Contents

Glossary

Below are the meanings of some words used throughout this report that you may be unfamiliar with, or which may have a specific meaning in the report context:

AM Peak – In this report, "AM peak" refers to the hours between 07h00 and 10h00.

Automatic Traffic Counters – "Automatic Traffic Counters" (ATCs) measure traffic volumes and speeds using two thin tubes that run across the street and are connected to a sensor. When wheels pass over the tubes, the pressure impact is interpreted by the sensor to identify the type of vehicle passing over, and the speed at which it passed. ATCs are considered to be approximately 98% reliable. (See Appendix 1 for more details).

Boundary roads – For the purpose of this report, the "boundary roads" of the Canonbury West trial area are Essex Road (A104) to the south-east, St Paul's Road (A1201 and A1199) to the north, and Canonbury Road (A1200) to the south-west. Canonbury Road and St Paul's Road meet at Highbury Corner, which connects to A1 Upper Street (south) and A1 Holloway Road (north). These roads are the boundary roads of multiple LTN trial areas and there have been major transformation works at Highbury Corner, all of which may have impacted some of the results, particularly between the baseline and pre-consultation period. These are explored in more detail in the results and insights sections throughout the report.

Experimental Traffic Order – An "Experimental Traffic Order" (ETO) is like a permanent Traffic Regulation Order in that it is a legal document that imposes traffic and parking restrictions. However, unlike a Traffic Regulation Order, an Experimental Traffic Order can only stay in force for a maximum of 18 months while the effects are monitored and assessed. An Experimental Traffic Order is made under Sections 9 and 10 of the Road Traffic Regulation Act 1984.

Internal Roads – These are roads which fall in between two or more boundary roads in low traffic neighbourhoods. For the purposes of this report, "internal roads" are local roads in the Canonbury West trial area where the project aims to reduce the amount of traffic through the introduction of traffic filters. These roads are generally narrower than boundary roads. We have collected traffic counts on some, but not all, of the internal roads in the Canonbury West area.

Low Traffic Neighbourhood – A "low traffic neighbourhood" (LTN) is an area where a number of traffic filters are strategically placed to make it impossible or very difficult to cut through the area by motor vehicle. This stops drivers using local streets as shortcuts and makes it safer and easier to walk and cycle. In this report, the Canonbury West people-friendly streets (PFS) trial refers to a low traffic neighbourhood implemented in Islington under an Experimental Traffic Order. The position of the traffic filters means that drivers (including residents, delivery workers and emergency services) are still able to reach any part of the neighbourhood.

Normalised – In this report, "normalising" means to adjust traffic count figures to take into account the impact of COVID-19 and other macro-scale factors on traffic patterns. This methodology is explained below in more detail, but in simple terms it means that the traffic count figures have been increased to project what traffic counts may have looked like if traffic levels were at 2019 levels.

Observed – In this report, "observed" means the data that was collected, which has not been adjusted to take into account the impact of COVID-19 on traffic patterns. This is the actual data that was supplied by the data collection company used.

PM Peak – In this report, "PM peak" refers to the hours between 16h00 and 19h00.

Traffic Filters - "Traffic filters" are restrictions in the street to prevent motor vehicles passing through, either by presenting a physical barrier, such as bollards or planters, or by camera enforcement. Camera enforcement is used to enable buses and emergency vehicles to access the area. People are legally able to walk, cycle and wheel though filters (and use non-motorised scooters).

Introduction – Canonbury West LTN Final Report

As part of Islington Council's PFS programme and the need for an urgent transport response to COVID-19, Canonbury West became the fifth LTN area trial in the borough. The LTN has been created with the aim of allowing more space for people to walk and cross the road safely, cycle as part of everyday life, and to use buggies or wheelchairs, thereby making the area's roads cleaner, greener and healthier for residents.

Since the scheme's inception, several monitoring reports have been produced to examine the impact of the road filters on a range of factors, including traffic volumes and speeds, air quality, bus journey times, emergency services and crime statistics.

The Interim Report was published in October 2021 and compared pre-implementation "baseline" data with data collected roughly six months after the scheme went live, and the Pre-Consultation Report was published in November 2021, comparing pre-implementation "baseline" data with data roughly one year after the scheme went live. Following this, a public consultation was held between November 2021 and January 2022. In March 2022, an exemption policy for Blue Badge holders was introduced.

Final Report

Unlike previous reports, which were aimed at determining the impact of the LTN scheme compared to a pre-implementation baseline, the purpose of this Final Report for the Canonbury West LTN is to serve as a **"final check"** on the scheme roughly one-year on from the pre-consultation stage of data collection. The report will look to understand how the scheme is bedding in following the implementation of the exemption policy for local Blue Badge holders and the changes made at filters, and how it is likely to affect long-term transportation trends in the area.

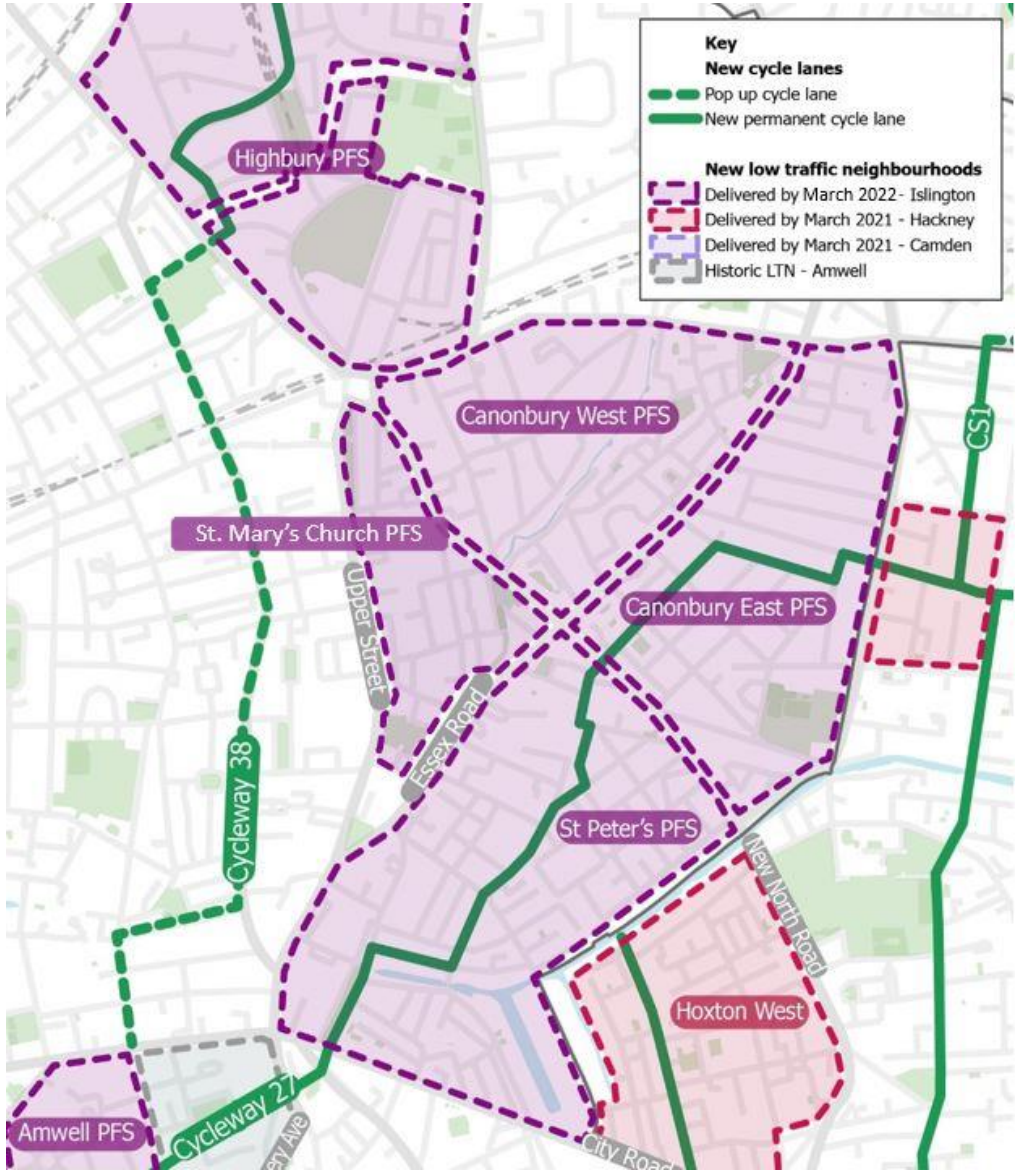
Given the above, the **body of this report will focus on changes between pre-consultation data generally collected in October 2021 and final report data collected in October 2022**, with conclusions based on this comparison. The July 2020 pre-implementation baseline (for roads that were also monitored in October 2022) is included for reference only, for the key tables showing total motorised vehicles and cycles. Full details from this phase of data collection can be found in appendix 5.

This report will monitor motorised traffic on internal roads and boundary roads, cycling volumes on internal and boundary roads, and air quality across the scheme area.

