



King Henry's Road Area Safe and Healthy Streets Scheme

Monitoring Factsheet

In January 2023 we launched a trial area-wide weight restriction which prohibits vehicles weighing 7.5 tonnes or more from using several residential roads within and around the King Henry's Road area as a cut-through between adjoining main roads, except for access. This document sets out the monitoring data gathered during the trial period. The data has been analysed and used to help assess the impact of the scheme during the trial period of operation.

Traffic Count Data

Traffic data was gathered both before and after the implementation of the trial scheme through Automatic Traffic Counts (ATCs) on roads within the weight restriction area (Sites 6, 8, 9, 10 and 12) and on roads outside the weight restriction area (Sites 4, 5 and 7) including on boundary roads (Sites 1, 2, 3, 11 and 13). ATCs record the volume and speed of pedal cycles, motorcycles, cars, light goods vehicles, heavy goods vehicles and public service vehicles.

'Before trial scheme' and 'During trial scheme' data was collected during the following periods:

- Before trial scheme (baseline): 21 February 2022 - 6 March 2022
- During trial scheme: 8 June 2023 – 21 June 2023

The trial scheme was launched under and Experimental Traffic Order (ETO) on 19 January 2023.

Traffic data was also gathered in December 2023, however, due to emergency repairs by Thames Water to a water main on Avenue Road, the section of Avenue Road to the south of the junction with Elsworthy Road was closed to traffic to enable the works. This likely led to traffic using the King Henry's Road area for diversionary routes, with impacts lasting over several weeks and this means that the traffic counts from that period are unusable.

The 13 traffic count locations are shown in **Figure 1** below.

Figure 1: Traffic Count Locations



All Vehicles

Table 1 below shows the average daily (24-hour) traffic counts (all vehicle types) collected over a 7-day period both 'Before' and 'During' the trial scheme.

Table 1: Daily Average Traffic Counts (24-Hours Monday-Sunday)

Site	Feb 2022 (Before)	June 2023 (During)	Change	
	Total	Total	No.	%
Site 1 - Primrose Hill south of Adelaide Road	10797	9185	-1612	-14.9%
Site 2 - Adelaide Road west of Primrose Hill	10046	12144	2098	20.9%
Site 3 - Primrose Hill Road	12848	9905	-2943	-22.9%
Site 4 - Elsworth Road	4457	3496	-961	-21.6%
Site 5 - King Henry's Road	4666	4268	-398	-8.5%
Site 6 - Elsworth Rise north of King Henry's Road*	471	475	4	0.8%

Site 7 - Elsworthy Rise south of King Henry's Road	446	480	34	7.6%
Site 8 - Lower Merton Rise north of King Henry's Road*	1363	1576	213	15.6%
Site 9 - Lower Merton Rise south of King Henry's Road*	1255	1404	149	11.9%
Site 10 - Harley Road*	2874	2059	-815	-28.4%
Site 11 - Avenue Road north of Elsworthy Road	12853	19187	6334	49.3%
Site 12 - Elsworthy Road east of Avenue Road*	6397	6156	-241	-3.8%
Site 13 - Avenue Road south of Queens Grove	14186	20764	6578	46.4%

*Local roads within the weight restriction area

When comparing the traffic count data (all vehicle types) collected across all sites, between February 2022 (before trial scheme) and June 2023 (during trial scheme), seven sites recorded an increase in traffic and six sites recorded a reduction.

Of the local roads within the weight restriction area, the largest increase was recorded at Site 8 - Lower Merton Rise north of King Henry's Road, where traffic volumes increased by 15.6%, equating to 213 additional vehicles over a 24-hour period (an average of 9 additional vehicles per hour). This was followed by Site 9 - Lower Merton Rise south of King Henry's Road, where traffic volumes increased by 11.9%, equating to 149 additional vehicles over a 24-hour period (an average of 6 additional vehicles per hour).

Table 2 below summarises the total average daily (24-hour) traffic counts (all vehicle types) collected over a 7-day period both 'Before' and 'During' the trial scheme, on all local road sites within the weight restriction area, all boundary road sites and all sites.

