People-Friendly Streets
Better places for everyone

Amwell people-friendly streets trial

Results from the six month monitoring report

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Summary of key findings

This interim monitoring report shows that, at this point in the Amwell people-friendly streets (PFS) trial, the project is generally having the intended impacts in the area of reducing motorised traffic across internal roads, as well as levels of speeding on internal and boundary roads, thereby making the area's roads safer, cleaner and healthier for residents. There has been a negligible change in crime and anti-social behaviour and London Fire Brigade response times. The trial has not had an adverse impact on air quality to date, as nitrogen dioxide has fallen in line with borough trends.

Local streets within the neighbourhood are healthier, with traffic **falling overall by 44%**

Traffic on Great Percy Street has **decreased by 77% (an average of 682 vehicles a day)**, the greatest decrease of any street

Air quality data from within the Amwell neighbourhood, including on boundary roads, shows that **nitrogen dioxide levels have fallen** in line with borough trends

On local streets within the neighbourhood, rates of speeding **fell by 47%**

No significant impact on London Fire Brigade response times

No significant impact on anti-social behaviour and crime rates

Cycling increased at 30% of sites. The greatest cycling increase has been on Margery Street, which has seen **a 149% increase** in the westbound direction.

Cycling has **decreased by 31%** overall on the internal roads, which is likely due to lockdown and seasonal difference

Overall across boundary roads, total volumes of motorised traffic show **a negligible change (+6%)**. Traffic on Farringdon Road – one of the boundary roads surrounding the neighbourhood – rose by 36%. However, journey times on Farringdon Road between Rosebery Avenue and Acton Street have increased by between only seven and eight seconds, representing negligible changes of approximately +8%. The council will continue to monitor this situation and will look at other options if necessary.

The above figures reflect before and after comparisons between September 2020 and May 2021. The traffic figures have been normalised to account for the impacts of Covid-19 lockdowns. More information on this process is available in the main report. The council will continue to closely monitor all boundary roads and implement mitigating measures as appropriate.

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Why are we doing this?

Islington's streets belong to everyone. They are a place where life happens and where the community comes together, no matter what our individual circumstances or daily routines look like. But as technology has changed, we've seen more and more traffic taking short cuts through local streets.

Traffic in London is increasing at an alarming rate, making it increasingly difficult to walk, cycle and wheel around. 24.3 million more miles were driven through Islington in 2019 than 2013, an almost 10% increase, and traffic on London's local roads has risen by 72% in the past 12 years. Without intervention this trend will create huge problems for our road network and our communities, and will further damage the environment, including higher levels of air pollution, which is already a serious issue for public health.

The council has always worked hard to make things better and has been planning initiatives to improve Islington's streets for some time but Covid-19 has had a big impact on the way we use our streets. During the first lockdown, they were quieter, felt safer and journeys were quicker. Residents told us they really benefitted and were able to enjoy their neighbourhood more. But research shows that traffic volumes will continue to increase making our streets more unsafe, unhealthy, and worse than before the crisis began.

Nothing will ever be quite the same after the pandemic, which is why now is the time to make bold changes for a safer, greener and healthier Islington. So, we took this opportunity to look at how we can make our neighbourhoods better and safer, for living, working and playing, for everyone.

Through the people-friendly streets programme, we want to bring life back to Islington's streets. Taking the best of what we have learnt in the past year, to make our borough safer, healthier, greener and a fairer place for everyone. Amwell, like many neighbourhoods within the borough, has suffered from increased traffic volumes in recent years from the use of the area as a short cut.

Evidence from other areas shows that low traffic neighbourhoods (LTNs) are a successful way for us to achieve these objectives. The data in this interim monitoring report shows that they can also make a positive difference in Islington. People-friendly streets make it easier, safer and more pleasant for people to walk, cycle and use wheelchairs, buggies and scooters. Every local trip switched from a motor vehicle to another way of travelling means one fewer vehicle on the road, leaving the roads clearer for people who have no choice but to use cars.

The Amwell people-friendly streets trial was implemented in September 2020 as a low traffic neighbourhood under the people-friendly streets programme. As part of the council's urgent Covid-19 response, the trial was implemented swiftly to make walking and cycling easier and safer as alternatives to public transport and prevent a car-based recovery. It was also introduced shortly after the St Peter's, Canonbury East, and Clerkenwell Green East low traffic neighbourhoods.

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Objectives

As the project was implemented as a trial under an experimental traffic order (ETO) it is very important to monitor it using key data points in order to understand its impact. It is also important to us to make this information publicly available so residents can find out about the impact in their area.

The PFS area trials are intended to contribute to the following three objectives from the Islington Transport Strategy:

Objective One: Healthier
To encourage and enable residents to walk and cycle as a first choice for local travel.

Objective Two: Safer
To work with the Mayor of London to achieve "Vision Zero" by 2041, by eliminating all deaths and serious injuries on Islington's streets and reducing the number of minor traffic collisions on our streets.

Objective Three: Cleaner and greener
To contribute to the council's commitment to Islington becoming net zero carbon by 2030, to improve air quality, and protect and improve the environment by reducing all forms of transport pollution.

This mid-trial, interim monitoring report reflects a before and after assessment of the trial using the following data: motorised traffic counts and speeds, cycling counts, air pollution data, London Fire Brigade response times, crime and anti-social behaviour (ASB) data, and bus journey times.

These will be monitored over time in the PFS trial area to measure the success of the trial against the previously mentioned objectives:

- Reduce motorised traffic and vehicle emissions across internal roads
- Reduce motorised traffic overall across internal and boundary roads
- Increase levels of cycling across internal roads
- Reduce levels of speeding on internal roads

In addition to this, the council is monitoring:

- Levels of motorised traffic and related air pollution on boundary roads
- Crime and ASB on internal roads
- Emergency service response times
- Levels of speeding on boundary roads
- Bus journey times

The council is also exploring how to monitor the following through further quantitative and qualitative monitoring and analysis:

- Reduce collisions across internal and boundary roads
- Increase levels of walking
- Increase sense of community
- Impact on people with disabilities and their ability to travel

Future decisions to keep, remove or amend the Amwell people-friendly streets trial are not dependent on any single metric, but a combination of them together with feedback from the formal consultation with residents and stakeholders.

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Interim results

Motorised traffic on internal roads

- Motorised traffic has decreased on most internal roads in both observed and normalised results, which is a positive interim outcome in line with the objectives of the trial.
- Overall, motorised traffic volumes on internal roads have decreased by an average of 44%. The greatest decrease has been on Great Percy Street where there was a 77% decrease. Motorised traffic has increased at Prideaux Place by 84%, an average increase of 178 vehicles per day.
- Across internal roads, average speeds have changed negligibly (-3%) and the number of vehicles speeding has decreased by 47%.
- The above figures have been normalised to account for the impacts of COVID-19 on motorised traffic levels in September 2020 and in May 2021. More information on this process is available in the main report.

Motorised traffic on boundary roads

- Overall across boundary roads, the volume of traffic has changed negligibly (+6%) and average travel times along boundary roads have decreased.
- Motorised traffic volumes have changed negligibly on Amwell Street (-2%), Claremont Square (+4%), Rosebery Avenue (southern site) (+3%) and Pentonville Road (-3%). Although motorised traffic volumes have increased by an average of 36% on Farringdon Road, travel times have changed negligibly (+8%).
- Average speeds have seen a negligible change (-2%), as has the difference in volume vehicles speeding (+1%).

Motorised traffic on roads beyond the PFS trial boundary

- Overall across local roads beyond the boundary, the volume of traffic has reduced by 14%. Across main roads beyond the PFS trial boundary, motorised traffic volumes have increased by 27%. This could be influenced by factors beyond the Amwell PFS trial.
- Average speeds have changed negligibly by 1% on local and main roads beyond the PFS trial area.
- On Donegal Street, the number of vehicles speeding has decreased by 81%. Similarly, on Calthorpe Street the number of vehicles speeding has decreased by 30%.

Cycling

- Overall cycling has decreased by 31% across internal roads, by 29% on boundary roads, 43% on main roads beyond the boundary, and 32% on local roads beyond the boundary, where data is available. Even though this interim decrease is not in line with the programme's intended objectives there are several possible explanations, including seasonal weather variation and Covid-19 restrictions.
- The indicator will continue to be monitored, and pre- consultation monitoring is expected to give a better picture due to more comparable weather conditions, although this also depends on future lockdowns.

Air quality

- NO2 levels in Amwell since the PFS trial started (November 2020 - May 2021) are lower than the previous year at all sites where comparable data for the same year is available from 2019. This reflects borough-wide trends suggesting the PFS trial has not had an adverse impact on air quality.

London Fire Brigade response times

- Given the extent of variables that affect response times, the differences between the 2019 baseline, the 2020 pre-implementation period and the post-implementation period are considered negligible by the LFB and the council. As such, it is the view of the LFB and the council that the PFS area in Amwell has not impacted this emergency service's attendance times. We will continue to monitor this indicator.

Anti-social behaviour and crime

- In terms of volumes of crime and ASB, during the past 18 months, the Amwell PFS area showed similar trends to those of Islington as a whole. On average, calls in the Amwell area are low. .

People-friendly streets neighbourhoods are being introduced on a trial basis, with a full public consultation twelve months into each scheme to give residents the chance to give their views. A pre-consultation monitoring report will also be produced in time to inform the consultation with one year-on monitoring data. Until then, residents in the Amwell area can also fill in our survey at **www.islington.gov.uk/roads/people-friendly-streets/amwell**

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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 this 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 with which it passed. They are considered to be approximately 98% reliable. (See Appendix 9 for more details).

Boundary roads – For the purpose of this report, the "boundary roads" of the Amwell trial area are Amwell Street to the east, Rosebery Avenue (A401) to the south, King's Cross Road/ Farringdon Road (A201) to the west and Pentonville Road (A501) to the north. Note, the data collection site referred to in the report as Rosebery Avenue (southern site) is the site located on the cell boundary. Whilst Rosebery Avenue forms the southern low traffic neighbourhood (LTN) boundary, it should be noted that the traffic filter in the one-way Margery Street to its north has not been operational to date due to various constraints and has essentially performed the function of a boundary road in one (south-westbound) direction. The Margery Street filter will become operational in the autumn.

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.

INRIX – INRIX refers to a smart traffic analysis system accessed via an online platform which aggregates GPS data from a variety of sources to provide average travel speeds on various streets. Historically collected data can be compared to analyse average speeds and travel times on various segments of roads.

Internal roads – These are roads which fall in between two or more boundary roads in low traffic neighbourhoods. For the purpose of this report, "internal roads" are local roads in the Amwell 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 Amwell 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 an 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 Amwell 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, deliveries and emergency services) will still be able to reach their homes.

Normalised – In this report "normalising" means to adjust traffic count figures to take into account the impact of Covid-19 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 the 2020 and 2021 traffic counts may have looked like if traffic levels were at 2019 levels.

Observed – In this report "observed" means the data that was collected, and 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.

Patched sites/data – When counting equipment is damaged, leading to a loss of data for certain time periods, this data is patched. This means that periods of missing data are backfilled using data from the same day either a week before or after when the counts were taking to ensure that the data is representative of that day. If this data is not available, another day of the same type, either weekday or weekend-day, is used.

People-friendly streets – The people-friendly streets (PFS) programme refers to the implementation of low traffic neighbourhood (under an Experimental Traffic Order), School Streets, Cycleways, and the borough-wide lorry scheme in residential areas in Islington. Through the PFS programme, the council wants to make Islington's streets safer, healthier and greener. By installing

inexpensive measures like bollards and smart cameras, the council aims to create more space for everyone to enjoy their neighbourhoods as they walk, wheel and cycle around.

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

Radar Traffic Counters – Radar counts monitor speeds and vehicle volumes to a less specific categorisation using a radar sensor. These radar counts classify pedal cycles and motorcycles in the same class (<5.6m). As such, for radar assessed sites, the motorised traffic volumes do not include motorcycles, and pedal cycle volumes are unavailable. Radars measure traffic volumes and speed using high frequency radar signals to measure one or two lanes of traffic. Manufacturers consider the method to be 98% accurate (with 95% Confidence) at measuring traffic volumes with speed considered to be around +/- 2mph or 3% whichever is greater with 95% confidence. Radars detect vehicle lengths (+/- 40cm or 5% whichever is greater with 95% confidence) so assumptions need to be made with regards to vehicle classes. Inaccuracies in the data can occur due to vehicles following closely resulting in larger lengths being detected. Radars are widely used for monitoring traffic schemes due to their unobtrusive nature and being less detectable by drivers meaning they are less likely to change speeding behaviours.

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 the filter (and use non-motorised scooters).

Independent review

The methodologies and data used in this report have been independently reviewed by Systra. Regarding their review of this report, they have stated: "SYSTRA is a global engineering and consultancy company, with over 800 employees in the UK and Ireland, offering specialist support and knowledge on transport delivery, covering strategic transport planning, transport research, scheme implementation and engineering. SYSTRA has the unique advantage of being not only a Transport Consultancy, but also a Social and Market Research Consultancy. Our 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. We 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. SYSTRA has significant recent experience in working on and monitoring Streetspace, or COVID-19 emergency measures implemented both in London and across the UK and Ireland. "SYSTRA has completed an independent peer review of London Borough of Islington's Amwell people-friendly streets trial, Interim Monitoring Report and found the report to be a robust, accurate and neutral evaluation of the impact of the scheme six months post implementation." For more details on the independent review please view the full statement of review in Appendix 10

Amwell PFS area in context

As part of Islington Council's PFS programme and the need for an urgent transport response to Covid-19, Amwell became the fourth PFS trial area in the borough. It has been created to allow 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 safer, cleaner and healthier for residents.

The traffic filters in the Amwell PFS area were planned for four locations: on Great Percy Street, between the junctions with Cumberland Gardens, and Holford Street, maintaining access for emergency vehicles and the 812 community bus route; at the northern and southern sides of Lloyd Square; and on Margery Street at the existing pedestrian zebra crossing on Margery Street with a forced left turn into Wilmington Street, maintaining access for local residents and emergency services.

The traffic filters in the Amwell PFS area have been installed at three of the above locations as planned:

- On Great Percy Street, between the junctions with Cumberland Gardens, and Holford Street, maintaining access for emergency vehicles and the 812 community bus route;
- On Lloyd Square (southern side), with bollards to narrow the roadway, maintaining access for emergency services; and
- On Lloyd Square (northern side) with fixed and hinged bollards, maintaining access for fire emergency services.

The traffic filters on Great Percy Street and on Lloyd Square (southern side) are camera enforced while Lloyd Square (northern side) is enforced using bollards. Whilst the infrastructure for the planned Margery Street traffic filter was installed, the signage has been covered and the filter has not been operational to date due to various constraints. There are plans to make this filter operational in the autumn.

Other changes as part of the Amwell PFS trial include:

- Removal of existing width restriction on Great Percy Street to allow delivery vehicles access to service the area;
- Removal of existing width restriction on Lloyd Baker Street to allow delivery vehicles access to service the area; and
- Change to two-way traffic flow of the section of Lloyd Baker Street between Lloyd Square (western arm) and Amwell Street.

The locations of these filters and the boundary roads make Amwell one of the smaller PFS trial areas implemented by the council so far.

The council has longer term ambitions to improve Amwell by creating a more pleasant and greener local environment, which was supported by the majority of respondents in a 2017 consultation. The Amwell PFS scheme meets some of the through-traffic reduction elements of these proposals, and there are aspirations to improve the public realm in future.

This monitoring report provides data and insights relating to the Amwell PFS trial specifically by comparing data from before implementation in **September 2020** (referred to as "baseline traffic counts") to data collected approximately five months after the scheme became operational in **May 2021** (referred to as "interim traffic counts"). However, it is important to consider all these results in the context of other external factors which could be impacting the data. There are four main external factors which could all be influencing results:

Nearby Low Traffic Neighbourhoods – As can be seen in Map 1, the Amwell area is in close proximity to the Clerkenwell Green low traffic neighbourhood, and shares Rosebery Avenue as a Boundary Road. It is therefore not possible to separate out the impact the Clerkenwell Green low traffic neighbourhood may also be having on Rosebery Avenue. Moreover, the areas to the east of Amwell Street and the south of Margery Street are historic low traffic neighbourhoods; Cycleway 27 also runs through the area east of Amwell Street (see Map 1 for details).

Nearby major traffic projects – In close proximity to the Amwell PFS trial area, Transport for London (TfL) has implemented a major project at Old Street roundabout which took place during the trial period. It is not possible to separate out or control for the impact of the Old Street roundabout works on the boundary roads from the impact of the low traffic neighbourhood. Euston Road had lane closures during the Amwell trial period due to TfL's Streetspace cycle lanes and HS2 works – the reduced capacity may have affected traffic patterns on roads in the vicinity of the Amwell PFS trial area, including King's Cross Road, Gray's Inn Road and Pentonville Road which is a continuation of Euston Road and is a boundary of the Amwell PFS area. Camden Council has implemented cycle track improvements on Gray's Inn Road during the Amwell PFS trial period which may have impacted on traffic patterns in the area including on Farringdon Road and King's Cross Road which are parallel to Gray's Inn Road and which form the western boundary of the Amwell PFS area. Construction work at Charles Simmons House on Lloyd Baker Street may have impacted on traffic movements on streets within the Amwell PFS area and surrounding roads including King's Cross Road/ Farringdon Road.