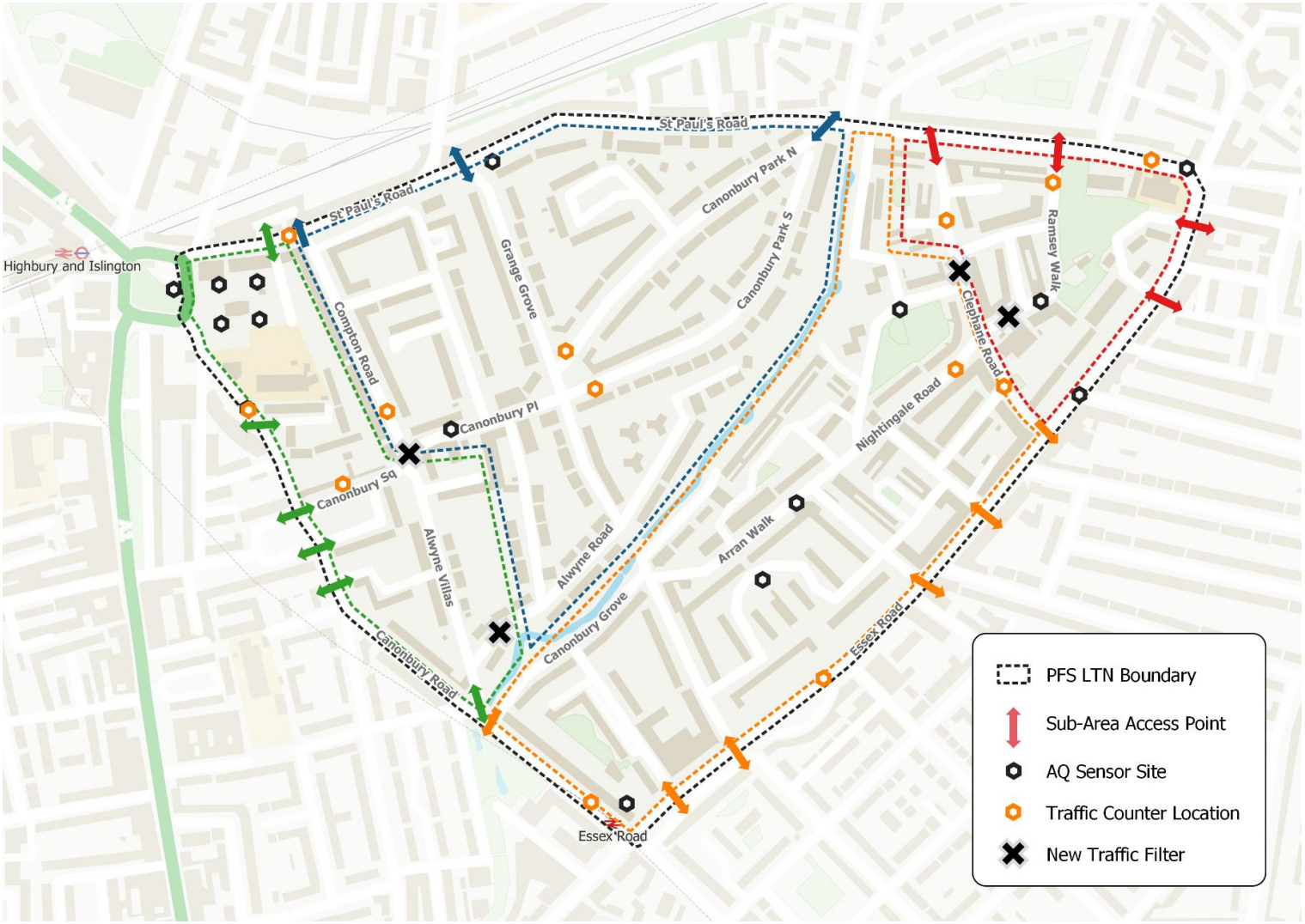
Scheme Context

Initial LTN scheme – Traffic filters were installed at four key locations in the Canonbury West LTN area. The filter locations are: Canonbury Place, Alwyne Road, Clephane Road and Ramsey Walk. The traffic filters are all enforced by cameras to allow access for emergency vehicles. In order to install the modal filters, it was necessary to remove eight parking bays. One of these was a disabled parking bay, which was moved to a new location nearby.

Map 1 : Canonbury West LTN in Wider Context of Nearby LTN Areas and Cycle Lanes



Map 2: Canonbury West LTN and monitoring sites



Pre-Consultation Monitoring Outcomes

As noted above, all final report data is compared against pre-consultation report data from October 2021. However, it is important to note that the LTN scheme had already resulted in changes at the pre-consultation data collection point. These are summarised below:

- The pre-consultation monitoring report showed a reduction in motorised traffic across both internal and boundary roads (during comparable periods), as well as levels of speeding on internal and boundary roads, thereby making the area's roads safer, cleaner, and healthier for residents.

- On internal roads, traffic levels fell by 74% with a small drop in the proportion of vehicles speeding. The volume of cycle traffic increased by 77% on these roads following the introduction of the LTN.

- On the boundary roads, there was a decrease of 15% in vehicle flows, led by a halving of vehicles counted at the northern end of Canonbury Road – however, even when removing this outlier from analysis, normalised traffic flows on boundary roads seemed to have slightly decreased. However, it is noted that travel times for westbound vehicles (including buses) on St. Paul's Road approaching Highbury Corner, it appeared congestion had increased, although this was likely due to a mixture of factors of which the Canonbury West scheme is only one – for example the reorganisation of the Highbury Corner junction. There may also be some congestion-related impact on journey times surrounding the junction of Essex Road and Canonbury Road at the southernmost corner of the scheme.

- There was a negligible change in crime and anti-social behaviour patterns and London Fire Brigade response times.

- The trial did not have an adverse impact on air quality to date, as nitrogen dioxide levels rose roughly in line with borough trends.

Independent Production of the Report by SYSTRA Ltd.

SYSTRA has been commissioned to prepare this report in partnership with the London Borough of Islington.

SYSTRA is a global leader in mass transportation and mobility, employing over 7,000 global employees across 80 countries. SYSTRA has the unique advantage of being not only a Transport Consultancy, but also Social and Market Research Consultancy. Their team members have an in-depth understanding of both the transport sector and of social and market research techniques, providing expert support in monitoring and evaluation both direct to clients and also in a peer review capacity. They provide a wealth of experience in conducting both qualitative and quantitative transport research with stakeholders to help understand their priorities and to inform options for future investment and policy development.

Neither SYSTRA nor LB Islington can be held accountable for errors in the data provided by third parties, where these errors have not been identified through normal checking processes.

Traffic Counts Approach

The count data presented in this report is not traffic modelling, but actual observed traffic, comparing traffic flows in October 2021 (which underpinned the Pre-Consultation report) with those in October 2022.

There are several exceptions to when roads were monitored, generally due to vandalism or problems with survey equipment. The roads affected and relevant dates are presented in the section below.

Pre-consultation counts were taken one year after implementation, in October 2021. These can be found in the LB Islington report *Canonbury West People-Friendly Streets Trial – Pre-Consultation Monitoring Report,* as can data pertaining to the pre-implementation baseline counts.

Completed Dates of Traffic Counts

Baseline counts: 27 July 2020 – 2 August 2020 (Essex Road: 3 July 2020 – 9 July 2020; Canonbury Park North & Compton Road: 9 November 2020 – 15 November 2020)

Canonbury West trial begins: 9 November 2020

Pre-consultation counts: 4 – 10 October 2021

Final counts: 6–12 October 2022 (data was collected from weeks prior to this, but it is expected that data from those weeks would have been significantly impacted by rail strikes and thus the data was not used).

The council uses various traffic counting methods to understand traffic volumes and speeds within and around the LTN to assess if the scheme is having the desired impact and to respond (if required) with mitigating actions.

Automatic Traffic Counts (ATCs) are used at all sites for the Canonbury West LTN. ATCs measure motorised and cycle traffic volumes and motorised traffic speeds and classify the traffic by type. Transport for London (TfL) use radar counts on the Transport for London Road Network (TLRN), which measure motorised traffic volumes and speeds. More information about the different types of counts and which type was used at each site is detailed in Appendix 1.

Analysis and Normalisation Methodology Overview

All of these counts were undertaken in full awareness of the disruption caused by the COVID-19 travel restrictions, and the need for a process to interpret the results in a way that accounts for this disruption.

Daily volumes of motorised traffic have been drawn from a range of 12 permanent traffic counters managed by Transport for London across Islington and used to establish monthly averages in 2019 and 2020. The locations of these counters are detailed in Appendix 1. The percentage difference between the same month across the two different years has been used to adjust the counts to normalise for COVID-19 disruption between the months in which counts have been taken. The methodology is set out in greater detail in Appendix 2. Drafting the baseline from TfL count locations outside of Islington and from additional years was considered and tested, but resulted in only small differences and was therefore not taken forward as the chosen methodology.

For context, the difference was greatest in April 2020, where motorised traffic was approximately 50% of what it had been in April 2019.

Using the months of the Canonbury West counts, in October 2021 motorised traffic was approximately 4.9% lower than in October 2019 and in October 2022 motorised traffic was approximately 5.8% lower than in October 2019.

Table 1: Normalisation factors since March 2020 for traffic in Islington

Month	Impact
Mar-20	-27.97%
Apr-20	-49.87%
May-20	-38.34%
Jun-20	-22.10%
Jul-20	-13.46%
Aug-20	-6.55%
Sep-20	-6.90%
Oct-20	-10.48%
Nov-20	-22.13%
Dec-20	-16.11%
Jan-21	-25.70%
Feb-21	-24.80%
Mar-21	-31.28%
Apr-21	-22.52%
May-21	-18.68%
Jun-21	-8.90%
Jul-21	-6.16%
Aug-21	-2.59%
Sep-21	-4.17%
Oct-21	-4.90%
Nov-21	-5.85%
Dec-21	-5.19%
Jan-22	-4.79%
Feb-22	-2.18%
Mar-22	-16.12%
Apr-22	-14.53%
May-22	-12.27%
Jun-22	-8.44%
Jul-22	-7.08%
Aug-22	-6.93%
Sep-22	-6.19%
Oct-22	-5.84%

Interpreting Count Results

Unless specified otherwise, the seven-day daily average has been used and discussed in traffic volumes analysis in this report. Full data and flow profiles are provided in Appendix 5.

Raw data has been analysed and compared to give the observed results. The observed results have then undergone the normalisation process described in the previous section to give the normalised results. Both the normalised results and the observed results can be found in the results tables in this report and in the appendices. The figures given for changes in volumes of traffic in this report are normalised, and percentages have been drawn from the differences between normalised results.

A negative number or percentage indicates a decrease between the two counts, while a positive number or percentage indicates an increase.

Please note that traffic flows fluctuate daily (generally up to 10%). As such, changes within -10% to +10% are considered insignificant (i.e. no or negligible change) and are not colour-coded. In contrast, changes of greater than 10% in a direction aligning with scheme goals (reduced traffic/pollution levels/speeds, and increased cycling) are highlighted in green, whilst changes of greater than 10% in the opposite direction are highlighted in red.

In addition, it must be noted that, as vehicles travelling through the LTN are likely to go through multiple counter sites, it is almost certain that the number of vehicles counted in the area is higher than the actual number of trips.

External Factors

It is important to consider all these results in the context of other external factors which could be impacting on the data. Whilst broader trends occurring over longer timescales and larger geographies are likely addressed through normalisation, more local or short-term impacts may also be present. It is not possible to adjust for these in calculations. There are seven main external factors which could be influencing results, as follows:

Nearby Low Traffic Neighbourhoods – As can be seen in Map 1, the Canonbury West area is in close proximity to a number of other low traffic neighbourhoods. Highbury West, Highbury Fields and Canonbury East LTNs are all located in Islington and two share boundary roads with Canonbury West. It is therefore not possible to separate out the impacts these may be having on traffic on the boundary roads.

Nearby Major Traffic Projects – The redevelopment of Highbury Corner was completed by Transport for London (TfL) in 2019 as part of a London-wide Safer Junctions programme to reduce road danger at several intersections including roundabouts, which the council supports. There has been concerns that this project has increased congestion on the surrounding roads. As this scheme is particularly close to Canonbury West, this congestion directly impacts St Paul's Road, which lies east of Highbury Corner and north of the scheme area. It is considered that the impact of Highbury Corner will mostly have been on baseline, rather than pre-consultation or final monitoring period flows.

Weather – Weather can have a significant impact on travel choices, especially cycling, and air pollution.
During the month the pre-consultation traffic counts were taken in October 2021, the minimum temperature was 10°C and the maximum was 17°C. During the final data collection period in October 2022, weather data was broadly similar if not slightly warmer, with slightly less rain as compared to the previous year. Both of these periods had cooler weather that was less conducive to cycling than the summer 2020 baseline.

COVID-19 Impacts – During the pre-consultation data collection period, formal restrictions around COVID-19 had been lifted. Rules affecting outdoor social contact had been removed, two households or six people were allowed to meet indoors, indoor hospitality services were provided and hotels opened. However, during the monitoring period, not all restrictions had been officially lifted, and face masks were still mandatory in certain settings.

In comparison, by October 2022 all COVID restrictions had been removed for several months under the government's "living with COVID" plan released at the end of February, and tests were no longer free for citizens. The virus was still in active circulation in the UK, but symptoms tended to be fairly mild and advice was generally to avoid coming to work or leaving the house until symptoms abated.
Through both monitored periods, working from home was a significant driver of how much people travelled, with a larger proportion of people returning to offices at least part-time during the final counts compared to the pre-consultation ones.

