandsworth showing increases of more than 40%. Likewise the majority of Outer London boroughs have shown significant increases with, in particular, Barnet, Bromley, Kingston and Sutton recording increases of more than 50%.

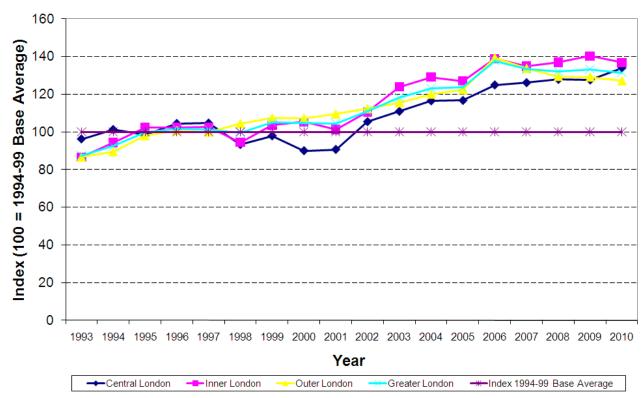
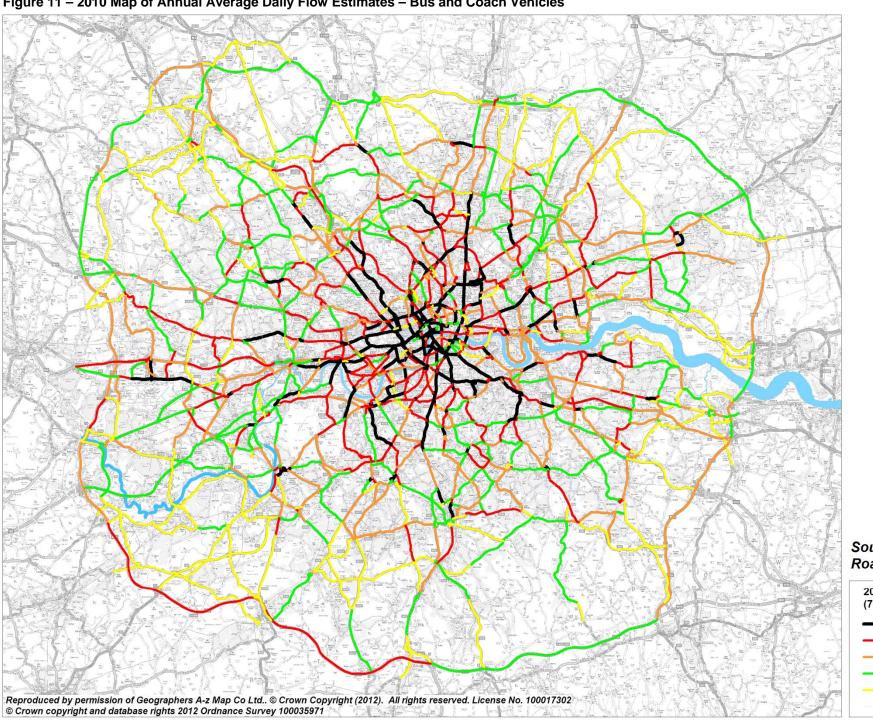


Figure 10 – Bus and Coach traffic on major roads in London, 1993 to 2010

5.4 The thematic maps on the next two pages show the distribution of bus and coach vehicle traffic on major roads for the Greater London area (out to and including the M25) (Figure 11) and the percentage change in 2010 by borough compared to the 1994-99 base average (Figure 12). Figure 11 shows that most of the high bus and coach flows are on roads in Central London, contrary to other vehicle types where high flows are on the main radial routes in Outer London. Figure 12 clearly shows there have been significant increases in bus and coach vehicle traffic in the vast majority of London boroughs.

Figure 11 – 2010 Map of Annual Average Daily Flow Estimates – Bus and Coach Vehicles





**Network Performance Traffic Analysis** Centre

Source: DfT National Road Traffic Counts

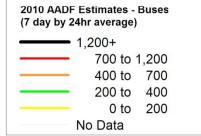
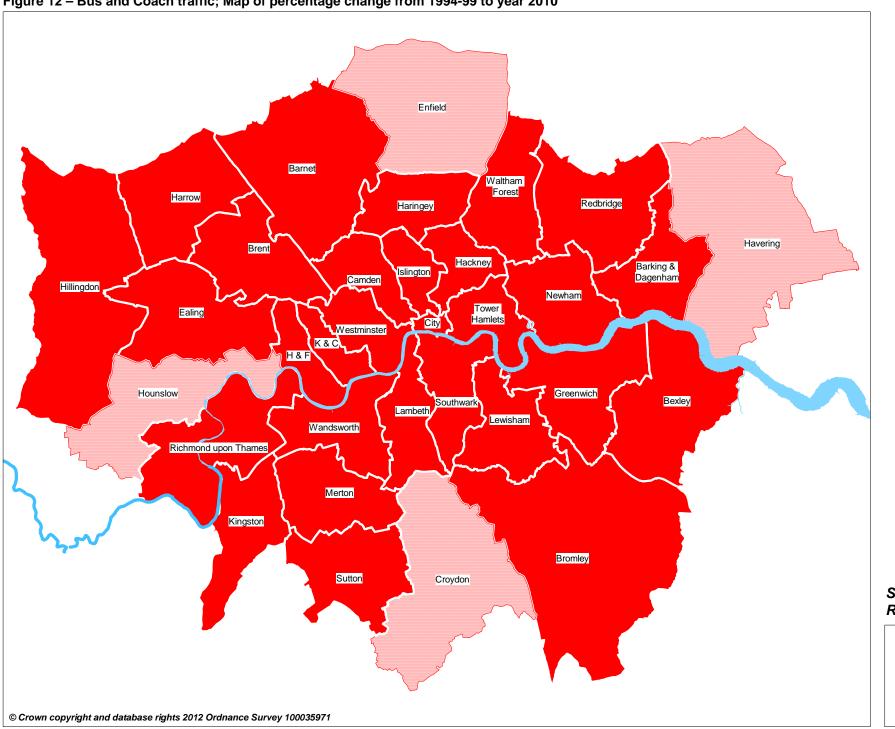