Weather – Weather can have a significant impact on travel choices, especially cycling, and air pollution. During the week the baseline traffic counts were taken in September 2020 the minimum temperature was 11.3°C and the maximum was 18.8°C. England-wide weather data shows that September 2020 was a dry, sunny month, with 44.9mm of rain. During the week the interim traffic counts were taken in May 2021, the minimum temperature was 8.4°C and the maximum was 16.7°C. UK-wide data shows that May 2021

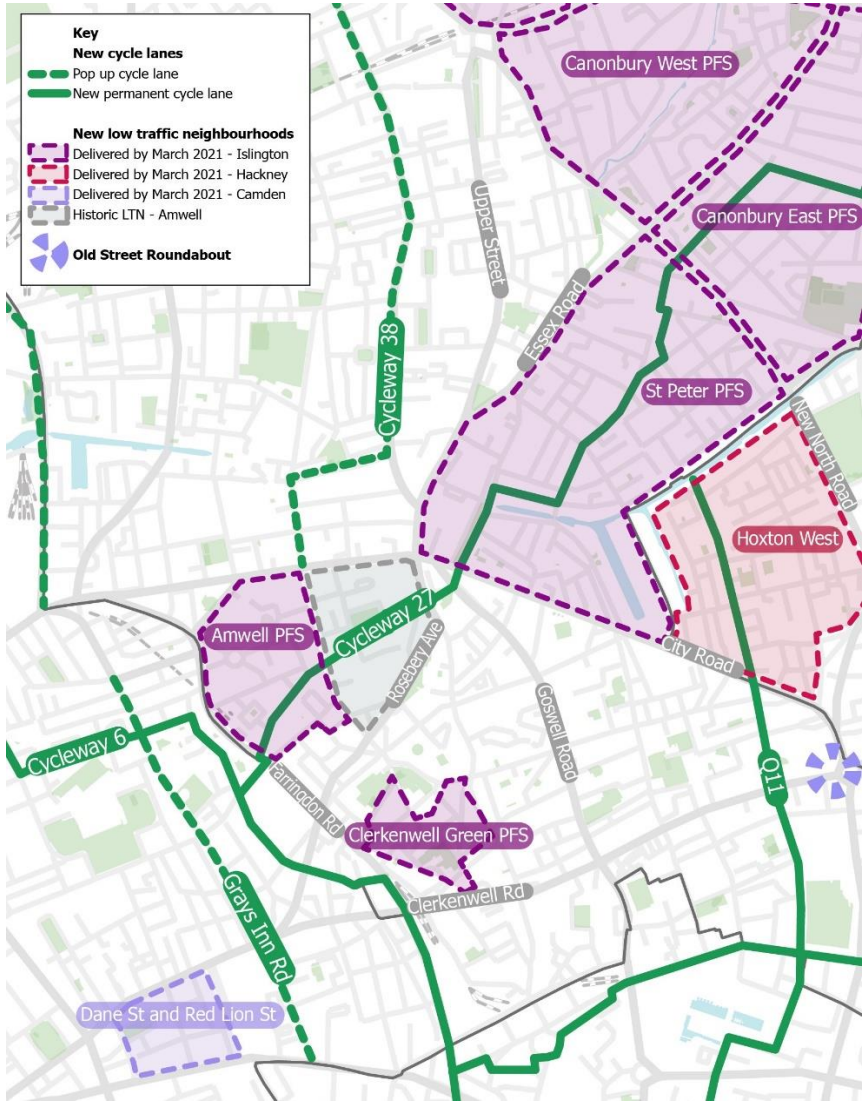
began unseasonably cold with frosts in many places and frequent rain which resulted in May 2021 being England's fifth wettest May on record with 111mm of rain. As such, the higher rainfall in May 2021, when the interim counts were taken, may have had a somewhat supressing impact on cyclist volumes. Data was not available on a regional or sub-regional level.

It is not possible to separate out or control for the impact of weather on the results in this report, however the next monitoring report will include data collected in late summer 2021 so the weather is likely to be similar to the baseline counts taken in September 2020.

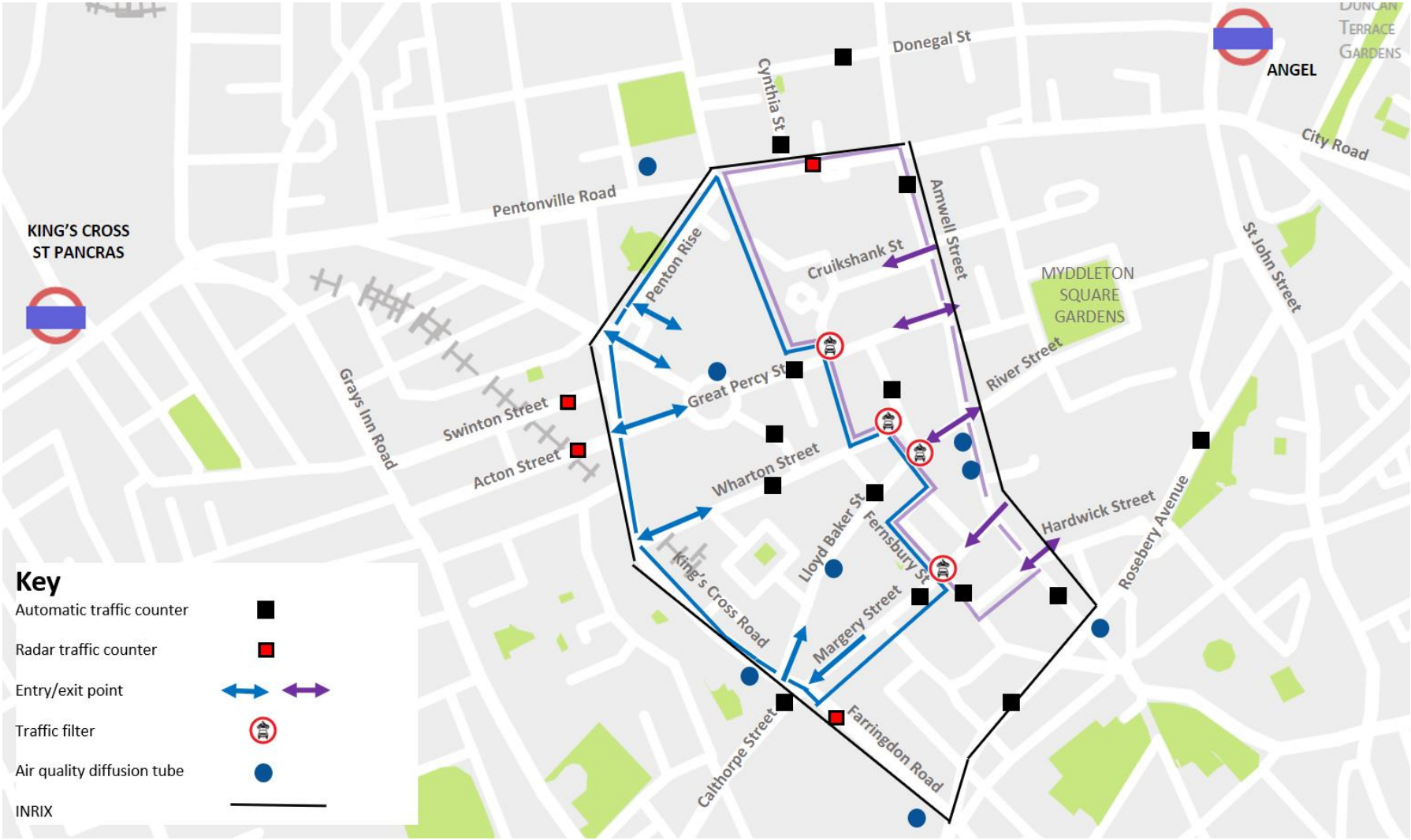
National lockdowns – as England has been going in and out of national lockdowns as a result of COVID-19, it is worth noting that the baseline counts in September 2020 took place as new restrictions were introduced. The "rule of six", which allowed six people from different households to meet indoors and outdoors, came into force. Non-essential retail and hospitality venues remained open, while the government, at the beginning of September, encouraged people to go back to work. This coincided with the baseline traffic counts taken.

When the counts were taken in May 2021 (4 – 10), the government's Roadmap out of Lockdown was at Step 2, which saw the opening of non-essential retail. However, meeting with people from other households was only permitted with one other person outdoors, and forbidden indoors. The government continued encouraging people to work from home if they could.

Map 1: Amwell PFS area in wider context of nearby LTN areas and cycle lanes



Map 2: Amwell PFS measures and monitoring sites



Traffic counts approach

Traffic counts in the Amwell PFS area

The count data presented in this report is not traffic modelling, but actual observed traffic, comparing traffic flows in September 2020, before the implementation of the Amwell PFS area, with May 2021, just over five months after the scheme went live.

Completed and anticipated dates of traffic counts

Baseline ("before") counts: 14 – 21 September 2020

Amwell trial goes live: 23rd November 2020

Interim ("after") counts: 4 – 10 May 2021

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

Automatic Traffic Counts (ATCs) are used at the majority of sites in the Amwell PFS area. ATCs measure motorised and cycle traffic volumes and motorised traffic speeds, and classify the traffic by type. More information about the different types of counts and which type was used at each site is detailed in Appendix 9.

Radar counts have been used at four sites on the Transport for London Road Network (Farringdon Road and Pentonville Road in Islington, and Acton Street and Swinton Street in Camden). Radar counts monitor speeds and vehicle volumes to a less specific categorisation than ATCs using a radar sensor. The radar counts supplied for this scheme classify pedal cycles and motorcycles in the same class. As such, for radar assessed sites, the motorised traffic volumes do not include motorcycles, and pedal cycle volumes are unavailable.

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.

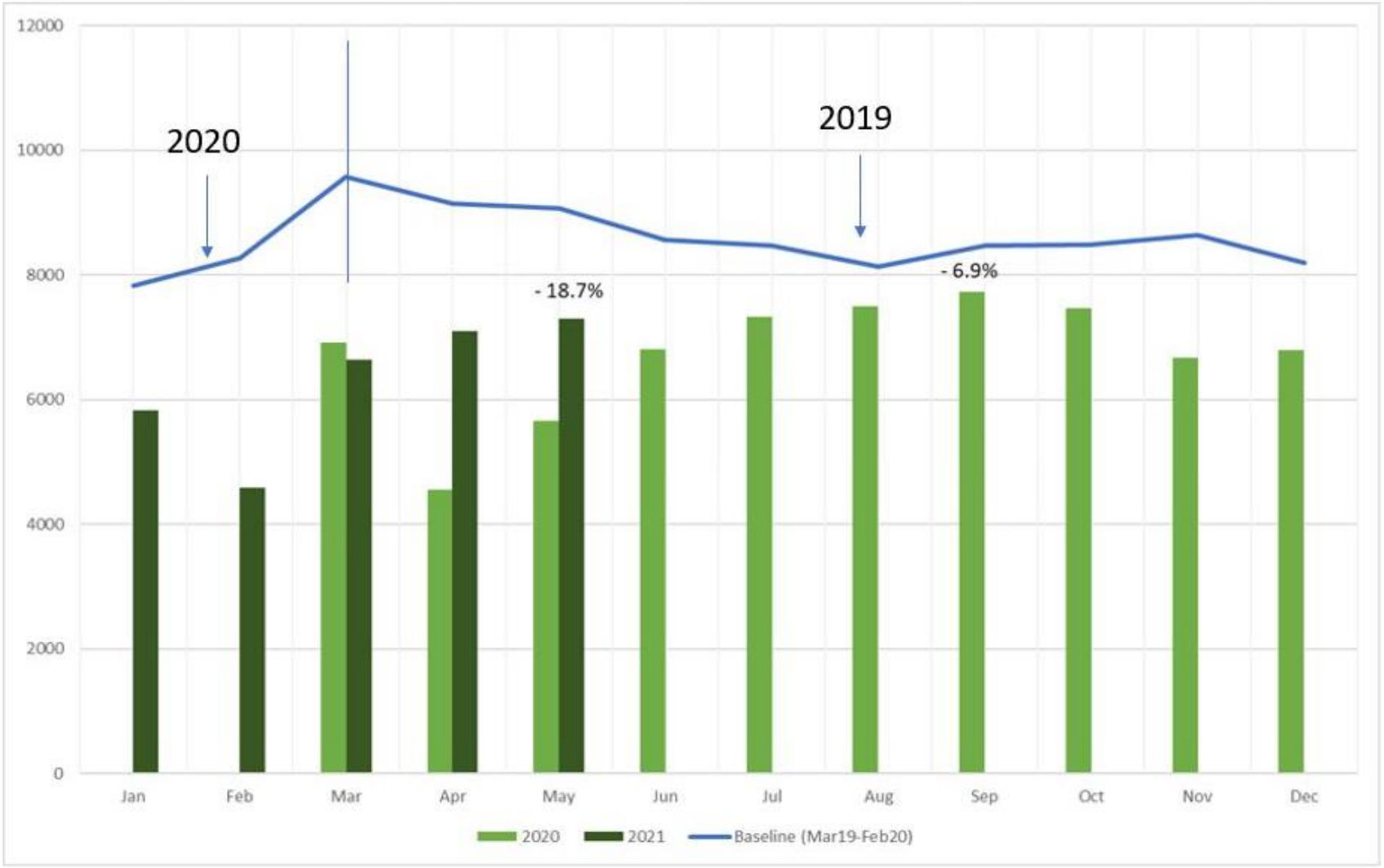
Daily volumes of motorised traffic have been drawn from a range of 12 permanent traffic counters managed by Transport for London across Islington and used to establish monthly averages in 2019 and 2020. The locations of these counters are detailed in Appendix 9. The percentage difference between the same month across the two different years has been used to adjust each set of counts to normalise for Covid-19 disruption in the months in which counts have been taken. The methodology is set out in greater detail in Appendix 10, and has been independently peer reviewed. Determining 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 was not taken forward as the chosen methodology.

Considering the months in which the Amwell counts took place, in September 2020 (baseline counts), motorised traffic across the permanent counters in Islington was approximately 7% lower than in September 2019. In May 2021 (interim counts), motorised traffic was approximately 25% lower than in May 2019. As such, the baseline and interim motorised traffic counts have been adjusted by a different amount.

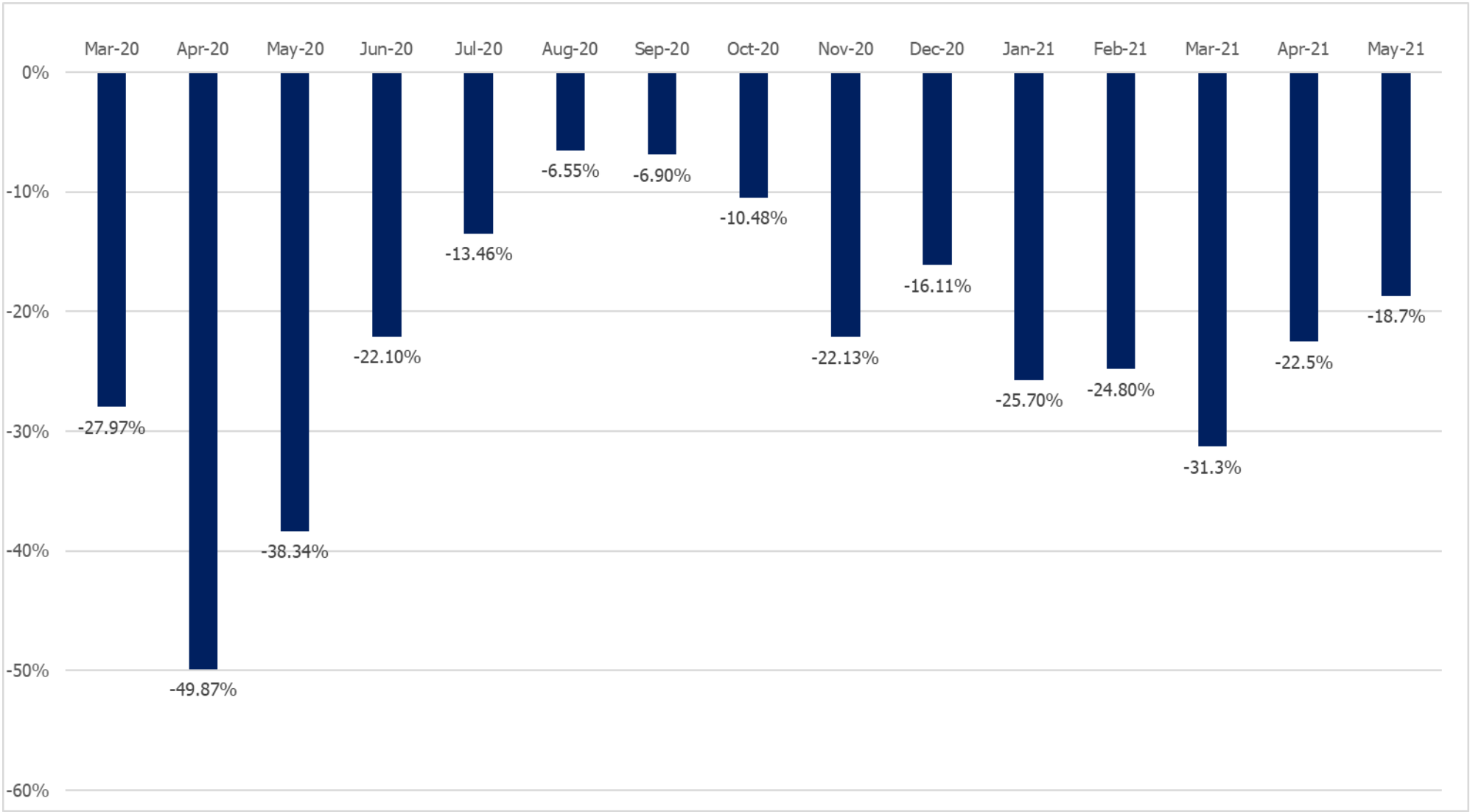
This could be explained by the respective timings within the cycle of lockdowns; the first lockdown had been eased to a greater degree at the time of the baseline counts, than the full national lockdown that was in place at the second stage of easing when the interim counts were taken in May 2021. Please note, the month in which the specific count batch was taken has been used for the normalisation (i.e, May 2019 figures have been used to adjust the May 2021 Amwell counts and September 2019 figures have been used to adjust the September Amwell counts.

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

Graph 1: Comparison of average daily traffic volumes by site direction in 2019, 2020 and 2021 in Islington



Graph 2: Percentage difference between monthly averages of daily traffic volumes in Islington compared to baseline year (March 2019 – February 2020)



Interpreting count results

Unless specified otherwise, the seven-day daily average (both directions) has been used and discussed in traffic volumes analysis in this report. Results for other time period parameters are available for each site in Appendices 1 - 5.

Raw data has been analysed and compared to give the observed results. The observed results have been through the normalisation process described in the previous section to arrive at 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: traffic flows fluctuate on a daily basis (generally up to 10%). As such, changes within -10% to 10% are considered insignificant (i.e. no or negligible change).

In addition, it must be noted that, as vehicles travelling through the PFS area 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 made.

Bus journey times

TfL monitors bus journey times across its network, which can add an additional layer of understanding about the impacts of transport schemes. Bus journey times around the Amwell PFS area are therefore being monitored. The council will look to include an analysis of this data in the pre-consultation monitoring report in order to include a full year of data.

