

Clean Air Villages Air Quality Grant 2017-18

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Summary Report

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Glossary

BAU	Business as Usual
BID	Business Improvement District
CRP	Cross River Partnership
NO _x	Nitrogen Oxide
NO ₂	Nitrogen Dioxide
ULEZ	London's Ultra Low Emission Zone

1. Executive Summary

Clean Air Villages is a Defra Air Quality Grant funded project with the aim to reduce emissions in ten hotspots of poor air quality across five London boroughs. Within these hotspot ‘villages’ work was undertaken with businesses and communities to make their deliveries and servicing more efficient and generate less air pollution, using both individual and collective action.

The project was delivered by Cross River Partnership (CRP) from April 2019 to April 2020 on behalf of project lead London Borough of Lambeth and partners the London boroughs of Hammersmith & Fulham, Islington, Lewisham and the Royal Borough of Kensington & Chelsea.

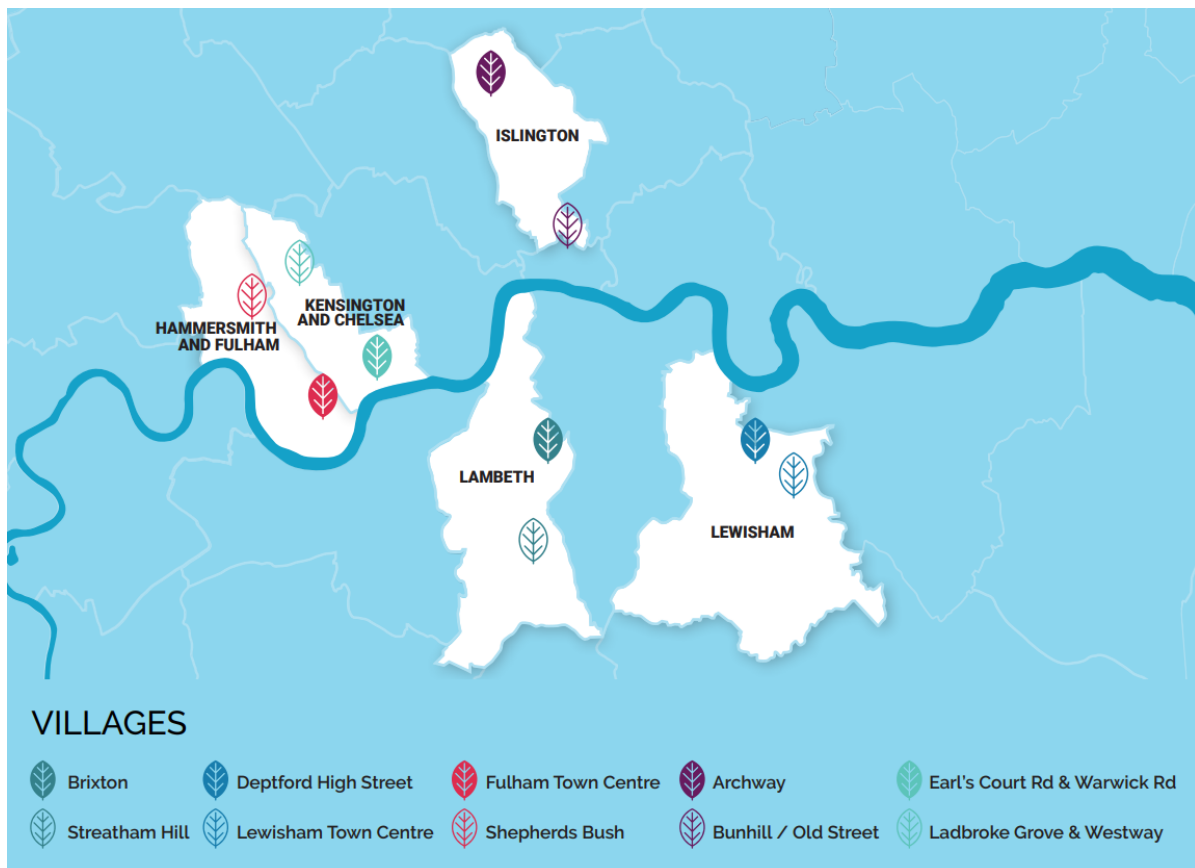


Figure 1: Map of 10 Clean Air Villages

Through an extensive business engagement exercise, 20 seminars were held, 119 businesses engaged with in-depth and a much larger number through walk-ins, event presentations and others. Based on the findings from this engagement and further survey work, 10 local solutions were developed to help businesses reduce emissions from deliveries and servicing trips, one for each village. The tailored solutions range from ultra-low emission supplier directories, to businesses sharing suppliers, electric vans and cargo bikes.

Table 1 provides an overview of the annual emissions savings estimated for the year following the project, i.e. April 2019 to March 2020 from the local solutions that were developed and implemented as part of the Clean Air Villages project. It should be noted that these are conservative estimates that are expected to increase in subsequent years as local take-up grows. Further, for some villages e.g. Brixton and Streatham, the estimate only covers six months as the solution is only expected to be fully implemented by September 2019.

Clean Air Village	Solution	Estimated annual emissions savings (forecast 2019/20)		
		NOx (kg)	CO2 (kg) (Tailpipe)	PM10 (g)
Lambeth - Brixton	Shared electric van	5.8	1,926	-
Lambeth - Streatham	Shared cargo bike	1.3	340	73
Hammersmith & Fulham – Fulham Town Centre	Local Ultra-Low Emission Supplier Directory	8.0	1,963	197
Hammersmith & Fulham – Shepherds Bush	Local supplier consolidation and re- timing	72	20,206	3,300
Islington – Archway	Local Ultra-Low Emission Supplier Directory	8.1	1,991	197
Islington – Old Street	Local Ultra-Low Emission Supplier Directory	8.4	2,079	194
Kensington & Chelsea – Earl’s Court	Local working group on supplier consolidation	8.2	2,964	560
Kensington & Chelsea – Ladbroke Grove	Shared cargo bike scheme	2.3	779	178
Lewisham – Deptford High Street	Local Ultra-Low Emission Supplier Directory	7.5	1,843	210
Lewisham – Lewisham Town Centre	Local Ultra-Low Emission Supplier Directory	7.5	1,842	213
Total		129.1	35,933	5,122
Original target		100	32,020	6,400

Table 1: Overview of estimated annual emissions savings from the Clean Air Villages project in 2019/20

As shown above, the air quality benefits achieved by the project well exceed the objectives set at project start. This is also the case for all other targets with the exception of deliverBEST survey completes. The latter was supplemented through more targeted survey work within individual businesses to help with the definition of village solutions and their implementation.

Further, whilst being village-specific in their development, the solutions are transferable to other London boroughs and beyond, allowing for plenty of best practice exchange as shown during the project itself. This impact is not quantifiable as a direct outcome of the project but will further increase its effect over time. Communications material developed as part of the project, such as 10 concise and business-focussed case studies, will continue to support this dissemination effort. CRP will also apply Clean Air Villages learning to its other programmes and projects, such as the [Central London Sub-Regional Transport Partnership](#) or business engagement for the [Greenwich Low Emission Neighbourhood](#).

CRP and partners are now thrilled to continue delivering business behaviour change around deliveries and servicing and associated air quality improvement as part of the newly Defra-funded [Clean Air Villages 2](#) project that commenced in April 2019.

2. Background

The London Boroughs of Hammersmith & Fulham, Islington, Lambeth, Lewisham and the Royal Borough of Kensington & Chelsea, along with all inner London boroughs, continue to exceed European and UK limits for air pollution. All five boroughs are, or have, Air Quality Management Areas. Despite having Air Quality Management Plans in place, air pollutant levels (particularly NO₂) are projected to remain in exceedance of the UK’s legal targets beyond 2020.

Delivery of goods and services are a major contributor to air pollution, with freight accounting for 16% of vehicle kilometres in London but contributing 36% of total NO_x, and 39% of particulate matter (PM₁₀) emissions from road transport¹. The business sector is a significant generator of demand for these deliveries.

Business procurement power can reduce emissions by influencing the amount of polluting delivery trips generated. Actions include streamlining orders, bulk buying, retiming deliveries, promoting consolidated deliveries of online shopping, preferred supplier schemes, and low-emission deliveries.

Communities without local business sector organisations have been more difficult to engage to a level where sustained action is taken at scale. Business, particularly SMEs and those outside the Central Activity Zone, have proven to be not as well-resourced or engaged on air quality or sustainability. Independent businesses often struggle to see value in solo action, but can be motivated to make change if there is a strong local narrative, and a local solution.

Clean Air Villages enabled and supported business communities in ten chosen air quality focus areas (‘villages’) within the five participating boroughs to take co-ordinated action to reduce emissions from business-related deliveries and servicing.