Fuel Crisis – In late September 2021, panic buying of fuel set off supply chain issues leading to many petrol stations running out of fuel, and thus a potential reluctance/inability for some vehicle owners/hauling companies to travel or conduct business as usual. However, comparing national traffic levels from when fuel stocks returned to normal (21st October) to the week counts for this report were conducted, there appears to be minimal difference. Additionally, as the normalisation approach adopted to calculations in this report considers all impacts to vehicle traffic (not just COVID-19), it is considered that this will also adjust for any fuel crisis impact on pre-consultation counts.

Cost of Living Crisis – In October 2022, during the final counts, rising inflation had significantly increased the price of petrol and other critical items, with the cost of driving and taking public transportation increasing compared to previous years and the affordability of travel decreasing. This may have reduced the number of discretionary journeys taken by paid modes (both public and private), with some level of increase in walking and cycling likely.

ULEZ Extension – On October 2021, directly after the pre-consultation counts were taken, the ULEZ (Ultra Low Emission Zone) was extended to the North and South Circular Roads, encompassing the entirety of the Borough of Islington (previously, only areas south of City Road were subject to ULEZ levies).

In July 2022 Transport for London published the *Expanded Ultra Low Emission Zone – Six Month Report Including Low Emission Zone – One Year Report*. The report estimates that the new ULEZ reduced traffic by 21,000 vehicles in the zone on an average day, a reduction of 2 per cent of traffic flow compared to the weeks before the expanded ULEZ was implemented. Whilst it is expected that this broad change in cost of driving in the borough has been reflected in normalised data via TfL ATCs, it is possible that more localised effects exist.

Data Patching

For this report, data was processed using SYSTRA's proprietary automated data processing tools, which draw together raw data from all reporting periods and apply formulae-based calculations to produce the charts and tables shown in the following pages and appendices. However, as it is not uncommon for there to be problems with data surveys (broken equipment, cars parked on ATC bands etc.) as well as anomalous readings from surveys resulting from one-off events (waterworks, gas leaks, accidents etc.), all data has been thoroughly checked by hand and "patched" (i.e. blank data or significantly anomalous data has been substituted by more representative data from the site/wave in question), which is a necessary task in order to maintain comparable data.

The more thorough patching process applied to data in this report has yielded some deviations in numbers from those included in previous reports. These differences are well understood by both SYSTRA and LB Islington and are considered not to have a notable impact on conclusions in any of the relevant monitoring reports.

Analysis of Vehicle Volumes

All Motorised Vehicle Volumes (7-Day Daily Average)

This section outlines the changes in observed and normalised traffic volumes for all motorised vehicles, including cars (both private cars and taxis/company-owned cars) and goods vehicles ranging from delivery vans to large articulated lorries. The total number of such motorised vehicles counted in the monitored week has been summed and divided by seven to create a daily average. The numbers presented have been rounded to the nearest whole number and raw/percentage changes calculated accordingly. It is noted that the number of cycles counted is not included in this analysis.

Table 2 on the overleaf presents the percentage change in motorised vehicle volumes between the pre-consultation data collection period in 2021 and the final data collection period in 2022. It is important that percentage change figures are considered in the context of raw changes, as a large percentage change could indicate a relatively minor change in actual vehicles counted on a particularly quiet road. Conversely, a busy road could see a small percentage change even if there the number of vehicles counted is quite different between the two monitored periods.

Further context for each site can be found in Appendix 5, which outlines the observed and normalised figures for both the Pre-Consultation and Final counts, as well as for the Baseline, as in some cases a large percentage increase in this report represents a small nominal "bounce back" of traffic compared to the baseline.

Table 2: Motorised Traffic Volumes on Internal Roads

	Pre-Consultation Observed: Oct-21	Pre-Consultation Normalised: Oct-21	Final Observed: Oct-22	Final Normalised: Oct-22	Difference Observed Final vs. Pre-Consultation	Difference Normalised Final vs. Pre-consultation	Difference Observed Final vs. Pre-Consultation (%)	Difference Normalised Final vs. Pre-Consultation (%)	Difference Normalised Final vs. Baseline	Difference Normalised Final vs. Baseline (%)
Canonbury Square	449	471	500	532	51	61	**11%**	**13%**	-1,582	**-75%**
Canonbury Park South	216	228	229	243	13	15	6%	7%	-137	**-36%**
Clephane Road (northern site)	315	332	357	379	42	47	**13%**	**14%**	-2,127	**-85%**
Ramsey Walk	289	304	294	312	5	8	2%	3%	-108	**-26%**
Nightingale Road	281	296	268	286	-13	-10	-5%	-3%	-653	**-70%**
Clephane Road (southern site)	282	296	247	262	-35	-34	**-12%**	**-11%**	-763	**-74%**
Total Internal	**1,832**	**1,927**	**1,895**	**2,014**	**63**	**87**	**3%**	**5%**	**-5,370**	**-73%**
Canonbury Park North*	1,468	1,543	1,342	1,425	-126	-118	-9%	-8%	-269	**-16%**
Compton Road*	812	854	843	896	31	42	4%	5%	-505	**-36%**
Alwyne Villas**	173	182	167	177	-6	-5	-3%	-3%	New Site	New Site
Grange Grove**	581	612	566	601	-15	-11	-3%	-2%	New Site	New Site

*Baseline counts for these sites were taken in November 2020

**Baseline data for these sites was considered too low in quality for comparison

Table 3: Motorised Traffic Volumes on Boundary Roads

	Pre-Consultation Observed: Oct-21	Pre-Consultation Normalised: Oct-21	Final Observed: Oct-22	Final Normalised: Oct-22	Difference Observed Final vs. Pre-Consultation	Difference Normalised Final vs. Pre-consultation	Difference Observed Final vs. Pre-Consultation (%)	Difference Normalised Final vs. Pre-Consultation (%)	Difference Normalised Final vs. Baseline	Difference Normalised Final vs. Baseline (%)
St Paul's Road (western site)	19,599	20,609	21,725	23,071	2,126	2,462	**11%**	**12%**	1,831	9%
St Paul's Road (eastern site)	11,917	12,529	11,135	11,826	-782	-703	-7%	-6%	-1,003	-8%
Canonbury Road (northern site)	8,521	8,961	8,140	8,645	-381	-316	-4%	-4%	-10,246	**-54%**
Canonbury Road (southern site)	13,878	14,594	14,060	14,932	182	338	1%	2%	-1,012	-6%
Essex Road	16,240	17,077	15,538	16,503	-702	-574	-4%	-3%	-3,453	**-17%**
Total Boundary	**70,155**	**73,770**	**70,598**	**74,977**	**443**	**1,207**	**1%**	**2%**	**-13,883**	**-16%**

Insights: All Motorised Vehicle Volumes

Across both internal and boundary roads, there was minimal difference in total normalised flows between the pre-consultation and final monitoring period, with very minor increases in both cases set against comparably much larger drops in flows since the baseline.

For internal roads, there was a 5% increase in normalised vehicle counts since the pre-consultation period, equating to a total of 87 additional vehicles on internal streets. Canonbury Square and Clephane Road's northern site both saw increases of between 13-14%, but these likely represent a bedding in of the scheme – given that both sites saw >75% reductions in flows since the baseline. Clephane Road's southern site saw a further decrease of 11% in normalised flows. For streets monitored during other times periods, Canonbury Park North and Compton Road's southern site both saw minimal change since pre-consultation, but moderate reductions since the baseline – and new sites on Alwyne Villas and Grange Grove saw similarly limited change since pre-consultation.

Since the 2020 baseline, internal roads have seen a reduction of 73% in overall motorised flows, with every measured street in this category seeing at least a 10% reduction.

On boundary roads, there was a similarly minimal change in vehicle flows (+2% or 1,207 daily vehicles), although St. Paul's Road (at its western site) did record an increase of 12% in terms of normalised motorised vehicles since pre-consultation. Compared to the baseline, this amounts to a negligible increase of 9%. Other sites saw limited difference, although since the 2020 baseline Canonbury Road's northern site maintained a halving in flows (-54%) and Essex Road still recorded a 17% drop in motorised traffic volumes.

Overall, since the 2020 baseline, boundary roads saw a drop of 16% in motorised vehicle volumes.

These findings generally indicate that whilst there have been some small increases in traffic volumes on specific roads between the pre-consultation and final analysis periods, these tend to represent rebounds after large drops from the baseline – and that in general, the Blue Badge exemption policy, which provided 109 Blue Badges to residents of Canonbury West and was implemented between the pre-consultation and final counts, has not materially impacted the scheme's success.

Goods Vehicles Volumes (5-Day Average)

This section outlines the changes in normalised traffic volumes for Light Goods Vehicles and Heavy Goods Vehicles.

LGV stands for Light Goods Vehicle. This is defined, for the purposes of this report (and differs from previous reports), as a rigid two-axle van, such as the type of van commonly used for deliveries. HGV stands for Heavy Goods Vehicle, which is a goods vehicle larger than the type of van described above.

The results shown are for 5-day average weekday volumes, excluding weekends. This is because goods vehicle traffic is generally lower at weekends, therefore the weekday data gives a better impression of the effects on goods vehicle traffic. Similarly, the % numbers given are percentages of total motorised traffic, rather than all vehicles counted. Changes in the proportion of LGV/HGV compared to total motorised traffic (or "dominance" of such vehicles) is presented as a percentage point difference.

Table 4: Goods Vehicles Volumes on Internal Roads (Normalised)

	LGV #: Oct-21	LGV Prop: Oct-21	LGV #: Oct-22	LGV Prop: Oct-22	LGV Change in Proportion Final vs. Pre-Consultation	HGV #: Oct-21	HGV Prop: Oct-21	HGV #: Oct-22	HGV Prop: Oct-22	HGV Change in Proportion Final vs. Pre-Consultation
Canonbury Square	54	11%	89	16%	5%	28	6%	31	5%	-1%
Canonbury Park South	53	22%	35	13%	-9%	6	2%	20	7%	5%
Clephane Road (northern site)	41	12%	43	11%	-1%	6	2%	22	6%	4%
Ramsey Walk	34	11%	41	13%	2%	4	1%	17	5%	4%
Nightingale Road	21	7%	35	12%	5%	12	4%	16	6%	2%
Clephane Road (southern site)	31	11%	17	7%	-4%	5	2%	7	3%	1%
Total/Average Internal	**234**	**13%**	**260**	**13%**	**0%**	**61**	**4%**	**113**	**6%**	**2%**
Canonbury Park North*	10	1%	147	9%	8%	156	9%	61	4%	-5%
Compton Road*	105	11%	156	16%	5%	11	1%	43	4%	3%
Alwyne Villas**	11	6%	13	7%	1%	3	2%	3	2%	0%
Grange Grove**	87	14%	106	17%	3%	6	1%	31	5%	4%

*Baseline counts for these sites were taken in November 2020

**Baseline data for these sites was considered too low in quality for comparison

Table 5: Goods Vehicles Volumes on Boundary Roads (Normalised)

	LGV #: Oct-21	LGV Prop: Oct-21	LGV #: Oct-22	LGV Prop: Oct-22	LGV Change in Proportion Final vs. Pre-Consultation	HGV #: Oct-21	HGV Prop: Oct-21	HGV #: Oct-22	HGV Prop: Oct-22	HGV Change in Proportion Final vs. Pre-Consultation
St Paul's Road (western site)	786	4%	654	3%	-1%	642	3%	660	3%	0%
St Paul's Road (eastern site)	1,312	11%	1,551	13%	2%	378	3%	783	7%	4%
Canonbury Road (northern site)	1,109	13%	1,028	12%	-1%	259	3%	537	6%	3%
Canonbury Road (southern site)	1,383	9%	1,008	7%	-2%	305	2%	525	3%	1%
Essex Road	2,176	13%	1,917	12%	-1%	547	3%	1,430	9%	6%
Total/Average Boundary	**6,766**	**11%**	**6,158**	**10%**	**-1%**	**2,131**	**3%**	**3,935**	**6%**	**3%**

Insights: Goods Vehicles Volumes

For goods vehicles, there has been limited change between the pre-consultation and final monitoring periods.