Figure 12 – Bus and Coach traffic; Map of percentage change from 1994-99 to year 2010





**Network Performance Traffic Analysis** Centre

Source: DfT National **Road Traffic Counts** 

## 10% increase or more 0% to 10% increase 0% to 10% reduction 10% reduction or more

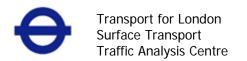
Percentage change

## 6 Heavy Goods Vehicle traffic on London's major roads

6.1 The DfT vehicle classification for Heavy Goods Vehicles (HGV) includes all rigid and articulated goods vehicles over 3.5 tonnes in gross weight. Table 6 below shows the number of Heavy Goods Vehicle Million Vehicle Kilometres (MVkm) travelled on London's major roads for each year from 2005 to 2010. The base average figure for the period 1994 to 1999 is also shown for comparison purposes.

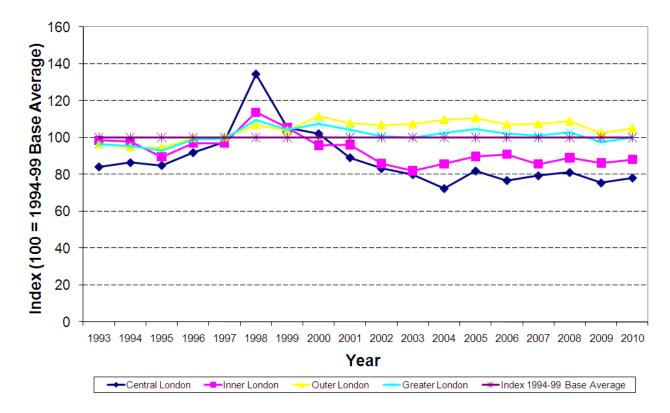
Table 6 – Heavy Goods Vehicle traffic on London's major roads by Borough

		Numbe	er of mi	llion ve	hicle k	ilometr	es	Percentage change in 2010 over	
•							94-99	-	94-99
<b>Local Authority Name</b>	2005	2006	2007	2008	2009	2010	average	2009	average
City of London	4	4	5	5	4	5	6	8.2	-21.9
Westminster	21	19	19	20	19	19	25	2.5	-21.9
Total Central London	25	24	24	25	23	24	31	3.6	-21.9
% of Greater London	2.8	2.6	2.8	2.8	2.7	2.8	3.5		
Camden	9	9	9	9	9	9	11	-1.6	-13.9
Hackney	12	13	13	14	13	17	14	28.8	24.3
Hammersmith and Fulham	13	14	13	12	12	12	17	-0.3	-27.5
Haringey	11	11	9	10	10	9	13	-2.0	-29.7
Islington	10	9	9	10	10	10	10	1.6	2.2
Kensington and Chelsea	11	10	11	11	11	11	15	0.3	-27.7
Lambeth	15	14	14	14	14	14	18	0.6	-22.4
Lewisham	13	14	12	13	13	12	15	-1.2	-19.4
Newham	35	35	34	36	33	33	39	-1.2	-17.2
Southwark	15	15	14	14	14	14	17	2.0	-14.5
Tower Hamlets	30	30	28	29	29	29	27	-0.9	8.3
Wandsworth	20	19	19	19	17	18	19	5.2	-4.6
Total Inner London	192	195	184	191	185	189	215	2.2	-11.9
% of Greater London	21.1	21.9	20.8	21.3	21.7	21.7	24.6		
Barking and Dagenham	26	27	27	26	26	26	30	-3.2	-15.2
Barnet	42	43	43	46	48	52	34	7.6	52.8
Bexley	29	28	29	28	25	25	30	-2.6	-17.1
Brent	22	23	22	20	19	23	24	19.8	-3.1
Bromley	18	17	17	16	15	14	19	-2.7	-23.5
Croydon	23	22	24	21	19	18	20	-4.2	-7.7
Ealing	42	38	35	37	33	39	32	16.0	21.3
Enfield	105	96	99	116	111	105	99	-5.1	6.5
Greenwich	35	32	33	32	28	28	40	-1.1	-30.2
Harrow	8	9	8	9	8	9	10	6.2	-17.4
Havering	115	121	118	119	113	109	107	-3.3	2.1
Hillingdon	68	61	64	64	58	72	55	25.5	31.3
Hounslow	39	38	40	38	35	34	30	-1.1	13.1
Kingston	16	15	17	18	14	16	13	12.9	17.7
Merton	13	12	13	13	12	11	11	-6.4	-2.1
Redbridge	42	42	40	36	35	36	32	1.7	10.9
Richmond	15	14	13	12	11	11	11	6.0	8.7
Sutton	8	8	8	7	7	6	8	-10.0	-18.3
Waltham Forest	28	25	26	26	25	23	22	-8.0	5.2
Total Outer London	694	672	674	683	643	658	627	2.3	4.9
% of Greater London	76.1	75.5	76.4	76.0	75.6	75.6	71.9		
Total Greater London	911	891	882	898	851	871	872	2.3	-0.2