Partner borough (5)	Clean Air Villages (10)
	Fulham Town Centre Shepherds Bush
	Archway Bunhill / Old Street
	Earl’s Court Road Ladbroke Grove / Westway
	Brixton Streatham Hill
	Deptford High Street Lewisham Town Centre

Figure 2: Overview of Clean Air Villages and Local Authority Partners

The ten focus areas/villages were chosen as they:

- are within GLA air quality focus areas that exceed and will continue to exceed legal limits for NO₂ by 2020;

¹ content.tfl.gov.uk/technical-note-03-freight-servicing-and-logistics-in-london.pdf

- have a high concentration of businesses and resident/consumer population of at-risk demographics including children, elderly and lower socio-economic groups;
- lack well-resourced existing support and/or organisations to facilitate collective action; and,
- represent a range of business communities that can provide lessons across London and the UK.

Clean Air Villages was delivered by Cross River Partnership (CRP), a sub-regional public-private partnership delivering regeneration projects in central London for 25 years.

3. Business Engagement

The Clean Air Villages project allowed for a coordinated approach to reduce emissions from business deliveries and servicing trips whilst letting the different characteristics and business make-up within the villages drive the local solution and implementation.

To accommodate for different business needs across and among the 10 villages, CRP engaged in a range of different ways, e.g. through village seminars, 1-2-1 sessions, presentations at other locally relevant events. The engagement process included businesses of all sectors and all sizes, though pan-London businesses were approached at headquarter as well as local store level. Businesses were approached through:

- Local Authority economic development / business support teams
- Local BIDs, other business groups or town centre managers, where relevant
- Attendance and presentations at other local events targeting businesses
- Local/regional Chambers of Commerce
- Pre-existing CRP business contacts
- Walk-ins

This approach has led to in-depth engagement with 119 businesses, either at Clean Air Villages seminars or 1-2-1, well over the original target of 100.

Business engagement targets	Output
20 Seminars	All 20 seminars completed with a total of 96 attendees.
50 1:1 support sessions for businesses	69 1-2-1 business engagement sessions took place, well exceeding the target
100 businesses engaged at either seminars or 1:1 sessions	119 businesses have been engaged with in total: 50 at seminars and 69 in 1:1 sessions. The number of businesses engaged with including walk-ins, presentations at related events and others far exceeds this number

Table 2: Overview of CAV business engagement outputs vs targets

The introduction and future expansion of London’s [Ultra Low Emission Zone \(ULEZ\)](#), local road/building works with temporary impacts on traffic flows and congestion, and local press on air quality have been particularly useful conversation openers in engaging with businesses on the issue of deliveries and servicing trips and their impact on local air pollution.

The ULEZ was introduced in April 2019 and, in the first instance, will cover the same area as the current Congestion Charge zone. Vehicles entering this zone will need to comply with emission standards Euro 6 (NOx and PM) for diesel cars, vans and minibuses and Euro VI (NOx and PM) for lorries, which makes the scheme very relevant for deliveries and servicing trips. The zone will be expanded to the rest of London within the North and South Circular from October 2021, by when it will affect all of the Clean Air Villages. CRP has therefore cooperated with Transport for London on this important opportunity to communicate to businesses about the ULEZ and the impact it might have on their current delivery practices.

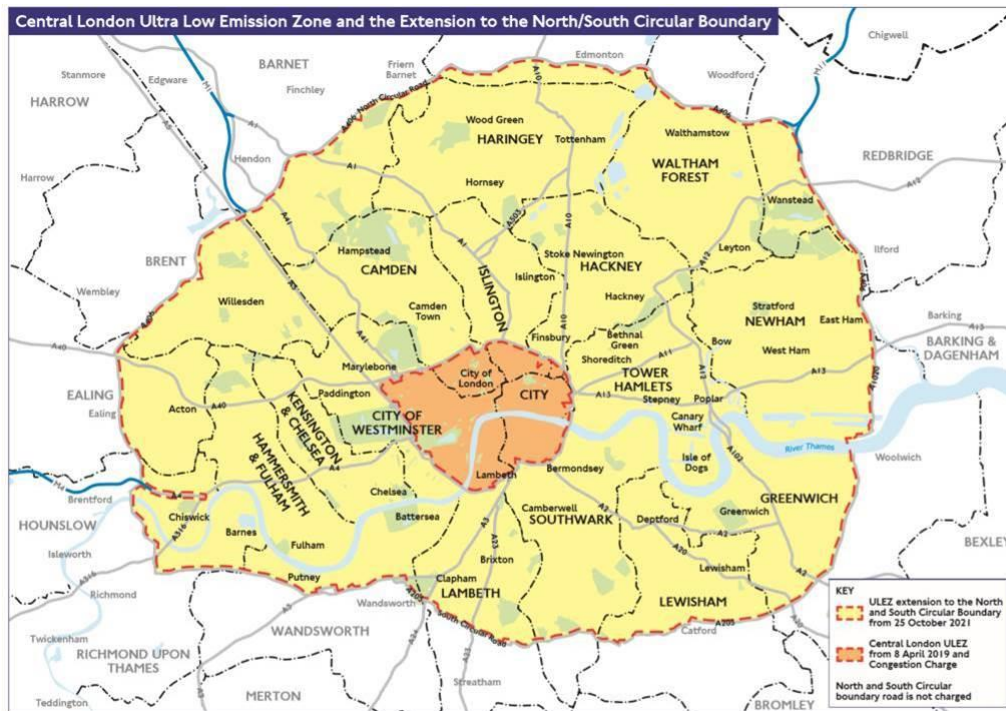


Figure 3: Map of London's Ultra-Low Emission Zone

Village seminars

In line with the targets set out in the original proposal, 20 seminars were held, two in each of the villages, with a total of 96 attendees.

All seminars followed a similar structure:

- An introduction to the Clean Air Villages project
- Local air pollution and its impact; the link to deliveries and servicing trips
- Opening up the discussion to the group:
 - Presentation of a map of the Local Air Quality Focus Area – what are local bottlenecks?
 - How do you currently (un)load?
 - What are current delivery times – could that be changed?
 - Name four most frequently delivered product groups and their suppliers
 - Storage capacity – could you reduce delivery frequency?
 - Presentation of mini case studies: Re-timing, bulk buying, supplier consolidation in different sectors
 - Group brainstorm: what could be done locally to reduce the impact of delivery and servicing trips?

Seminars require a significant amount of time and effort to put together. To accommodate most businesses, the two seminars in each village were held locally and at different times of day. Nevertheless, turnout tends to be low, as for most businesses air quality is not a priority and/or they do not have the resources to have someone attend an external event. Despite the low turnout, the discussions have significantly steered the development of local solutions and have also secured buy-in from local businesses that attended. In many cases, these businesses have then acted as local champions and continue to do so, e.g. Balfe's Bikes in Streatham.

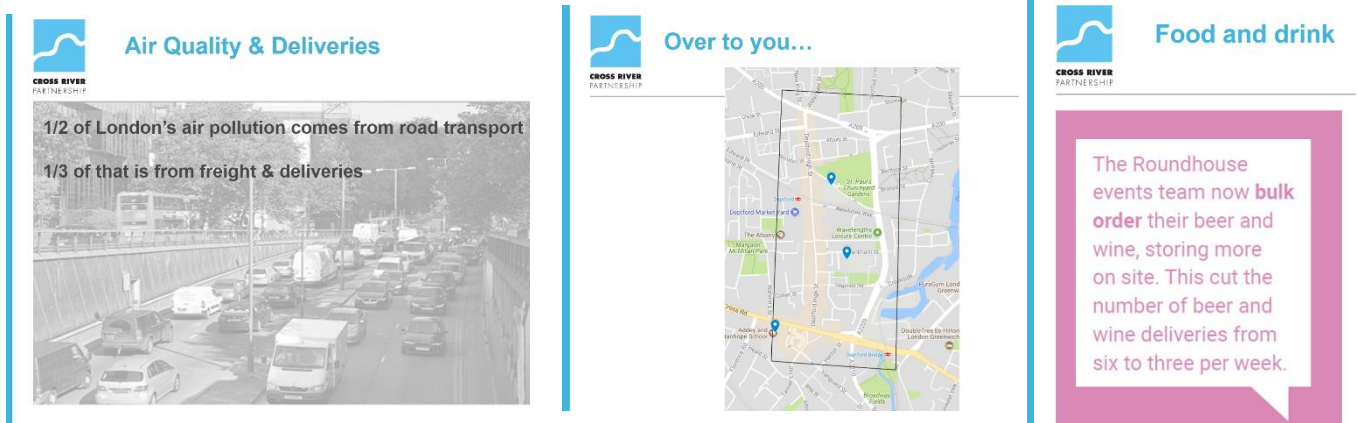


Figure 4: Examples of slides presented at Clean Air Villages seminars

Please see Appendix B – Business engagement details for an overview of seminar dates and locations.

Business 1-2-1s

Business 1-2-1 sessions targeted those that were either not able to attend the seminars (e.g. micro businesses that do not have the resources / staff levels) or those that were open to discussing their deliveries/servicing trips as well as potential actions in more detail.