Table 2: Summary of Daily Average Traffic Counts (24-Hours Monday-Sunday)

Sites	Feb 2022 (Before)	June 2023 (During)	Change	
	Total	Total	No.	%
Total across all roads within the weight restriction area	11051	10180	-871	-7.9%
Total across all boundary road sites	35388	41665	6277	17.7%
Total across all sites	56008	60089	4081	7.3%

*The traffic volumes recorded at Site 1 and Site 3 (Primrose Hill Road) have been totalled and divided by two, to give an average total on Primrose Hill Road

**The traffic volumes recorded at Site 8 and Site 9 (Lower Merton Rise) have been totalled and divided by two, to give an average total on Lower Merton Rise

*** The traffic volumes recorded at Site 11 and Site 13 (Avenue Road) have been totalled and divided by two, to give an average total on Avenue Road

Table 2 shows that while traffic volumes increased in the area overall, it also shows that this increase mainly occurred on the main/boundary roads. It shows that for all local roads within the weight restriction area, there was a 7.9% reduction in motor vehicle traffic, equating to 871 fewer vehicles across a 24-hour period (an average of 36 fewer vehicles per hour). Across all main/boundary road sites there was a 17.7% increase, equating to 6277 additional vehicles across a 24-hour period (an average of 262 additional vehicles per hour).

Heavy Goods Vehicles (HGVs)

Table 3 below shows the average daily (24-hour) traffic counts (HGVs only) collected over a 7-day period both 'Before' and 'During' the trial scheme.

Table 3: Daily Average HGV Traffic Counts (24-Hours Monday-Sunday)

Site	Feb 2022 (Before)	June 2023 (During)	Change	
	Total	Total	No.	%
Site 1 - Primrose Hill south of Adelaide Road	359	139	-220	-61.3%
Site 2 - Adelaide Road west of Primrose Hill	609	903	294	48.3%
Site 3 - Primrose Hill Road	405	328	-77	-19.0%
Site 4 - Elsworthy Road	133	122	-11	-8.3%
Site 5 - King Henry's Road	152	177	25	16.4%
Site 6 - Elsworthy Rise north of King Henry's Road*	21	13	-8	-38.1%
Site 7 - Elsworthy Rise south of King Henry's Road	12	21	9	75.0%
Site 8 - Lower Merton Rise north of King Henry's Road*	40	80	40	100.0%
Site 9 - Lower Merton Rise south of King Henry's Road*	44	55	11	25.0%
Site 10 - Harley Road*	66	42	-24	-36.4%
Site 11 - Avenue Road north of Elsworthy Road	480	747	267	55.6%
Site 12 - Elsworthy Road east of Avenue Road*	184	214	30	16.3%
Site 13 - Avenue Road south of Queens Grove	438	875	437	99.8%

*Local roads within the weight restriction area

When comparing the traffic count data for HGVs only collected across all sites, between February 2022 (before trial scheme) and June 2023 (during trial scheme), eight sites recorded an increase in traffic and five sites recorded a reduction.

Of the local roads within the weight restriction area, the largest increase in HGV traffic was recorded at Site 8 - Lower Merton Rise north of King Henry's Road, where HGV traffic volumes increased by 100%, equating to 40 additional vehicles over a 24-hour period (an average of 2 additional vehicles per hour). This was followed by Site 12 - Elsworthy Road

east of Avenue Road, where HGV traffic volumes increased by 16.3%, equating to 30 additional vehicles over a 24-hour period (an average of 1 additional vehicle per hour).

Table 4 below summarises the total average daily (24-hour) traffic counts (HGVs only) collected over a 7-day period both 'Before' and 'During' the trial scheme, on all local road sites within the weight restriction area, all boundary road sites and all sites.

Table 4: Summary of Daily Average HGV Traffic Counts (24-Hours Monday-Sunday)

Sites	Feb 2022 (Before)	June 2023 (During)	Change	
	Total	Total	No.	Total
Total across all sites within the weight restriction area	313	337	24	7.5%
Total across all boundary road sites	1450	1948	498	34.3%
Total across all sites	2060	2604	544	26.4%

**The traffic volumes recorded at Site 1 and Site 3 (Primrose Hill Road) have been totalled and divided by two, to give an average total on Primrose Hill Road*

***The traffic volumes recorded at Site 8 and Site 9 (Lower Merton Rise) have been totalled and divided by two, to give an average total on Lower Merton Rise*

**** The traffic volumes recorded at Site 11 and Site 13 (Avenue Road) have been totalled and divided by two, to give an average total on Avenue Road*

Across all local roads within the weight restriction area, a 7.5% increase in HGV traffic was recorded, equating to 24 additional HGVs across a 24-hour period (an average of 1 additional HGV per hour). Across all boundary road sites, a 34.3% increase in HGV traffic was recorded, equating to 498 additional vehicles across a 24-hour period (an average of 21 additional HGVs per hour).