Indicators

Motorised traffic on internal roads

The motorised traffic count results for the internal roads (i.e. roads within the Amwell PFS area) are summarised in table 1.

Map 3: Percentage change in motorised traffic volumes (seven-day daily averages)

Map 4: Percentage change in volume of motorised vehicles speeding (seven-day daily averages)

Motorised traffic volumes on internal roads

Results (seven-day daily averages)

Table 1: Motorised traffic volumes on internal roads

	September 2020 observed	September 2020 normalised	May 2021 observed	May 2021 normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
Great Percy Street	829	890	169	208	-659	-682	-80%	-77%
Prideaux Place	197	212	317	390	120	178	61%	84%
Wharton Street*	471	505	424	522	-46	16	-10%	3%
Lloyd Baker Street	1098	1179	295	363	-802	-816	-73%	-69%
Wilmington Street	196	211	151	186	-45	-25	-23%	-12%
Overall	2791	2998	1357	1669	-1434	-1329	-51%	-44%

*this data has been patched for certain periods due to damaged equipment meaning there were short periods of missing data (no more than 8 hours on any given day)

Table 2: Motorised traffic volumes on Margery Street

	September 2020 observed	September 2020 normalised	May 2021 observed	May 2021 normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
Margery Street	1136	1220	909	1118	-227	-102	-20%	-8%

Table 3: Motorised traffic volumes on Lloyd Street (five day daily averages)

	September 2020 observed	September 2020 normalised	May 2021 observed	May 2021 normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
Lloyd Street *	991	1064	212	261	-779	-803	-79%	-75%

*The count equipment at Lloyd Street was damaged and therefore data is unavailable for the weekend. As such, five-day averages have been used in this case, and are presented in a separate table and not included in the overall figures.

Insights: motorised traffic on internal roads

Note, raw data has been analysed and compared to give the 'observed' results in the traffic volume results tables. The observed results have been through the normalisation process described in the previous section to the give the 'normalised' results.

Motorised traffic has decreased on the majority of internal roads in both observed and normalised results, which is a positive interim outcome in line with the objectives of the scheme. Overall, normalised motorised traffic on internal roads has decreased by 44%. The greatest decrease has been on Great Percy Street where there was a 77% decrease. Motorised traffic has increased at Prideaux Place by 84% for the normalised result (120 vehicles a day, observed difference). It should be noted that small variations in motor traffic volumes on some internal streets could be a result of natural variation, rather than as a result of the PFS scheme. As such, it is explored in more detail below.

It is worth noting that, as vehicles travelling through the PFS area 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. Therefore, the number of vehicles counted should not be conflated with the number of trips or number of vehicles present within the area, as a vehicle could be counted multiple times.

Margery Street

Margery Street is a one-way street (with segregated cycle lane in the contraflow direction only) leading south-west from Amwell Street to the A201 (King's Cross Road/ Farringdon Road), both boundary roads of the Amwell LTN. The Amwell LTN plan includes a camera-enforced traffic filter on Margery Street at the existing pedestrian zebra crossing on Margery Street and forced left turn into Wilmington Street. However, the traffic filter is not operational as of the time of this report due to the challenges of enforcing a system that would

prevent traffic using Margery Street as a short cut whilst allowing essential access for residents and other functions such as deliveries and taxi pick up and drop off associated with the one-way flow of traffic. The traffic filter is expected to become operational in the autumn. For this reason, the Margery Street monitoring results have been presented in a separate table above.
In terms of the results, Margery Street has experienced a reduction in traffic of 8% despite other westbound routes through the LTN having been prevented by traffic filters. It should be noted that the normalised volume of the decrease (-102 vehicles) has been quite small and may be due to natural variation in motor traffic, rather than related to the PFS scheme.

Prideaux Place

Prideaux Place within the PFS area has experienced an increase in motorised traffic. It is important to note that although the percentage increase is large, the observed volume increase of 120 additional vehicles on average per day equates to approximately five additional vehicles per hour. The greatest increase is in the PM peak, where there has been an average observed increase of nine vehicles per hour, after normalisation. This may be due to motorists entering the western sub-area from Kings Cross Road seeking to cut through to Amwell Street and doing a loop via Prideaux Place when they realise they can't. It may also be due to an increase in delivery drivers entering and exiting from the western sub-area rather than exiting via Amwell Street as they may have in the past.

As the numbers involved are very low, no immediate mitigation is planned, however the Council will review the situation in the 11-month monitoring.

Motorised traffic speeds and speeding on internal roads

Speeding is a major contributing factor to road danger, so reducing speeding is vital to making our 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 9. Full speed monitoring results are available in Appendix 5 (absolute speeds from baseline and interim results). The speed limit is 20mph on all of the internal 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 which 85% of traffic will be travelling at, or below, along a street (and therefore 15% of traffic will be travelling faster than this speed).

Results (seven-day averages, 'change in volumes' use seven-day daily averages)

Table 4: Changes in speeds on internal roads

	Difference in average speed (mph)	Difference in average speed (%)	Difference in 85th percentile (mph)	Difference in 85th percentile (%)	Difference in volume of vehicles speeding	Difference in volume of vehicles speeding (%)	Difference in proportion of vehicles speeding (%)
Great Percy Street	-3	-20%	-3	-15%	-76	-88%	-4%
Prideaux Place	0	-2%	0	-1%	2	38%	0%
Wharton Street*	0.5	3%	0.5	2%	-308	-75%	-63%
Lloyd Baker Street	-1	-5%	1	3%	-161	-71%	1%
Wilmington Street	1	7%	0	4%	-1	-40%	0%
Overall average	-1	-3%	0	-1%	-109	-47%	-13%

*this data has been patched for certain periods due to damaged equipment meaning there were short periods of missing data (no more than 8 hours on any given day)

Table 5: Changes in speeds on Margery Street

	Difference in average speed (mph)	Difference in average speed (%)	Difference in 85th percentile (mph)	Difference in 85th percentile (%)	Difference in volume of vehicles speeding	Difference in volume of vehicles speeding (%)	Difference in proportion of vehicles speeding (%)
Margery Street	-1	-5%	-1	-4%	-143	-39%	-8%

Table 6: Changes in speeds on Lloyd Street (five-day averages, 'change in volumes' use five-day daily averages)

	Difference in average speed (mph)	Difference in average speed (%)	Difference in 85th percentile (mph)	Difference in 85th percentile (%)	Difference in volume of vehicles speeding	Difference in volume of vehicles speeding (%)	Difference in proportion of vehicles speeding (%)
Lloyd Street *	-1	-7%	-1	-7%	-175	-86%	-8%

*The count equipment at Lloyd Street was damaged and therefore data is unavailable for the weekend. As such, 5-day averages have been used in this case, and are thus presented in a separate table and not included in the overall figures.

Insights: motorised traffic speeds and speeding on internal roads

General insights

On average across the internal road sites, average speeds and the 85th percentile speed have shown a negligible change (-3% and -1% respectively). The proportion of vehicles speeding has shown negligible change at all but one site, Wharton Street. The number of vehicles speeding has decreased on average across internal roads by 47%, which is likely related to the overall decrease in volume of motorised traffic. The volume of vehicles speeding has decreased at all but one of the five internal sites in Table 4, and by more than 50% at three out of the five sites in Table 4 which is a positive interim outcome in line with the objectives of the scheme.

There has been an increase in the number of vehicles speeding at Prideaux Place (+38%), though due to the low vehicle volume on the street, this amounts to an increase of two vehicles per day.

Prideaux Place

The volume of vehicles breaking the posted 20mph speed limit has increased by 38% at Prideaux Place, while the proportion of vehicles speeding has not changed (0%). It is also important to note that although the percentage has increased by 38%, as an actual volume this translates to an average daily increase of two vehicles. The average speed and 85th percentile average have shown a negligible change.

As has been noted, no immediate mitigation is planned, however the Council will review the situation in the 11-month monitoring.

Motorised traffic on boundary roads

The council's analysis of the impact of PFS area schemes on boundary roads (i.e. the roads that go around the PFS area) will draw on monitoring results from traffic counts (volumes), smart congestion monitoring, and journey times.

This monitoring report provides data and insights relating to the Amwell PFS trial specifically by comparing data from before implementation in September 2020 to six months after implementation in May 2021.

It is important to consider all these results in the context of other external factors which could be contributing towards the results. For example, the Clerkenwell Green low traffic neighbourhood, delivered shortly before the Amwell low traffic neighbourhood, shares a boundary road with Amwell and several transport projects have been implemented in the area as set out earlier in the report. It is not possible to separate out the impacts these may be having on traffic on this boundary road. A more detailed analysis is in the insights section on motorised traffic on boundary roads on page 38.

Motorised traffic volumes on boundary roads

Results (seven-day daily averages)

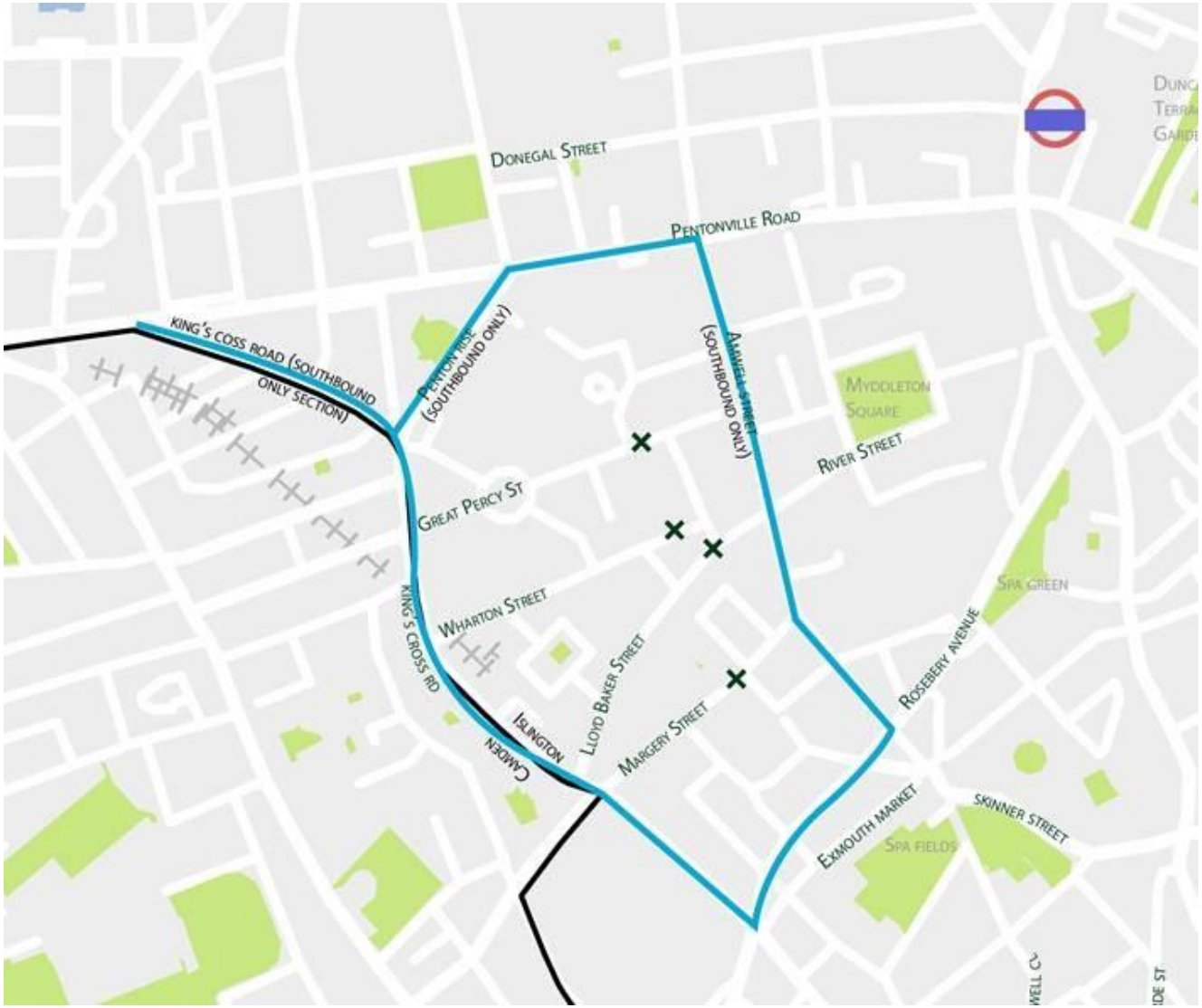
Table 7: Motorised traffic volumes on boundary roads

	September 2020 observed	September 2020 normalised	May 2021 observed	May 2021 normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
Claremont Square	5637	6055	5120	6296	-517	241	-9%	4%
Amwell Street	5540	5950	4729	5815	-811	-136	-15%	-2%
Rosebery Avenue (Southern site)	13624	14634	12204	15007	-1420	373	-10%	3%
Farringdon Road	54283	58307	64649	79500	10366	21193	19%	36%
Pentonville Road	170604	183250	145269	178639	-25335	-4611	-15%	-3%
Overall	244051	262141	226850	278960	-17200	16819	-7%	6%

Motorised traffic travel times on boundary roads

Islington Council has procured a smart traffic analysis system called INRIX (refer to glossary for fuller definition) that provides more continuous monitoring of motorised traffic speed data to measure average travel times. These 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 INRIX capture areas for the roads that can be seen in Map 5. The results are presented in minutes and seconds (mm:ss).

Map 5: Area of roads included in INRIX analysis



Results

A note on interpreting the results: table 8 shows that in September 2020 during the AM peak hours (7am – 10am), it took an average of 55 seconds to travel along Rosebery Avenue between the junction with Farringdon Road and the junction with Amwell Street. In May 2021, it took an average of 54 seconds to travel the same distance. That is, it took on average 1 second shorter, representing a 0.2% decrease. It must be noted that changes in travel times on boundary roads could be influenced by factors other than the Amwell PFS trial, explained in the insights section for motorised traffic on boundary roads.

INRIX undertook development to expand the coverage of their network in 2020. In relation to this, there is no northbound data available on Amwell Street prior to September 29, 2020. As such, there is only comparison available for southbound travel times on Amwell Street.

Table 8: Rosebery Avenue (both directions)

	Sept-20 (mm:ss)	**May-21 (mm:ss)**	**Sept 2020 - May 2021 difference (mm:ss)**
Weekday AM peak average (0700-1000)	00:55	00:54	-00:01
Weekday PM peak average (1600 – 1900)	00:53	00:56	00:03
7 day 0700 - 1900 average	00:50	00:52	00:02

Table 9: Rosebery Avenue (northbound)

	Sept-20 (mm:ss)	**May-21 (mm:ss)**	**Sept 2020 - May 2021 difference (mm:ss)**
Weekday AM peak average (0700-1000)	00:58	00:52	-00:06
Weekday PM peak average (1600 – 1900)	00:50	01:03	00:13
7 day 0700 - 1900 average	00:51	00:53	00:02

Table 10: Rosebery Avenue (southbound)

	Sept-20 (mm:ss)	May-21 (mm:ss)	Sept 2020 - May 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	00:52	00:57	00:05
Weekday PM peak average (1600 – 1900)	00:56	00:49	-00:07
7 day 0700 - 1900 average	00:50	00:51	00:01

Table 11: Amwell Street (southbound)

	Sept-20 (mm:ss)	May-21 (mm:ss)	Sept 2020 - May 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	02:06	01:59	-00:07
Weekday PM peak average (1600 – 1900)	02:07	01:53	-00:14
7 day 0700 - 1900 average	02:05	01:54	-00:11

Table 12: Pentonville Road (both directions)

	Sept-20 (mm:ss)	May-21 (mm:ss)	Sept 2020 - May 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	00:41	00:47	00:06
Weekday PM peak average (1600 – 1900)	00:42	00:44	00:02
7 day 0700 - 1900 average	00:21	00:23	00:02

Table 13: Pentonville Road (eastbound)

	Sept-20 (mm:ss)	May-21 (mm:ss)	Sept 2020 - May 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	00:35	00:39	00:04
Weekday PM peak average (1600 – 1900)	00:41	00:41	00:00
7 day 0700 - 1900 average	00:37	00:40	00:03

Table 14: Pentonville Road (westbound)

	Sept-20 (mm:ss)	May-21 (mm:ss)	Sept 2020 - May 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	00:47	00:55	00:08
Weekday PM peak average (1600 – 1900)	00:43	00:46	00:03
7 day 0700 - 1900 average	00:04	00:07	00:03

Table 15: Kings Cross Road and Farringdon Road – Rosebery Avenue to Acton Street (both directions)

	Sept-20 (mm:ss)	May-21 (mm:ss)	Sept 2020 - May 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	01:37	01:45	00:08
Weekday PM peak average (1600 – 1900)	01:30	01:37	00:07
7 day 0700 - 1900 average	01:32	01:39	00:07

Table 16: Kings Cross Road and Farringdon Road – Rosebery Avenue to Acton Street (northbound)

	Sept-20 (mm:ss)	May-21 (mm:ss)	Sept 2020 - May 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	01:46	01:38	-00:08
Weekday PM peak average (1600 – 1900)	01:37	01:30	-00:07
7 day 0700 - 1900 average	01:36	01:33	-00:03

Table 17: Kings Cross Road and Farringdon Road – Rosebery Avenue to Acton Street (southbound)

	Sept-20 (mm:ss)	May-21 (mm:ss)	Sept 2020 - May 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	01:27	01:51	00:24
Weekday PM peak average (1600 – 1900)	01:24	01:43	00:19
7 day 0700 - 1900 average	01:28	01:45	00:17

Table 18: Kings Cross Road between Pentonville Road and Acton Street (southbound only)

	Sept-20 (mm:ss)	May-21 (mm:ss)	Sept 2020 - May 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	00:42	00:46	00:04
Weekday PM peak average (1600 – 1900)	00:41	00:43	00:02
7 day 0700 - 1900 average	00:42	00:45	00:03

Table 19: Penton Rise (southbound only)

	Sept-20 (mm:ss)	May-21 (mm:ss)	Sept 2020 - May 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	00:53	00:50	-00:03
Weekday PM peak average (1600 – 1900)	00:49	00:48	-00:01
7 day 0700 - 1900 average	00:51	00:49	-00:02

Bus journey times on boundary roads

As mentioned in the Traffic counts approach section, TfL monitors bus journey times across its network, which can add an additional layer of understanding about the impacts of transport schemes. Bus journey times around the Amwell PFS area are therefore being monitored. The council will look to include an analysis of this data in the pre-consultation monitoring report in order to include a full year of data.