69 1-2-1 business engagement sessions took place as part of the Clean Air Villages project, with a good spread across the 10 villages. This well exceeded the target of 50 1-2-1 sessions.

Experience from the project shows once again that 1-2-1 engagement plays an important part along other forms of engagement in communicating to businesses about air quality. It allows for in-depth discussions, the identification of personalised actions, and for the team to address individually perceived barriers.

Please see Appendix B for a list of businesses that were engaged with on a 1-2-1 basis.

Pan-London businesses

To maximise impact, large pan-London businesses were approached at headquarter level, often in addition to local store manager level. Many of these were open to engage with CRP on the issue of deliveries and servicing and a total of 11 pan-London businesses participated either in seminars or – more often - in 1-2-1 meetings.

It should be noted that many of the businesses that engaged with the project have a strong culture of corporate social responsibility already and have taken action to streamline and clean up their deliveries to some extent. Exploring or re-exploring night-time deliveries is something that many pan-London businesses would be keen on as their operations model often allows for it and it would also make their deliveries more efficient. However, increasing loading restrictions pose continuous barriers to this. Further, the incorporation of alternatively fuelled vehicles (or their trial) and return logistics are areas that these companies are exploring. Clean Air Villages has produced relevant case studies, please see Section 5 below.

Please see Appendix B for a list of engaged pan-London businesses as well as focus points of the discussions.

Other engagement

In addition to the above, CRP have engaged with a large number of additional businesses across the 10 villages by:

- Walking in to promote the seminars and talk about the link between deliveries and air quality
- Doing survey work with 96 businesses for the individual village solutions (please see **Error! Reference source not found.** below)
- Presenting the project at relevant local events (please see individual village solutions below)

4. Project Outcomes

Actions taken by businesses in the ten focus areas have reduced and will continue to reduce demand for delivery and servicing trips and promoted suppliers using ultra-low emission vehicles. Key outcomes include the ten village solutions and their associated air quality benefits as well as other meeting of other project targets as outlined in the original proposal. These are showcased below in more detail.

Village solutions

As per the original project proposal, 10 local solutions were developed and implemented as part of the Clean Air Villages project. Their diversity in focus and scope represents the local villages, their level of pre-existing business communities, business make-up, most prevalent product groups being delivered, traffic density and other characteristics.

Ultra-Low Emission Supplier Directories were developed for five of the ten villages. These highlight local businesses and are therefore tailored to the village in question, rather than being a blanket cross-village solution.

The following presents an overview of business engagement in each of the Clean Air Villages, the local solutions that were implemented as well as the calculated impact for each.

Lambeth – Brixton

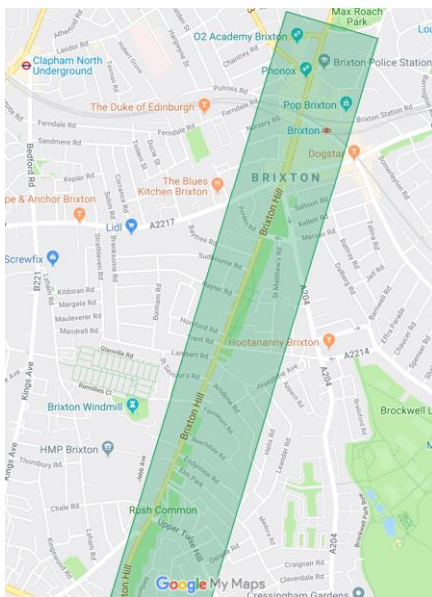


Figure 5: Map of GLA AQ Focus Area 120 – Lambeth (Brixton and Streatham)

Background

Brixton is a busy, eclectic area in South London. There are high street shops on the main road and smaller, independent businesses in the centre, by the market. Brixton Village has independent shops, and these are mixed up with small fish, meat and vegetable traders. Significant footfall invades this busy area day and night. Apart from the main road, there are small, sometimes one-way streets to navigate. There are many restrictions on loading times that some businesses struggle with. There is also a strong business community through Brixton BID. The BID was setup in 2013 and with 667 business members, has provided a link and forum for Cross River

Partnership to connect more easily with local business and within a shorter amount of time. Brixton was the first Air Quality monitoring station in the UK to breach the annual EU NO₂ limit in 2017.

Local engagement

In Brixton, CRP met with market traders, local Councillors, independent and chain businesses and worked with support from Brixton BID. CRP also attended events where relevant in order to network with local businesses.

Two workshops took place that focussed on discussing local issues in relation to air quality and what potential solutions could be. In addition, 11 businesses were engaged with on a 1-2-1 basis to find out about local issues and advising businesses on what actions they could take to improve local air quality.

Workshop 1, 20 June 2018, Adulis restaurant

Organisations in attendance	
1	PedalMe
2	Brixton BID
3	Brixton Society
4	Adulis restaurant

Table 3: Brixton Workshop 1 participants

Workshop 2, 11 July 2018, Electric Avenue Market Stall

Organisations in attendance	
1	Supermalt Brixton Food Base
2	Kashmir Butchers / local Councillor
3	KM Butchers & Grocery
4	Quality Halal Meat & Fish

Table 4: Brixton Workshop 2 participants

121 Business Engagement

Organisations engaged with 1-2-1	
1	Creams Café
2	The Beehive
3	Blues Kitchen
4	Prince of Wales
5	Corpus Christi School
6	The Body Shop
7	Kata Kata
8	Healthy Eaters
9	Inuse Reuse
10	Urban Growth
11	3 Space

Table 5: Brixton 1-2-1 engagement

Additional engagement involved contacting businesses by email, over the phone, walking in and communicating through networks such as Brixton BID and the site management teams for Brixton Village and Brixton Row. Importantly, some of the local traders don't use business email and walking in is the best way to communicate. Issues in the area around (un)loading, parking and the introduction of London's Ultra Low Emission Zone (ULEZ) mean that vehicle ownership is expensive and difficult to manage. For some business owners, a vehicle is used daily and is integral to operations, but for those that use a vehicle less often a shared vehicle turns out to be a financially and environmentally attractive alternative.

Additional Engagement to note

# of businesses	Engagement
16	Businesses consulted with about a shared electric vehicle
30	Approximate number of businesses approached at Brixton event on 21 February 2019
2	Attendance at Brixton BID Environment meetings
1	Attendance at Brixton BID AGM
1	Meeting with local Councillor

Table 6: Brixton additional engagement

Solution

Research in Brixton has shown that local businesses are interested in a shared electric vehicle. Business engagement via email, an event, meeting with Brixton BID and face-to-face engagement, showed that businesses who use a vehicle, but not every single day, have a great deal of interest in having access to a shared electric vehicle.

In order to identify whether a shared electric vehicle would indeed be a feasible solution for Brixton, survey work was undertaken to ascertain interest and anticipated usage and patterns. Of the 16 businesses who responded to the survey, 69% were interested in an electric van and 25% extremely interested. A question about anticipated usage, showed that 50% of the businesses would plan to use the vehicle weekly, 12.5% daily, and 19% monthly.

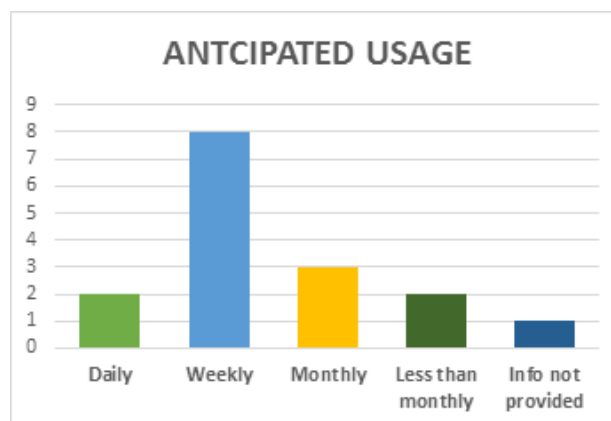


Figure 6: CAV Brixton survey question on anticipated use of shared electric van

Further, interested businesses would use the vehicle at different times of day, dependent on their business needs. For example, a business picking up produce from New Spitalfields Market would use the van around 4am, whereas a business running stock between stores would do this during usual

business hours. This spread in usage patterns and times is important in making a shared vehicle work for everyone.

Implementation

Once interest in and the value of a shared electric van in Brixton was confirmed, the London Borough of Lambeth applied for funding through the Brixton Low Emission Neighbourhood with the aim to fund a vehicle for a minimum of one year.

CRP have been and are continuing to liaise between the London Borough of Lambeth and the shared vehicle provider (Zipcar) to get the van in place. As a result, Zipcar have placed an order for their first electric van, which they plan to pilot in Brixton as part of this scheme. The funding made available through Lambeth Council will enable local businesses to book and use the shared electric vehicle for free. Further, the London Borough of Lambeth are currently arranging for a dedicated rapid charge parking bay to be put in for the van. In the meantime, CRP has continued work on the details of the scheme, including charging payments; insurance excess payments, which are currently too high to take on for small and micro businesses; the booking system of the van (through the van provider), avoiding excessive or monopolised use as the van will be free at least for the first year. CRP is also continuing local business engagement to ensure take-up once the vehicle comes in.