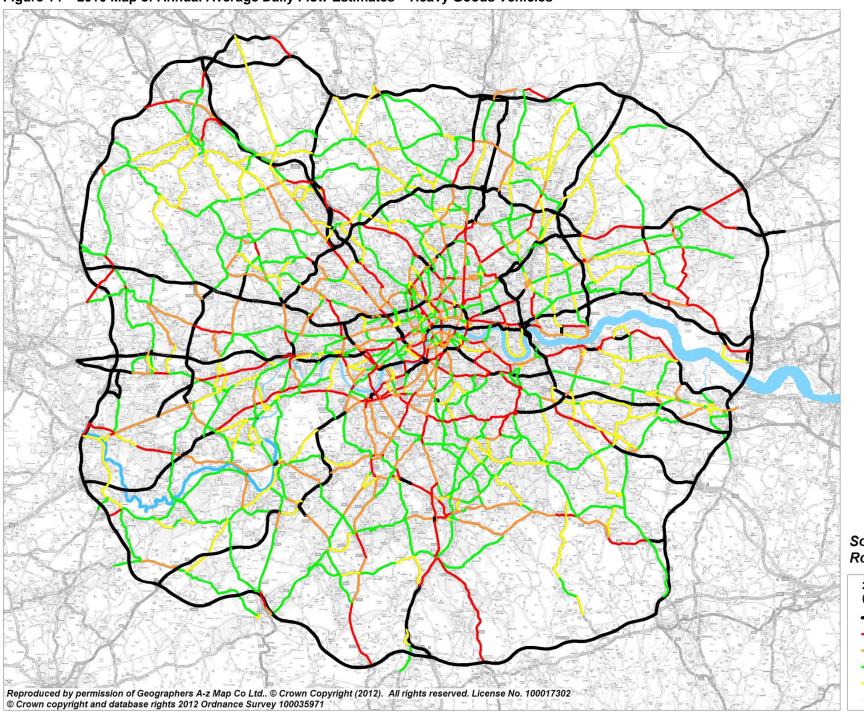
- 6.2 Figure 13 below shows that the overall trend in HGV traffic within Greater London has remained relatively constant. Both Central and Inner London HGV traffic peaked in 1998 and have generally decreased since, with only slight increases in recent years. In Outer London, the trend has been relatively constant since 1998 with small fluctuations. It is worth noting that HGV traffic makes up a smaller proportion of total traffic and therefore percentage changes are based on relatively small absolute numbers.
- 6.3 The majority of Outer London boroughs to the North and West have shown increases in HGV traffic. In particular Barnet, Ealing, Hillingdon, Hounslow, Kingston and Redbridge have all recorded increases of 10% or more in 2010 compared to the 1994-99 base average (Table 6). Those Outer London boroughs which have shown particularly significant decreases are Bromley and Greenwich, with reductions of more than 20%.
- 6.4 With the exceptions of Hackney, Islington and Tower Hamlets, all the Inner London boroughs have seen reductions in HGV traffic in 2010 compared to the 1994-99 base average, leading to an overall reduction for the Inner area of 12% (Table 6).

Figure 13 - Heavy Goods Vehicle traffic on major roads in London, 1993 to 2010



6.5 The thematic maps on the next two pages show the distribution of HGV traffic on major roads for the Greater London area (out to and including the M25) (Figure 14) and the percentage change in 2010 by borough compared to the 1994-99 base average (Figure 15). Figure 14 clearly shows the busy HGV routes which can be identified as the main radials including the M1, M11, M3, M4, A13, A2, and A3, plus the orbital A406 North Circular. Figure 15 shows HGV growth in a number of Outer London boroughs, especially to the West (possibly due to Heathrow Airport).

Figure 14 – 2010 Map of Annual Average Daily Flow Estimates – Heavy Goods Vehicles





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Source: DfT National Road Traffic Counts

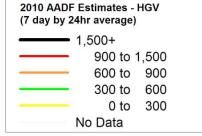
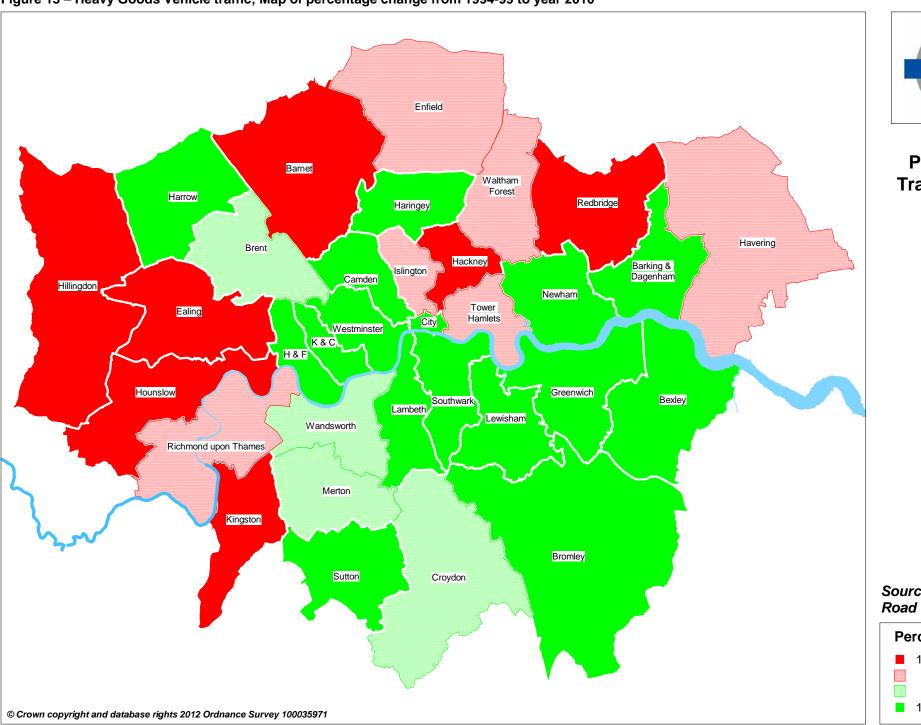


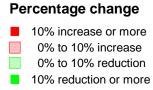
Figure 15 – Heavy Goods Vehicle traffic; Map of percentage change from 1994-99 to year 2010





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Source: DfT National Road Traffic Counts



## 7 Light Goods Vehicle traffic on London's major roads

7.1 The DfT vehicle classification for Light Goods Vehicles (LGV) includes all goods vehicles up to 3.5 tonnes gross vehicle weight. LGVs commonly differ from cars as they have no side windows behind the driver and differ from HGVs by having no reflective plate (e.g. Transit Vans). Table 7 below shows the number of Light Goods Vehicle Million Vehicle Kilometres (MVkm) travelled on London's major roads for each year from 2005 to 2010. The base average figure for the period 1994 to 1999 is also shown for comparison purposes.