On internal roads, there was no change in LGVs as a proportion of total traffic, whilst HGVs became more prevalent by 2 percentage points. For Canonbury Park North, it appears that there may have been a misclassification in the raw data, as there is a corresponding increase in HGVs and decrease in LGVs between periods – overall, daily LGVs and HGVs (combined) has increased from 166 to 208 on this road, with proportion of goods vehicles vs. total traffic also increasing somewhat.

For boundary roads, changes in vehicle dominance have been similarly small, with a 1-percentage point reduction in LGVs a proportion of total traffic and a 3-percentage point increase for HGVs against the same metric.

Motorcycle Volumes (7-Day Average)

Motorcycle volumes are considered separately from other vehicles as they are occasionally able to travel through neighbourhood blocks using filters and streets in manners that cars and lorries cannot (for example by illegally using cycle filters). Similarly, on average, they create more noise than general traffic and are therefore of particular concern during the overnight period, especially as a result of the significant increase in their prevalence following COVID-19 and the spike in deliveries made by motorcycle in London.

Motorcycles are distinguished from pedal cycles in ATC counters by the weight and spacing of the vehicle tyres.

Table 6: Motorcycle Flows on Internal Roads (Normalised)

	Motorcycle #: Oct-21	Motorcycle Prop: Oct-21	Motorcycle #: Oct-22	Motorcycle Prop: Oct-22	Motorcycle Change in Proportion, Final vs. Pre-Consultation
Canonbury Square	51	11%	103	19%	8%
Canonbury Park South	17	7%	41	17%	10%
Clephane Road (northern site)	42	13%	65	17%	4%
Ramsey Walk	24	8%	39	13%	5%
Nightingale Road	31	10%	50	17%	7%
Clephane Road (southern site)	29	10%	22	8%	-2%
Total/Average Internal	**194**	**10%**	**320**	**17%**	**7%**
Canonbury Park North*	89	6%	104	7%	1%
Compton Road*	51	6%	57	6%	0%
Alwyne Villas**	22	12%	16	9%	-3%
Grange Grove**	56	9%	69	11%	2%

*Baseline counts for these sites were taken in November 2020

**Baseline data for these sites was considered too low in quality for comparison

Table 7: Motorcycle Flows on Boundary Roads (Normalised)

	Motorcycle #: Oct-21	Motorcycle Prop: Oct-21	Motorcycle #: Oct-22	Motorcycle Prop: Oct-22	Motorcycle Change in Proportion, Final vs. Pre-Consultation
St Paul's Road (western site)	223	1%	1,140	5%	4%
St Paul's Road (eastern site)	663	5%	713	6%	1%
Canonbury Road (northern site)	532	6%	730	8%	2%
Canonbury Road (southern site)	610	4%	702	5%	1%
Essex Road	867	5%	918	6%	1%
Total/Average Boundary	**2,895**	**5%**	**4,203**	**6%**	**1%**

Insights: Motorcycle Volumes

On internal roads, the number and proportion of motorcycles increased between the pre-consultation and final monitoring periods, with a 65% increase in normalised flows and 7 percentage point increase in proportional representation. Canonbury Square and Canonbury Park South saw the largest increases.

On boundary roads, there was only a slight increase in motorcycle dominance between the two periods monitored for this report. However, St. Paul's Road (at the western site) saw a nominal increase of 917 daily vehicles, which accounts for nearly 40% of the 2,462-vehicle increase this site has seen in terms of all motorised vehicles – although comparing against the baseline this is actually a 12% decrease, indicating that pre-consultation counts for motorcycles were particularly low and such counts may have been mis-classed in the raw data.

Cycle Volumes (7-Day Average)

We have not normalised cycling figures for COVID-19 due to the lack of an available source that provides continuous month-to-month cycling levels encompassing all types of cycling trips (commute and leisure), and is at a local enough geographic scale to form a meaningful and robust benchmark.

Unlike motorised traffic trends, cycling levels are significantly impacted by seasonal weather change including temperature and rainfall; for example, there is normally much more cycling participation in July than in February, and there are similarly significantly more cycle trips completed in July than February. There are several interlinked factors when it comes to the impact seasonal weather variation has on cycling levels, while weather can still vary within a season, a month or even a day. As an indication of the impact weather can have, one 2011 study found a doubling in temperature could lead up to a 50% increase in cycling levels, before having a negative impact if too high (Study by Miranda-Moreno and Nosal, 2011).

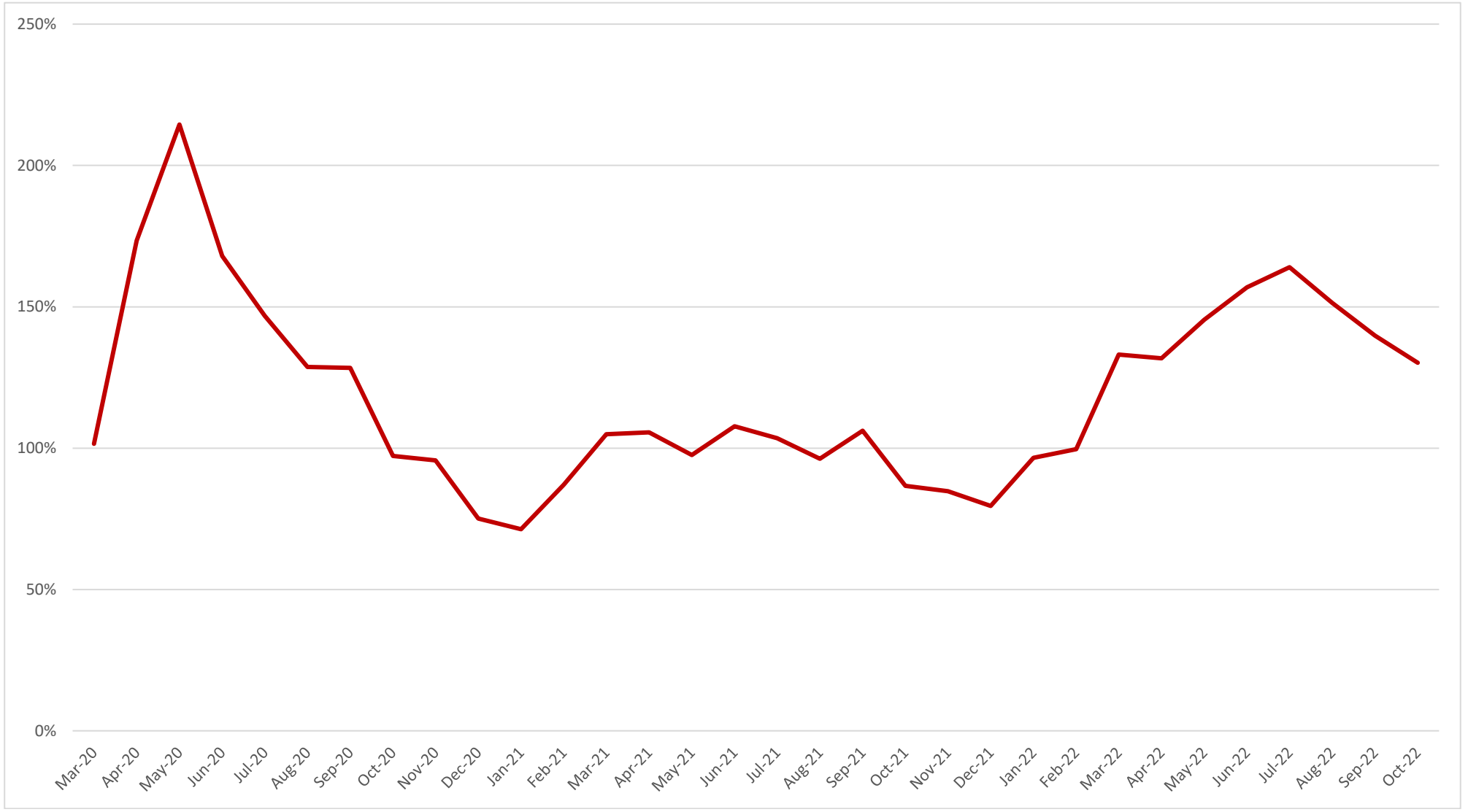
Between pre-consultation and final data collection periods (taken in October of 2021/2022 respectively), average climate data shows a similar picture of highs near 17-18°C and lows close to 10°C, with around 80-90mm of rain.

Considering these caveats, it is also important to note that government regulations and guidance surrounding COVID-19, as well as the impact of the cost-of-living crisis in 2022, have significantly impacted wider cycling trends since March 2020 (data from DfT's Official Statistics). Graph 1 on the overleaf shows, on a national basis, the number of cycle trips completed as compared to the same month pre-pandemic (i.e., June 2021 compared to June 2019), indicating that whilst the first few months of the pandemic (i.e. early summer 2020) saw very high levels of cycling, levels since then have been driven by a range of factors (for example lower flows in the largely rainy summer of 2021 and higher flows in the hot and dry summer of 2022 during the cost of living crisis).

Route choices made by people cycling will also be impacted by the availability of nearby protected cycle infrastructure and Low Traffic Neighbourhoods.

Following Graph 1 outlining nationwide cycling trends, the Canonbury West table outlines changes in cycling volumes across the scheme area between pre-consultation and final counts.

Graph 1: National Cycling Levels - % of Comparison Month in 2019*



*For example, October 2022 cycling levels are ~130% of the October 2019 average.