“At Urban Growth we are excited for the possibility of having access to an electric vehicle available to community businesses in Lambeth. While we have a standard vehicle in use currently, we are always looking for opportunities to reduce our carbon footprint and work in more environmental ways. Our work centres around greening areas of the city in a bid to help improve air quality so being able to transport our tools and equipment to our local sites, with zero emissions would be fantastic.” Katy Renwick, Urban Growth

Local communications

Along with tweets about seminars, CRP arranged an event in Brixton that brought together Brixton BID, shared vehicle provider Zipcar and TfL. At this event local businesses could find out about the proposed shared vehicle scheme, and about the Mayor of London’s ULEZ. CRP also conducted a survey to find out about levels of interest in a shared electric vehicle.



Figure 7: Examples of Brixton local communications

Impact

Working with local businesses in Brixton and understanding their commercial vehicle use has shown that switching a local (inner London) delivery from an average non-electric LGV to the shared van could provide the following savings **per mile**:

- **385 g of CO2**

- **1.16 g of NOX**

Table 7 below provides an overview of the impact of the number of businesses joining the shared electric van scheme, based on an average annual mileage of 500

No. of businesses	Annual emissions saving	
	NOX (kg)	CO2 (kg) (Tailpipe only)
5	2.9	963
10	5.8	1,926
15	8.7	2,888
20	11.6	3,851
25	14.4	4,814
30	17.3	5,777

Table 7: Impact of No of Brixton businesses joining the shared electric van scheme

Based on CRP research, survey work and further business engagement, it is assumed that 20 businesses will join the scheme within the first year. As the van is expected to come in in September 2019, the **impact for 2019/2020** (based on a saving for 20 businesses using the vehicle over 6 months) is expected to be:

- **5.8 kg of NO_x savings**
- **1,926 kg of CO₂ savings**

Please see Appendix A – Calculation of Air Quality Impact for background information on the CRP measureBEST tool and calculation of air quality impacts of each solution. measureBEST was developed as part of [Clean Air Better Business](#) programme, a Mayor’s Air Quality Fund project, managed by CRP.

Lambeth – Streatham

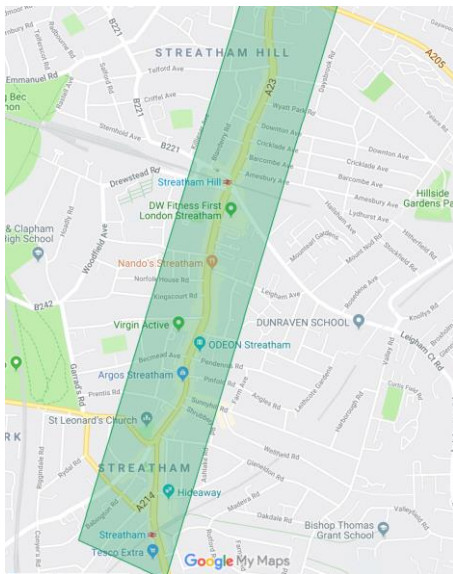


Figure 8: Map of GLA AQ Focus Area 120 - Lambeth (Brixton and Streatham)

Background

Streatham Hill is a high street in South London with a range of different businesses including a large cinema, restaurants, pubs, supermarkets, takeaways, independent retailers and estate agents. It is also part of the busy A23, a major road between London and Brighton. Local cycling is currently limited and often perceived as dangerous. InStreatham BID, with 492 business members have operated in the area since 2013. Being able to work with an existing business community has enabled CRP to connect with some businesses more easily.

Local engagement

To initiate the Streatham Hill business engagement, CRP met with InStreatham BID, local Councillors, as well as independent and chain businesses. Through the BID, a business community exists, though not all local businesses do engage. There are also language barriers to engaging with some shops and other businesses feel that because they are based on an A road there is nothing they can do to impact local air quality.

As for other CAV villages, two seminars took place and, in addition, four local 1-2-1 meetings with businesses and community organisations. These sessions allowed CRP to find out about local issues and advise businesses on what they can do to improve local air quality.

Workshop 1, 4 July 2018, Streatham Wine House

	Organisations in attendance
1	InStreatham BID
2	Batch & Co Coffee

Table 8: Streatham Workshop 1 participants

Workshop 2, 31 July 2018, Hood

	Organisations in attendance
1	InStreatham BID
2	Young Lambeth Co-op (Youth Council) / local Councillor
3	Balfe's Bikes

4 Streatham Youth & Community Trust

Table 9: Streatham Workshop 2 participants

121 Business Engagement

	Organisations engaged with 1-2-1
1	Fish Tale
2	Tariq Halal Butcher
3	Dr Dolittles Pet Shop
4	Starbucks

Table 10: Streatham 1-2-1 engagement

Additional engagement centred around two ideas for solutions. The first involved an idea about consolidating chicken deliveries, due to the large number of chicken shops in the area coming from a range of suppliers. CRP visited 11 businesses in relation to this and made progress in finding out some supplier names but there were significant language barriers and issues getting hold of the right person who managed or owned the shops. The second idea for a solution was centred around a shared e-cargo bike. CRP visited more than 40 businesses to gauge interest. Interestingly, many businesses did not know what an e-cargo bike was.

# of businesses	Engagement
1	Attendance at InStreatham BID business forum meetings
40	Approximate number of businesses consulted with about a shared e-bike
1	Met with 2 local Councillors
11	Number of businesses approached about a chicken consolidation idea

Table 11: Streatham additional engagement

Solution

Research in Streatham finds a business case for running a pilot shared e-cargo bike scheme. Business interest is varied and there is some reluctance in being open to a cargo bike, however, after discussions with the BID, it has been agreed that some businesses would need to see the bike in action in order to fully realise how it could improve their operations, support their customer services and improve local air quality. A local bike shop, Balfe's Bikes, agreed to source, build at cost, store and maintain the e-cargo bike as well as organise the booking process for local businesses to use the bike.

On the basis of this CAV business engagement work and results, InStreatham BID in collaboration with Balfe's Bikes submitted a funding application for a cargo bike, which was granted by the TfL Healthy Streets Fund in April 2019. CRP supported the application with emissions savings calculations and brought the BID and the bike shop together to make it happen. Five businesses have so far expressed an interest in using an e-cargo bike and more are expected to join once the pilot is in place.

'We are pleased to have worked with CRP to help shape a project for a cargo bike scheme for Streatham Hill businesses. This partnership has allowed us to understand the way in which we can support businesses to make better choices about how they deliver goods and services and gives local customers more choice in how they receive their purchases.'

Louise Abbotts, Project Manager, InStreatham BID

Implementation

Balfe's Bikes are currently looking into e-cargo bike purchasing options. InStreatham BID are identifying an online application that can be used to book the bike. CRP will continue to provide business engagement support on the ground and work with the BID to promote the bike to local organisations. CRP will also provide measureBEST emissions savings calculations for the monitoring report and work with Balfe's Bikes and the BID to analyse the success of the shared e-cargo bike pilot. If it is successful, then it would make a great case study to showcase and the scheme could be rolled out in other areas.

Local communications

Streatham engagement and solution implementation was supported by a range of local communications:



Impact

The air quality impact of a shared e-cargo bike scheme in Streatham is linked to a number of factors, such as the number of businesses taking up the solution, the frequency of trips that are being replaced, the type of vehicle being replaced, etc. Below are two examples of expected use of the shared cargo bike by two local businesses:

Business	Frequency	Total distance per week
Balfe's Bikes	5 trips a week	60 km
Streatham Youth Community Trust (SYCT)	3 trips a week*	15 km

Table 12: Examples of stated future use of the e-cargo bike by local Streatham businesses

Based on the above, potential annual* emissions savings by switching from current vehicles to a shared electric cargo bike:

Business	Annual emissions saving			
	NOX (kg)	CO2 (kg) (Tailpipe)	PM2.5 (g)	PM10 (g)
Balfe's Bikes	2,362	583	90	130
SYCT	41.1	1.83	2.03	2.62

*SYCT emissions based on journeys within a 6-week period during the summer.

Based on CRP research, survey work and further business engagement, it is assumed that 5 additional businesses will join the scheme within the first year. It has been conservatively estimated that these businesses may use the cargo bike an average of 5 miles per month. As the cargo bike is expected to be available in September 2019, the **impact for 2019/2020** is expected to be:

- **1.3 kg of NOX savings**
- **340 kg of CO2 savings**
- **73 g of PM10 savings**
- **51 g of PM2.5 savings**

Other outcomes that are anticipated through the shared electric cargo bike scheme:

- Raising awareness of the air quality issue
- Raising awareness of the viability of electrically assisted cargo bikes
- Improved business community relations through a shared experience
- Supporting struggling high street businesses by enabling them to offer alternative services to their customers

Moving forwards with Clean Air Villages 2, CRP will work with InStreatham BID and Balfe's Bikes to ensure the pilot is given every chance of success.

