Appendix 2 – Traffic Analysis Summary

Reducing out of borough through traffic from the residential streets

Traffic monitoring has demonstrated that traffic that originates from outside the borough passing through has significantly fallen during the experiment resulting in an overall reduction in traffic volumes.

There are several factors that have contributed to the change, including:

- The launch of the experimental South Fulham TCPR (East) scheme;
- Travel behaviour across London – such as active travel growth, public transport patronage;
- New hybrid flexible working patterns – changing when or if people travel to work;
- Road works in other parts of the network affecting traffic capacity; and
- Increase in home delivery activity.

Industry research established over the decades has highlighted that reducing congestion through increasing capacity, simply leads to increasing travel demand. This corresponds to network rebalances that results in any spare or new capacity being taken up. The experimental scheme focuses on removing capacity from residential streets, transferring through traffic to the wider and main road network.

As traffic is not able to fully displace to main roads, due to the majority already operating at capacity, demand responses are made at the individual journey level that lead to people changing their route, mode of transport, the time of day travelled or not to travel at all. The net effect leads to the result of lesser traffic on the network.

The data indicates there has been a positive change in the traffic profile, even in areas where displacement would have likely occurred. It is also evident from data that traffic displaces from major roads to side roads if capacity is reduced on the main road network without protecting residential streets.

To get maximum benefits with minimal disruption to residents, a logical order for interventions must be applied. Therefore, it is only possible to implement measures to reduce traffic on main roads if residential side streets are protected from through traffic beforehand.

Destination Demand

Figure 1 below illustrates the destination demand (vehicles per hectare) for distinct Office for National Statistics demographic areas in South Fulham. The educational and commercial areas have the highest destination demand.

There is a significant percentage of heavy goods vehicle traffic generated in the east area from developments such as the gas works site and the refuse collection depot when compared to the average traffic composition for the borough. This indicates the likelihood of significantly more conflict of local traffic competing for space with through traffic.

Figure 1 – vehicle destination demand
measured pre scheme

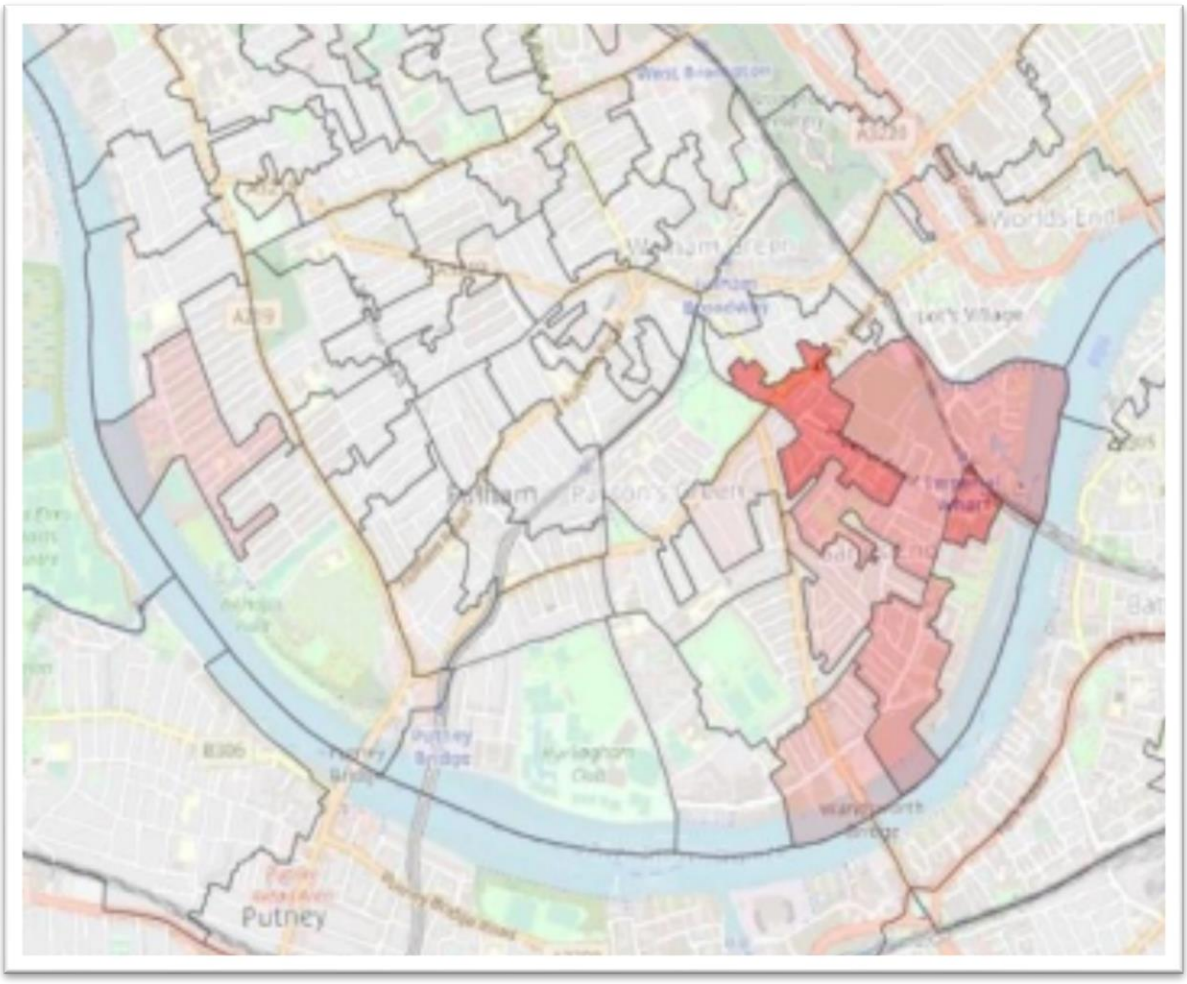

Figure 2 illustrates the traffic density in the road network for traffic passing through South Fulham prior to the scheme. The deeper the red, the higher the traffic density.