Table 8: Cycle Volumes on Internal Roads

	Pre-Consultation Observed : Oct-21	Final Observed : Oct-22	Difference Final vs. Pre-Consultation	Difference Final vs. Pre-Consultation (%)	Difference Final vs. Baseline	Difference Final vs. Baseline (%)
Canonbury Square	697	696	-1	0%	513	**280%**
Canonbury Park South	279	331	52	**19%**	7	2%
Clephane Road (northern site)	237	211	-26	**-11%**	14	7%
Ramsey Walk	98	92	-6	-6%	4	5%
Nightingale Road	191	187	-4	-2%	105	**128%**
Clephane Road (southern site)	211	134	-77	**-36%**	42	**46%**
Total Internal	1,713	1,651	-62	-4%	685	**71%**
Canonbury Park North*	480	569	89	**19%**	386	**211%**
Compton Road*	224	247	23	**10%**	112	**83%**
Alwyne Villas**	113	148	35	**31%**	New Site	New Site
Grange Grove**	223	186	-37	**-17%**	New Site	New Site

*Baseline counts for these sites were taken in November 2020

**Baseline data for these sites was considered too low in quality for comparison

Table 9: Cycle Volumes on Boundary/Other External Roads

	Pre-Consultation Observed : Oct-21	Final Observed : Oct-22	Difference Final vs. Pre-Consultation	Difference Final vs. Pre-Consultation (%)	Difference Final vs. Baseline	Difference Final vs. Baseline (%)
St Paul's Road (western site)	1,519	976	-543	**-36%**	69	8%
St Paul's Road (eastern site)	776	559	-217	**-28%**	-253	**-31%**
Canonbury Road (northern site)	1,467	1,251	-216	**-15%**	-227	**-15%**
Canonbury Road (southern site)	1,351	535	-816	**-60%**	-386	**-42%**
Essex Road	1,749	1,821	72	4%	463	**34%**
Total Boundary	6,862	5,142	-1720	**-25%**	-334	-6%

Insights: Cycling Volumes

Overall, cycling volumes on internal roads did not change significantly between pre-consultation and final monitoring periods, with a 4% reduction in cycles counted for comparable roads. However, there was significant variation amongst sites, with some locations gaining cyclists and others losing them. Canonbury Park South, for example, gained 52 daily cyclists, whilst Canonbury Park North gained 89 daily cyclists (both +19%). In contrast, Clephane Road's southern site saw a reduction of 77 daily cyclists (-36%). It is expected that these changes likely amount to some rerouting of cycle trips through the LTN area.

In comparison to baseline trips, comparable locations saw a 71% increase in total cycling flows, with Canonbury Square seeing a significant jump in cycles counted (+280% or +513 daily trips). Canonbury Park North also saw a significant increase, of 386 daily cyclists (+211%). No internal road saw a decrease in cyclist numbers counted since the baseline. It should be noted that this increase in cycling trips should be considered in the context of baseline counts coming from July/August 2020, which saw warm and dry weather which tends to be more amenable to cycling.

For boundary roads, the number of cyclists counted has generally decreased, particularly on Canonbury Road's southern site (-60% or -816 daily cyclists). It might be that some of these journeys are now routing via the inside of the LTN via locations such as Canonbury Square or Canonbury Park, perhaps showing that cyclists now view these roads as more attractive. Smaller, but still notable drops in cycle flows were also seen on St Pauls' Road, particularly the western site near Highbury Corner (-543 daily cycles or -36%). Overall, there was a 25% drop in cycle trips counted on boundary roads.

Since the baseline, however, there has been limited change in cycling trips counted, with a 6% decrease overall. Canonbury Road saw the largest change (-42%, or -386 daily cycles), but Essex Road saw an increase of 463 daily trips (+34%).

Analysis of Vehicle Speeds

Speeding is a major contributing factor to road danger, so reducing speeding is vital to making roads safer for all.

Traffic counters measure motorised traffic speeds as well as volumes. Details about the dates and locations of the traffic volume and speed monitoring are in Appendix 5. The speed limit is 20mph on all monitored roads.

Speed monitoring results have not been normalised as they are not considered to have been impacted by COVID-19 in the same way and to the same extent as traffic volumes, though speeds may settle into new patterns post-COVID-19. The results presented here are seven- day averages. The 85th percentile is used in transport monitoring to gauge changes in speeds and speeding behaviour. It is the speed at or below which 85% of traffic will be travelling along a street (and therefore 15% of traffic will be travelling faster than this speed). Cycles and their speeds have been removed from calculations relating to vehicle speeds as including such counts would skew averages down.

Map 3: Average Vehicle Speed in mph (seven-day daily averages)

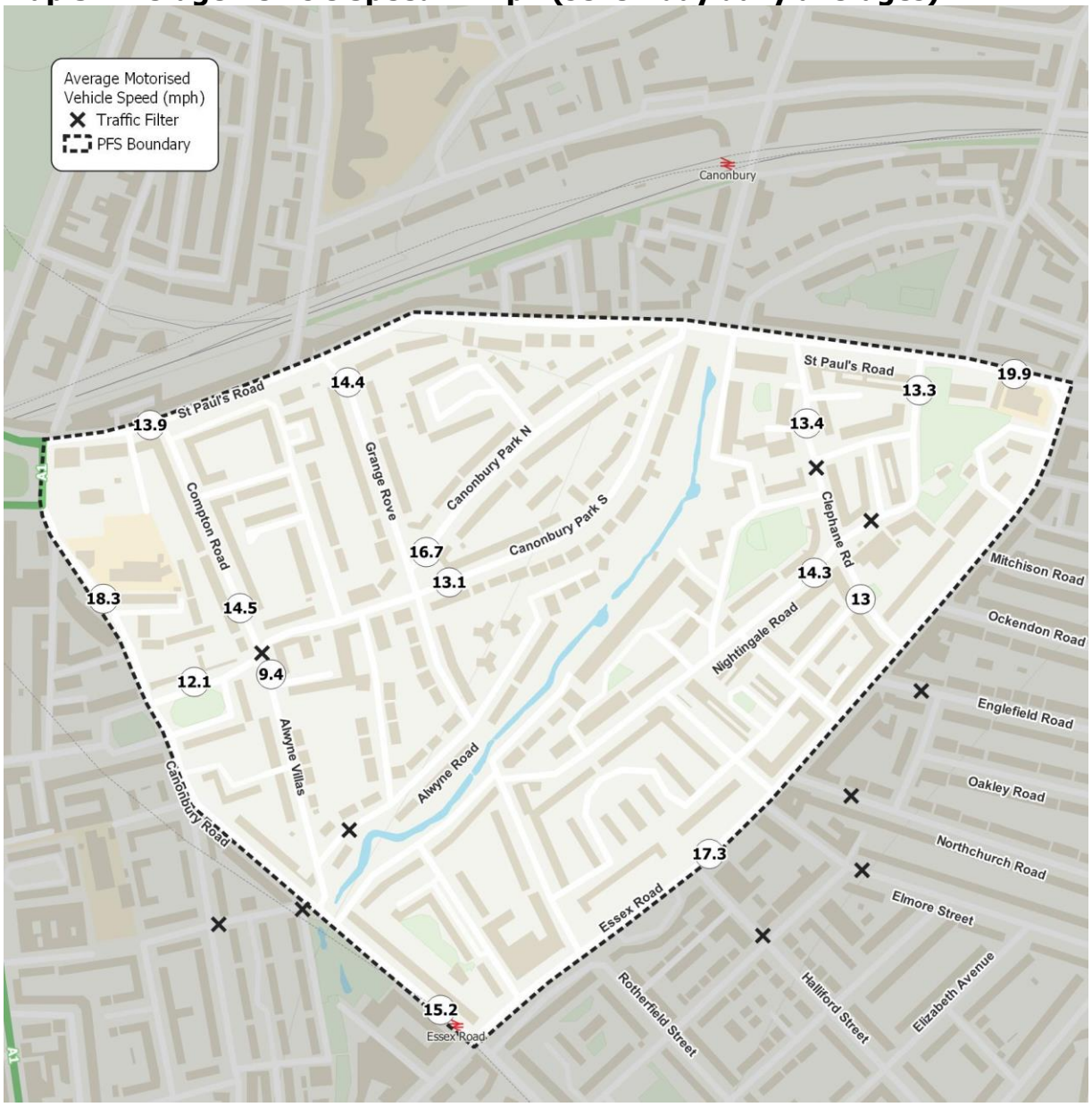


Table 10: Difference in Vehicle Speeds on Internal Roads

	Average Speed - Final (mph)	Average Speed - Diff. vs. Pre-Con (mph)	Average Speed - Diff. vs. Pre-Con (%)	Average Speed - Diff. vs. Baseline (mph)	Average Speed - Diff. vs. Baseline (%)	85th Percentile Speed - Final (mph)	85th Percentile Speed - Diff. vs. Pre-Con (mph)	85th Percentile Speed - Diff. vs. Pre-Con (%)	85th Percentile Speed - Diff. vs. Baseline (mph)	85th Percentile Speed - Diff. vs. Baseline (%)	% Speeding (above Posted Speed Limit) - Final (%)	% Speeding (above Posted Speed Limit) - Diff vs. Pre-Con (% pt.)	% Speeding (above Posted Speed Limit) - Diff vs. Baseline (% pt.)
Canonbury Square	12.1	1.1	10%	-3.4	**-22%**	14.9	0.6	4%	-4.0	**-21%**	2%	0%	-8%
Canonbury Park South	13.1	-0.7	-5%	-0.7	-5%	16.2	-1.8	-10%	-1.6	-9%	3%	-3%	-4%
Clephane Road (northern site)	13.4	0.5	4%	-1.7	**-11%**	16.8	0.8	5%	-1.5	-8%	4%	1%	-3%
Ramsey Walk	13.3	1.4	**12%**	-0.9	-6%	16.8	1.8	**12%**	-1.1	-6%	4%	2%	-2%
Nightingale Road	14.3	2.7	**23%**	-1.7	**-11%**	18.3	3.9	**27%**	-1.5	-8%	9%	8%	-5%
Clephane Road (southern site)	13.0	1.6	**14%**	-1.9	**-13%**	16.0	1.5	**10%**	-2.1	**-12%**	3%	2%	-4%
Weighted Average	**13.1**	**1.1**	**9%**	**-2.1**	**-14%**	**16.3**	**1.1**	**8%**	**-2.3**	**-12%**	**4%**	**2%**	**-5%**
Canonbury Park North	16.7	4.1	**33%**	1.6	**11%**	21.2	6.5	**44%**	1.1	5%	22%	**21%**	6%
Compton Road*	14.5	1.0	7%	1.8	**14%**	17.8	1.5	9%	1.8	**11%**	5%	3%	3%
Alwyne Villas**	9.4	0.4	4%	New Site	New Site	11.3	0.5	5%	New Site	New Site	0%	0%	New Site
Grange Grove**	14.4	1.6	**13%**	New Site	New Site	18.3	2.1	**13%**	New Site	New Site	8%	5%	New Site

*Baseline counts for these sites were taken in November 2020

**Baseline data for these sites was considered too low in quality for comparison

Table 11: Difference in Vehicle Speeds on Boundary Roads

	Average Speed - Final (mph)	Average Speed - Diff. vs. Pre-Con (mph)	Average Speed - Diff. vs. Pre-Con (%)	Average Speed - Diff. vs. Baseline (mph)	Average Speed - Diff. vs. Baseline (%)	85th Percentile Speed - Final (mph)	85th Percentile Speed - Diff. vs. Pre-Con (mph)	85th Percentile Speed - Diff. vs. Pre-Con (%)	85th Percentile Speed - Diff. vs. Baseline (mph)	85th Percentile Speed - Diff. vs. Baseline (%)	% Speeding (above Posted Speed Limit) - Final (%)	% Speeding (above Posted Speed Limit) - Diff vs. Pre-Con (% pt.)	% Speeding (above Posted Speed Limit) - Diff vs. Baseline (% pt.)
St Paul's Road (western site)	13.9	1.3	**10%**	-2.1	**-13%**	19.2	1.9	**11%**	-2.0	-9%	12%	5%	-8%
St Paul's Road (eastern site)	19.9	-0.7	-3%	-1.2	-6%	24.8	-0.8	-3%	-1.2	-5%	48%	-6%	**-11%**
Canonbury Road (northern site)	18.3	-0.8	-4%	0.3	2%	23.6	-0.4	-2%	1.5	7%	37%	-5%	7%
Canonbury Road (southern site)	15.2	-2.3	**-13%**	-1.9	**-11%**	20.3	-2.3	**-10%**	-2.2	-10%	16%	**-14%**	**-12%**
Essex Road	17.3	-0.6	-3%	-1.5	-8%	20.8	-1.6	-7%	-2.1	-9%	21%	-7%	**-16%**
Weighted Average	**16.4**	**-0.6**	**-3%**	**-1.6**	**-9%**	**21.2**	**-0.6**	**-3%**	**-1.6**	**-7%**	**23%**	**-5%**	**-10%**

Insights: Vehicle Speeds

In general, vehicle speeds across internal roads increased slightly across key metrics between the pre-consultation and final monitoring periods, but still decreased since the baseline. The difference in average speeds for comparable roads was of +9%, mostly due to increases on Nightingale Road (+2.7mph), Clephane Road (+1.6mph at the southern site) and Ramsey Walk (+1.4mph) – however, all three of these roads saw decreases in average speeds since the baseline (-1.7mph for Nightingale Road, -1.9mph for Clephane Road's southern site and -0.9mph for Ramsey Walk). In terms of other metrics, 85th percentile speeds increased 8% between pre-consultation and final monitoring periods but decreased 12% since the baseline, and the percentage of vehicles speeding increased by 2 percentage points between these periods but decreased by 5 percentage points since the baseline.