Please see Appendix A – Calculation of Air Quality Impact for background information on the CRP measureBEST tool and calculation of air quality impacts of each solution. measureBEST was developed as part of Clean Air Better Business, a Mayor's Air Quality Fund project, managed by CRP.

Hammersmith & Fulham – Fulham Town Centre

Background

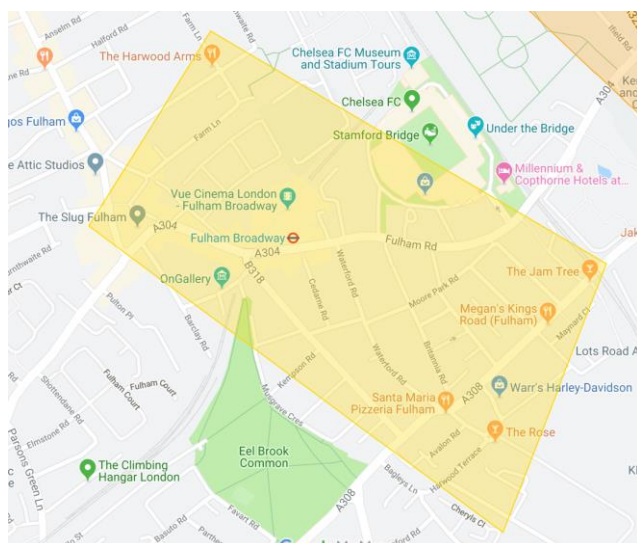


Figure 10: Map of GLA AQ Focus Area 73 – London Borough of Hammersmith & Fulham

The focus area in Fulham includes a variety of businesses including independent traders, retail chains, the Stamford Bridge Football stadium and a mix of residential properties. There has been a recent decline in the number of shops in the area, with large retailers such as M&S and Evans Cycles closing down. Towards the end of the project, the Fulham Broadway BID was set up. CRP has already established a good working relationship with this BID and is now able to cooperate on the dissemination of Clean Air Villages project outcomes.

Fulham Town Centre has an active night-time economy with high numbers of restaurants and bars with an even larger footfall on days where the stadium is in use. As most other villages, Fulham has several schools that are in the vicinity including a nursery that has an outside play area close to the main road. The area is known for being a through road for traffic and a link between areas north and south of the river Thames, which increases the congestion in the area. Monitoring data indicates high levels of NO₂ with concentrations at a level where the EU hourly mean objective could be exceeded.

Local engagement

CRP has worked with a range of businesses in the Fulham area as well as the recently formed Fulham BID to engage with businesses on their deliveries. In addition to the two local seminars, eight 1-2-1 engagements took place, including meeting with the BID on several occasions and meetings with the logistics providers of the stadium, to get a view of the supply chain that is coming to deliver to the area.

Workshop 1, 24 July 2018, Fulham Market Halls

Organisations in attendance	
1	Chelsea Football Club
2	New Fulham BID
3	Manuka Kitchen
4	London Borough of Hammersmith and Fulham

Table 13: Fulham Town Centre Workshop 1 participants

Workshop 2, 27 November 2018, Manuka Kitchen

Organisations in attendance	
1	Gianluca's
2	St John's Wood Activist

Table 14: Fulham Town Centre Workshop 2 participants

121 Business Engagement

Organisations engaged with 1-2-1	
1	Metro Bank
2	Whole Foods Market
3	Evans Cycles
4	Chelsea Football Club
5	Market Halls
6	Jam Tree Chelsea
7	Fulham BID
8	Compass Group

Table 15: Fulham Town Centre 1-2-1 engagement

There have been several visits to the area to get answers to the local Fulham survey, which was conducted to gather more detailed information on deliveries and servicing trips to individual businesses in the area as well as timing and frequency. The survey results provided CRP with a better understanding of consolidation and retiming potential in the area.

Additional Engagement to note

# of businesses	Engagement
16	Businesses who completed a full survey about their supply chain
30	Walk in discussions on the Clean Air Villages project (16 (replied to the survey above)
2	Meetings with Fulham BID
1	Directory posters left with businesses

Table 16: Fulham Town Centre additional engagement

Solution

Research in the area has shown that businesses do not tend to have shared suppliers, nor do they know where to look for suppliers using ultra-low emission vehicles.

The solution for the area is therefore an Ultra-Low Emission Supplier Directory to showcase the number of suppliers in London who deliver across sectors on low emission vehicles. This will enable businesses to look at alternatives in their procurement stage and find all the information they need for switching suppliers. This will also encourage local suppliers to look at changing to more sustainable/ low emission modes of travel as businesses in the village start to prioritise those modes over diesel vans.

Implementation

The first step towards the creation of an Ultra-Low Emission Supplier Directory was to find eligible businesses. This has been done by speaking with the local authority partners and relevant industry

groups (e.g. TfL's LoCITY programme), as well as businesses in the Clean Air Villages in the chosen areas, via internet searches and social media such as Twitter, for example.

The Directory inclusion criteria, as agreed with the London Borough of Hammersmith & Fulham is as follows:

1. Delivery mode:
 - a. Inclusion criteria: Ultra-low emission vehicles* in fleet
 - b. Inclusion criteria: If mixed fleet, must be able to guarantee to deploy ultra-low emission vehicles at least 80% of the time
 - c. Vehicle type:
 - i. Foot/ cycle/cargo bike delivery
 - ii. Fully electric van/truck
 - iii. Hybrid vehicle (petrol hybrid only)

*Ultra-low emission vehicles as [defined](#) by the Office for Low Emission Vehicles (OLEV). Only those currently eligible for a plug-in grant, i.e. not Category 2 and 3 cars.

2. Distance to centre of Clean Air Village – promoting local businesses and reducing congestion. From usual vehicle dispatch point.

The decision to ask businesses to guarantee that they can deliver to the village areas using ultra-low emission vehicles 80% of the time is stringent and has resulted in a shorter list of businesses being on the directory than there otherwise would have been. Nevertheless, the directory is expected to grow over time as more fleets become ultra-low emission and the backend of the website has been designed with that in mind.

The [online directory](#) was built into the [CRP website](#). Different options were explored and hosting with Boroughs would make it difficult to manage updates. A main directory page was created with each village then having its own page. All five directories were launched in May 2019.

On the directory, each business has a short summary about who they are, with contact details and their distance from the village centre. There is a map and list function. As of 20th May 2019, 32 businesses were listed across the five different CAV Ultra-Low Emission Supplier Directories. Figure 11 provides an overview of the spread of businesses across services (product groups) and transport modes.

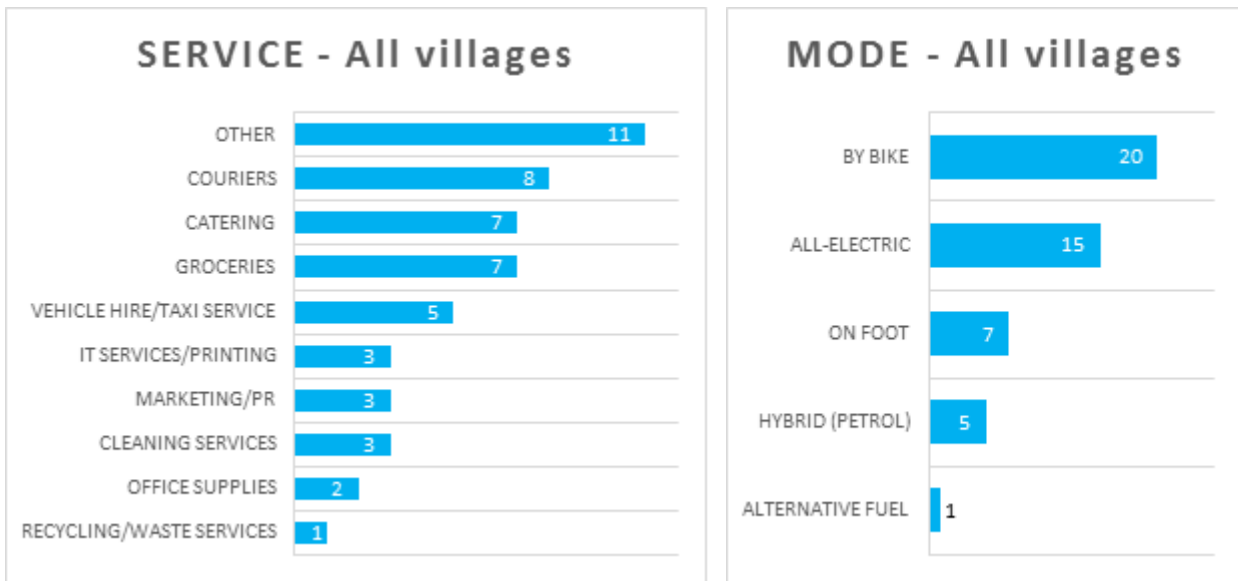


Figure 11: Overview of Directory services and transport modes as of 20th May 2019

Since the Directory launch on 14th May 2019 and widespread communication about it (see below), more eligible businesses have come forward and CRP is adding these on a continuous basis.