Insights: motorised traffic on boundary roads (combined monitoring)

General insights

Note, raw motorised traffic count data has been analysed and compared to give the 'observed' results in the traffic volume results tables. The observed results have been through the normalisation process described in the introductory section to give the 'normalised' results.

There is mixed picture in terms of the change in motorised traffic volumes on boundary roads. Overall across boundary roads, the total change in volume of traffic is a negligible change (6%). Rosebery Avenue (southern site) and Pentonville Road have seen negligible changes of +3% and -3% respectively. Motorised traffic volumes has increased at Farringdon Road and is explored in more detail in the next subsection.

In the longer term, travel behaviour is expected to adjust, resulting in lower motorised traffic levels overall, though essential trips will continue.

It is worth noting that vehicles travelling around the PFS area may pass through multiple counting sites, and therefore the number of vehicles counted across boundary road sites may be higher than the actual number of trips. Therefore, the number of vehicles counted should not be conflated with the number of trips or number of vehicles present within the area, as a vehicle could be counted multiple times.

It must be noted that changes in travel times on boundary roads could be influenced by factors other than the Amwell PFS trial as explored more on page 39 onward.

Farringdon Road

Farringdon Road has seen an increase of 36% in motorised traffic. One possible contributing factor to the increase is that there are several building sites in the area, which may have led to an increase in construction traffic using Farringdon Road when delivery vehicles are entering and exiting the sites during the second set (May 2021) counts. The observed seven day daily average increase of 10,366 vehicles per day far exceeds the total overall decrease of -1,661 in traffic volumes on internal roads from the Amwell PFS area (excluding Lloyd Street, which uses different data due to damaged count equipment at the count site). This data suggests that there are likely to be other contributory factors not attributable to the Amwell LTN.

Despite the increase in traffic volumes, the average travel times (both directions) between Rosebery Avenue and Acton Street have increased by between seven and eight seconds, representing negligible changes of approximately +8%. When broken down by direction, there is a larger increase in travel time the southbound direction, particularly focused in the AM peak (24 seconds); this equates to an increase of 28%. The council will continue to monitor this situation and consider mitigation options if deemed necessary.

Motorised traffic speeds and speeding on boundary roads

The traffic counts carried out also measure motorised traffic speeds. These are the same counts that have been analysed for their volume results. The details about the dates and locations of these counts are in Appendix 9. Full speed monitoring results are available in Appendix 5 (absolute speeds from baseline and interim results).

The speed limit is 20mph on all roads where counts were taken. Speed monitoring results have not been normalised. 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 which 85% of traffic will be travelling at, or below, along a street (15% of traffic will be travelling faster than this speed, therefore).

Results (seven-day averages, 'change in volumes' use seven-day daily averages)

Table 20: changes in speeds on boundary roads

	Difference in average speed (mph)	Difference in average speed (%)	Difference in 85th percentile (mph)	Difference in 85th percentile (%)	Difference in volume of vehicles speeding	Difference in volume of vehicles speeding (%)	Difference in proportion of vehicles speeding (%)
Claremont Square	0	0%	0	-1%	-117	-18%	-1%
Amwell Street	0	2%	0	1%	76	16%	1%
Rosebery Avenue (Southern Site)	1	4%	1	3%	275	5%	7%
Farringdon Road	-5	-19%	-6	-17%	1678	40%	10%
Pentonville Road	1	4%	-2	-5%	-1009	-39%	-3%
Overall Average	-1	-2%	-1	-4%	180	1%	3%

Insights: motorised traffic speeds and speeding on boundary roads

General insights

On average across the boundary road sites, average speeds and the 85th percentile speed have changed negligibly (-2% and -4% respectively). The volume and proportion of vehicles speeding have changed negligibly (+1% and +3% respectively) overall across boundary roads. The volume of vehicles speeding has decreased by 39% at Pentonville Road but increased by 40% at Farringdon Road and by 16% at Amwell Street.

Farringdon Road

The volume of vehicles breaking the posted 20mph speed limit has increased by 40% at Farringdon Road, while the proportion of vehicles speeding has changed negligibly (+10%). This could suggest that the increase in volume of vehicles speeding is linked to the overall increase in volume of traffic on Farringdon Road, documented in the 'Motorised traffic on boundary roads' section.

It is likely that a variety of factors have impacted traffic volumes on Farringdon Road. Nonetheless, the council will continue to monitor the situation on Farringdon Road and consider mitigation options if deemed necessary.

Amwell Street

The volume of vehicles breaking the posted 20mph speed limit has increased by 16% at Amwell Street, which translates to an average daily volume increase of 76 vehicles driving above the posted speed limit. The proportion of vehicles speeding, average speed and 85th percentile average have all changed negligibly by +1 to +2%. The council will continue to monitor the situation and consider mitigation options if deemed necessary.

Motorised traffic on local roads beyond the PFS boundary

Motorised traffic volumes on local roads beyond the PFS boundary

Cynthia Street and Donegal Street are two local roads in Islington that are beyond the Amwell PFS boundary. Traffic counts, speed data and cycling volumes were collected at these sites because they were identified as locations where traffic may be displaced as a result of the PFS scheme.

Similarly, traffic volume data, speed data and cycling volumes were collected on Calthorpe Street which is a main road located in Camden, beyond the Amwell PFS area. Camden Council requested this street was monitored to ensure that the Amwell PFS scheme was not having an adverse impacts here.

Results (seven-day daily averages)

Table 21: Motorised traffic volumes on local roads beyond the Amwell PFS boundary

	Borough	September 2020 observed	September 2020 normalised	May 2021 observed	May 2021 normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
Cynthia Street	Islington	1963	2109	980	1206	-983	-903	-50%	-43%
Donegal Street	Islington	2975	3195	3082	3790	107	594	4%	19%
Calthorpe Street	Camden	3583	3849	2310	2841	-1273	-1008	-36%	-26%
Overall		8515	9146	6372	7836	-2143	-1310	-25%	-14%

Insights: Motorised traffic volumes on local roads beyond the PFS boundary

Overall, there has been a 14% decrease in the volume of motorised traffic on local roads beyond the Amwell PFS boundaries. Cynthia Street showed the most significant decrease of 43% while Donegal Street showed an increase of 19%.

On Calthorpe Street there has been a decrease in both observed and normalised results, of 36% and 26% respectively, which amounts to 1008 vehicles less a day.

Donegal Street

Donegal Street saw a 19% increase in traffic volumes likely due to a combination of the Amwell LTN measures preventing through traffic between Amwell Street and King's Cross Road and existing banned turns leading traffic to cut through local streets to the north of the Amwell LTN via Donegal street. Similarly, while the percentage increase appears large, the observed volume increase of 107 additional vehicles per day equates to approximately 4 additional vehicles per hour.

The council is exploring the feasibility of implementing an LTN in the area north of Pentonville Road and west of the A1, which would aim to prevent vehicles cutting through side streets including Cynthia Street and Donegal Street, while maintaining vehicle access to all properties. We expect it to be challenging to implement an LTN scheme in this area due to the large size of the area of local streets. We will be engaging with the public in due course to give residents and businesses the chance to have a say in how we can best achieve this.

Motorised traffic speeds and speeding on local roads beyond the PFS boundary

Results (seven-day averages, 'change in volumes' use seven-day daily averages)

Table 22: Changes in speeds on local roads beyond the Amwell PFS boundary

	Borough	Difference in average speed (mph)	Difference in average speed (%)	Difference in 85th percentile (mph)	Difference in 85th percentile (%)	Difference in volume of vehicles speeding	Difference in volume of vehicles speeding (%)	Difference in proportion of vehicles speeding (%)
Cynthia Street	Islington	3	25%	4	29%	92	1011%	10%
Donegal Street	Islington	-4	-22%	-4	-20%	-372	-81%	-13%
Calthorpe Street	Camden	0	2%	1	4%	-398	-30%	3%
Overall		0	1%	0	4%	-135	181%	-10%

Insights: Motorised traffic speeds on local roads beyond the PFS boundary

On average across local roads beyond the Amwell PFS boundary, average speeds and 85th percentile show a negligible change (1% and 4% respectively). The proportion of vehicles speeding has shown negligible change at all but one site, Donegal Street, where there was a 13% decrease.

On Donegal Street, the number of vehicles speeding has decreased by 81%. Similarly, on Calthorpe Street the number of vehicles speeding has decreased by 30%.

Cynthia Street

On Cynthia Street, the results show a 1011% increase of vehicles speeding. However, it must be noted that the increase in actual volume of vehicles speeding at Cynthia Street is low compared to the percentage value, with on average just under four additional vehicles speeding per hour on Cynthia Street. The council will continue to monitor the situation and take mitigating action if necessary.

Motorised traffic on main roads beyond the PFS boundary

Rosebery Avenue (northern site) is a local road in Islington that is beyond the Amwell PFS boundary. Traffic counts, speed data and cycling volumes were collected at this site because it was identified as a location where traffic may increase as a result of the PFS scheme.

Traffic volume data, speed data and cycling volumes were collected on Acton Street and Swinton Street which are main roads located in Camden beyond the Amwell PFS area at the request of Camden Council.

Traffic Volumes on main roads beyond the PFS boundary

Results (seven-day daily averages)

Table 23: Motorised traffic volumes on main roads beyond the PFS boundary

	Borough	September 2020 observed	September 2020 normalised	May 2021 observed	May 2021 normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
Rosebery Avenue (northern site)	Islington	8903	9562	8213	10100	-689	538	-8%	6%
Acton Street	Camden	9825	10553	10281	12643	456	2089	5%	20%
Swinton Street	Camden	14166	15216	17868	21972	3702	6756	26%	44%
Overall		32894	35332	36362	44715	3469	9383	11%	27%

Insights: Motorised traffic volumes on main roads beyond the PFS boundary

Note, raw data has been analysed and compared to give the 'observed' results in the traffic volume results tables. The observed results have been through the normalisation process described in the introductory section to the give the 'normalised' results.

Motorised traffic has increased by 27% overall on main roads beyond the Amwell PFS boundary. The greatest increase has been on Swinton Street where motorised traffic has increased by 44% and on Acton Street by 20%.

It is worth noting that, vehicles travelling around the PFS area may pass through multiple counting sites, and therefore the number of vehicles counted across boundary road sites may be higher than the actual number of trips. Therefore, the number of vehicles counted should not be directly conflated with the number of trips or number of vehicles present within the area, as a vehicle could be counted multiple times.

Islington Council has been in communication with Camden Council regarding the Amwell scheme and monitoring results. Any mitigating measures will be considered together.

Swinton Street and Acton Street

Swinton Street has experienced a 44% increase in motorised traffic while there has been a 20% increase in Acton Street. In terms of actual volumes, this averages out to an additional 154 additional vehicles per hour in Swinton Street. The greatest increase is in the AM peak, where there has been an average increase of 787 vehicles per hour, after normalisation.

An increase in northbound motorists no longer able to cut through Lloyd Baker Street from King's Cross Road to avoid the area around King's Cross Station, and now being forced to use the King's Cross gyratory, mostly via Swinton Street, may have contributed to the results. Residents of the western side of the Amwell LTN who previously accessed areas via Amwell Street are also likely to be a small contributory factor to increases in on Swinton Street and Acton Street, for example the area to the south-east would be accessed via the King's Cross gyratory and Pentonville Road as there is a banned left turn from Farringdon Road. However, the data suggests that there are likely to be a variety of factors influencing the increase in traffic on Swinton Street and Acton Street, and that it is not purely attributable to the Amwell PFS trial measures; the observed 7 day daily increase on Swinton Street is 3,702 vehicles per day, whereas the equivalent decrease on Lloyd Baker Street, the road within the Amwell PFS area most likely to displace vehicles to Swinton Street, is -816 vehicles per day. Moreover, the increase on Swinton Street alone (3,702 motorised vehicles) is greater than the overall decrease in traffic volumes on all internal roads within the Amwell PFS area (-1,431 motorised vehicles) (excluding Lloyd Street, which uses different data due to damaged count equipment at the count site). This suggests that some of the increase on Swinton Street originates from sources other than the Amwell PFS measures.

Motorised traffic speeds and speeding on main roads beyond the PFS boundary

Results (seven-day averages, 'change in volumes' use seven-day daily averages)

Table 24: Changes in speeds on main roads beyond the PFS boundary

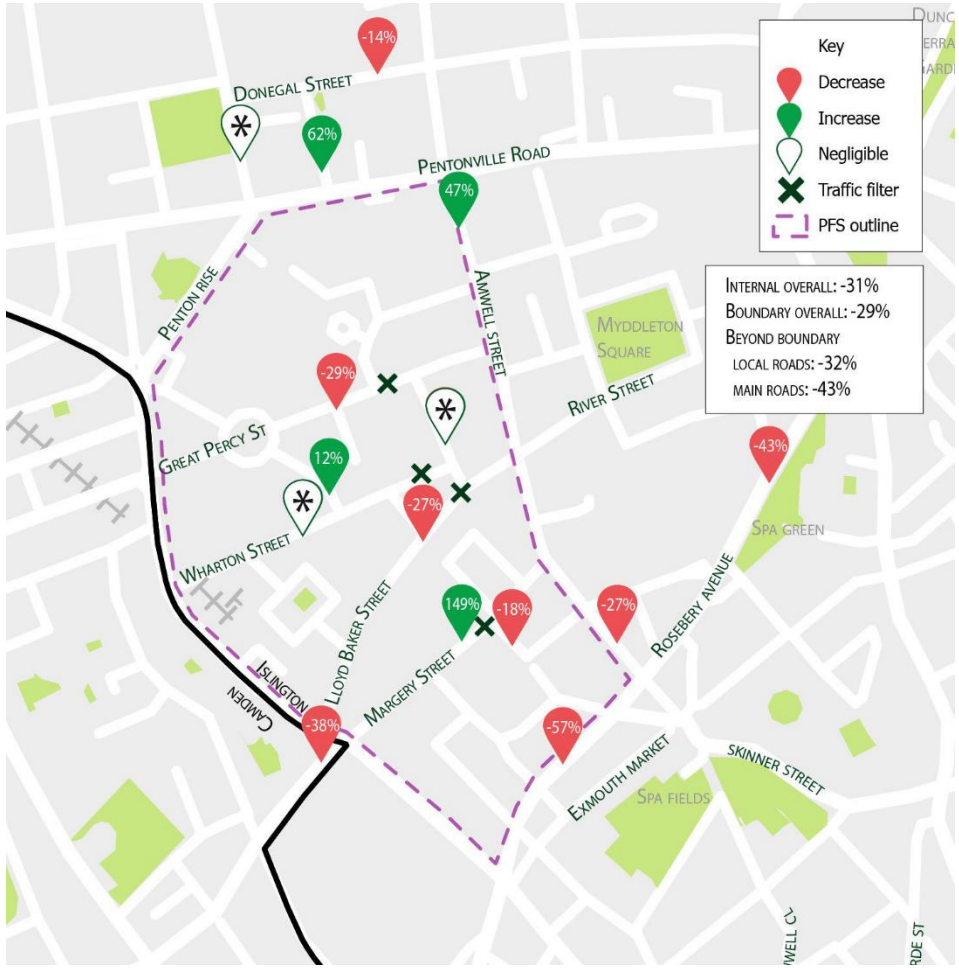
	Borough	Difference in average speed (mph)	Difference in average speed (%)	Difference in 85th percentile (mph)	Difference in 85th percentile (%)	Difference in volume of vehicles speeding	Difference in volume of vehicles speeding (%)	Difference in proportion of vehicles speeding (%)
Rosebery Avenue (northern site)	Islington	1	3%	1	4%	-133	-2%	-69%
Acton Street	Camden	-1	-4%	-1	-4%	-5346	-97%	-79%
Swinton Street	Camden	-1	-3%	-1	-5%	129	5%	-11%
Overall		0	-1%	0	-2%	-1783	-31%	-53%

Insights: Motorised traffic speeds on main roads beyond the PFS boundary

On average across main roads beyond the Amwell PFS boundary, average speeds and the 85th percentile speed have shown a negligible change (-1% and -2% respectively). The proportion of vehicles speeding has shown a decrease at all three sites, and an overall decrease across all the sites. The number of vehicles speeding has decreased on average across main roads beyond the PFS boundary by 31%, which is likely related to the overall decrease in volume of motorised traffic. These results suggest that a decrease in motorised traffic on internal roads does not necessarily increase speeding. In fact, when the speed and volume results are considered together, these may imply the opposite is true.

Cycling volumes on internal, boundary and beyond boundary roads

Map 6: Percentage change in cycling volumes (seven-day daily averages)



We have not normalised cycling figures for Covid-19 due to the lack of an available source that encompasses all cycle users, and because there are likely at least two key variables impacting these results: Covid-19 disruption, and seasonal variation. As such, the different contexts during which the two counts were taken is especially important to take into account when considering the cycle volumes analysis.

From Monday 14 September, the week in which the baseline counts were taken, new Covid-19 related lockdown restrictions were introduced. The "rule of six", which allowed six people from different households to meet indoors and outdoors, came into force. Non-essential retail and hospitality venues remained open as the government encouraged people to return to work, before changing their guidance towards the end of the month to encouraging people to work from home if they could. Non-essential retail was open as were personal care premises such as hairdressers and nail salons; and public buildings, including libraries and community centres. Indoor leisure facilities such as gyms were also open as were most outdoor attractions and settings. When the interim counts were taken in May 2021 (4 – 10), the government's Roadmap out of Lockdown was at Step 2, which saw the opening of non-essential retail; personal care premises such as hairdressers and nail salons; and public buildings, including libraries and community centres. Indoor leisure facilities such as gyms were also open as were most outdoor attractions and settings. However, meeting with people from other households was only permitted with one other person outdoors, and forbidden indoors. The government continued encouraging people to work from home if they could.

As such, the restrictions in May 2021, when the interim counts were taken, were slightly stricter in terms of different households meeting and working from home, which may have had a somewhat supressing impact on cyclist volumes.

Cycling levels are also impacted by seasonal weather change including temperature and rainfall; for example, there is normally much more cycling participation in July than in 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. As an indication of the impact weather can have, one 2011 study found a doubling in temperature could lead to a 43% – 50% increase in cycling levels, before having a negative impact if too high (Study by Miranda-Moreno and Nosal, 2011).

