

# **Sustainable Freight Distribution Progress Measures**

## **Base Line Report**

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<b>Contents</b>	<b>Page no.</b>
<b>1. Introduction</b>	<b>1</b>
<b>2. Commercial vehicle parking-related Penalty Charge Notices (PCNs)</b>	<b>2</b>
<b>3. Journey Time Reliability (JTR)</b>	<b>3</b>
<b>4. Fly-tipping</b>	<b>3</b>
<b>5. Air Quality</b>	<b>4</b>
<b>6. Road safety</b>	<b>4</b>
<b>7. Thefts - attacks on Cash-and-Valuables in Transit (CVIT) vehicles</b>	<b>5</b>
<b>8. Thefts - of vehicles and loads reported to TruckPol</b>	<b>6</b>
<b>9. Freight Operator Recognition Scheme Membership</b>	<b>6</b>

## **Executive Summary**

This summary provides an overview of the results produced in delivering the London Freight Plan objectives for the period 2007/8, for which performance is measured for 2007 (where available). Table 1, below provides overview results but needs to be considered with the contextual detail, both provided in this report and also provided in the technical assessment undertaken by the University of Westminster.

<b>Sustainable Freight Progress Measures</b>	<b>Results for 2007</b>
Parking-related PCNs issued by wardens on the TLRN per million vehicle km by freight vehicle type in 2007	30.5
Journey Time Reliability (JTR)	A measure is currently under development
Number of freight-related fly-tipping incidents by size of incident, April 2006 to March 2007	109317*
Air quality	A measure is currently under development
Killed and seriously injured in collisions involving goods vehicles in London per billion freight vehicle km	75
Cash-and-Valuables in Transit attacks in London in 2007	574
Total offences against vehicles and loads in the Metropolitan Police Region reported to TruckPol	199
FORS registered vehicles	0

\*For the period April 2006 to March 2007

It should be noted that the figures provided in this report refer to the calendar year 2007, unless otherwise indicated and hence the figures may not be the same as those provided in the London Freight Data Report.

The report has concluded that information can be collected for the measures and that interventions by the Freight Unit can also be recorded, however there amendments may be necessary to ensure that the measures work effectively. Detailed conclusions are provided at the end of this report.

## **1. Introduction**

This report provides an overview of the status in reporting the Sustainable Freight Distribution Progress Measures.

The seven topics for which headline progress measures are being reported are:

- **Economic measures**
  - a) Commercial vehicle parking-related Penalty Charge Notices (PCNs)
  - b) Journey Time Reliability (JTR)
- **Environmental measures**
  - a) Fly-tipping
  - b) Air quality
- **Social measures**
  - a) Road safety
  - b) Thefts (which comprises attacks on Cash-and-Valuables in Transit (CVIT) vehicles, and thefts of vehicles and loads reported to TruckPol)
- **Composite measure**
  - a) Freight Operator Recognition Scheme Membership:

Details of the methodology and approach undertaken to arrive at the results presented in this report are provided in a separate technical report undertaken by the University of Westminster.

## **2. Commercial vehicle parking-related Penalty Charge Notices (PCNs)**

### **2.1 Results**

Table 1 shows the number of parking/loading-related PCNs issued to freight vehicles on the TLRN by wardens in 2007 per million vehicle km (by borough and London-wide), which is the headline progress measure to be reported at an aggregate level for London.

As vehicle km data is only currently available for up to 2006 it has not been possible to calculate the headline measure using 2007 data for vehicle kms. Therefore, 2006 vehicle km data with the 2007 PCN data has been used.

The vehicle km data has been grouped into: light goods vehicles (up to 3.5 tonnes gross weight) and heavy goods vehicles (over 3.5 tonnes), as well as using the total for all goods vehicles.