Local communications

In addition to local communications about the Fulham Town Centre CAV project and seminars, CRP have promoted the directory through their networks via social media, over email, at meetings and in person. Village-specific posters have been distributed in the relevant areas and is now available on [the London Borough of Hammersmith and Fulham website](#).

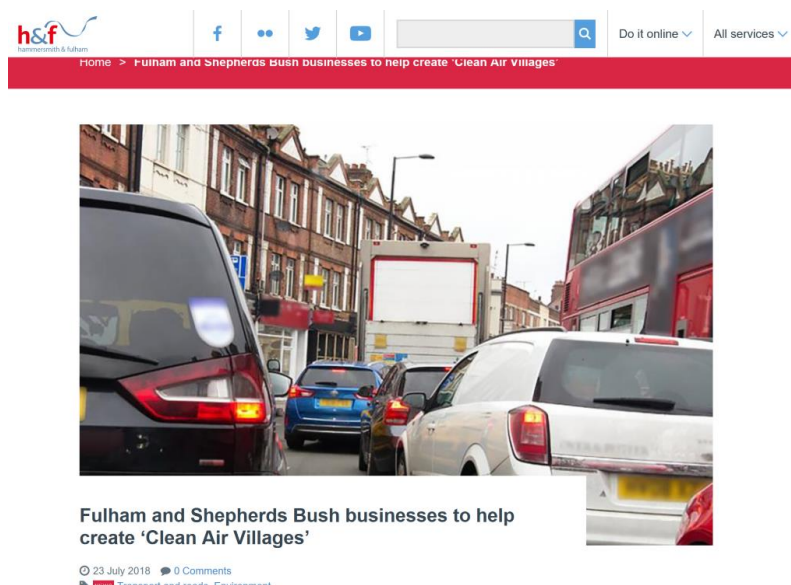


Figure 12: London Borough Hammersmith & Fulham CAV article

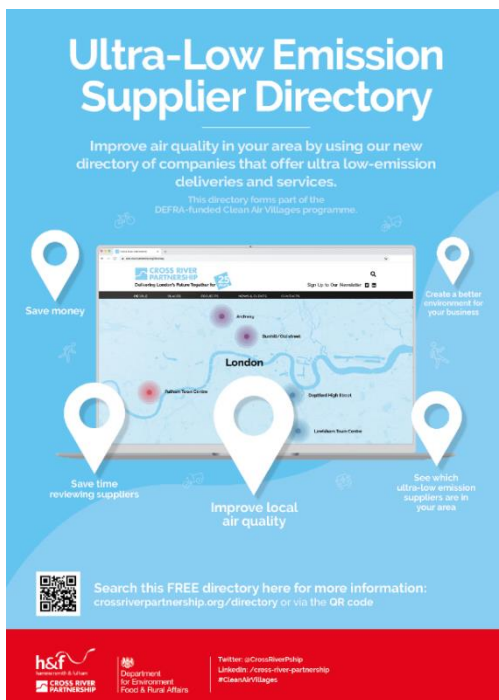


Figure 13: Communication about the Ultra-Low Emission Supplier Directory

Impact

Within the first two weeks of the directory launch, the webpages have been viewed 604 times with the Fulham Town Centre page being the most popular of the five directory pages.

Based on local interest and working with the local BID, it is assumed that 8 local businesses will switch to directory suppliers in the first year. The numbers of different conversion types were estimated proportionally using the modal split for suppliers that operate within the Fulham Town Centre village. Assuming an annual mileage of 500 miles per business, the total impact for 2019/2020 is expected to be:

- **8 kg of NOx savings**
- **1,963 kg of CO2 savings**
- **197 g of PM10 savings**

Moving forwards with Clean Air Villages 2, the directory will be expanded into all villages. Further businesses will be added to the directory where applicable. Google Analytics will be reviewed regularly to monitor usage and CRP will seek to create case studies where businesses have switched supplier and will continue to promote the Directory. The impact of the CAV Ultra-Low Emission Supplier Directories are therefore expected to be sustainable, and above that, to increase over time within the villages and beyond.

Please see Appendix A – Calculation of Air Quality Impact for background information on the CRP measureBEST tool and calculation of air quality impacts of each solution. measureBEST was developed as part of Clean Air Better Business, a Mayor’s Air Quality Fund project, managed by CRP.

Hammersmith & Fulham – Shepherds Bush

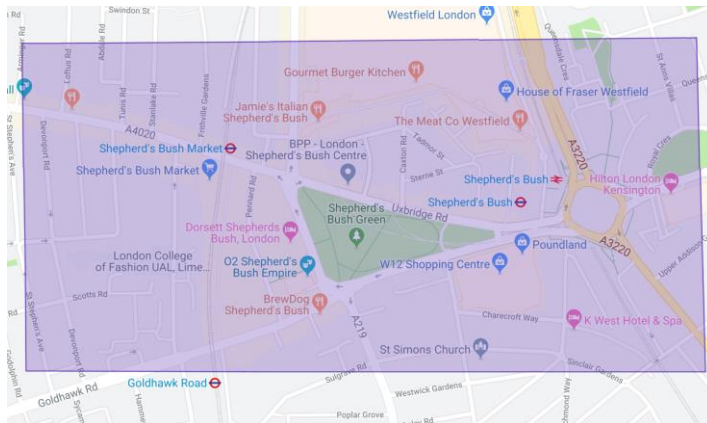


Figure 14: Map of GLA AQ Focus Area 75 – London Borough of Hammersmith & Fulham

Background

The Shepherds Bush area is a mix of hospitality and retail units around a busy route into London by the A4. The area is home to independent traders and market stalls in Shepherd's Bush market as well as having larger occupiers such as Westfield shopping centre and West 12 shopping centre. The area is well known for having an active night-time economy supporting the local music venues such as Shepherd's Bush Empire and catering businesses e.g. restaurants and pubs. The area does not have a formal Business Improvement District in place however there is a Shepherds Bush Business forum attended by the larger businesses in the area. Two primary schools are located close to a main through road towards the town centre. A continuous air quality monitoring analyser is located on the green, which is one of the most congested areas of this focus area and the annual mean for NO₂ is predicted to be continually exceeded. The area is also affected by large regeneration projects around White City, causing additional congestion during the construction phase.

Local engagement

During the project CRP regularly engaged with the local Shepherds Bush Business Forum, which is business-led and also visited the recent consultation event on a new development in the area. Whilst working with the larger occupiers CRP has made a conscious effort to talk to the smaller independent businesses who are less likely to be engaged already and tend to have more control over their deliveries. In some cases, the larger occupiers tend to have national contracts with suppliers and have less control over the procurement process.

CRP has focused on the highly congested routes around the green which will include regular delivery and collection trips to and from the businesses in the area. The green is also an area of high footfall, which increases the impact of local pollution levels. A number of hotels and independent stores are located around the green and would be the most impacted by the high air pollution. There is a lack of loading bays along the main route and there have been unnecessary vehicle movements due to lack of signage showing where service yards are located.

Two seminars were organised for Shepherds Bush, though most organisations that had attended a CAV presentation to the local Business Forum beforehand either felt that they had received enough information already or wanted to continue on a 1-2-1 basis. Shepherds Bush seminar attendance was therefore particularly low.

Workshop 1, 12 September 2018, Petit Miracle

Organisations in attendance

1	Dorsett Hotel
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Table 17: Shepherds Bush Workshop 1 participants

Workshop 2, 7 November 2018, Petit Miracle

Organisations in attendance	
1	W12 Shopping Centre

Table 18: Shepherds Bush Workshop 2 participants

In addition to the seminars, five 1-2-1 business engagements have taken place in the area. These in-depth sessions mostly took place with the larger occupiers, however there has been many visits to the area to talk to the smaller businesses.

121 Business Engagement

	Organisations engaged with 1-2-1
1	Westfield Shopping Centre
2	K West Hotel
3	Brewdog
4	West 12 Shopping Centre
5	Dorsett

Table 19: Shepherds Bush 1-2-1 engagement

Following the initial engagement period, a local survey was created to identify the main suppliers delivering in the area across a range of sectors including laundry, waste, office supplies, etc. and to identify supplier consolidation and re-timing opportunities. This involved 1-2-1 engagement with businesses as well as email correspondence. The survey was sent out to over 20 businesses directly as well as to both the Westfield shopping centre and West 12 shopping centre, which have over 350 of businesses in their premises among them.