During the week the baseline traffic counts were taken in September 2020 the minimum temperature was 11.3°C and the maximum was 18.8°C. England-wide weather data shows that September 2020 was a dry, sunny month, with 44.9mm of rain. During the week the interim traffic counts were taken in May 2021, the minimum temperature was 8.4°C and the maximum was 16.7°C. UK-wide data shows that May 2021 began unseasonably cold with frosts in many places and frequent rain which resulted in May 2021 being England's fifth

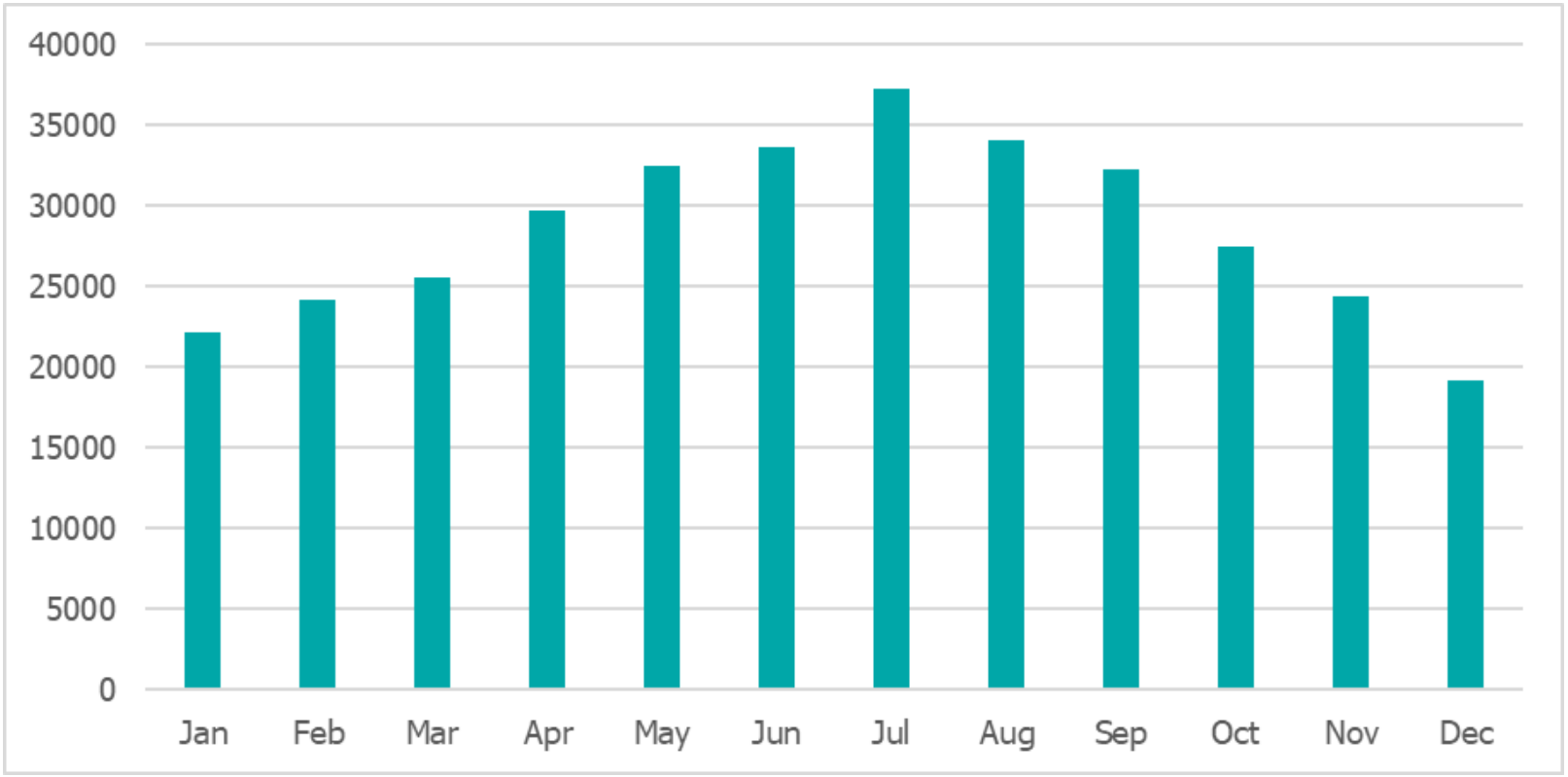
wettest May on record with 111mm of rain. As such, the higher rainfall in May 2021, when the interim counts were taken, may have had a somewhat supressing impact on cyclist volumes. Data was not available on a regional or sub-regional level.

It is not possible to separate out or control for the impact of weather on the results in this report, however the next monitoring report will include data collected in late summer 2021 so the weather is likely to be similar to the baseline counts taken in September 2020.

Graph 3 demonstrates the seasonable variation in cycling. While graph 3 would indicate that cycling levels in May and September would normally be similar, it is important to note it is based on 2019 data and, as discussed in the previous paragraphs, there were specific weather and lockdown restriction measures that are likely to have heightened the difference between the two months.

In the future pre-consultation monitoring report for the Amwell scheme, we will be able to compare results from the same season, which will account for seasonal weather variation, and therefore it is anticipated that there will be an increase in cycling from the levels seen in this interim report.

Graph 3: Monthly average Santander hire trend in 2019 showing seasonal difference in cycling levels



Cycling volumes on internal roads

Results (seven-day daily averages)

Table 25: Pedal cycles volumes on internal roads

	September 2020	May 2021	Difference	Difference (%)
Great Percy Street	216	154	-62	-29%
Prideaux Place	39	44	5	12%
Wharton Street	222	115	-108	-48%
Lloyd Baker Street	186	136	-50	-27%
Wilmington Street	94	77	-17	-18%
Overall	757	526	-231	-31%

Table 26: Pedal cycles volumes on Margery (westbound only, excludes segregated cycle lane in contraflow direction)

	September 2020	May 2021	Difference	Difference (%)
Margery Street	37	93	56	149%

Table 27: Pedal cycles volumes on Lloyd Street (five-day daily averages)

	September 2020	May 2021	Difference	Difference (%)
Lloyd Street*	701	346	-355	-51%

*The count equipment at Lloyd Street was damaged and therefore data is unavailable for the weekend. As such, five-day averages have been used in this case, and are presented in a separate table and not included in the overall figures.

Cycling volumes on boundary roads

Results (seven-day daily averages).

Table 28: Pedal cycles volumes on boundary roads

	September 2020	May 2021	Difference	Difference (%)
Claremont Square	634	932	298	47%
Amwell Street	927	677	-250	-27%
Rosebery Avenue (southern site)	1752	760	-993	-57%
Farringdon Road*	-	-	-	-
Pentonville Road*	-	-	-	-
Overall	3313	2368	-945	-29%

* Radar counts have been used at Farringdon Road and Pentonville Road. Radar monitor speeds and vehicle volumes to a less specific categorisation using a radar sensor. The radar counts supplied for this scheme classify pedal cycles and motorcycles in the same class. As such, for radar assessed sites, the motorised traffic volumes do not include motorcycles, and pedal cycle volumes are unavailable.

Cycling volumes on roads beyond the boundary of the PFS area

Results (seven-day daily averages)

Table 29: Pedal cycles volumes on local roads beyond Amwell PFS area

	Borough	September 2020	May 2021	Difference	Difference (%)
Cynthia Street	Islington	20	33	13	62%
Donegal Street	Islington	263	227	-36	-14%
Calthorpe Street	Camden	1126	694	-432	-38%
Overall		1405	954	-451	-32%

Table 30: Pedal cycles volumes on main roads beyond Amwell PFS area

	Borough	September 2020	May 2021	Difference	Difference (%)
Rosebery Avenue (northern site)	Islington	1189	681	-508	-43%
Acton Street*	Camden	-	-	-	-
Swinton Street*	Camden	-	-	-	-
Overall		1189	681	-508	-43%

* Radar counts have been used at Acton Street and Swinton Street. Radar monitor speeds and vehicle volumes to a less specific categorisation using a radar sensor. The radar counts supplied for this scheme classify pedal cycles and motorcycles in the same class. As such, for radar assessed sites, the motorised traffic volumes do not include motorcycles, and pedal cycle volumes are unavailable.

Insights: cycling volumes on internal, boundary and beyond boundary roads (combined)

On average across internal roads, cycling has decreased by 31%, and decreased at four out of five internal sites. Where cycle volumes are available on boundary roads, they have decreased by 29% overall, with a 27% decrease on Amwell Street and a 57% decrease on Rosebery Avenue (southern site).

The notable exception is Margery Street, which is part of Cycleway 27, where the number of cycles increased by 56 a day or 149% in the westbound direction that shares the carriageway with motor traffic. The cyclist data for Margery Street does not include the segregated cycle lane in the contraflow (eastbound) direction.

The volumes that are generally lower than expected in both sets of counts, which means small changes in actual volumes appear larger in percentage terms. For example, on Lloyd Street, there has been a 39% decrease which, in actual volumes, represents a daily decrease of five pedal cycles. Similarly, on Wharton Street where there has been a percentage decrease of 48% which, in actual volumes is a decrease of 15 pedal cycles. Overall, on internal roads the 31% decrease represents 231 pedal cycles.

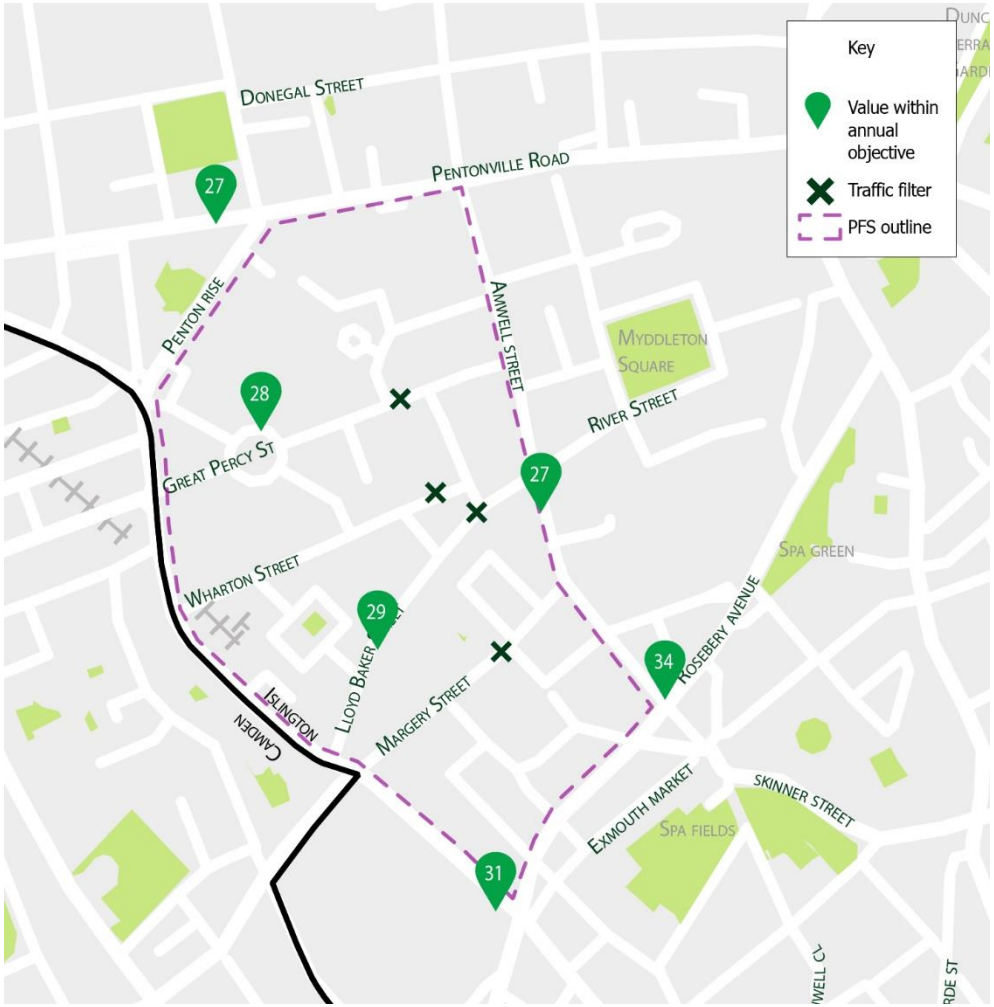
This is also the case on boundary roads, where overall there has been a percentage decrease of 29% which, in actual volumes, represents a difference of 945 pedal cycles. However, there has been a 47% increase on Claremont Square.

On local roads beyond the boundary of the Amwell PFS area, overall, there has been a 32% decrease, which translates into a difference in actual volume of 451 pedal cycles. On main roads beyond the boundary of the Amwell PFS, overall, where data is available, there has been a 43% decrease in cycling.

Although this interim decrease in cycling is not in line with the programme's intended objectives, it is considered that it is likely linked to the variation in season and lockdown restrictions between the two. The indicator will continue to be monitored, and pre consultation monitoring is expected to be more accurate due to similarities in weather, though results will also be dependent on future lockdowns.

Air Quality

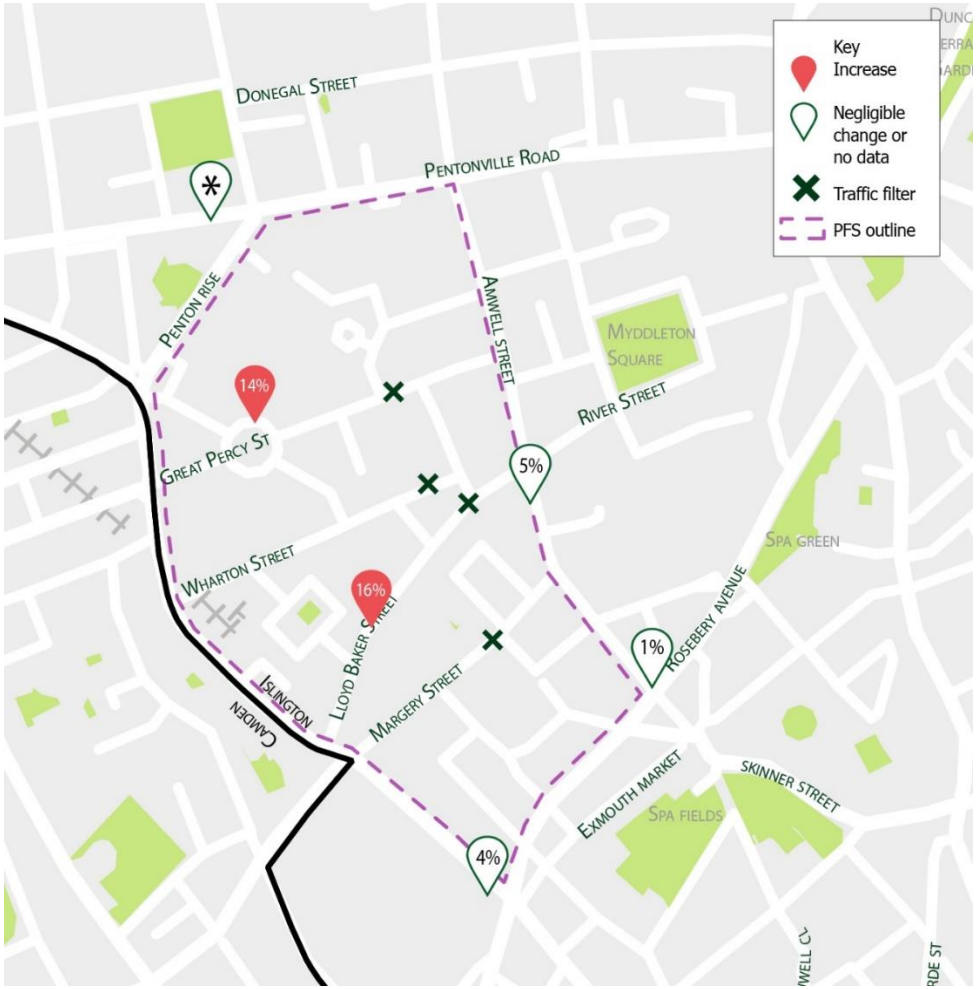
Map 7: Average levels of NO2 (µg/m3) December 2020-March 2021



Map 8: percentage change in NO2 (µg/m3) between December 2019- March 2020 and December 2020-March 2021

*These sites were installed in summer 2020, and therefore do not have data from the baseline period for comparison with interim results

Map 9: Percentage change in NO_2 (µg/m3) between November 2019-October 2020 and December 2020-March 2021



*These sites were installed in summer 2020, and therefore do not have data from the baseline period for comparison with interim results

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 (PM_{10}) – 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 PM_{10} 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.
- 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.

Islington's air quality sites are classified based on their location using Defra guidance, but are referred to in these PFS monitoring reports using PFS 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 PFS 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 PFS monitoring we have further split the urban background results into sites on internal roadsides and sites away from roads. These categorisations apply to the PFS area and borough wide. We are looking to make monthly results for individual sites available on the council website as soon as possible.

The long-term sites in Islington consist of nine roadside diffusion tubes, ten background urban diffusion tubes, one automatic main road site and one automatic background urban site. One of the main road diffusion tubes has been moved in 2019, and is therefore not being included in PFS monitoring using this time period. One of the long term boundary road sites is a boundary road just outside Amwell and one of the long term urban background sites is located within Amwell, so these monitors have not been included as part of wider borough sites for this area, but instead looked at as part of Amwell averages. More details of these sites can be viewed in our annual report.

The air quality monitoring sites in the Amwell area are listed in Appendix 9, 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 interim Amwell report consist of seven main road diffusion tubes and nine background urban diffusion tubes, as the sensor data we have for this area does not have enough data to be meaningfully analysed at this stage.

Methodology

Time period of study

Air quality varies over time due to a variety of factors, including weather. It is therefore important to look at trends over a longer period of time to identify real changes in air quality due to this scheme. It is preferable to compare a year's worth of data to account for seasonal variation.

More air quality analysis will be included in the future Amwell pre-consultation monitoring report, when there is more 'after' data available. However, due to the importance and interest in air quality in the PFS trials, we are including interim analysis to provide an initial view of air quality levels in the area.

Every month, our diffusion tube monitors are collected and sent to a laboratory for analysis, meaning results are not immediate and it can take a few months to get results. We therefore have only four months of 'after' data since the scheme was introduced and in the case of new monitoring sites we also have limited baseline data to compare this to. The newer monitoring sites are therefore less reliable to provide comparison data, as the pre-scheme monitoring period is too short. However, 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

Tables 28 to 31 and graph 4 in this section use NO_2 data from diffusion tubes only, as the sensors in Amwell do not have any before-scheme monitoring. There are therefore no results for PM_{10} for Amwell.