For other roads not monitored during the same periods, there were some increases in speeds – of 4.1mph on Canonbury Park North and 1.6mph on Grange Grove. Canonbury Park North has also seen an increase of 1.6mph in average speeds since the baseline.

On boundary roads, a different picture emerges, whereby average speeds generally decreased slightly between the pre-consultation and final monitoring period (-3%), adding to existing reductions in average speeds since the baseline (-9% total). Canonbury Road's southern site saw the largest reduction in average speeds, whilst St. Paul's Road's western site saw an increase in average speeds since pre-consultation but not since the baseline. The percent of vehicles speeding has also decreased by 10 percentage points since the baseline. It is noted that these reductions in speeds may relate to congestion (given the sites where they are most common) as well as general driver behaviour.

Air Quality

Air quality refers to the air around us, how clean it is and how many pollutants (harmful chemicals or substances) it contains. The more pollutants the air contains the more air pollution there is and the worse the air quality is. Poor air quality is a concern as air pollution can impact health. The two main pollutants of concern that we monitor are:

- **Particulate matter of 10µm or less in size (PM10)** – tiny bits of solid material made of a range of substances suspended in the air.

- **Nitrogen dioxide (NO_2)** – one of a group of gases called nitrogen oxides.

There are three types of monitors in use, which will give slightly different data:

- **Automatic monitors**: monitor NO_2 and PM10 24 hours a day at two locations in the borough. These are our most accurate monitors.

- **Diffusion tubes:** provide monthly readings of NO_2. While not as accurate as the automatic monitors, they can be more widely deployed to provide trends over a larger area and time period and are a nationally approved monitoring technique. These tubes measure the air's concentration of nitrogen dioxide (NO_2), a toxic gas that can be very harmful to health. The tubes are replaced and analysed on a monthly basis. Research suggests that at urban roadside locations in the UK up to 80 per cent of the nitrogen dioxide measured comes from road transport.

- **Sensors:** these sensors can monitor a range of pollutants in a continuous manner like the automatic monitors, however they can have more uncertainty with regard to accuracy and these monitors have not gone through the same quality control process as our other monitors. There are also limited numbers of these monitors in the borough.

Islington's air quality sites are classified based on their location using Defra guidance**,** but are referred to in these LTN monitoring reports using LTN terminology. This has required the addition of a further category, as will now be explained. According to Defra, "Roadside sites" are those within one to five metres of a busy road. In the LTN monitoring reports, roadside monitoring equates to boundary road sites. According to Defra, "Urban background sites" are those in an urban location but more distanced from traffic sources. For the LTN monitoring we have further split the urban background results into sites on internal roadsides and sites away from

roads. These categorisations apply to the LTN and borough wide.

The long-term sites in Islington consist of eight roadside diffusion tubes, nine background urban diffusion tubes, one automatic main road site and one automatic background urban site. One of the main road diffusion tubes was moved in 2019 and is therefore not being included in LTN monitoring using this time period. More details of these sites can be viewed in our annual report.

The air quality monitoring sites in Canonbury West are listed in Appendix 3, with details about type and if they have been added as part of the PFS programme or were pre-existing. The long-term sites that are being used for comparison work in this final Canonbury West report consist of six boundary road diffusion tubes, five internal road diffusion tubes and one non-street diffusion tube.

Methodology

Time period of study

Air quality varies naturally over time due to a variety of factors, including seasonal variations, weather and other non-transport factors. It is therefore important to look at trends over a longer period of time, for at least a year, to identify real changes in air quality due to this scheme. However, as there has not been a full year's worth of data between the pre-consultation report and final report (data is only available to July 2022 due to a lag in the review time for this), data from the nine month period between November 2021 and July 2022 has been compared against data from the same nine month period from the previous year (i.e. November 2020 and July 2021), after the scheme was implemented but before the pre-consultation counts were taken. The pollution levels in these periods, particularly Pre-Consultation, are likely to have been impacted by COVID-19. Studies into the impacts of lockdown on air pollution, by Defra, for example, show lower than average levels of the pollutant NO_2 during the first lockdown.

The ultimate goal of our air quality strategy is to reduce air pollution as much as possible, and certainly to within legal limits. As such, the newer sites will be used to monitor if air quality is at legal levels in and of itself.

Results: Air Quality Diffusion Tubes

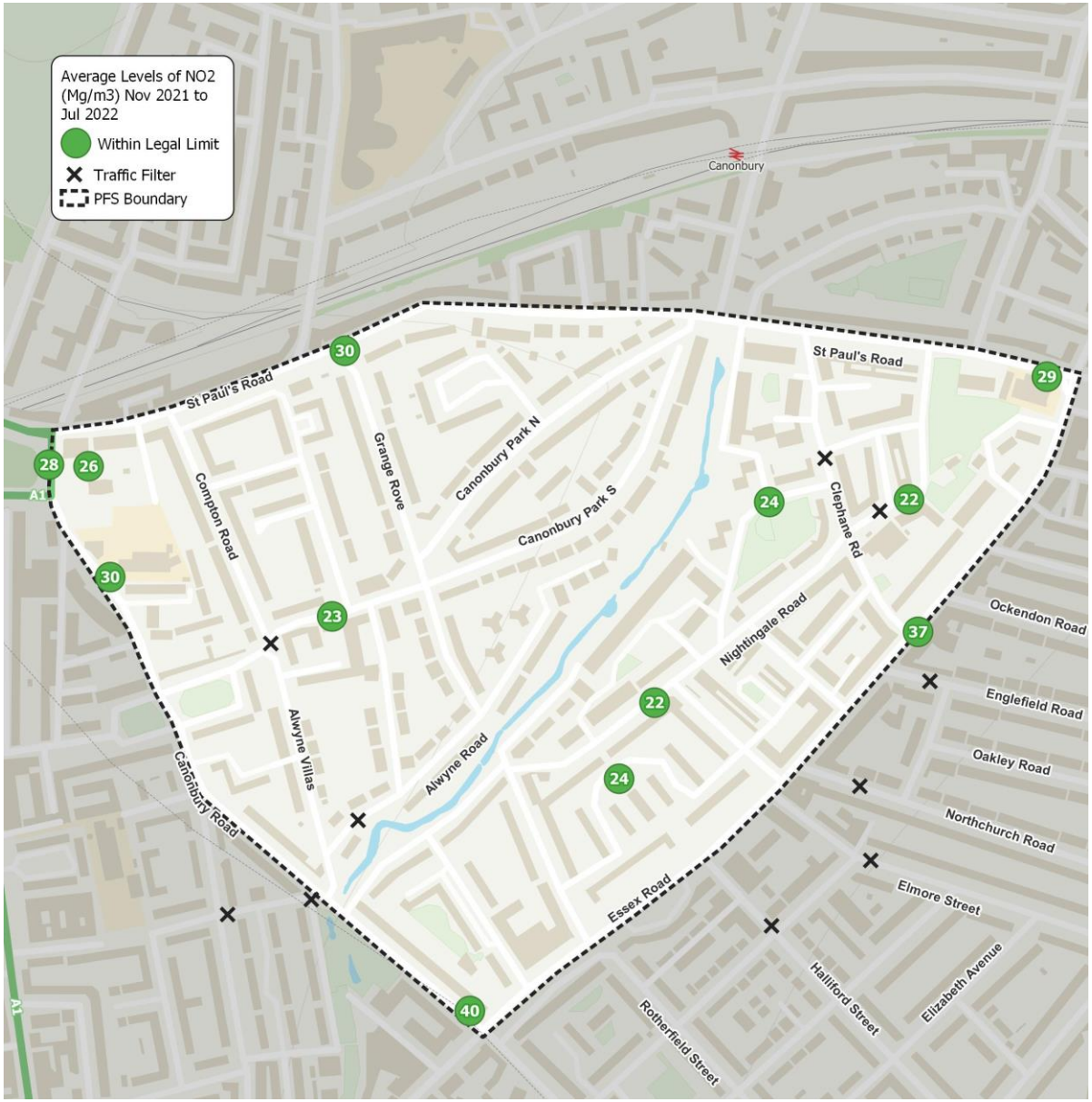
The results shown in this section use NO_2 data from diffusion tubes only. It was therefore not possible to provide results for PM10 for Canonbury West.

Please note, the values in this section show the average results for all monitors in each category where the data is available, with figures rounded to the nearest whole number, so the differences may look different to what is expected from the NO_2 values given.

To improve accuracy levels of diffusion tubes it is necessary to bias correct the results based upon local or national collocation studies with the more accurate reference monitors. It is also necessary to calculate the data capture, and if this is less than 75%, the results should be annualised. More information on this process can be found in the council's annual air quality report. The results from 2022 have yet to be published as they require a full years' data, so the 2022 data presented here is in "raw" format and may change once the bias adjustment values are made available.

It is important to note that the monitoring site on Canonbury Road (opposite Essex Road station) recorded an anomalous reading in May 2022 that would have brought the average value of NO2 particles at this site to 43. This reading was not used to calculate the final average as it was abnormally high compared to any of the readings within the surveyed period, particularly considering that in summer months, $N0_2$ levels tend to be relatively low as compared to the rest of the year. The council will continue to closely monitor the site. The values presented in maps and tables within this report do not include the abnormally high value from May 2022.