Additional Engagement to note

# of businesses	Engagement
3	Presentations at Shepherds Bush Business Forum meetings
1	Presentation at tenant meeting at West 12 Shopping centre
1	Transport for London meeting on works in Shepherds Bush

Table 20: Shepherds Bush additional engagement

Solution

Given the large number of hotels and pubs just around the heavily congested green in the heart of Shepherds Bush, CRP initially decided to focus on these to see whether there was potential to share suppliers coming into the area. Working through the survey results confirmed the potential of working with hotels and pubs on a local supplier consolidation and re-timing solution.

Implementation

Firstly, CRP met with two hotels; Dorsett & K-West spa that both are high-end hotels located around the green. CRP worked out the deliveries that were being made and highlighted the suppliers that were already shared. As shown in

Figure 15, between the two hotels four types of deliveries are made more than once a day and six once a day.

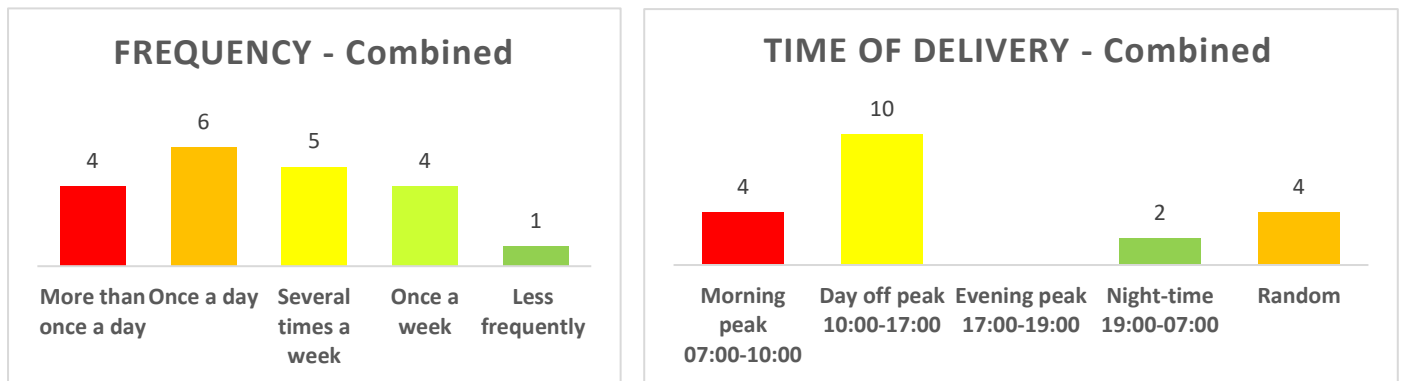


Figure 15: Example of delivery frequency to two Shepherds Bush hotels

During the meeting with the hotels, CRP highlighted the immediate changes that could be made to improve local air quality. Foodspeed, for example, delivers to one hotel daily during the morning peak, whereas it delivers several times a week at night-time to its neighbour. As none of the hotels require a full truck-load from these suppliers, there is consolidation potential.

	K West Hotel & Spa	Dorsett Hotel, Shepherds Bush
	<i>Foodspeed Ltd</i>	
Frequency	Once a day	Several times a week
Timing	Morning Peak	Night-time
	<i>Tannas Office Supplier</i>	
Frequency	Once a week	Once a fortnight
Timing	Day off Peak	Day off Peak
	<i>Sybron UK Ltd</i>	
Frequency	Once a week	Several times a week
Timing	Day off Peak	Day off Peak

(Red, amber and yellow indicate priority levels respectively for re-timing/reducing frequency)

Table 21: Priorities for delivery re-timing and frequency reduction for Shepherds Bush hotels

Based on the engagement with the Shepherds Bush hotels, the following three interventions were made:

- The Dorsett hotel has mandated that stationary orders move from ad-hoc deliveries to once-a-week delivery and have confirmed the shared supplier has electric delivery vehicles for deliveries to their site
- All waste collection will be done towards the end of rush hour, over an hour later than their current times
- The hotels have spoken to their food supplier to both be on the same delivery run before the peak rush hour, further cutting congestion in the area

Two further interventions were proposed for future take-up:

- For the hotels to clarify with their other shared supplier to be on the same day and delivery slot
- One of the hotels is looking at procuring a local supplier for their laundry, which will cut out a significant number of miles driven for this service

Local communications

Clean Air Villages activities within the Shepherds Bush area was supported by and disseminated through local communications. Examples of these are shown below:

Clean Air Together @CRP_CleanAir · 24 Aug 2018
Join our free and interactive #ShepherdsBush discussion on 12 September on what businesses can do to improve #airquality whilst also saving time and money. 4pm at Petit Miracles #CleanAirTogether #CleanAirVillages To register see: bit.ly/2Kx6lhx

Share your ideas on Shepherds Bush Air Quality

Shepherds Bush has been identified as a pollution hotspot in the borough. Deliveries of goods and services significantly contribute to local air pollution and there are many things businesses can do to improve air quality whilst **saving time and money.**

We are inviting you to a meet-up to hear your views about deliveries of goods and services in the area, what works and what doesn't and what potential solutions could look like. **Refreshments will be provided!**

When?
7th November
14:00 – 15:30

Where?
Petit Miracles
30 Shepherds Bush Green
W12 8PP

Register your attendance
tinyurl.com/shepherdsbushAQ2

Contact
ethanhoward@crossriverpartnership.org / 020 7641 6670

Logos: CROSS RIVER PARTNERSHIP, CLEAN AIR TOGETHER, h&f hammersmith & fulham, Age Department for Environment Food & Rural Affairs

Twitter invitation to Shepherds Bush seminar

Figure 16: Examples of Shepherds Bush local communications

Impact

Using CRP's measureBEST tool, annual emissions generated by deliveries to K West and Dorsett Hotels from suppliers **Foodspeed**, **Tannas** and **Sybron** were calculated for before and after the intervention, as well as for further proposed interventions. Annual emission savings as a percentage compared to Business as Usual (BAU) were also calculated:

Scenario	Annual emissions generated (and savings, %)		
	CO2 (kg) (Tailpipe)	NOX (kg)	PM10 (kg)
Before intervention - BAU	28,627	100	5.0
After intervention	21,614	72	4.1
Saving (compared to BAU)	24%	28%	17%
Further proposed intervention	8,420	28	1.7
Saving (compared to BAU)	71%	72%	67%

Table 22: Priorities for delivery re-timing and frequency reduction for Shepherds Bush hotels

Further potential emissions savings that could result from expanding the shared supplier scheme are shown below for three scenarios:

- 1) K West and Dorsett Hotels implement the proposed further interventions (from above)
- 2) K West and Dorsett Hotels implement potential further interventions **and** extend to either 6 or 9 suppliers in total
- 3) 5 further local hotels join the supplier sharing scheme (based on 3 total suppliers)

Scenario	Annual emissions saving		
	CO2 (kg) (Tailpipe)	NOX (kg)	PM10 (kg)
1) Proposed further intervention	20,206	72	3.3
2) Extend to: 6 suppliers (in total)	40,413	144	7
9 suppliers (in total)	60,619	217	10
3) 5 further hotels join the shared supplier scheme	50,516	181	8

Table 23: Shepherds Bush future scenarios

It is likely that some suppliers may already deliver to multiple hotels in the same area on the same route – a likelihood which will increase as the scheme expands to include more hotels. To account for this, a conservative estimate was used of five additional hotels joining the shared supplier scheme.

Based on the above, the total **impact for 2019/2020** is expected to be:

- **72 kg of NOx savings**
- **20,206 kg of CO2 savings**
- **3.3 kg of PM10 savings**

The estimated emissions savings for Shepherds Bush are particularly high, as this solution includes the switch from a national to a local laundry supplier. Currently, the hotel in question get their linen laundered near Maidenhead, i.e. approximately 30 miles away. The estimated impact of implementing this solution shows the significant opportunity re-localisation of services of this kind offers.

Please see Appendix A – Calculation of Air Quality Impact for background information on the CRP measureBEST tool and calculation of air quality impacts of each solution. measureBEST was developed as part of Clean Air Better Business, a Mayor’s Air Quality Fund project, managed by CRP.