Tables 28 to 31 show the results since the PFS scheme has been in place (Period C) compared to the same period in 2019/2020 (Period A) and the whole year before implementation (Period B). The results for November 2020 (Period D) have been separated out as the scheme started halfway through this month, but the monitors only give one value for the whole month. The pollution levels in these periods, particularly Period B, 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 with the first lockdown.

Please note, the values in tables 28 – 31 show the average results for all monitors in each category, with figures rounded to the nearest whole number, so the differences may look different to what is expected from the NO_2 values given for time periods A-C.

Table 31: (Boundary roads) NO_2 levels in Amwell and borough long term diffusion tube sites

	NO_2 (µg/m3) in Dec 2019-March 2020 (Period A)	**NO_2 (µg/m3) in Nov 2019-Oct 2020 (Period B)**	**NO_2 (µg/m3) in Dec 2020-March 2021 (Period C)**	**NO_2 (µg/m3) in Nov 2020 (Period D)**	**A compared to C (µg/m3)**	**A compared to C (% change)**	**B compared to C (µg/m3)**	**B compared to C (% change)**
Amwell	34	30	32	38	-2	-7%	1	4%
Whole borough long term sites	34	31	35	39	1	2%	4	12%

This includes seven monitoring locations for the whole borough long term sites for each time period. In Amwell this is three monitoring sites for period A, three monitoring sites for all but two months of period B where an extra monitor is added and four monitoring sites in periods C.

It is worth noting both of the boundary road sites in Amwell are likely to have been impacted by factors other than the Amwell PFS trial. For example, the removal of Old Street roundabout is a major transport infrastructure project that is being delivered to the east, and may have impacted traffic in the results.

Table 32: (Internal roads) NO_2 levels in Amwell and borough long term diffusion tube sites

	NO_2 (µg/m3) in Dec 2019-March 2020 (Period A)	NO_2 (µg/m3) in Nov 2019-Oct 2020 (Period B)	NO_2 (µg/m3) in Dec 2020-March 2021 (Period C)	NO_2 (µg/m3) in Nov 2020 (Period D)	A compared to C (µg/m3)	A compared to C (% change)	B compared to C (µg/m3)	B compared to C (% change)
Amwell	30	25	28	34	-1	-4%	4	15%
Whole borough long term sites	25	21	26	30	2	7%	6	29%

This includes one monitoring sites in Amwell for period A, two monitoring sites in period B, with values adjusted for periods of missing data (see Appendix 9 for further explanation) and two sites in period C. There are five monitoring locations for the whole borough long term sites for each time period.

Table 33: (Non-street-based sites) NO_2 levels in Amwell and borough long term diffusion tube sites

	NO_2 (µg/m3) in Dec 2019-March 2020 (Period A)	NO_2 (µg/m3) in Nov 2019-Oct 2020 (Period B)	NO_2 (µg/m3) in Dec 2020-March 2021 (Period C)	NO_2 (µg/m3) in Nov 2020 (Period D)	A compared to C (µg/m3)	A compared to C (% change)	B compared to C (µg/m3)	B compared to C (% change)
Amwell	No data	No data	No data	No data	No data	No data	No data	No data
Whole borough long term sites	24	20	25	29	1	5%	5	25%

There are no non-street monitoring sites in Amwell for any time period. There are four monitoring locations for the whole borough long term sites for each time period.

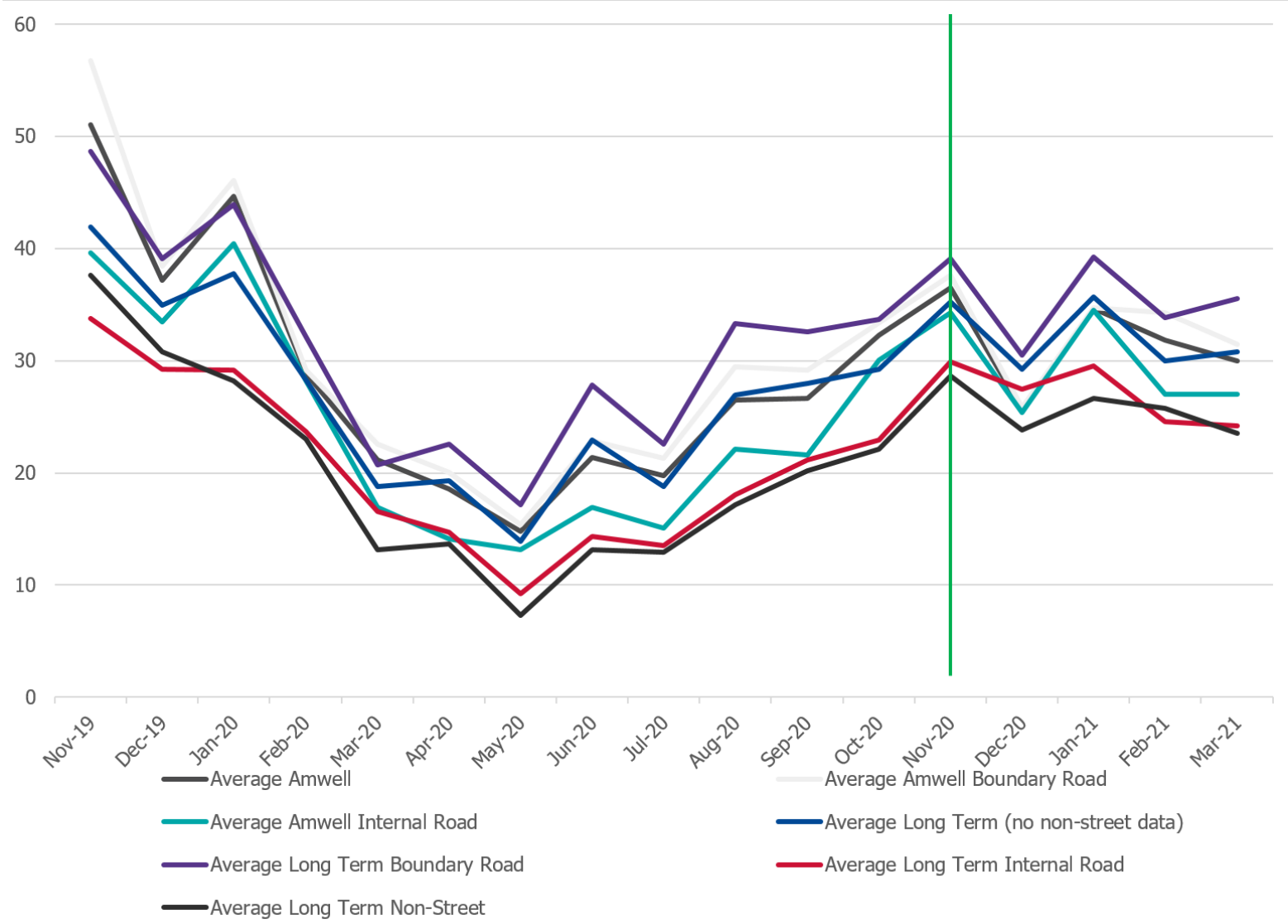
Table 34: (Overall) NO_2 levels in Amwell and borough long term diffusion tube sites

	NO_2 (µg/m3) in Dec 2019-March 2020 (Period A)	NO_2 (µg/m3) in Nov 2019-Octg 2020 (Period B)	NO_2 (µg/m3) in Dec 2020-March 2021 (Period C)	NO_2 (µg/m3) in Nov 2020 (Period D)	A compared to C (µg/m3)	A compared to C (% change)	B compared to C (µg/m3)	B compared to C (% change)
Amwell	33	28	31	37	-2	-7%	3	11%
Whole borough long term sites	30	27	31	35	1	5%	5	18%

To allow better comparison between Amwell and the wider borough changes non-street sites have not been included in the whole borough average as this is not available in Amwell. So this includes twelve long term monitoring sites for the whole borough for each time period. In Amwell there are four total monitoring locations for period A, five monitoring sites for most of period B, with values adjusted to account for periods of missing data (see Appendix 9 for further explanation) and two months with one additional monitor, and six monitoring locations in period C.

Graph 4 compares the trends in NO_2 levels in Amwell and across Islington overall from September 2019 through to January 2021.

Graph 4: Average NO_2 levels in Amwell compared to long term borough-wide sites from diffusion tubes



Insights: air quality

The results in tables 28 to 31 show that there has been a decrease in pollution at all monitoring sites in Amwell when the post-implementation period is compared with the same period the year before. This is in contrast to the changes seen at wider borough sites where slight increases can be observed when the post implementation period is compared to the same period the year before. This is across Amwell and the borough, where 2019 data is available.

As graph 4 shows, the borough-wide and Amwell monitoring site averages all dropped to a low in May 2020 before generally rising. This aligns to a period of national lockdown measures, which started in March 2020 and were eased by July 2020 as well as potential seasonal variations where NO_2 can often be lower in summer months. The post-implementation period of the PFS trial in Amwell (December 2020 – March 2021) was at the same time as rising trends in the borough more widely. As such, while NO_2 levels in the trial area have increased since it was implemented end of November 2020 and show higher values compared to the whole year before, this is in line with borough-wide trends and can therefore be viewed as related to the impact of lockdown measures, and seasonal variation, and suggests the impact of wider factors on pollution levels, with no distinct impact on air quality to date due to the trial.

In summary these results show:

- Changes in levels of NO_2 in Amwell reflect those in the borough more widely or potentially show slightly better levels since PFS started.
- However, this is from only four months of data and based on a limited number of monitoring sites in Amwell, therefore further observation is required.
- In the post-implementation period, average NO_2 levels by site type at Amwell sites have been within the annual objective level of 40µg/m3.
- Levels of NO_2 in Amwell since PFS started (December 2020 - March 2021) are lower than the previous year at all sites where comparable data for the same months is available from December 2019- March 2020. This is in contrast to wider borough trends where NO_2 levels have been higher.
- Levels of NO_2 in Amwell since PFS started December-March 2021) are higher than average levels for the whole year before (November 2019-October 2020). However, this is comparable to wider borough changes and likely shows the impact of seasonal variations and Covid-19.

- The Air Quality Team are satisfied that the interim results show no discernible impacts on air quality in the cell but they will continue to monitor air pollution over a longer time period to get a better understanding of any changes.

Emergency vehicles access

London Ambulance Service

The Council is in conversation with the London Ambulance Service (LAS) about where it may be able to feed into future reports regarding traffic schemes within the Borough and continues to monitor schemes and provide feedback to the council traffic officers should any delays occur to emergency responses.

As of 24 June 2021, there have not been any reported delays in LAS response times as a result of the PFS area being implemented on Amwell Street. We will continue to monitor this closely in the future.

Metropolitan Police Service

The council continues to engage and consult with the Metropolitan Police Service (MPS) as part of the implementation of its PFS programme. The council and MPS are currently exploring ways in which the impact of the PFS schemes can be accurately assessed using response time data in future monitoring reports.

London Fire Brigade

The London Fire Brigade (LFB) monitors the time it takes their vehicles to attend emergencies (attendance times). They are sharing data with the council to enable us to understand if the PFS schemes have adversely impacted attendance times.

The LFB use average attendance times to monitor attendance times. This is because there are a significant number of variables that can impact attendance times – for example, responding vehicles are not always setting off from the same place.

As detailed in the London Safety Plan, "London Fire Brigade's intention is always to get to an emergency incident as quickly as possible on each and every occasion. But the Brigade also sets itself targets for the time it should take to arrive at an incident. The Brigade's London-wide attendance targets are:

- To get the first fire engine to an incident within an average of six minutes.
- To get the second fire engine to an incident within an average of eight minutes.
- To get a fire engine anywhere in London within 12 minutes on 95 per cent of occasions."

PFS monitoring analysis methodology

As advised by the LFB, the 2019 average attendance times for Islington and Clerkenwell ward are used as the baseline against which to compare the post-implementation averages for each area.

The average attendance times for the Clerkenwell ward are considered together with average attendance times for the whole borough, to ascertain to what degree the scheme has impacted the post-implementation attendance times in the PFS area compared to the borough overall, thus accounting for any potential Covid-19 disruption.

Please note that data from LFB is only available by ward. Clerkenwell ward also contains the Clerkenwell Green PFS area, so it is not possible to isolate the impacts of Amwell PFS. However, as shown in table 23, there have been negligible changes to response time in Clerkenwell ward.

The results cover response times to incidents attended by the brigade to an address in the specified area. They do not include the times of response vehicles that passed through the area to attend an incident in a different area.

Results

Table 35: Average attendance times of the London Fire Brigade

	No. of mobilisations	Average Attendance 1st Appliance (mm:ss)	Average Attendance 2nd Appliance (mm:ss)
Islington 2019 (baseline)	2,076	04:36	06:17
Amwell 2019 (baseline)	165	04:30	05:42
Islington November 2020 – April 2021 (post-implementation)	855	04:44	06:04
Amwell November 2020 – April 2021 (post-implementation)	52	04:42	05:30

Insights: London Fire Brigade response times

Given the extent of variables that affect response times, the differences between the 2019 baseline, the 2020 pre-implementation period and the post-implementation period are considered negligible by the LFB and the council. As such, it is the view of the LFB and the council that the PFS area in Amwell has not impacted this emergency service's attendance times. We will continue to monitor this indicator.

Anti-social behaviour and crime patterns

Data about anti-social behaviour (ASB) calls, including the location that is being referred to, is gathered in the Council's Community Safety team. This data has been analysed to monitor for changes in the volume of calls within PFS areas, especially around the traffic filters. The nature of the issue being reported has also been taken into consideration.

Data has been drawn from the Amwell PFS area and the whole of Islington, and results from the two areas compared month by month to monitor for Covid-19 disruption.

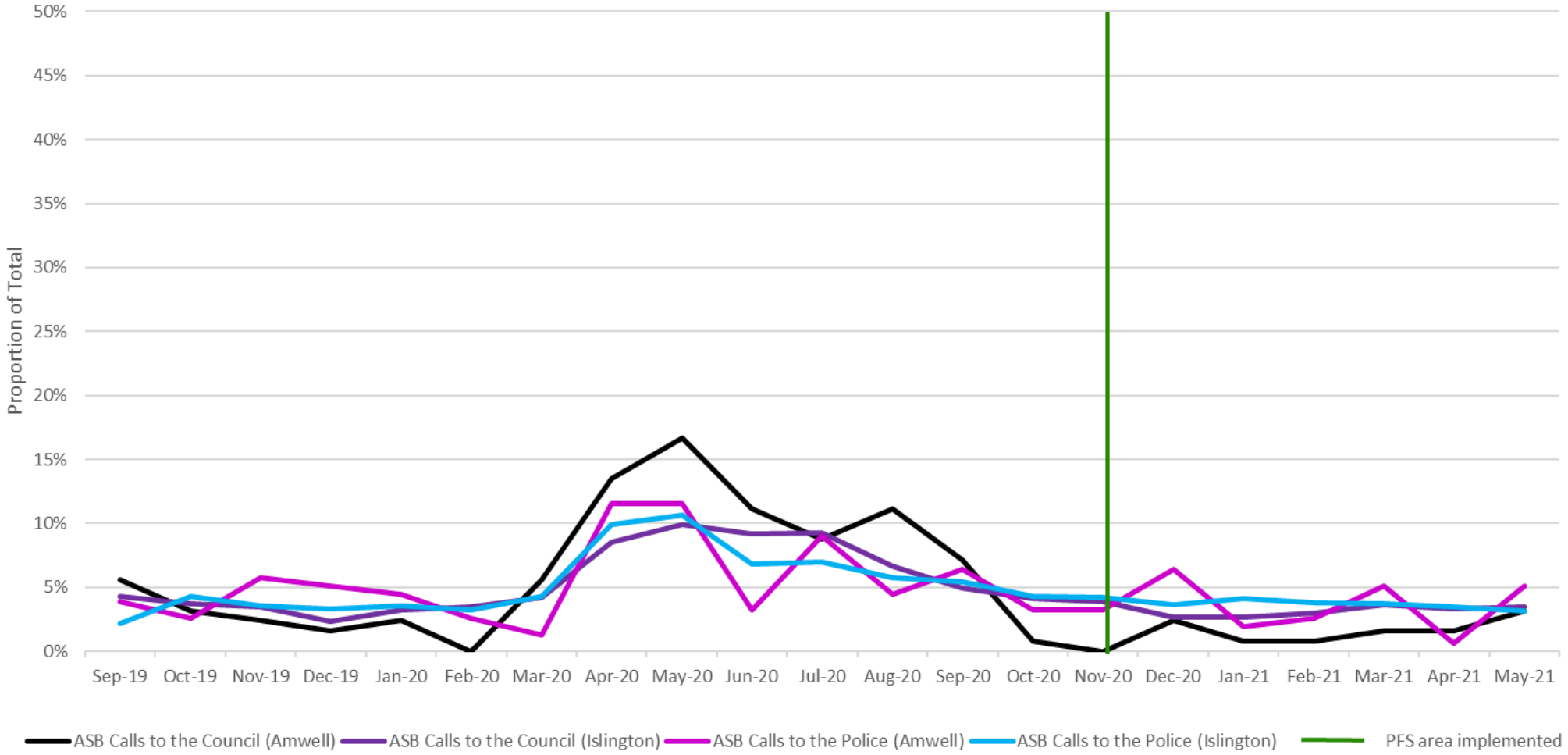
Table 36: Calls and crimes in Amwell and Islington (proportion as a percentage of September 2019 – May 2021)