Map 4: Average levels of NO_2 (µg/m3) November 2021-July 2022



Map 5: Percentage change in NO_2 (µg/m3) between November 2020-July 2021 and November 2021-July 2022

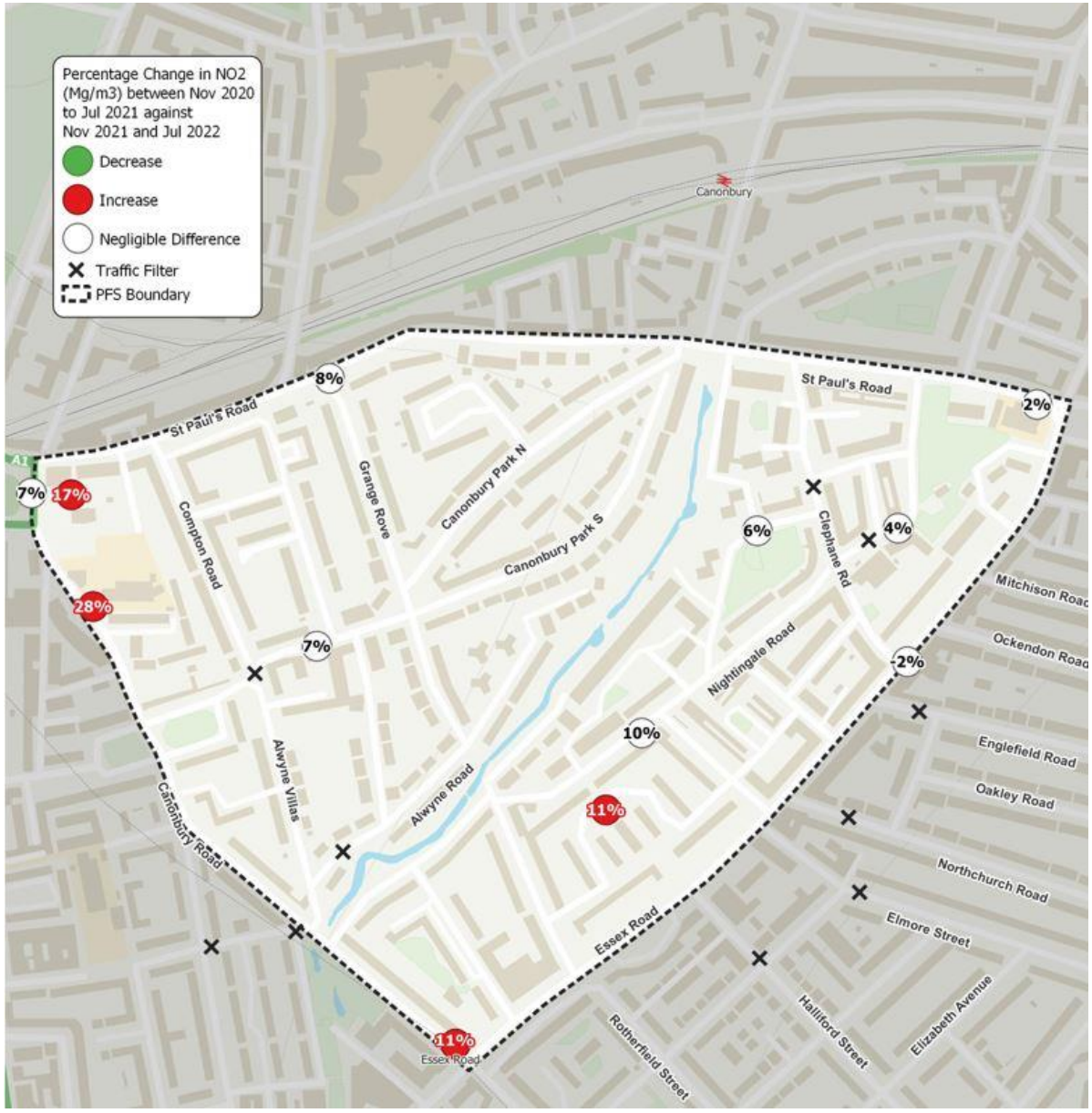


Table 12: (Boundary roads) NO_2 levels in Canonbury West and borough long-term diffusion tube sites

	Nov '20 – Jul '21 NO_2 (µg/m3)	Nov '21 – Jul '22 NO_2 (µg/m3)	Change in NO_2 (µg/m3)	Change in NO_2 (% change)
Canonbury West	30	32	+2	+5%
Whole borough long term sites	30	34	+4	**+13%**

Table 12 provides average NO_2 levels for the six boundary road sites for Canonbury West as well as seven boundary roads spread across the remainder of the borough. For the overall borough, there was a 13% increase in NO_2 levels between the compared periods, whilst in the scheme area there was a smaller, 5% increase for this metric. Note that changes in NO_2 levels are based on rounded numbers and % changes are not.

It is worth noting that boundary road sites including Highbury Corner, Canonbury Road and Essex Road sit in direct proximity to more than one Low Traffic Neighbourhood or PFS scheme, so it is not possible to independently assign the impact of the Canonbury West scheme, particularly to monitor on these boundary roads.

Table 13: (Internal roads) NO2 levels in Canonbury West and borough long term diffusion tube sites

	Nov '20 – Jul '21 NO_2 (µg/m3)	Nov '21 – Jul '22 NO_2 (µg/m3)	Change in NO_2 (µg/m3)	Change in NO_2 (% change)
Canonbury West	21	23	+2	+9%
Whole borough long term sites	21	25	+4	**+17%**

For internal roads, five from Canonbury West and five from the wider borough have been included in the averages in Table 13. As with boundary roads, there was a larger increase in NO_2 levels between the compared periods across the wider borough vs. in the scheme area (+17% vs. +9%). Note that changes in NO_2 levels are based on rounded numbers and % changes are not.

Table 14: (Non-street-based sites) NO2 levels in Canonbury West and borough long term diffusion tube sites

	Nov '20 – Jul '21 NO_2 (µg/m3)	Nov '21 – Jul '22 NO_2 (µg/m3)	Change in NO_2 (µg/m3)	Change in NO_2 (% change)
Canonbury West	22	26	+4	**+18%**
Whole borough long term sites	21	23	+2	+7%

For non-street locations, there is only one such site for Canonbury West compared to four sites across the borough. Table 14 therefore only shows a single site's data for Canonbury West compared to an average for the rest of the borough – this can also be seen in Graph 2 on the overleaf, where there are some data gaps. At this single site, there was an 18% increase in NO_2 levels, whilst for an average across the wider borough locations the increase was of 7%. Note that changes in NO_2 levels are based on rounded numbers and % changes are not.

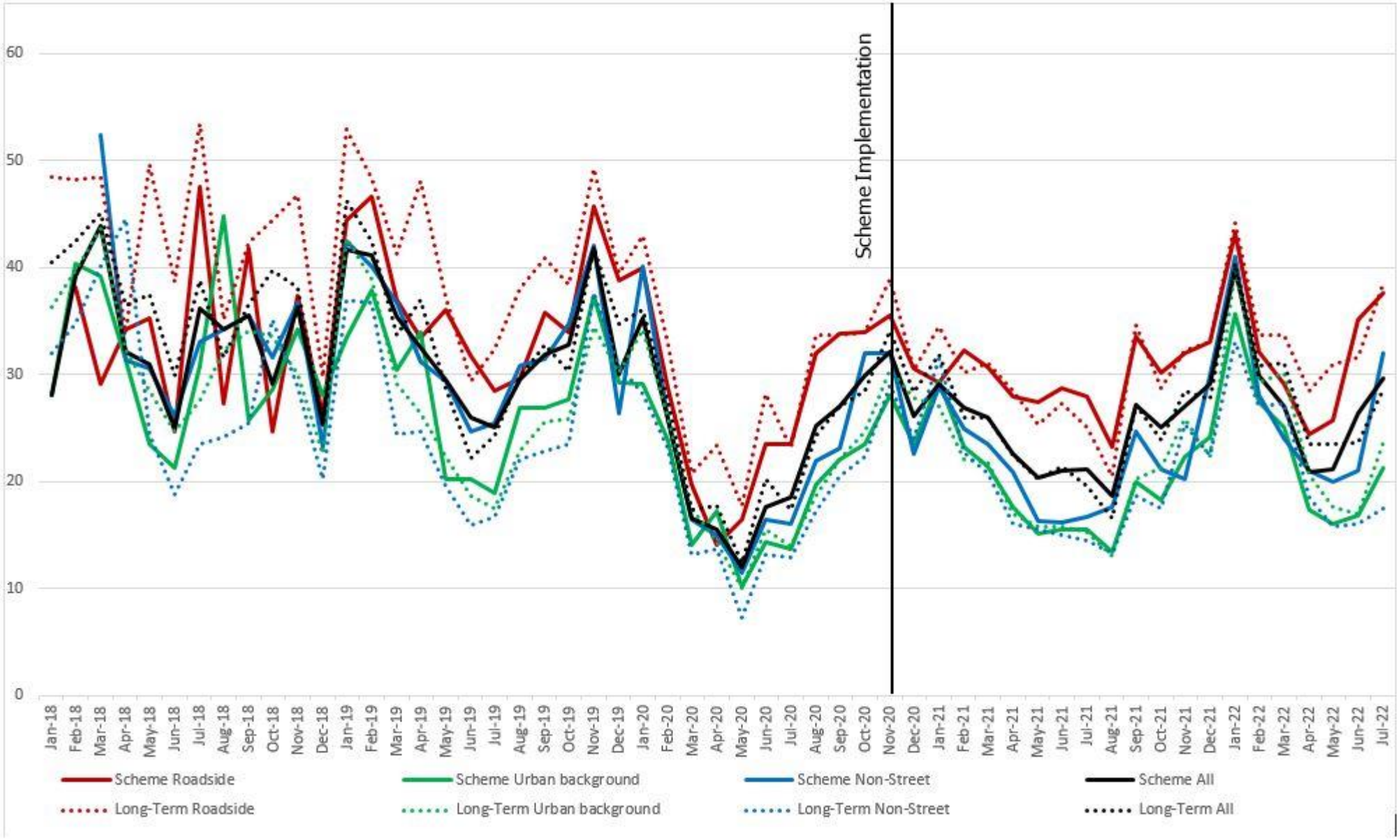
Table 15: (Overall) NO2 levels in Canonbury West and borough long term diffusion tube sites

	Nov '20 – Jul '21 NO_2 (µg/m3)	Nov '21 – Jul '22 NO_2 (µg/m3)	Change in NO_2 (µg/m3)	Change in NO_2 (% change)
Canonbury West	25	28	+3	**+11%**
Whole borough long term sites	25	28	+3	**+12%**

Taking the average of all sites for Canonbury West and the wider borough, there have been increases of a similar magnitude of just over 10% for both, and from similar starting points.

Graph 2 compares the trends in NO_2 levels in Canonbury West LTN across Boundary roads, Internal roads and Non-Street sites from January 2018 through to March 2022.

Graph 2: Average NO_2 levels in Canonbury West LTN compared to long-term borough-wide sites from diffusion tubes



Insights: Air Quality

The results in Tables 12 to 14 and Graph 2 show that there has generally been a moderate increase in the concentration of NO_2 between the two periods assessed, both within Canonbury West and across the borough at large – this follows after several years when both metrics were showing improvements in air quality.

In summary these results show:

- Overall changes in levels of NO_2 in Canonbury West are on par with those across the wider borough, and on internal roads in particular appear to have increased less significantly as COVID-19 lockdowns have been lifted.
- NO_2 levels in Canonbury West have been within the annual objective level of 40μg/m3.
- These results generally suggest that the scheme itself has not had a significant impact on air quality to date.

Concluding Remarks

As previously noted, the goal of this report has been to assess how the scheme has been bedding in since the publication of the pre-consultation monitoring report in November 2021 – serving as a "final check" to compare pre-consultation and final data, and particularly to understand whether exemptions for Blue Badge holders have impacted the scheme's success.