Whilst HGV traffic volumes increased on streets within the weight restriction area, the increase (7.5%) was significantly lower than the average increase recorded on boundary roads (34.3%). This data shows that HGV traffic volumes on streets in the wider area in general, were significantly higher in the during-trial scenario when compared to the before-trial scenario data.

There are several external factors such as temporary traffic lights, utilities or streetworks-related diversions, which can have an impact on traffic and HGV volumes. It should be noted that there have been ongoing construction works on Adelaide Road, to the east of the junction with Primrose Hill Road, associated with the construction of a ventilation shaft above a HS2-related tunnel. These works, including HGV movements and associated temporary traffic restrictions, are likely to have had an impact on local traffic and HGV traffic volumes.

Traffic Speed Data

The traffic count data was also used to analyse and compare vehicle speeds from both 'Before' and 'During' the trial scheme, as shown in **Table 5** below. The data includes the average speed of all vehicle classes (including cycles) over a 7-day period.

Table 5: Daily average traffic speeds (24-Hours Monday-Sunday)

Site	Feb 2022 (Before)	June 2023 (During)	Change
Site 1 - Primrose Hill south of Adelaide Road	17 mph	18 mph	1 mph
Site 2 - Adelaide Road west of Primrose Hill	20 mph	20 mph	No change
Site 3 - Primrose Hill Road	17 mph	16 mph	-1 mph
Site 4 - Elsworthy Road	17 mph	17 mph	No change
Site 5 - King Henry's Road	21 mph	21 mph	No change
Site 6 - Elsworthy Rise north of King Henry's Road*	14 mph	12 mph	-2 mph
Site 7 - Elsworthy Rise south of King Henry's Road	17 mph	17 mph	No change
Site 8 - Lower Merton Rise north of King Henry's Road*	18 mph	18 mph	No change
Site 9 - Lower Merton Rise south of King Henry's Road*	20 mph	20 mph	No change
Site 10 - Harley Road*	14 mph	17 mph	3 mph
Site 11 - Avenue Road north of Elsworthy Road	15 mph	16 mph	1 mph
Site 12 - Elsworthy Road east of Avenue Road*	16 mph	19 mph	3 mph
Site 13 - Avenue Road south of Queens Grove	18 mph	18 mph	No change

*Local roads within the weight restriction area

When comparing the traffic speed data collected across all sites, between February 2022 (before trial scheme) and June 2023 (during trial scheme), four sites recorded an increase in average speed, two sites recorded a reduction and on seven sites there was no change.

Of the sites within the weight restriction area, the largest increase in average speed was recorded at Site 10 - Harley Road and Site 12 - Elsworthy Road east of Avenue Road. Average speeds at both sites increased by 3 mph between the before and during trial scheme scenarios, however, speeds remained below the 20 mph speed limit.

Overall, the average speeds recorded across all sites remained below the 20 mph speed limit, with the exception of King Henry's Road, which recorded an average speed of 21 mph in both the before and during trial scenarios.

Table 6 below summarises the total average daily (24-hour) traffic speeds collected over a 7-day period both 'Before' and 'During' the trial scheme, on all local road sites within the weight restriction area, all boundary road sites and all sites.

Table 6: Summary of Daily Average Traffic Speeds (24-Hours Monday-Sunday)

Sites	Feb 2022 (Before)	June 2023 (During)	Change
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Total across all sites within the weight restriction area	16 mph	16 mph	No change
Total across all boundary road sites	18 mph	18 mph	No change
Total across all sites	17 mph	17 mph	No change

*The traffic speeds recorded at Site 1 and Site 3 (Primrose Hill Road) have been totalled and divided by two, to give an average speed on Primrose Hill Road

**The traffic speeds recorded at Site 8 and Site 9 (Lower Merton Rise) have been totalled and divided by two, to give an average speed on Lower Merton Rise