Month	ASB Calls to the Council (Amwell)	ASB Calls to the Council	ASB Calls to the Police (Amwell)	ASB Calls to the Police	Street-based Criminal Offences (Amwell)	Street-based Criminal Offences
Sep-19	5.6%	4.3%	3.8%	2.2%	9.4%	5.6%
Oct-19	3.2%	3.7%	2.6%	4.3%	4.7%	6.1%
Nov-19	2.4%	3.5%	5.8%	3.5%	6.3%	6.7%
Dec-19	1.6%	2.3%	5.1%	3.3%	5.5%	5.8%
Jan-20	2.4%	3.3%	4.5%	3.5%	5.5%	6.0%
Feb-20	0.0%	3.5%	2.6%	3.2%	6.3%	6.1%
Mar-20	5.6%	4.2%	1.3%	4.3%	4.7%	4.5%
Apr-20	13.5%	8.5%	11.5%	9.9%	7.1%	3.3%
May-20	16.7%	9.9%	11.5%	10.6%	3.9%	4.0%
Jun-20	11.1%	9.2%	3.2%	6.8%	1.6%	4.1%
Jul-20	8.7%	9.3%	9.0%	7.0%	7.9%	4.7%
Aug-20	11.1%	6.7%	4.5%	5.7%	7.1%	5.4%
Sep-20	7.1%	4.9%	6.4%	5.4%	0.8%	5.1%
Oct-20	0.8%	4.1%	3.2%	4.3%	3.9%	4.9%
Nov-20 (PFS implemented)	0.0%	3.9%	3.2%	4.2%	1.6%	4.5%
Dec-20	2.4%	2.7%	6.4%	3.6%	2.4%	4.1%
Jan-21	0.8%	2.7%	1.9%	4.1%	1.6%	3.5%
Feb-21	0.8%	2.9%	2.6%	3.8%	3.1%	3.1%
Mar-21	1.6%	3.6%	5.1%	3.7%	4.7%	4.0%
Apr-21	1.6%	3.3%	0.6%	3.4%	3.1%	4.1%
May-21	3.2%	3.5%	5.1%	3.2%	8.7%	4.5%
Total	100%	100%	100%	100%	100%	100%

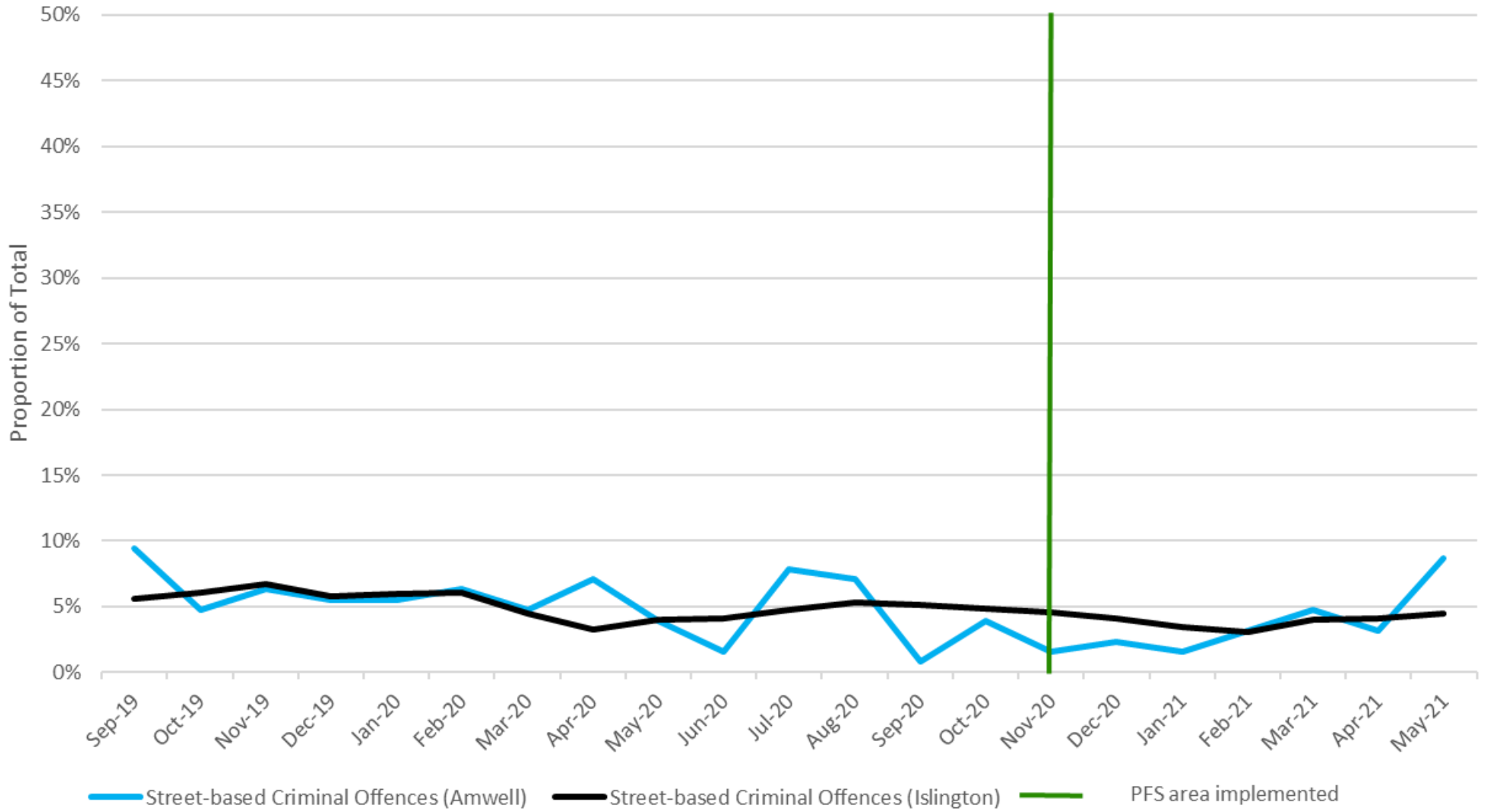
Table 37: Volume of calls and crimes in the Amwell area and Islington

Month	Amwell ASB Calls to the Council	Islington ASB Calls to the Council	Amwell ASB Calls to the Police	Islington ASB Calls to the Police	Amwell Street-based Criminal Offences	Islington Street-based Criminal Offences
Sep-19	7	347	6	359	12	853
Oct-19	<5	305	<5	705	6	929
Nov-19	<5	285	9	577	8	1026
Dec-19	<5	187	8	539	7	885
Jan-20	<5	265	7	573	7	919
Feb-20	<5	284	<5	521	8	932
Mar-20	7	343	<5	699	6	694
Apr-20	17	693	18	1612	9	502
May-20	21	805	18	1732	5	620
Jun-20	14	749	5	1108	<5	636
Jul-20	11	756	14	1135	10	726
Aug-20	14	544	7	935	9	822
Sep-20	9	399	10	880	<5	781
Oct-20	<5	335	5	703	5	745
Nov-20 (PFS implemented)	<5	317	5	685	<5	697
Dec-20	<5	218	10	588	<5	635
Jan-21	<5	217	<5	674	<5	530
Feb-21	<5	240	<5	614	<5	470
Mar-21	<5	295	8	604	6	621
Apr-21	<5	272	<5	562	<5	635
May-21	<5	284	8	518	11	694
Total	126	8,140	156	16,323	127	15,352

Graph 5: ASB calls to the Council and Police in Amwell and Islington as a percentage of the total over one year



Graph 6: Street crimes in the Amwell area and Islington as a percentage of the total over one year



Insights: anti-social behaviour and crime patterns

In terms of volumes of crime and ASB, during the past 18 months, the Amwell PFS area showed similar trends to those of Islington as a whole. On average, calls in the Amwell area are low, as can be seen in Table 34.

Across the various analyses of the volume of ASB calls and crimes in Amwell and Islington, the monthly volume of calls and crimes as a proportion of the total over the year period has remained approximately consistent between Amwell and Islington.

Tables 33 and 34 and Graphs 5 and 6 show increases in anti-social behaviour calls during the first lockdown last year in both Amwell and Islington. Contributing to this will have been reporting of people breaching the rules set out by Central Government.

Overall, however, the council's ASB team have found no evidence to suggest that the rate increased following the implementation of the PFS area. The council will continue to monitor this metric in this area and will be able to present data for more months in the pre-consultation report.

Concluding remarks

This interim monitoring report shows that, at this point in the Amwell people-friendly streets (PFS) trial, the project is generally having the intended impacts in the area of reducing motorised traffic across internal roads, as well as levels of speeding on internal and boundary roads, thereby making the area's roads safer, cleaner and healthier for residents. There has been a negligible change in crime and anti-social behaviour patterns and London Fire Brigade response times. The trial has not had an adverse impact on air quality to date, as nitrogen dioxide has fallen in line with borough trends.

The council has longer term ambitions to improve Amwell by creating a more pleasant and greener local environment, which was supported by the majority of respondents in a 2017 consultation. The Amwell PFS scheme meets some of the through-traffic reduction elements of these proposals, and there are aspirations to improve the public realm in future.

People-friendly neighbourhoods are being introduced on a trial basis, with a full public consultation twelve months into each scheme to give residents the chance to give their views. A pre-consultation monitoring report will also be produced in time to inform the consultation with one-year-on monitoring.

Future decisions to keep, remove or amend the Amwell PFS trial is not dependent on any single metric, but a combination of them together with feedback from the formal consultation with residents and stakeholders.

Until then, residents in the Amwell area can also fill in our survey through the council's people friendly streets webpage.

Appendices

Appendix 1: Internal Roads counts

Great Percy Street

Motorised traffic

	Baseline observed	Baseline normalised	Interim observed	Interim normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	5802	6232	1186	1458	-4616	-4774	-80%	-77%
7 day daily average	829	890	169	208	-659	-682	-80%	-77%
5 day total	4496	4829	865	1064	-3631	-3766	-81%	-78%
5 day daily average	899	966	173	213	-726	-753	-81%	-78%
AM peak hourly average (weekdays)	51	55	9	11	-43	-44	-83%	-81%
PM peak hourly average (weekdays)	64	69	11	13	-53	-56	-83%	-81%

Cycling

	Baseline observed	Interim observed	Difference observed	Difference observed (%)
7 day total	1513	1080	-433	-29%
7 day daily average	216	154	-62	-29%
5 day total	1282	902	-380	-30%
5 day daily average	256	180	-76	-30%
AM peak hourly average (weekdays)	34	25	-9	-27%
PM peak hourly average (weekdays)	16	11	-5	-33%

Prideaux Place

Motorised traffic

	Baseline observed	Baseline normalised	Interim observed	Interim normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	1379	1481	2219	2729	840	1248	61%	84%
7 day daily average	197	212	317	390	120	178	61%	84%
5 day total	1106	1188	1694	2083	588	895	53%	75%
5 day daily average	221	238	339	417	118	179	53%	75%
AM peak hourly average (weekdays)	11	12	16	20	5	8	47%	68%
PM peak hourly average (weekdays)	16	17	25	30	9	13	53%	75%

Cycling

	Baseline observed	Interim observed	Difference observed	Difference observed (%)
7 day total	274	307	33	12%
7 day daily average	39	44	5	12%
5 day total	214	253	39	18%
5 day daily average	43	51	8	18%
AM peak hourly average (weekdays)	4	5	1	34%
PM peak hourly average (weekdays)	3	3	0	-8%

Lloyd Street

The count equipment at Lloyd Street was damaged and therefore data is unavailable for the weekend. As such, five-day averages have been used.

Motorised traffic

	Baseline observed	Baseline normalised	Interim observed	Interim normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
5 day total	4955	5322	1061	1305	-3894	-4018	-79%	-75%
5 day daily average	991	1064	212	261	-779	-803	-79%	-75%
AM peak hourly average (weekdays)	56	61	12	14	-45	-46	-79%	-76%
PM peak hourly average (weekdays)	82	88	13	16	-69	-72	-84%	-82%

Cycling

	Baseline observed	Interim observed	Difference observed	Difference observed (%)
5 day total	701	346	-355	-51%
5 day daily average	140	69	-71	-51%
AM peak hourly average (weekdays)	8	3	-5	-62%
PM peak hourly average (weekdays)	18	8	-11	-58%

Wharton Street

Motorised traffic

	Baseline observed	Baseline normalised	Interim observed	Interim normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	3294	3538	2970	3652	-324	114	-10%	3%
7 day daily average	471	505	424	522	-46	16	-10%	3%
5 day total	2636	2831	2305	2834	-331	3	-13%	0%
5 day daily average	527	566	461	567	-66	1	-13%	0%
AM peak hourly average (weekdays)	27	29	25	31	-2	2	-7%	6%
PM peak hourly average (weekdays)	41	44	30	37	-11	-7	-27%	-16%

Cycling

	Baseline observed	Interim observed	Difference observed	Difference observed (%)
7 day total	1557	803	-754	-48%
7 day daily average	222	115	-108	-48%
5 day total	1314	670	-644	-49%
5 day daily average	263	134	-129	-49%
AM peak hourly average (weekdays)	34	20	-14	-41%
PM peak hourly average (weekdays)	18	6	-11	-65%

Lloyd Baker Street

Motorised traffic

	Baseline observed	Baseline normalised	Interim observed	Interim normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	7685	8255	2068	2543	-5617	-5712	-73%	-69%
7 day daily average	1098	1179	295	363	-802	-816	-73%	-69%
5 day total	6327	6796	1636	2012	-4691	-4784	-74%	-70%
5 day daily average	1265	1359	327	402	-938	-957	-74%	-70%
AM peak hourly average (weekdays)	54	58	12	15	-42	-43	-78%	-75%
PM peak hourly average (weekdays)	116	125	27	33	-89	-91	-77%	-73%

Cycling

	Baseline observed	Interim observed	Difference observed	Difference observed (%)
7 day total	1300	953	-347	-27%
7 day daily average	186	136	-50	-27%
5 day total	1115	829	-286	-26%
5 day daily average	223	166	-57	-26%
AM peak hourly average (weekdays)	3	3	0	-2%
PM peak hourly average (weekdays)	39	25	-14	-35%

Margery Street

Motorised traffic

	Baseline observed	Baseline normalised	Interim observed	Interim normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	7953	8543	6364	7826	-1589	-717	-20%	-8%
7 day daily average	1136	1220	909	1118	-227	-102	-20%	-8%
5 day total	6326	6795	4979	6123	-1347	-672	-21%	-10%
5 day daily average	1265	1359	996	1225	-269	-134	-21%	-10%
AM peak hourly average (weekdays)	106	114	87	107	-20	-8	-19%	-7%
PM peak hourly average (weekdays)	71	76	56	68	-15	-7	-21%	-10%

Cycling

	Baseline observed	Interim observed	Difference observed	Difference observed (%)
7 day total	1824	4544	2720	149%
7 day daily average	261	649	389	149%
5 day total	1252	3771	2519	201%
5 day daily average	250	754	504	201%
AM peak hourly average (weekdays)	41	125	84	206%
PM peak hourly average (weekdays)	10	28	18	182%

Wilmington Street

Motorised traffic

	Baseline observed	Baseline normalised	Interim observed	Interim normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	1375	1477	1057	1300	-318	-177	-23%	-12%
7 day daily average	196	211	151	186	-45	-25	-23%	-12%
5 day total	1048	1126	768	944	-280	-181	-27%	-16%
5 day daily average	210	225	154	189	-56	-36	-27%	-16%
AM peak hourly average (weekdays)	11	12	8	9	-3	-2	-29%	-19%
PM peak hourly average (weekdays)	16	18	11	13	-6	-4	-34%	-25%

Cycling

	Baseline observed	Interim observed	Difference observed	Difference observed (%)
7 day total	658	540	-118	-18%
7 day daily average	94	77	-17	-18%
5 day total	536	468	-68	-13%
5 day daily average	107	94	-14	-13%
AM peak hourly average (weekdays)	9	6	-3	-32%
PM peak hourly average (weekdays)	11	8	-3	-25%

Appendix 2: Boundary roads counts

Amwell Street

Motorised traffic

	Baseline observed	Baseline normalised	Interim observed	Interim normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	38779	41653	33100	40703	-5679	-950	-15%	-2%
7 day daily average	5540	5950	4729	5815	-811	-136	-15%	-2%
5 day total	25524	27416	26067	32055	543	4639	2%	17%
5 day daily average	5105	5483	5213	6411	109	928	2%	17%
AM peak hourly average (weekdays)	427	459	372	458	-55	-1	-13%	0%
PM peak hourly average (weekdays)	449	483	460	566	11	83	2%	17%

Cycling

	Baseline observed	Interim observed	Difference observed	Difference observed (%)
7 day total	6489	4736	-1753	-27%
7 day daily average	927	677	-250	-27%
5 day total	5160	3785	-1375	-27%
5 day daily average	1032	757	-275	-27%
AM peak hourly average (weekdays)	87	61	-26	-30%
PM peak hourly average (weekdays)	91	66	-25	-28%

Claremont Square

Motorised traffic

	Baseline observed	Baseline normalised	Interim observed	Interim normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	39458	42383	35839	44072	-3619	1689	-9%	4%
7 day daily average	5637	6055	5120	6296	-517	241	-9%	4%
5 day total	31141	33449	28030	34469	-3111	1019	-10%	3%
5 day daily average	6228	6690	5606	6894	-622	204	-10%	3%
AM peak hourly average (weekdays)	354	380	338	415	-16	35	-5%	9%
PM peak hourly average (weekdays)	450	483	423	520	-27	37	-6%	8%

Cycling

	Baseline observed	Interim observed	Difference observed	Difference observed (%)
7 day total	4438	6524	2086	47%
7 day daily average	634	932	298	47%
5 day total	3609	4922	1313	36%
5 day daily average	722	984	263	36%
AM peak hourly average (weekdays)	31	49	18	58%
PM peak hourly average (weekdays)	88	104	15	17%

Rosebery Avenue (Southern Site)

Motorised traffic

	Baseline observed	Baseline normalised	Interim observed	Interim normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	95366	102435	85425	105048	-9941	2613	-10%	3%
7 day daily average	13624	14634	12204	15007	-1420	373	-10%	3%
5 day total	72426	77795	63482	78064	-8944	270	-12%	0%
5 day daily average	14485	15559	12696	15613	-1789	54	-12%	0%
AM peak hourly average (weekdays)	790	849	662	814	-128	-35	-16%	-4%
PM peak hourly average (weekdays)	868	932	790	971	-78	39	-9%	4%

Cycling

	Baseline observed	Interim observed	Difference observed	Difference observed (%)
7 day total	12267	5318	-6949	-57%
7 day daily average	1752	760	-993	-57%
5 day total	9350	4166	-5184	-55%
5 day daily average	1870	833	-1037	-55%
AM peak hourly average (weekdays)	96	34	-62	-65%
PM peak hourly average (weekdays)	169	85	-83	-49%