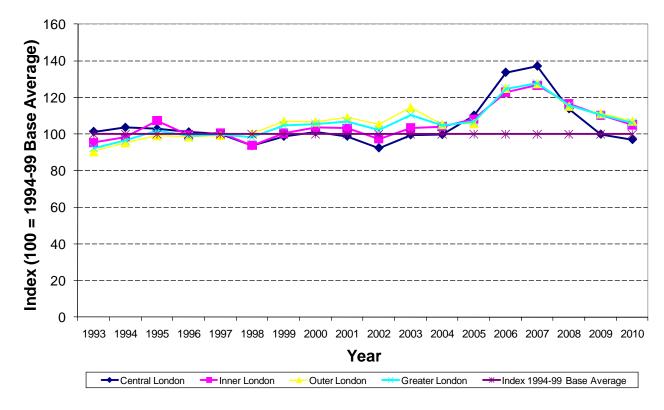
Table 7 – Light Goods Vehicle traffic on London's major roads by Borough

		Numbe	r of mi	llion ve	hicle ki	ilometr	es	Percentage change in 2010 over	
							94-99		94-99
Local Authority Name	2005	2006	2007	2008	2009	2010	average	2009	average
City of London	17	22	23	19	17	16	17	-5.3	-4.8
Westminster	92	111	113	94	82	80	83	-2.4	-2.7
Total Central London	109	133	136	113	99	96	99	-2.9	-3.0
% of Greater London	4.7	4.9	4.9	4.5	4.1	4.2	4.6		
Camden	43	49	52	47	47	43	40	-7.0	9.1
Hackney	43	53	55	50	45	43	38	-4.5	14.0
Hammersmith and Fulham	53	63	66	57	57	56	42	-1.9	31.9
Haringey	40	46	47	42	39	37	39	-3.7	-4.3
Islington	38	42	44	43	42	40	41	-3.6	-1.6
Kensington and Chelsea	47	52	52	50	49	49	43	-0.3	13.7
Lambeth	65	72	73	71	66	63	64	-3.9	-0.9
Lewisham	46	51	54	51	48	46	45	-2.7	4.1
Newham	88	100	100	87	83	76	78	-8.3	-2.2
Southwark	66	74	73	68	65	62	62	-4.0	1.2
Tower Hamlets	87	99	103	97	87	83	74	-4.3	12.2
Wandsworth	72	82	87	80	75	69	72	-8.2	-3.9
Total Inner London	689	783	807	743	703	670	637	-4.6	5.1
% of Greater London	29.7	28.9	29.0	29.5	29.3	29.0	29.3		
Barking and Dagenham	47	60	65	53	55	51	40	-6.9	28.6
Barnet	145	164	174	174	155	150	138	-2.7	8.7
Bexley	84	98	102	98	94	95	66	1.3	43.5
Brent	64	76	79	63	60	58	53	-3.9	8.1
Bromley	75	88	92	87	84	83	63	-1.2	31.5
Croydon	67	78	79	68	65	63	70	-3.5	-10.0
Ealing	93	119	113	95	91	88	75	-4.2	16.8
Enfield	147	170	177	168	160	141	147	-11.9	-4.3
Greenwich	97	114	118	108	107	108	82	0.9	32.3
Harrow	30	32	34	31	30	29	27	-5.0	6.5
Havering	120	144	148	134	133	111	112	-16.2	-0.7
Hillingdon	123	152	142	129	131	138	129	5.6	6.6
Hounslow	105	115	117	107	106	100	117	-5.5	-14.4
Kingston	56	69	64	63	56	62	58	10.9	5.7
Merton	38	40	43	41	38	37	38	-3.1	-3.2
Redbridge	96	116	121	99	99	90	81	-9.0	10.4
Richmond	46	50	56	49	44	44	48	-0.9	-8.7
Sutton	27	34	32	25	27	25	24	-7.9	0.1
Waltham Forest	62	79	79	67	65	70	69	6.9	2.0
Total Outer London	1,522	1,798	1,835	1,658	1,599	1,542	1,439	-3.6	7.1
% of Greater London	65.6	66.3	66.0	66.0	66.6	66.8	66.1	3.0	
Total Greater London	2,321	2,714	2,779	2,514	2,401	2,308	2,175	-3.9	6.1
Total Oldatol Lolldoll	ـ,٥٤١	<b>∠</b> ,, 1¬	2,113	<u> </u>	۷, ۱۰۰۱	2,000	2,110	5.5	0.1



- 7.2 Figure 16 below shows that in all areas of London, following a long period where LGV traffic remained relatively constant, there were significant year on year increases from 2004, peaking in 2007. However, more recently in 2008, 2009 and 2010 there have been significant reductions in LGV traffic. Overall comparing 2010 LGV traffic to 1994-99 base average there has been a 3% decrease in the Central London area, a 5% increase in Inner London, and a 7% increase in Outer London leading to 6% increase for the whole of the Greater London area (Table 7).
- 7.3 As Table 7 shows, within Inner London, the highest increases in LGV traffic in 2010 compared to the 1994-99 base average occurred in Hackney (+14%), Hammersmith & Fulham (+32%), Kensington & Chelsea (+14%) and Tower Hamlets (+12%). However, more recently, comparing 2010 with 2009 shows there were reductions in LGV traffic in all of the Inner London boroughs.
- 7.4 In Outer London there has been a significant increase in 2010 LGV traffic compared to the 1994-99 base average in several boroughs with the highest being recorded in Bexley (+44%). Two other boroughs (Bromley and Greenwich) have recorded increases of over 30% (Table 7).

Figure 16 - Light Goods Vehicle traffic on major roads in London, 1993 to 2010



7.5 The thematic maps on the next two pages show the distribution of LGV vehicle traffic on major roads for the Greater London area (out to and including the M25) (Figure 17) and the percentage change in 2010 by borough compared to the 1994-99 base average (Figure 18). Figure 17 shows LGV traffic follows a similar pattern to HGVs, with a greater penetration into Central and Inner London.