**Table 1: Parking-related PCNs issued by wardens on the TLRN per million vehicle km by freight vehicle type in 2007**

	<b>Light goods vehicles</b>	<b>Heavy goods vehicles</b>	<b>All goods vehicles</b>
<b>LONDON TOTAL</b>	<b>28.9</b>	<b>35.1</b>	<b>30.5</b>
Corporation of London	35.2	137.9	57.1
Barking and Dagenham	0.1	0.0	0.1
Barnet	3.9	1.9	3.4
Bexley	0.1	0.0	0.0

Brent	0.6	0.4	0.5
Bromley	6.4	6.9	6.5
Camden	132.3	196.6	145.3
Croydon	32.8	19.7	28.9
Ealing	0.6	0.3	0.5
Enfield	1.7	0.2	1.4
Greenwich	0.5	0.4	0.5
Hackney	84.4	114.0	90.8
Hammersmith and Fulham	4.4	2.9	4.1
Haringey	57.6	44.2	54.5
Harrow	No TLRN		
Havering	0.4	0.0	0.3
Hillingdon	0.2	0.5	0.3
Hounslow	4.3	2.0	3.7
Islington	185.6	334.6	215.8
Kensington and Chelsea	63.2	120.8	73.5
Kingston	1.0	2.1	1.2
Lambeth	59.6	138.1	72.9
Lewisham	56.4	47.1	54.2
Merton	42.0	36.7	40.9
Newham	0.1	0.0	0.1
Redbridge	1.8	0.6	1.4
Richmond	28.9	24.2	27.6
Southwark	76.9	173.8	94.1
Sutton	28.2	31.6	29.0
Tower Hamlets	36.3	58.0	41.7
Waltham Forest	0.0	0.0	0.0
Wandsworth	79.2	144.0	91.7
Westminster	102.2	207.1	121.1

Notes: 1. Vehicle km data used is for 2006 not 2007, as 2007 data currently unavailable  
2. There is no data for Harrow as the borough does not contain any TLRN

### **3. Journey Time Reliability (JTR)**

#### **3.1 Results**

TfL Freight Unit will use a general traffic measure currently being developed, which may need further refinement for freight.

TfL is currently working on obtaining journey time reliability from ANPR cameras. Selected fixed links on the network are being selected for data collection and analysis. Calculations will take place on a daily basis (almost in real-time). Journey time will be calculated for vehicles carrying either people and goods, and only those for goods will be reported.

Due to the delay in collecting the information it is planned to provide an initial JTR measure in the 2009 report. This measure may require further refinement to provide the information in a format that is most appropriate for the freight industry.

## **4. Fly-tipping**

### **4.1 Results**

Flycapture data for April 2006 to March 2007 has been provided for calculating the headline fly-tipping progress measure.

Two boroughs are missing from Table 2: i) London Borough of Kingston did not report Flycapture data in the dataset obtained (i.e. up until March 2007), ii) the Corporation of London is also missing from the data provided.

Due to constraints in recording data highlighted in the technical report provided by the University of Westminster only the overall number of freight related incidents is being provided and not relative to the number of licensed waste operators. As stated in the technical report, due to the lack of available data size of incident is being used as a metric for determining the probability of it being freight related.

**Table 2: Number of freight-related fly-tipping incidents by size of incident, April 2006 to March 2007**

	<b>Small van load incidents</b>	<b>Transit van load incidents</b>	<b>Tipper lorry load incidents</b>	<b>Significant multi loads incidents</b>	<b>Total freight incidents</b>
Barking and Dagenham	2202	1070	175	15	3462
Barnet	1176	1076	17	0	2269
Bexley Council	122	38	9	11	180
Brent	6706	2995	172	34	9907
Bromley	1343	692	756	17	2808
Camden	552	63	1	0	616
Corporation of London	No data				
Croydon	106	24	0	0	130
Ealing	400	77	6	0	483
Enfield	2488	925	220	149	3782
Greenwich	1831	771	103	8	2713
Hackney	0	0	0	0	0
Hammersmith and Fulham	1974	490	153	828	3445
Haringey	0	0	0	0	0
Harrow	1712	507	55	70	2344
Havering	2545	1182	106	77	3910
Hillingdon	341	182	24	0	547
Hounslow	367	36	13	84	500
Islington	743	274	2	0	1019
Kensington and Chelsea	5653	395	38	0	6086
Kingston	No data				
Lambeth	0	0	0	0	0
Lewisham	6470	2078	177	10	8735
Merton	1148	595	0	0	1743
Newham	6978	1721	396	443	9538
Redbridge	1107	1466	137	36	2746
Richmond Upon Thames	613	345	3	0	961
Southwark	3977	1569	1	2	5549
Sutton	925	224	2841	0	3990
Tower Hamlets	2456	361	108	233	3158
Waltham Forest	3017	896	70	2	3985
Wandsworth	19353	0	0	0	19353

Westminster	4813	456	86	3	5358
<b>LONDON TOTAL</b>	<b>81118</b>	<b>20508</b>	<b>5669</b>	<b>2022</b>	<b>109317</b>

Note: Harrow, Hillingdon, Lambeth and Merton all have incomplete data in the period April 2006 to March 2007.