Traffic using South Fulham as a cut through to avoid A4 or other crossings further along the river, including the M25 is clearly demonstrated.

The corresponding traffic density in residential streets is evident, and in some cases higher than that of the primary road network which is designed for through traffic. The use of residential streets as additional through traffic capacity encourages more

traffic to use the area; as the availability of road space provides for overall increased capacity.

Figure 2 - traffic bandwidth of the road network

Figure 3 below illustrates the change in traffic density since the introduction of the scheme and when compared with Figure 2 above. The deeper the blue the greater the reduction in traffic.

The data has demonstrated the scheme has removed traffic from the control area, but also roads further afield.

The data also indicates that there is an increase in the usage on some of the side streets to the west of Wandsworth Bridge Road, more prevalent on the streets south of Clancarty Road and north of Studdridge Road. This is primarily due to higher through traffic usage to previous levels, and it is assumed the area east of Wandsworth Bridge Road would have experienced similar traffic levels and profile without restrictions. The data supports the requirement for traffic queue and volume mitigation for Wandsworth Bridge Road and a scheme for the west area.

ANPR monitoring indicates that 49% of the additional west traffic is non-residential. Based on the data it is expected that a scheme extension to the west of Wandsworth Bridge Road would significantly reduce the traffic in the residential roads to the west and further support the scheme aims in the east.

Figure 3 - traffic bandwidth of the road network

Origin-Destination Trip Matrix – TCPR (East)

Table 1 shows the change in the proportion of through traffic in the area over time showing a shift away from out of borough through traffic to predominantly local traffic.

Table 1: proportion of car trips in the area by their origin and destination over time

Origin-Destination - Trip Matrix	Nov 19	Apr 2020	Sep 2020	July 2021
External - External	38%	18%	15%	6%
Internal - External	18%	26%	30%	32%
External - Internal	25%	42%	26%	34%
Internal - Internal	19%	13%	30%	28%

Traffic volume reductions

Traffic volumes were reduced in the whole of the South Fulham Area by 23% including Wandsworth Bridge Road when normalised for Covid19 traffic reductions and disruption from road and bridge works.

Over time the data shows that out of borough traffic on the west of Wandsworth bridge Road decreased during the experiment, therefore demonstrating that the traffic did not displace from the east to the west of Wandsworth Bridge Road.

The overall daily number of vehicles crossing Wandsworth Bridge has fallen from around 42,000 per day to 34,000 per day (averaging 8,000 vehicles per day). An initial increase in traffic on Wandsworth Bridge Road did not occur due to the main road already operating at capacity. Average delay and congestion on surrounding roads did not worsen compared to pre Covid19 conditions and in most cases had improved.

There are occasional observed events of high congestion on the primary roads when looking at GPS data, these correspond to congestion caused by road works and traffic issues related to general network performance and are not directly attributable to the scheme.

Improving public transport journey times

Covid19 has significantly affected how public transport is utilised and operates, thus in terms of overall patronage numbers and operational factors such as boarding and alighting at bus stops.

Due to major changes made to operational routes by Transport for London and bus operators, comparative data on relative journey times is not a reliable indicator of bus performance. The most appropriate alternative indicators are the relative journey times on roads that buses operate on.

Bus routes within the scheme area have an average of five-minute faster journey times. Bus routes on surrounding roads have an average of three-minute slower journey times.

Moving Traffic Compliance

Compliance of traffic restrictions are a good indicator of when a scheme has bedded in and filtered out traffic the intervention was aiming to remove. There will always remain a high cancellation rate for tickets for this scheme as the policy for cancelations covers all incidental tickets genuine visitors to residents may receive due to digital complexity of the process to give the visitor a permit.

Case Payment Status	August 2020	September 2020	October 2020	November 2020	December 2020	January 2021	February 2021	March 2021	April 2021	May 2021	June 2021	July 2021	August 2021	September 2021	October 2021
Upheld	33%	32%	28%	23%	26%	23%	21%	22%	23%	22%	23%	22%	21%	14%	0%
Open	7%	7%	8%	8%	7%	7%	7%	7%	7%	7%	8%	9%	13%	24%	90%
Cancelled	61%	61%	64%	69%	67%	70%	72%	70%	70%	71%	70%	69%	66%	62%	10%
	5.7%	**5.3%**	**4.3%**	**3.5%**	**3.8%**	**3.3%**	**3.2%**	**3.3%**	**3.2%**	**3.1%**	**3.1%**	**2.7%**	**3.2%**	**1.9%**	**0.0%**

Comparing the change in volumes from Sept 2020 to Sept 2021 the following percentage reductions have been observed.

Tickets Issued	64%
Cases Upheld	84%
Traffic volumes	55%

There has been a reduction in non-compliance activity to 1.9%. This is within the normal level of non-compliance observed from other traffic enforcement activity and indicates the scheme has bedded in and is now operating as expected.