Figure 17 – 2010 Map of Annual Average Daily Flow Estimates – Light Goods Vehicles

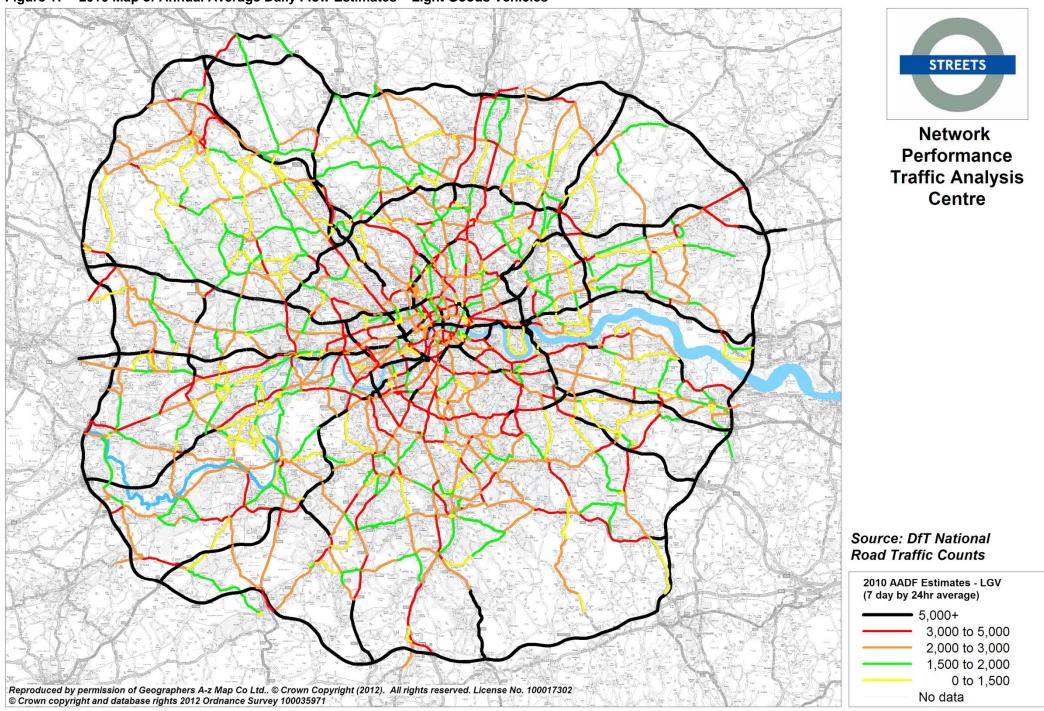
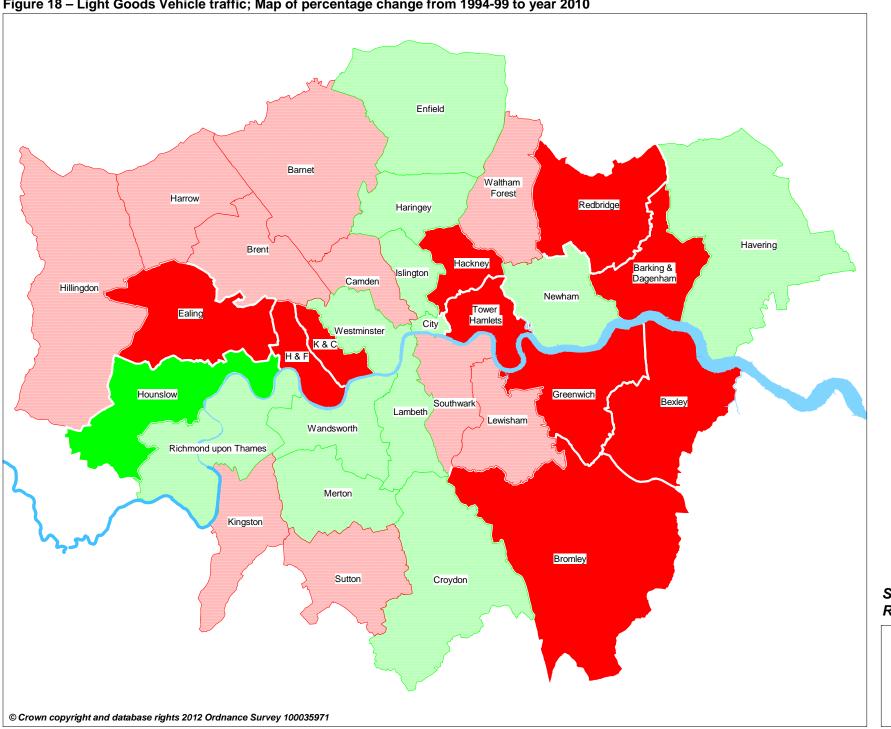


Figure 18 – Light Goods Vehicle traffic; Map of percentage change from 1994-99 to year 2010





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Source: DfT National **Road Traffic Counts** 

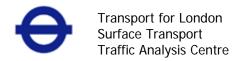
## Percentage change 10% increase or more 0% to 10% increase 0% to 10% reduction 10% reduction or more

## 8 Powered Two Wheeler Vehicle traffic on London's major roads

8.1 The DfT vehicle classification for Powered Two Wheeler (P2W) includes all two-wheeled motor cycles, scooters and mopeds. Table 8 below shows the number of Powered Two Wheeler Million Vehicle Kilometres (MVkm) travelled on London's major roads for each year from 2005 to 2010. The base average figure for the period 1994 to 1999 is also shown for comparison purposes.