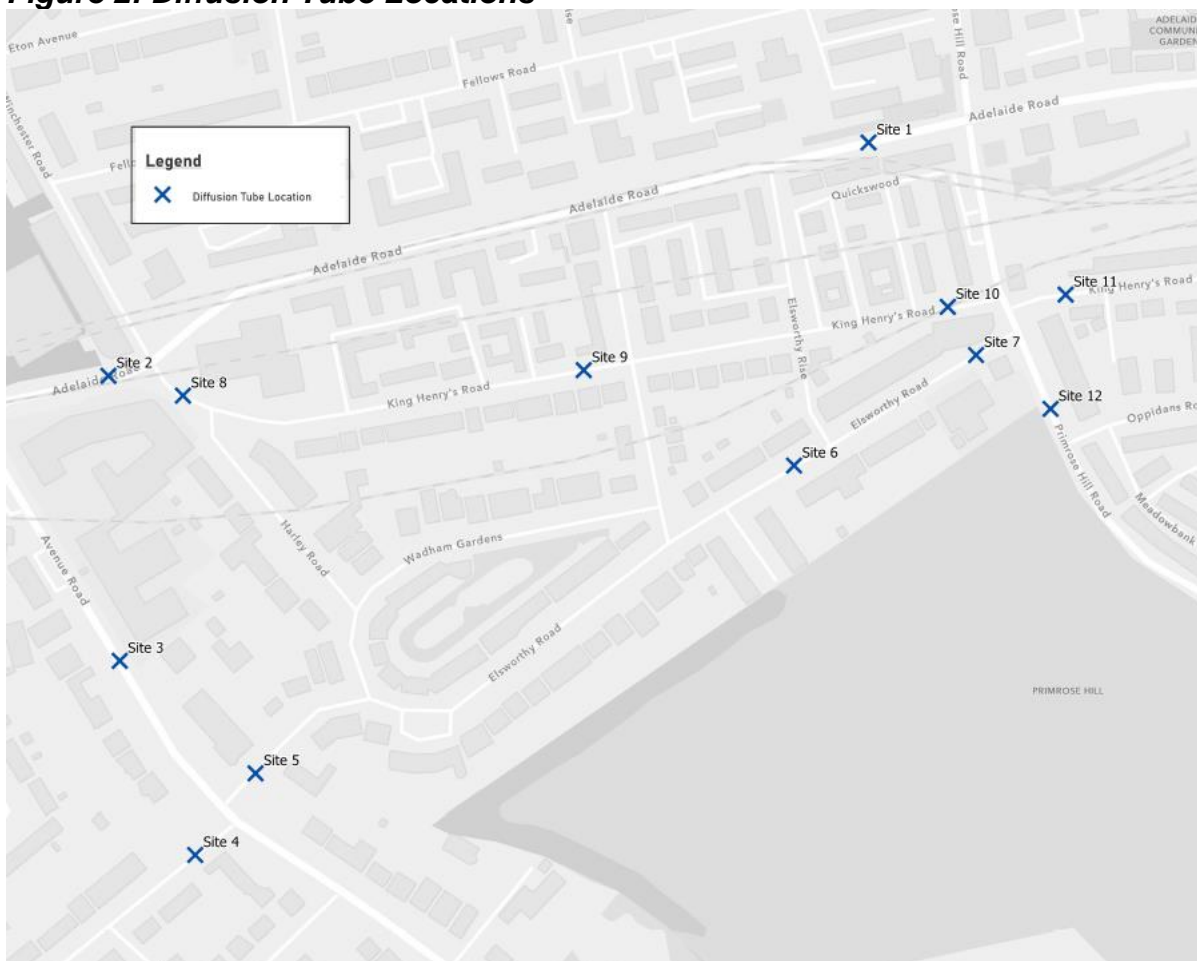
*** The traffic speeds recorded at Site 11 and Site 13 (Avenue Road) have been totalled and divided by two, to give an average speed on Avenue Road

Across all sites within the weight restriction area, all boundary road sites and all sites, there was no change in the average speed recorded.

Air Quality

There are 12 air quality monitoring diffusion tubes in place in and around the King Henry's Road scheme area. The location of each diffusion tube is shown in **Figure 2** below. Air quality data has been monitored over the period between Jan-Jul 2022 (before trial scheme) and Jan-Jul 2023 (during trial scheme).

Figure 2: Diffusion Tube Locations



The air quality results are shown in **Table 7** below.