Based on the range of data presented, it appears that the Canonbury West Low Traffic Neighbourhood continues to perform according to its design in terms of keeping motorised traffic levels on local streets low without significant impact to boundary roads. Overall, normalised volumes of traffic on internal roads surveyed during the same set of months have increased by a nominal 5% between pre-consultation and final reporting periods – with the comparison to pre-implementation baseline flows showing a drop of 73% for the same streets. There are some locations where vehicle numbers have bounced back slightly (i.e. Canonbury Square and Clephane Road's northern site) since pre-consultation, but flows on these roads are still at least 75% lower than in the baseline.

Boundary roads have seen a similarly minimal change since pre-consultation (+2% in normalised motorised vehicle flows), but still report an overall 16% drop in such flows since the 2020 baseline. The only site with an increase in such flows since the baseline is the western site for St. Paul's Road – however, this increase of 9% is considered negligible. There is little to note with regards to LGVs, HGVs and Motorcycles across all roads, as these have generally followed wider motorised vehicle trends.

In terms of vehicle speeds, a slight uptick in average/85th percentile speeds since the pre-consultation period (of +9% for average speeds) should be set against an overall decrease in average speeds since the baseline (of -14%). Canonbury Square saw the largest decrease since the baseline (-3.4mph), whilst Canonbury Park North and Compton Road's southern site both saw increases of 1.6-1.8mph during the same period. Similarly, the western site on St. Paul's Road and Canonbury Road's southern site both saw reductions in average speeds of around 2mph, although it is considered that this may relate somewhat to congestion at these junction approach locations.

As with motorised vehicles, there has been little change in cycling counts since the pre-consultation period (-4%), although with some considerable variation in observations on a site-by-site basis – for example a 36% drop in cyclists on Clephane Road's southern site and 19% increase in cyclists counted on Canonbury Park North (and South). These changes may be due to cyclists rerouting or new cyclists with different origins and destinations passing through the scheme area. In any case, the total number of cyclists counted has still increased by 71% since the 2020 baseline on comparable internal roads and has only fallen by 6% on boundary roads since that time.

In air quality terms, there has been a negligible difference between the pre-consultation period and final report period across all metrics analysed, with air quality slightly worsening across both according to the comparisons made. It is likely that this, to an extent, reflects the increase in activity following the end of COVID-19 restrictions in London.

Overall, this final check can confirm that the scheme continues to operate effectively against its goals, with no noticeable impact from the exemptions granted to Blue Badge holders who are now able to pass through some of the traffic filters.

Appendices

Appendix 1: Canonbury West Traffic Count Locations and Type

Islington-commissioned ATC traffic count sites

Boundary	**Type**	**Baseline Count Start Date (7 day survey)**	**Pre-consultation Count Start Date (7 day survey)**	**Final Count Start Date (7 day survey)**
St Pauls Road (West)	ATC	27.07.2020	04.10.2021	06.10.2022
St Pauls Road (East)	ATC	27.07.2020	04.10.2021	06.10.2022
Canonbury Road (North)	ATC	27.07.2020	04.10.2021	06.10.2022
Canonbury Road (South)	ATC	27.07.2020	04.10.2021	06.10.2022
Essex Road	ATC	03.07.2020	04.10.2021	06.10.2022
Internal				06.10.2022
Canonbury Square	ATC	27.07.2020	04.10.2021	06.10.2022
Compton Road	ATC	09.11.2020	04.10.2021	06.10.2022
Canonbury Park (North)	ATC	09.11.2020	04.10.2021	06.10.2022
Canonbury Park (South)	ATC	27.07.2020	04.10.2021	06.10.2022
Clephane Road (North)	ATC	27.07.2020	04.10.2021	06.10.2022
Ramsey Walk	ATC	27.07.2020	04.10.2021	06.10.2022
Nightingale Road	ATC	06.08.2020	04.10.2021	06.10.2022
Clephane Road	ATC	27.07.2020	04.10.2021	06.10.2022

TfL permanent traffic sites and coordinates (all ATCs)

Street name	Northing	Easting
A1 Archway	529219	187254
Pentonville Road	531004	183093
Camden Road	529924	185126
Caledonian Road	530708.1	183517.3
Clerkenwell Road	531863	182129
City Road	532762	182386
Old Street	532668	182448
St John Street	531460	183048
A1 Upper Street	531650	184311
Holloway Road	531239	185120
Canonbury Road	531885.4	184353.7
Southgate Road	532956	184553

TfL also has a counter on Essex Road, which has not been included in the normalisation methodology because of incomplete data that has not been processed.

ATCs measure traffic volumes and speeds using two thin tubes that run across the street and are connected to a sensor. When wheels pass over the tubes, the pressure impact is interpreted by the sensor to identify the type of vehicle passing over, and the speed with which it passed. They are considered to be approximately 98% reliable. Inaccuracies can arise when, for example, two vehicles pass at the same time they may be counted as one, or if a car and bicycle pass at the same time, it may be read as one car. However, the same method was used before and after and the method is considered a good industry standard. They are used as a standard in monitoring transport schemes.

Appendix 2: Traffic Count Normalisation Methodologies

To calculate the normalised percentage differences, the October 2021 traffic count volumes have been **divided** by 0.9510 and the October 2022 traffic counts by 0.9416 to give normalised volumes. In other words, in order to account for the fact that there was (generally) less traffic on Islington streets from January 2020 onwards, we have provided adjusted figures that provide an estimate for what the traffic would have been if there had not been disruptions from broad events such as COVID-19 or the cost-of-living crisis. This allows us to analyse the impacts of the LTN scheme rather than the impacts of current events / central government policy.

To calculate the percentage change, the difference between the two has been taken and divided by the normalised baseline volume to arrive at a normalised percentage change.

The normalisation figure for each month is reached by calculating the daily average percentage difference between the 'baseline' month (pre-COVID-19 impact) and the corresponding 'impacted' month (i.e. October 2021 and October 2022) across all the permanent TfL counter sites around Islington, and taking an average difference for the whole month.

Appendix 3: Air Quality Monitoring

We have been monitoring air quality since 2000 and have 21 long term monitoring sites across the borough. We also have additional monitoring in place for specific projects and have been monitoring air quality outside every school in the borough since 2018. As such, there is significant long-term air quality data collection across the borough, which will be used in the normalisation process. It also means there is existing air quality monitoring within the Canonbury West trial area, though some monitoring equipment has been added to expand the air quality monitoring in and around an area.

The air quality monitoring sites in the Canonbury West area are listed below, with details about type and if they have been added as part of the PFS programme, or were pre-existing.

Canonbury West air quality monitoring sites type and period of installation

Locations	PFS road type	Monitoring type	Installation	Site Type by DEFRA classification*
Highbury Corner	Boundary Road	Diffusion tube	Pre-existing (since 2016)	Roadside
Canonbury Road	Boundary Road	Diffusion tube	Pre-existing (since 2018)	Roadside
St Paul's Road	Boundary Road	Diffusion tube	Pre-existing (since 2018)	Roadside
Canonbury Road	Boundary Road	Diffusion tube	New (since July 2020)	Roadside
Essex Road	Boundary Road	Diffusion tube	New (since July 2020)	Roadside
St Paul's Road/Grange Grove	Boundary Road	Diffusion tube	New (since July 2020)	Roadside
Arran Walk	Internal Road	Diffusion tube	Pre-existing (since 2000)	Urban background
Ramsey Walk	Internal Road	Diffusion tube	Pre-existing (December 2019)	Urban background
Canonbury Crescent	Internal Road	Diffusion tube	Pre-existing (December 2019)	Urban background
Canonbury Place	Internal Road	Diffusion tube	Pre-existing (since 2018)	Urban background
Clifton Road	Internal Road	Diffusion tube	New (since July 2020)	Urban background
Dixon Clark Court	Non-street	Diffusion tube	Pre-existing (since 2016)	Urban background

Islington's air quality team classify sites using Defra guidance based on their location. Roadside sites are those within one to five metres of a busy road, while urban background sites are those in an urban location but more distanced from sources and therefore more representative of wider background conditions.

Data quality control

As a council we are legally obliged to monitor air quality and report on this every year. To ensure data is as accurate as possible we follow national guidance for monitoring air quality, in terms of deployment and results analysis. For example: use of accredited monitors, personnel and laboratories or correction of diffusion tube data based on annual comparisons to automatic monitors. More information on this process can be found in our annual reports.

The data used in this analysis will follow these rules as much as possible, especially with regards to monitor deployment. However, it will not have fully gone through this process, especially with regards to normal end of year analysis processes for 2022, and should therefore be treated as provisional.

The 2018-2021 data in this report has been adjusted using a correction factor. Adjusting data in this way is standard practice in making air quality data as accurate as possible, more information on this process can be found in our annual air quality reports The data for 2022 is still raw as a bias correction factor has not yet been calculated. For time periods where less than 75% of data was captured the data has been "annualised", meaning it has been adjusted by comparing it to monitors that had data for the whole period. More information can be found on this process in the annual air quality report.

Insights background

Pollution levels are impacted by a range of local and wider sources. For example, the source apportionment study conducted for Islington in 2015 found only 3% of London's NO_2 emissions came from inside Islington. Therefore, it can be very hard to pick up on local changes caused by schemes such as the LTNs.

Pollution also varies significantly over time due to a range of external factors (such as weather) for which this study has not corrected. Therefore, ideally, a longer period of study would be required to analyse these results more fully. This would also allow further quality control of data that has not been possible with these results. There is also further uncertainty in recent results and whether these will represent longer term trends due to COVID-19. Studies of the first lockdown in March, for example by the Greater London Authority, show a decrease in overall motorised traffic and NO_2 levels but no consistent change in PM due to weather impacts.

Appendix 4: SYSTRA Statement

SYSTRA has been commissioned to prepare this report in partnership with the London Borough of Islington.

SYSTRA is a global leader in mass transportation and mobility, employing over 7,000 global employees across 80 countries. SYSTRA has the unique advantage of being not only a Transport Consultancy, but also Social and Market Research Consultancy. Their team members have an in-depth understanding of both the transport sector and of social and market research techniques, providing expert support in monitoring and evaluation both direct to clients and also in a peer review capacity. They provide a wealth of experience in conducting both qualitative and quantitative transport research with stakeholders to help understand their priorities and to inform options for future investment and policy development.

Neither SYSTRA nor LB Islington can be held accountable for errors in the data provided by third parties, where these errors have not been identified through normal checking processes.

Appendix 5: Individual Site Volumes & Speeds

The following section provides detail for each monitored site including a breakdown of flows and speeds by monitoring period and by vehicle class.

As noted in the main report, data was processed using SYSTRA's proprietary automated data processing tools, which draw together raw data from all reporting periods and apply formulae-based calculations to produce the charts and tables shown in the following pages and appendices. However, as it is not uncommon for there to be problems with data surveys (broken equipment, cars parked on ATC bands etc.) as well as anomalous readings from surveys resulting from one-off events (waterworks, gas leaks, accidents etc.), all data has been thoroughly checked by hand and "patched" (i.e. blank data or significantly anomalous data has been substituted by more representative data from the site/wave in question), which is a necessary task in order to maintain comparable data.

The more thorough patching process applied to data in this report has yielded some deviations in numbers from those included in previous reports. These differences are well understood by both SYSTRA and LB Islington and are considered not to have a notable impact on conclusions in any of the relevant monitoring reports.

It is also noted that data for goods vehicles is presented as seven-day averages in the appendix (vs. weekday averages in the report).