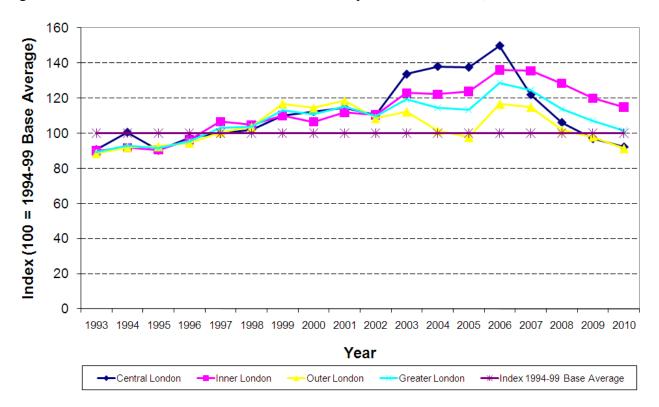
Table 8 – Powered Two Wheeler traffic on London's major roads by Borough

		Numbe	er of mi	llion ve	hicle ki	ilometr	es	Percentage change in 2010 over	
•							94-99		94-99
Local Authority Name	2005	2006	2007	2008	2009	2010	average	2009	average
City of London	13	16	13	11	10	10	10	-4.5	-1.0
Westminster	55	58	47	41	37	35	39	-5.0	-9.5
Total Central London	68	74	60	52	48	45	49	-4.9	-7.8
% of Greater London	14.1	13.5	11.4	10.9	10.5	10.6	11.6		
Camden	20	22	22	20	20	19	18	-5.7	4.6
Hackney	12	14	14	13	12	11	10	-2.8	17.0
Hammersmith and Fulham	21	24	24	21	21	20	15	-3.8	29.4
Haringey	7	7	8	7	7	6	6	-3.7	5.7
Islington	17	17	18	18	17	16	14	-3.6	15.1
Kensington and Chelsea	21	23	22	22	20	19	17	-4.5	12.4
Lambeth	25	27	27	27	26	25	21	-4.0	17.5
Lewisham	11	12	12	12	11	11	9	0.6	16.9
Newham	10	13	12	12	11	11	11	-1.7	-8.1
Southwark	23	25	24	23	23	22	18	-1.8	21.2
Tower Hamlets	29	31	31	28	25	22	20	-10.6	13.2
Wandsworth	29	30	30	28	26	25	20	-3.6	22.2
Total Inner London	223	245	244	231	216	207	180	-4.2	14.9
% of Greater London	46.5	45.0	46.4	48.1	47.7	48.3	42.6		
Barking and Dagenham	6	8	7	6	6	5	7	-13.0	-21.4
Barnet	17	19	20	20	18	16	17	-12.9	-8.9
Bexley	10	13	12	11	11	10	10	-6.8	4.6
Brent	7	9	10	7	7	8	7	6.7	15.2
Bromley	8	9	10	9	8	8	8	-5.8	-0.2
Croydon	10	12	10	9	8	8	11	-7.8	-28.8
Ealing	12	17	15	13	13	13	12	-5.2	4.5
Enfield	10	10	11	10	10	9	11	-9.4	-20.8
Greenwich	17	21	22	20	20	19	17	-6.4	13.6
Harrow	3	3	3	3	3	2	3	-9.9	-17.2
Havering	10	12	11	10	9	9	10	-7.1	-15.3
Hillingdon	11	14	12	12	10	11	13	7.6	-15.1
Hounslow	17	20	21	17	17	16	19	-4.6	-15.7
Kingston	12	14	12	11	10	10	11	-5.3	-8.6
Merton	8	8	8	8	7	6	6	-8.7	1.0
Redbridge	9	11	11	9	9	9	10	-8.1	-9.4
Richmond	11	13	13	11	11	10	10	-10.4	-3.2
Sutton	4	4	4	3	3	3	4	-8.7	-28.7
Waltham Forest	6	9	9	8	8	7	9	-15.0	-27.2
Total Outer London	189	225	222	197	189	177	193	-6.8	-8.6
% of Greater London	39.4	41.5	42.2	41.0	41.8	41.2	45.8		
Total Greater London	479	544	526	480	453	429	422	-5.4	1.5



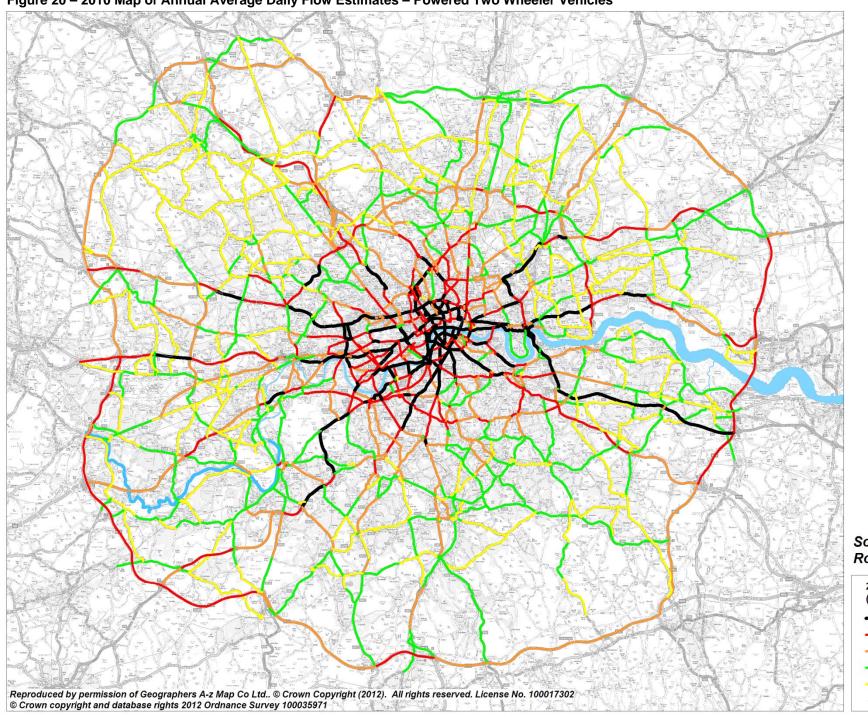
- 8.2 As Table 8 shows, after peaking in 2006, recently there been reductions in P2W traffic across all areas of London, with Greater London showing a 5% reduction in 2010 compared to 2009. Interestingly, the total P2W vehicle km in Central and Inner London combined is greater than that for Outer London, despite the much larger network in Outer London no other motorised vehicle category displays this characteristic. In comparison, for all motor vehicles, Outer London has over twice as much traffic as Central & Inner London. Compared to the 1994-99 base average, 2010 PTW traffic in Central and Outer London show reductions of 8% and 9% respectively, whereas Inner London shows an increase of 15% (Figure 19). It is worth noting that P2W traffic makes up a small proportion of total traffic and therefore percentage changes are based on relatively small absolute numbers which can result in large changes.
- 8.3 Within Inner London, with the exception of Newham, all the boroughs have experienced increases in P2W traffic when comparing 2010 to the 1994-99 base average. Three boroughs have shown significant increases of over 20%: Hammersmith & Fulham (+29%), Southwark (+21%) and Wandsworth (+22%).
- 8.4 Within Outer London the boroughs have shown mostly decreases in P2W traffic when comparing 2010 to the 1994-99 base average. The biggest decreases have been in Barking & Dagenham (-21%), Croydon (-29%), Enfield (-21%), Sutton (-29%) and Waltham Forest (-27%).