## **5. Air Quality**

### **5.1 Results**

On production TfL results will be reported for:

- modelled impacts of freight transport on the road network for CO<sub>2</sub> as determined for the Climate Change Action Plan;
- modelled impacts of freight transport on the road network for PM10's and NO<sub>x</sub> as reported for the Low Emission Zone in its inaugural report.

## **6. Road safety**

### **6.1 Results**

Table 3 shows the casualties resulting from collisions involving light goods vehicles (up to 3.5 tonnes gross weight) in London from 2000 to 2006 by severity per billion vehicle km performed by these vehicles. The vehicle kms are the total performed on both major and minor roads in London. This includes the headline progress measure (those killed and seriously injured in collisions involving goods vehicles in London per billion freight vehicle km) as well as slight and total casualties per billion vehicle km.

**Table 3: Casualties resulting from collisions involving light goods vehicles (up to 3.5 tonnes) in London, 2000 to 2006 by severity per billion vehicle km**

	<b>Fatal</b>	<b>Serious</b>	<b>Fatal and serious combined</b>	<b>Slight</b>	<b>Total</b>
2000	5	127	132	954	1086
2001	8	113	121	885	1006
2002	5	113	118	834	952
2003	7	85	92	664	756
2004	5	68	73	583	656
2005	4	61	65	611	676
2006	5	78	83	578	661

Table 4 shows the casualties resulting from collisions involving heavy goods vehicles (over 3.5 tonnes gross weight) in London from 2000 to 2006 by severity per billion vehicle km performed by these vehicles. The vehicle kms are the total performed on both major and minor roads in London. This includes the headline progress measure (those killed and seriously injured in collisions involving goods vehicles in London per billion freight vehicle km) as well as slight and total casualties per billion vehicle km.

**Table 4: Casualties resulting from collisions involving heavy goods vehicles (all goods vehicles over 3.5 tonnes) in London, 2000 to 2006 by severity per billion vehicle km**

	Fatal	Serious	Fatal and serious combined	Slight	Total
2000	32	205	237	1106	1343
2001	35	204	240	1129	1369
2002	36	173	210	983	1192
2003	31	173	204	908	1113
2004	25	135	160	842	1002
2005	17	111	128	867	995
2006	25	155	180	745	925

It is possible to consider collisions between freight related vehicles and cyclists and the relative growth in cycle usage. The relevant information for fatal and serious injuries combined and the growth in average daily cycle flows is provided in Table 5 on a factored basis.

**Table 5: Casualties resulting from collisions involving all goods vehicles and cycles 2000 to 2006 and the growth in average daily cycle flows.**

	Fatal and serious combined	Growth in average daily cycle flows
2000	100	100
2001	109	108
2002	115	104
2003	132	132
2004	83	132
2005	102	160
2006	143	188

## **7. Thefts - attacks on Cash-and-Valuables in Transit (CVIT) vehicles**

### **7.1 Results**

Table 5 below shows the headline measure of CVIT attacks that took place in London in 2007 by borough (as recorded by the British Security Industry Association), with the key measure being reported at a London wide level.