Table 7: Raw diffusion tube NO₂ Data 2022-2023

Site	Raw NO ₂ concentration, µg/m ³		Months included	Change in NO ₂ concentration	
	2022 (Jan-Jul)	2023 (Jan-Jul)		Change in µg/m ³	% change
Site 1 - Adelaide Road between Elsworthy Rise and Primrose Hill	37.47	33.04	Mar/May/Jun/Jul	-4.43	-11.8%
Site 2 - Adelaide Road/B509 UCL Academy	34.46	34.82	Jan/Feb/May/Jun/Jul	0.37	1.1%
Site 3 - Avenue Road	26.39	25.33	Jan/Mar/Apr/May/Jul	-1.06	-4.0%
Site 4 - Queens Grove	20.96	20.44	Jan/Mar/Apr/May/Jul	-0.52	-2.5%
Site 5 - Elsworthy Road between Avenue Road and Wadham Gardens	25.28	21.93	Jan/Mar/May/Jul	-3.35	-13.3%
Site 6 - Elsworthy Road between Lower Merton Rise and Elsworthy Terrace	19.48	19.23	Jan/Mar/Apr/May/Jun/Jul	-0.25	-1.3%
Site 7 - Elsworthy Road between Elsworth Rise and Primrose Hill Road	18.17	18.21	Jan/May/Jun/Jul	0.04	0.2%
Site 8 - King Henry's Road between Adelaide Road and Harley Road	27.68	26.62	Feb/Mar/Jun/Jul	-1.06	-3.8%
Site 9 - King Henry's Road between Lyttleton Close and Lower Merton Rise	21.76	19.00	Feb/Mar/Apr/May/Jul	-2.76	-12.7%
Site 10 - King Henry's Road between Quickswood and Primrose Hill Road	20.61	18.58	Mar/Apr/May/Jun/Jul	-2.02	-9.8%

Site 11 - King Henry's Road east of Primrose Hill Road	19.99	18.73	Feb/Mar/Apr/May/June/July	-1.26	-6.3%
Site 12 - Primrose Hill Road between Elsworthy Road and Oppidans Road	21.22	20.11	Jan/May/June/July	-1.11	-5.2%
Average across all sites				-1.45	-5.8%
Average across other monitoring sites in Camden with data				-1.92	-5.8%

The summary statistics show that the average change in NO₂ from 2022 to 2023 was a reduction both in absolute terms (1.45 µg/m³ of NO₂) and as a percentage (5.8%). All other 293 diffusion tube NO₂ sites in Camden with valid data during the monitoring period in question also saw an average -5.8% change. The data therefore suggests that NO₂ air pollution as measured on and around King Henry's Road has reduced when comparing the 'before trial scheme' and 'during trial scheme' period, by the same approximate amount as elsewhere in the borough. It is worth noting that 2 sites saw an increase of NO₂, however, Site 7 (Elsworthy Road between Elsworth Rise and Primrose Hill Road), a local road within the weight restriction area, still measures low in NO₂ air pollution compared to many other sites in the borough.

It is important to note that transport contributes around 31% of total NO₂ emissions in Camden over the course of a year. The majority of the remainder comes from gas use in building heating systems. This means that there is significant seasonal variation in outdoor NO₂ concentrations when heating demand is higher during cold weather. The change in NO₂ concentration at a particular location will not entirely be the result of changes in traffic volumes and there are other local factors affecting air quality. The Council has committed to achieving the updated World Health Organisation's standards of 10ug/m³ by 2034.

Feedback During the Trial Period

During the trial period, comments were posted on the Council's [Commonplace platform](#) in relation to the trial 7.5-tonne weight restriction, with several people making suggestions for improvements in the wider area. The key themes are categorised below:

- More should be done to reduce traffic on King Henry's Road, particularly during rush hour.
- More should be done to reduce traffic speeds on King Henry's Road.
- The weight restriction has helped to reduce HGV volumes in the area.
- Some HGVs, including Veolia refuse vehicles ignore the weight restriction signage.
- A width restriction would be more effective in preventing HGVs from driving along King Henry's Road.
- The width of the Wadham Gardens / Elsworthy Road junction should be reduced to help pedestrians cross the road.

Some example comments are provided below:

Comments

'Why are King Henry / Elsworthy Roads getting preferential treatment and protection while you push even more air and noise pollution from traffic onto Adelaide Rd which is already heavily polluted?'

'The HGV restriction on King Henry's Rd is welcome and has successfully reduced the worst noise and vibration, although the HGV restriction is generally well observed, some lorries (including Veolia refuse lorries) continue illegally to use King Henry's Rd as a cut-through.'

'I would like to see traffic limited during rush hour as it is still bad on King Henry's Road.'

'It would be good to have the same drive through restrictions as Elsworthy Road with residents exempt from the restrictions.'

'There seems to be little change to the daily volume of traffic on King Henry's Road. In addition, cars are routinely breaking the speed limit and dangerously so. What is the point of a speed limit if it is not enforced by the borough?'

'Put width restrictions in King Henry's Road and Ellsworth Road and the. There will be no HGV traffic using these roads as short cuts and this is what the residents wish for.'

'Good scheme but traffic restriction not sufficient. King Henry needs filtering; Elsworthy Road junction with Wadham needs widening reduction to help pedestrians cross the road.'