Figure 19 - Powered Two Wheeler Vehicle traffic on major roads in London, 1993 to 2010



8.5 The thematic maps on the next two pages show the distribution of P2W vehicle traffic on major roads for the Greater London area (out to and including the M25) (Figure 20) and the percentage change in 2010 by borough compared to the 1994-99 base average (Figure 21). Figure 20 clearly shows that heavy P2W traffic occurs in the Central and Inner London areas.

Figure 20 – 2010 Map of Annual Average Daily Flow Estimates – Powered Two Wheeler Vehicles





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Source: DfT National Road Traffic Counts

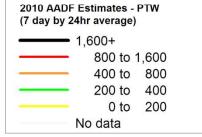
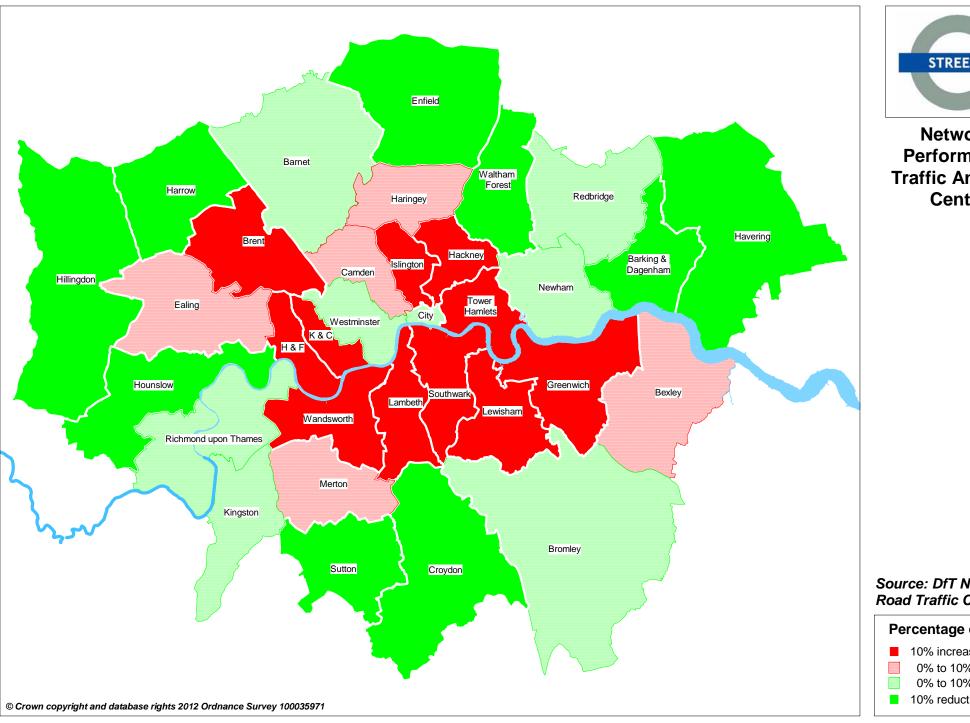


Figure 21 – Powered Two Wheeler Vehicle traffic; Map of percentage change from 1994-99 to year 2010

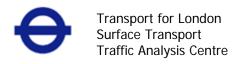




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Source: DfT National **Road Traffic Counts** 

## Percentage change 10% increase or more 0% to 10% increase 0% to 10% reduction 10% reduction or more



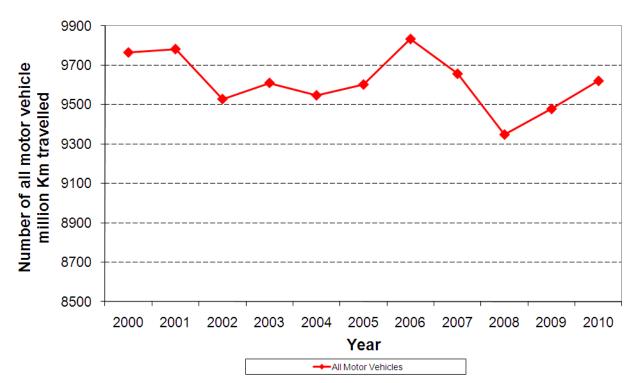
## 9 All motor vehicle traffic on the Transport for London Road Network

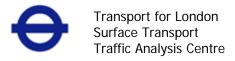
- 9.1 Table 9 below shows the number of Million Vehicle Kilometres (MVkm) travelled on the Transport for London Road Network (TLRN) by vehicle type for 2000 to 2010. Overall the trend in all motor vehicle traffic shows a slight reduction from 2000 to 2010 although the last two years are showing an upward trend (Figure 22). This broadly reflects the trend in car and taxi traffic which makes up the largest proportion of traffic on the TLRN (79%).
- 9.2 While car and taxi and HGV traffic has increased from 2009 to 2010, other types of vehicles have shown a reduction.