**Table 6: CVIT attacks in London in 2007 by borough**

	CVIT attacks
Corporation of London	0
Barking and Dagenham	22
Barnet	30
Bexley	2
Brent	9
Bromley	17
Camden	37
Croydon	19
Ealing	7
Enfield	36

Greenwich	16
Hackney	25
Hammersmith and Fulham	4
Haringey	34
Harrow	9
Havering	9
Hillingdon	3
Hounslow	5
Islington	31
Kensington and Chelsea	1
Kingston	3
Lambeth	44
Lewisham	32
Merton	15
Newham	21
Redbridge	27
Richmond	4
Southwark	42
Sutton	9
Tower Hamlets	7
Waltham Forest	15
Wandsworth	27
Westminster	12
<b>LONDON TOTAL</b>	<b>574</b>

## **8. Thefts - of vehicles and loads reported to TruckPol**

### **8.1 Results**

Table 6 below shows the headline measure of thefts of, and from, vehicles in the Metropolitan Police Region as reported to TruckPol for the period 2005 to 2007. Further details regarding this measure are provided in the Technical Report, which provides reasons for the significant change between 2006-2007.

**Table 7: Total offences against vehicles and loads in the Metropolitan Police Region reported to TruckPol, 2005 to 2007**

	<b>2005</b>	<b>2006</b>	<b>2007</b>
Total offences	673	633	199

## 9. Freight Operator Recognition Scheme Membership

### 9.1 Results

The headline measure is the number of FORS registered vehicles and during the development phase of FORS this is growing on a daily basis. The progress measure is using the number of vehicles registered on FORS at the end of July 2008, with this being shown in Table 7.

**Table 8: FORS registered vehicles**

	2008
Number of vehicles	1428

## 10. Recommendations

Recommendations of how each of the measures should be progressed is provided:

### **Commercial vehicle parking-related Penalty Charge Notices (PCNs)**

The collection of information relating to the TLRN has indicated that freight related issues can be separated and then investigated. There is currently little consistent information on the collection of PCN information at a borough level. Until there is such information, only the TfL controlled roads can be considered and even then only at a London level.

This restricts the usefulness of the information in determining the importance of PCNs as a cost in the freight activities of London. Further, it limits the ability to compare and contrast between approaches taken by boroughs.

It is recommended that discussions take place with borough representatives to highlight the importance of consistency in the collection of data to enable reporting and then improvements to occur.

### **Journey Time Reliability (JTR)**

At this stage freight related JTR has not been collected for major strategic freight routes and until it is collected little progress can be made. On collecting the information it will be necessary to confirm that the measure is being communicated effectively for the stakeholders, especially the operators (through customer research).

Having obtained a useful measure of JTR this can then be reported and its usefulness determined.

### **Air Quality**

TfL has not currently provided information for the Climate Change Action Plan nor for the impact of the Low Emission Zone. However, the impacts of the individual initiatives need to be recorded to assess the impact of the London Freight Plan. A consistent benefits management approach needs to be provided to the project managers who can then report back on performance. The minimum to be included in this approach is the impact on greenhouse gases, and related air quality improvements.

For calculation purposes it is recommended that a standardised approach using National Atmospheric Emissions Inventory information is implemented.

### **Fly-tipping**

Though there are problems in determining what constitutes 'fly-tipped' waste and its consistent reporting, the information collected in Flycapture provides the most complete view of fly-tipping in London. It is recommended that this information is used but that the segregation of recorded 'freight' related fly-tipped waste is ignored.

The initiatives undertaken to reduce fly-tipping should be measured at two levels, one for overall fly-tipped waste and also for van sized incidents and above, but this should not be referred to as 'freight' related unless a robust relationship can be established.

The normalising of the result by considering the number of waste operators should be ignored at this stage, and reviewed once the measure has been recorded accurately.

### **Road Safety**

This is the most easily recorded measure and details have been provided in the base line report. The recommendation is to normalise the result by using billions of vehicle kilometres (as per the base line report). Further, each of the initiatives must include, as part of its benefits monitoring strategy, information on related safety improvements.

### **Thefts - attacks on Cash-and-Valuables in Transit (CVIT) vehicles and of vehicles and loads reported to TruckPol**

There are two elements to this measure and each is addressed separately:

#### **Thefts of vehicles and loads reported to TruckPol**

The recording of this measure has changed, due to changes in TruckPol (which may or may not even remain in being). As a result either a commitment to consistent reporting is agreed with TruckPol or the measure is dropped. The impacts resulting from initiatives can still be recorded as an output measure but the overall outcome would not be tracked.

#### **Thefts - attacks on Cash-and-Valuables in Transit (CVIT) vehicles**

Through the British Security Industry Association this measure can be recorded and improvement in performance tracked.