Farringdon Road

Motorised traffic

	Baseline observed	Baseline normalised	Interim observed	Interim normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	379981	408147	452543	556497	72562	148349	19%	36%
7 day daily average	54283	58307	64649	79500	10366	21193	19%	36%
5 day total	13859	14886	10796	13276	-3063	-1610	-22%	-11%
5 day daily average	2772	2977	2159	2655	-613	-322	-22%	-11%
AM peak hourly average (weekdays)	369	397	492	605	123	208	33%	52%
PM peak hourly average (weekdays)	447	480	589	724	142	244	32%	51%

Pentonville Road

Motorised traffic

	Baseline observed	Baseline normalised	Interim observed	Interim normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	1194228	1282750	1016883	1250471	-177345	-32279	-15%	-3%
7 day daily average	170604	183250	145269	178639	-25335	-4611	-15%	-3%
5 day total	32817	35250	27432	33733	-5385	-1516	-16%	-4%
5 day daily average	6563	7050	5486	6747	-1077	-303	-16%	-4%
AM peak hourly average (weekdays)	1158	1244	1030	1266	-128	22	-11%	2%

	Baseline observed	Baseline normalised	Interim observed	Interim normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
PM peak hourly average (weekdays)	1208	1297	1029	1266	-179	-32	-15%	-2%

Appendix 3: Speed results

Table 5.1: Speeds on internal roads (seven-day daily averages)

Speeds	Average speed baseline (mph)	Average Speed interim (mph)	85th percentile speed baseline (mph)	85th percentile speed interim (mph)	Volume over Posted Speed Limit baseline	Volume over Posted Speed Limit interim	% Over Posted Speed Limit baseline	% Over Posted Speed Limit interim
Prideaux Place	12	12	16	15	5	7	3%	2%
Wharton Street	17	17	21	22	411	103	87%	24%
Lloyd Baker Street	17	16	21	22	226	65	21%	22%
Wilmington Street	9	10	12	12	1	1	1%	1%
Overall average	14	14	18	17	146	37	24%	11%

Table 5.1.1: Speeds on Lloyd Street (five day average)

Speeds	Average speed baseline (mph)	Average Speed interim (mph)	85th percentile speed baseline (mph)	85th percentile speed interim (mph)	Volume over Posted Speed Limit baseline	Volume over Posted Speed Limit interim	% Over Posted Speed Limit baseline	% Over Posted Speed Limit interim
Lloyd Street	17	15	21	19	212	28	21%	12%

Table 5.1.2: Speeds on Margery Street (seven-day daily averages)

Speeds	Average speed baseline (mph)	Average Speed interim (mph)	85th percentile speed baseline (mph)	85th percentile speed interim (mph)	Volume over Posted Speed Limit baseline	Volume over Posted Speed Limit interim	% Over Posted Speed Limit baseline	% Over Posted Speed Limit interim
Margery Street	19	18	22	22	371	228	33%	25%

Table 5.2: Speeds on boundary roads (seven-day daily averages)

Speeds	Average speed baseline (mph)	Average Speed interim (mph)	85th percentile speed baseline (mph)	85th percentile speed interim (mph)	Volume over Posted Speed Limit baseline	Volume over Posted Speed Limit interim	% Over Posted Speed Limit baseline	% Over Posted Speed Limit interim
Claremont Square	16	16	19	19	664	547	12%	11%
Amwell Street	15	16	19	19	469	545	10%	12%
Rosebery Avenue (southern site)	20	20	24	25	6012	6287	45%	52%
Farringdon Road	27	22	34	28	4149	5827	54%	64%
Pentonville Road	21	22	29	27	2576	1567	11%	8%
Overall average	20	19	25	24	2774	2954	26%	29%

Table 5.3: Speeds on local roads beyond the Amwell PFS boundary (seven-day daily averages)

Speeds	Average speed baseline (mph)	Average Speed interim (mph)	85th percentile speed baseline (mph)	85th percentile speed interim (mph)	Volume over Posted Speed Limit baseline	Volume over Posted Speed Limit interim	% Over Posted Speed Limit baseline	% Over Posted Speed Limit interim
Calthorpe Street	18	19	23	24	1306	908	37%	40%
Cynthia Street	12	16	15	19	9	102	0%	10%
Donegal Street	17	13	20	16	457	86	15%	3%
Overall average	16	16	19	20	591	365	18%	18%

Table 5.4: Speeds on main roads beyond the Amwell PFS boundary (seven-day daily averages)

Speeds	Average speed baseline (mph)	Average Speed interim (mph)	85th percentile speed baseline (mph)	85th percentile speed interim (mph)	Volume over Posted Speed Limit baseline	Volume over Posted Speed Limit interim	% Over Posted Speed Limit baseline	% Over Posted Speed Limit interim
Rosebery Avenue (northern site)	22	23	27	28	6150	6017	69%	73%
Acton Street	24	23	27	26	5520	174	81%	2%
Swinton Street	20	19	22	21	2848	2977	39%	27%
Overall average	22	22	25	25	4839	3056	63%	34%

Appendix 4: Counts on local roads beyond the PFS boundary

Calthorpe Street

Motorised traffic

	Baseline observed	Baseline normalised	Interim observed	Interim normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	25084	26943	16171	19886	-8913	-7058	-36%	-26%
7 day daily average	3583	3849	2310	2841	-1273	-1008	-36%	-26%
5 day total	20196	21693	13107	16118	-7089	-5575	-35%	-26%
5 day daily average	4039	4339	2621	3224	-1418	-1115	-35%	-26%
AM peak hourly average (weekdays)	302	325	179	220	-123	-104	-41%	-32%
PM peak hourly average (weekdays)	252	271	164	202	-88	-69	-35%	-25%

Cycling

	Baseline observed	Interim observed	Difference observed	Difference observed (%)
7 day total	7879	4858	-3021	-38%
7 day daily average	1126	694	-432	-38%
5 day total	6411	3976	-2435	-38%
5 day daily average	1282	795	-487	-38%
AM peak hourly average (weekdays)	129	105	-23	-18%
PM peak hourly average (weekdays)	101	42	-58	-58%

Cynthia Street

Motorised traffic

	Baseline observed	Baseline normalised	Interim observed	Interim normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	13744	14763	6863	8439	-6881	-6323	-50%	-43%
7 day daily average	1963	2109	980	1206	-983	-903	-50%	-43%
5 day total	10364	11132	4910	6038	-5454	-5094	-53%	-46%
5 day daily average	2073	2226	982	1208	-1091	-1019	-53%	-46%
AM peak hourly average (weekdays)	106	114	31	38	-75	-76	-71%	-67%
PM peak hourly average (weekdays)	120	129	70	86	-50	-42	-41%	-33%

Cycling

	Baseline observed	Interim observed	Difference observed	Difference observed (%)
7 day total	141	229	88	62%
7 day daily average	20	33	13	62%
5 day total	119	188	69	58%
5 day daily average	24	38	14	58%
AM peak hourly average (weekdays)*	2	4	2	120%
PM peak hourly average (weekdays)*	2	3	0	11%

Donegal Street

Motorised traffic

	Baseline observed	Baseline normalised	Interim observed	Interim normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	20824	22368	21573	26529	749	4161	4%	19%
7 day daily average	2975	3195	3082	3790	107	594	4%	19%
5 day total	16124	17319	16582	20391	458	3072	3%	18%
5 day daily average	3225	3464	3316	4078	92	614	3%	18%
AM peak hourly average (weekdays)	212	228	195	240	-17	12	-8%	5%
PM peak hourly average (weekdays)	220	236	231	284	11	48	5%	20%

Cycling

	Baseline observed	Interim observed	Difference observed	Difference observed (%)
7 day total	1841	1590	-251	-14%
7 day daily average	263	227	-36	-14%
5 day total	1445	1282	-163	-11%
5 day daily average	289	256	-33	-11%
AM peak hourly average (weekdays)	26	5	-21	-82%
PM peak hourly average (weekdays)	24	18	-6	-24%

Appendix 5 – Counts on main roads beyond the PFS area

Rosebery Avenue (northern site)

Motorised traffic

	Baseline observed	Baseline normalised	Interim observed	Interim normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	62318	66937	57494	70701	-4824	3764	-8%	6%
7 day daily average	8903	9562	8213	10100	-689	538	-8%	6%
5 day total	46016	49427	41823	51430	-4193	2003	-9%	4%
5 day daily average	9203	9885	8365	10286	-839	401	-9%	4%
AM peak hourly average (weekdays)	448	481	422	520	-25	39	-6%	8%
PM peak hourly average (weekdays)	529	568	483	593	-46	26	-9%	5%

Cycling

	Baseline observed	Interim observed	Difference observed	Difference observed (%)
7 day total	8326	4769	-3557	-43%
7 day daily average	1189	681	-508	-43%
5 day total	6541	3821	-2720	-42%
5 day daily average	1308	764	-544	-42%
AM peak hourly average (weekdays)	48	40	-8	-16%
PM peak hourly average (weekdays)	149	86	-63	-42%

Acton Street

Motorised traffic

	Baseline observed	Baseline normalised	Interim observed	Interim normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	68775	73873	71967	88499	3192	14626	5%	20%
7 day daily average	9825	10553	10281	12643	456	2089	5%	20%
5 day total	8209	8817	8667	10658	458	1840	6%	21%
5 day daily average	1642	1763	1733	2132	92	368	6%	21%
AM peak hourly average (weekdays)	432	464	466	573	34	109	8%	24%
PM peak hourly average (weekdays)	407	437	451	555	44	117	11%	27%

Swinton Street

Motorised traffic

	Baseline observed	Baseline normalised	Interim observed	Interim normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	99162	106512	125076	153807	25914	47295	26%	44%
7 day daily average	14166	15216	17868	21972	3702	6756	26%	44%
5 day total	11538	12393	14102	17341	2564	4949	22%	40%
5 day daily average	2308	2479	2820	3468	513	990	22%	40%
AM peak hourly average (weekdays)	375	403	640	787	265	384	70%	95%
PM peak hourly average (weekdays)	382	410	566	696	184	286	48%	70%

Appendix 6: Amwell traffic count locations and type

Table 9.1: Islington-commissioned traffic count sites and type

Boundary	**Type**
Amwell Street	ATC
Rosebery Avenue (southern site)	ATC
Farringdon Road	Radar
Pentonville Road	Radar
Internal	
Claremont Square	ATC
Great Percy Street	ATC
Prideaux Place	ATC
Lloyd Street	ATC
Wharton Street	ATC
Lloyd Baker Street	ATC
Margery Street	ATC
Wilmington Street	ATC
Extra Roads - Main	
Rosebery Avenue (northern site)	ATC
Acton Street	Radar
Swinton Street	Radar
Extra Roads - Local	
Calthorpe Street	ATC
Rodney Street	ATC
Cynthia Street	ATC
Donegal Street	ATC

Table 9.2: 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 Johns 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. The supplier considers the accuracy of ATCs to be similar to those described for radar, as detailed below. 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 is used before and after and the method is considered a good industry standard. They are used as a standard in monitoring transport schemes.

Radar counts monitor speeds and vehicle volumes to a less specific categorisation using a radar sensor. These radar counts classify pedal cycles and motorcycles in the same class (<5.6m). As such, for radar assessed sites, the motorised traffic volumes do not include motorcycles, and pedal cycle volumes are unavailable. Radars measure traffic volumes and speed using high frequency radar signals to measure one or two lanes of traffic. Manufacturers consider the method to be 98% accurate (with 95% Confidence) at measuring traffic volumes with speed considered to be around +/- 2mph or 3% whichever is greater with 95% confidence. Radars detect vehicle lengths

(+/- 40cm or 5% whichever is greater with 95% confidence) so assumptions need to be made with regards to vehicle classes. Inaccuracies in the data can occur due to vehicles following closely resulting in larger lengths being detected. Radars are widely used for monitoring traffic schemes due to their unobtrusive nature and being less detectable by drivers meaning they are less likely to change speeding behaviours.

Missing and patched data

During the baseline counts in September 2020, equipment was damaged at Lloyd Street, Wharton Street, Rodney Street and Cynthia Street. This data has been patched by Tracsis. Table 9.3 details the missing data and time periods at each site.

Statement from Tracsis:

To backfill periods of missing data we use data from the same day either side of the survey week, if available. This should allow the data to remain representative of the traffic conditions. So for a missing period on a Tuesday we would use either the Tuesday before or after the survey period to fill in the missing period. In some situations where the data is not available we would use another day of the same type (Weekday or weekend-day) to fill in the missing period but this would not be done without prior consultation.

Table 9.3: Missing data in Baseline Count – 14 September 2020

Site	Missing Speed	Missing Volume
Lloyd Street	Friday - N - 85th and 95th Friday - S - 95th Saturday and Sunday	Friday 4:00 - Sunday 23:00
Wharton Street		Thursday 13:00-21:00
Rodney Street		Tuesday 9:00-13:00 Thursday 8:00-15:00
Cynthia Street		Friday 8:00-9:00 Friday 15:00-16:00

Appendix 7: Traffic count normalisation methodologies

Traffic counts

To calculate the normalised percentage differences, the September 2020 traffic count volumes have been divided by 0.9310, the May 2021 traffic counts by 0.8132 to give normalised volumes. In other words, in order to account for the fact that there was less traffic on Islington streets from March 2020 onwards we have provided adjusted figures that provide an estimate for what the traffic would have been if there was no Covid-19 disruption. This allows us to analyse the impacts of the PFS area scheme rather than the impacts of Covid-19 on the traffic volumes.

To calculate the percentage change the difference has then been taken between the two, 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 average daily percentage difference between the 'baseline' month (pre-Covid-19 impact) and the corresponding 'COVID-19 impacted' month (i.e. September 2019 and September 2020) across all the permanent TfL counter sites around Islington, and taking an average difference for the whole month.

Appendix 8: 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 Amwell 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 Amwell area are listed below, with details about type and if they have been added as part of the PFS programme, or were pre-existing.

Table 11.1: Amwell air quality monitoring sites type and period of installation and additional monitors just outside area included in data comparisons for the area

Locations	PFS road type	Monitoring type	Installation	Site Type by DEFRA classification*
Percy Circus (BIS04)	**Internal Road**	**Diffusion tube**	**2000**	**Background urban**
Lloyd Baker Street (PF15)	**Internal Road**	**Diffusion tube**	**August 2020**	**Background urban**
Amwell Street (S16)	**Boundary Road**	**Diffusion tube**	**February 2018**	**Roadside**
Pentonville Road (PF34)	**Boundary Road**	**Diffusion tube**	**September 2020**	**Roadside**
Roseberry Avenue (BIS02)	**Boundary Road**	**Diffusion tube**	**2000**	**Roadside**
Farringdon Road (N50)	**Boundary Road**	**Diffusion tube**	**December 2019**	**Roadside**

There used to be one further monitor in place inside a classroom of Clerkenwell Parochial School. However, this has not been included in this analysis as being inside it would not have any long-term monitoring sites to be directly compared to, and it was removed early 2020 and so was no longer in place when the low traffic neighbourhood was introduced in Amwell.

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.

Methodology

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 in regards to monitor deployment. However it will not have fully gone through this process, especially in regards to normal end of year analysis processes for 2021, and should therefore be treated as provisional. This is even more the case with the sensor data, which is not an approved monitoring type for official reports and where the uncertainties are more unknown.

The 2019 data in this report has been adjusted using a correction factor of 0.88, and 0.94 for 2020. Adjusting data in this way is standard practice in making air quality data as accurate as possible, more information on this factor can be found in the 2019 annual report, and in the 2020 annual report when this is published. The data for 2021 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 NOx emissions came from inside Islington. Therefore, it can be very hard to pick up on local changes caused by schemes such as people-friendly streets.

Pollution also varies a lot 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 11: Peer review statement

SYSTRA Ltd (SYSTRA) has been commissioned by the London Borough of Islington (LBI) to provide an independent peer review of their report, *Amwell People-Friendly Streets trial, Interim Monitoring Report*. This review was to focus on ensuring that the report provided an accurate, neutral evaluation of the impact of the Amwell people-friendly street scheme, included assessing if the application of the agreed methodology was correct and robust.

SYSTRA is a global engineering and consultancy company, with over 800 employees in the UK and Ireland, offering specialist support and knowledge on transport delivery**,** covering strategic transport planning, transport research, scheme implementation and engineering. SYSTRA has the unique advantage of being not only a Transport Consultancy, but also a Social and Market Research Consultancy. Our 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. We 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. SYSTRA has significant recent experience in working on and monitoring Streetspace or COVID-19 emergency measures implemented both in London and across the UK and Ireland**.**

SYSTRA's peer review covered both the contents of LBI's report and checks on the underlying raw data and analysis. The key areas of focus were:

Methodology – has the agreed methodology followed the correct process?

Neutrality – are the conclusions drawn without bias; and

Accuracy – do the tables and charts in both the report and appendices correspond exactly with the underlying data analysis, does this analysis correspond with the methodology set out within the report, and is it free from error.

SYSTRA checked that the previously agreed – as applied in other reporting – method had been followed consistently.

SYSTRA undertook extensive checks on the data analysis completed by LBI. This included checking that formulae correctly reflected the processes described in the reports as well containing the correct values or cell references. Checks were also made that data had been correctly copied through a mixture of verifying complete tables against those in the report and appendices and spot checking values in the raw data and analyses calculations.

In reviewing the report, application of the agreed methodology and data SYSTRA assessed whether the approaches taken and methods of presentation used, provided a neutral evaluation of the scheme. Care was taken to establish that LBI had treated data even-handedly and had in no-way exaggerated results that could be considered beneficial or hidden those that could be considered negative.

On completion of the peer review SYSTRA provided feedback to LBI, including modifications where errors had been found within the data, or it was believed that the report needed to be modified to enhance its neutrality. LBI responded to all comments made, making modifications or corrections where proposed by SYSTRA, or providing a clear justification where it did not believe these to be appropriate, all of which have been accepted by SYSTRA.

In conclusion, it was deemed that the methodology was followed, with the previously agreed methodology making appropriate assumptions that allowed for a fair comparison of counts taken before and after the trial implementation against a background of fluctuating overall traffic volumes as a consequence of COVID-19. The methods used to assess impacts on all other indicators was also evaluated, and found to be robust. LBI's data processing was found to be accurate, with the results presented in the report to be a correct reflection of the data collected and the subsequent analysis.

SYSTRA has completed an independent peer review of London Borough of Islington's *Amwell People-Friendly Streets trial, Interim Monitoring Report* and found the report to be a robust, accurate and neutral evaluation of the impact of the scheme six months post implementation.