Table 9 – Traffic flows on the Transport for London Road Network by vehicle type, 2000 to 2010

	Number of million vehicle kilometres											
Year	Powered Two Wheelers	Car and Taxi	Bus and Coach	Light Goods Vehicles	Heavy Goods Vehicles	All Motor Vehicles						
2000	261.7	7782.4	127.4	1148.2	444.5	9764.4						
2001	269.6	7797.4	124.4	1154.1	435.9	9781.5						
2002	259.7	7609.5	132.6	1106.7	419.9	9528.4						
2003	290.4	7537.8	139.1	1215.6	427.3	9610.1						
2004	276.0	7538.7	147.5	1153.8	431.1	9547.1						
2005	275.7	7548.9	149.2	1177.2	450.8	9601.8						
2006	323.1	7473.6	168.3	1429.0	438.7	9832.7						
2007	308.7	7293.5	160.0	1462.4	431.8	9656.3						
2008	277.3	7185.8	158.5	1289.4	437.4	9348.4						
2009	263.5	7419.2	158.4	1227.3	409.8	9478.2						
2010	246.3	7611.1	153.3	1184.0	425.7	9620.3						

Figure 22 – All Motor Vehicle Traffic on the Transport for London Road Network





#### 10 Traffic flows for individual sites

- 10.1 Traffic information for individual count sites on major roads is available from Traffic Analysis Centre—contact <a href="mailto:trafficdata@tfl.gov.uk">trafficdata@tfl.gov.uk</a>. Maps can be provided for specific areas showing the locations of the count sites on request. These will also include locations where there is other traffic count data including Automatic Traffic Counts sites and Cordon/Screenline count sites.
- 10.2 For each site Annual Average Daily Flow estimates (combined direction) are produced every year and are broken down by vehicle type but not direction. The raw 12 hour manual classified weekday counts, carried out on a 1, 2, 4 or 8 year frequency depending on the variability and level of traffic at the site, are for 7am to 7pm and are available by direction, hour and vehicle type. DfT convert the raw 12-hour count into an Annual Average Daily Flow estimate (AADF) by using expansion factors derived from data collected at automatic traffic counters (ATC) scattered across London. The AADF is a 7 day/24 hour combined direction estimate. In the years when a link is not counted, a current AADF is calculated by applying growth factors to the previous year's AADF. These factors also use data from the ATCs.
- 10.3 Annual Average Daily Flow Estimates for individual sites can now also be obtained online at: <a href="http://www.dft.gov.uk/traffic-counts/">http://www.dft.gov.uk/traffic-counts/</a>. Sites can be located using an interactive map portal system or through a search menu system.

#### 11 Contacts for further information

11.1 If you require further information on this traffic note or have any other related queries please contact:

Traffic Data
TrafficData@tfl.gov.uk



## 12 Library of traffic notes

Other traffic notes include:

#### **Traffic Notes**

#### **DfT NRTCC Counts**

 Traffic Note 1 – Traffic levels on major roads in Greater London 1993-2010 (Update with 2011 flows due in Autumn 2012)

#### **TfL Automatic Traffic Counts**

- Traffic Note 2 Expansion factors for road traffic counts in London
- Technical Note 4 Validation of radar traffic monitoring equipment (published as an internal working document)
- Technical Note 6 Validation of automatic traffic & cycle counters 2006 (published as an internal working document)

#### **TfL Cordon and Screenline Counts**

- Traffic Note 3 TfL Cordon and Screenlines 1975 to 2011. (Update with 2012 flows due in Spring 2013).
- Traffic Note 5 Major and Minor traffic flows measured through TfL Cordon surveys

#### ITIS/TrafficMaster GPS journey time data

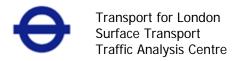
- ITIS Validation Paper July 2005
- Technical Note 1 ITIS Speed Survey Data
- Technical Note 2 Traffic Delays in London on Weekdays, Saturdays and Sundays
- Traffic Note 4 Total vehicle delay for London 2008-09 (2010-11 update due in Summer 2012)
- Traffic Note 6 Traffic delays in the London Boroughs 2009-10 (published on LondonStreetWorks website and GIS SharePoint website)

#### Cycling

- Traffic Note 7 Weather conditions and the levels of cycling on the TLRN
- Traffic Note 8 Proportion of cyclists violating red lights
- Traffic Note 9 Cycling trends in London
- Traffic Note 10 TfL Pedestrian and Cycle Thames Screenline Surveys 2006-2007
- Traffic Note 11 Cycling journey time reliability
- Traffic Note 12 Expansion factors for cycle counts in London (planned for 2012)

#### **Pedestrians**

 Traffic Note 13 - Expansion factors for pedestrian counts in London (planned for 2012)



## 13 Other useful documents

- Travel in London 4 —
   <a href="http://www.tfl.gov.uk/assets/downloads/corporate/travel-in-london-report-4.pdf">http://www.tfl.gov.uk/assets/downloads/corporate/travel-in-london-report-4.pdf</a>
- Transport Statistics for Great Britain 2011 <a href="http://www.dft.gov.uk/statistics/releases/transport-statistics-great-britain-2011/">http://www.dft.gov.uk/statistics/releases/transport-statistics-great-britain-2011/</a>
- For more detailed information on how national road traffic estimates are made by the DfT please refer to their website: <a href="http://assets.dft.gov.uk/statistics/releases/traffic-estimates-2010/traffic-estimates-2010-methodology.pdf">http://assets.dft.gov.uk/statistics/releases/traffic-estimates-2010/traffic-estimates-2010-methodology.pdf</a>
- Link to DfT website for individual site AADF Estimates http://www.dft.gov.uk/traffic-counts/

## 14 References

 All data published in this summary note is derived from Department for Transport National Road Traffic Census Counts (NRTCC).