Islington – Archway

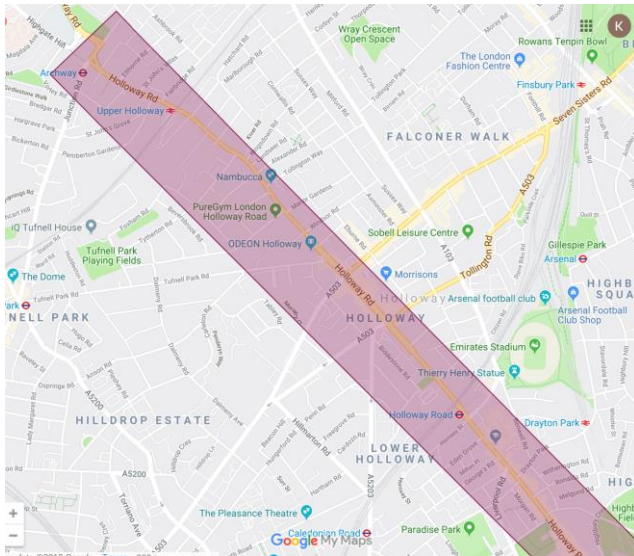


Figure 17: Map of GLA AQ Focus Area 111 – Islington

Background

Archway is in North East London and has approximately 250 high street-based businesses. There is an NHS Hospital and two primary schools located nearby. Holloway Road is a busy A road that feeds into central London with parking and loading restrictions. Some of the store fronts here are empty as businesses are losing trade. Junction Road is the other main road that links with Archway, it is smaller and is more pedestrian-friendly. The Zero Emission Network in Archway enabled CRP to connect with some local businesses more easily and many were therefore already engaged about air quality.

Local engagement

In Archway, CRP approached the engagement process by attending Archway Town Centre Group meetings to discuss the project and to meet local businesses. Two workshops took place that brought together local businesses and stakeholders to discuss key issues and solutions for the area. Through one of these meetings, a local e-cargo bike business met a property manager who have since gone on to work together for mutual benefit: the e-cargo bike business needed local, affordable storage space and the property manager had an under-utilised car park. Contracts are currently being negotiated for the space to be used to store the cargo bikes. Two workshops were held in as part of the Archway engagement process:

Workshop 1, 5 July 2018, Il Mio Mosaic Restaurant

Organisations in attendance	
1	Pedivan
2	Local resident
3	Essential Living / Vantage Point
4	London Borough of Islington / Archway ZEN
5	Il Mio Mosaic

Table 24: Archway Workshop 1 participants

Workshop 2, 24 August 2018, Vantage Point

Organisations in attendance	
1	Chair of Archway Town Centre Group
2	Hanley Estates
3	Sparks Electrical
4	Islington Sustainable Energy Partnership
5	London Borough of Islington

Table 25: Archway Workshop 2 participants

In addition to the workshops, six organisations were engaged with on a 1-2-1 basis and given tailored advice on what they could do to improve local air quality. Many businesses were concerned about the future of their business as customer parking had been lost, the increase on online sales and high overhead costs. In general, small businesses in the area were less concerned about air quality and more concerned about their livelihood.

121 Business Engagement

Organisations engaged with 1-2-1	
1	Well Pharmacy
2	Planet Kebab
3	Fresh Flower Scent
4	Joy Café
5	St. John's Tavern
6	St. John's Upper Holloway CE Primary School

Table 26: Archway 1-2-1 engagement

Additional engagement involved contacting businesses by email, over the phone, walking in in person and communicating through networks like the Zero Emission Neighbourhood and the Archway Town Centre Group.

Additional Engagement to note

# of businesses	Engagement
1	Attendance at Archway Town Centre meeting
15	Directory posters left with businesses

Table 27: Archway additional engagement

Solution

Discussions with local stakeholders showed that the idea of an online directory that contains both London-wide businesses that use ultra-low emission vehicles and also local businesses that operate within the village as a resource for businesses to use is a tangible solution. Such a resource could be used by any type of business and is a great way to provide a platform where this information can be shared.

Many businesses do not think about what kind of vehicle their suppliers use and perhaps do not even know the answer. Raising such awareness of vehicle type and the impact that this has on congestion and pollution can lead to changes within procurement processes. Having vehicle-type and supplier location on the agenda of businesses can lead to behaviour change that will improve local air quality.

Implementation

The first step towards the creation of an Ultra-Low Emission Supplier Directory was to find eligible businesses. This has been done by speaking with the local authority partners and relevant industry groups (e.g. TfL's LoCITY programme), as well as businesses in the Clean Air Villages in the chosen areas, internet searches, and via social media such as Twitter, for example.

The Directory inclusion criteria, as agreed with the London Borough of Islington is as follows:

2. Delivery mode:
 - b. Inclusion criteria: Ultra-low emission vehicles* in fleet
 - c. Inclusion criteria: If mixed fleet, must be able to guarantee to deploy ultra-low emission vehicles at least 80% of the time
 - d. Vehicle type:
 - ii. Foot/ cycle/cargo bike delivery
 - iii. Fully electric van/truck
 - iv. Hybrid vehicle (petrol hybrid only)

*Ultra-low emission vehicles as [defined](#) by the Office for Low Emission Vehicles (OLEV). Only those currently eligible for a plug-in grant, i.e. not Category 2 and 3 cars.

3. Distance to centre of Clean Air Village – promoting local businesses and reducing congestion. From usual vehicle dispatch point.

The decision to ask businesses to guarantee that they can deliver to the village areas using ultra-low emission vehicles 80% of the time is stringent and has resulted in a shorter list of businesses being on the directory than there otherwise would have been. Nevertheless, the directory is expected to grow over time as more fleets become ultra-low emission and the backend of the website has been designed with that in mind.

The [online directory](#) has been built into the [CRP website](#). Different options were explored and hosting with Boroughs would make it difficult to manage updates. A main directory page has been created with each village then having its own page. All five directories were launched in May 2019, at which point 23 businesses were included on the Archway Directory.

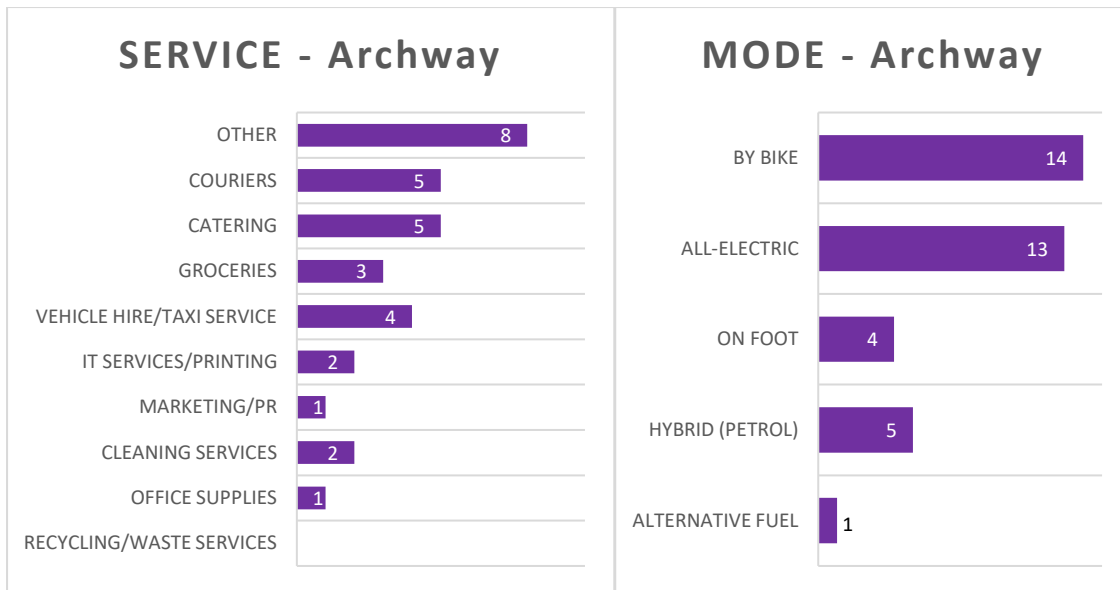


Figure 18: Overview of Directory services and transport modes as of 20th May 2019

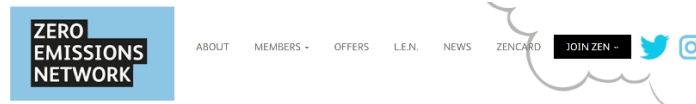
On the Directory, each business has a short summary about who they are, with contact details and their distance from the village centre. There is a map and list function. As of 20th May 2019, 32 businesses were listed across the five different CAV Ultra-Low Emission Supplier Directories. Figure 11 below provides an overview of the spread of businesses across services (product groups) and transport modes for the Archway Directory.

Since the Directory launch on 14th May 2019 and widespread communication about it (see below), more eligible businesses have come forward and CRP is adding these on a continuous basis.

Local communications



Figure 19: Examples of partner tweets about the Archway CAV seminars



ULTRA-LOW EMISSION SUPPLIER DIRECTORY LAUNCHED

Submitted by Elizabeth Murphy on Wed, 2019/05/22 - 15:59

A new resource has been launched to support businesses reducing emissions from every part of their supply chain.

Part of the DEFRA-funded Clean Air Villages programme, this new Ultra-Low Emission Supplier Directory lists businesses providing their services using ultra-low emission vehicles, cargo bikes or by foot. The distance from vehicle dispatch point to drop-off point is highlighted to support local businesses and reduce congestion.

Using suppliers from the directory allows businesses to actively reduce local air pollution through their procurement. To be

Figure 20: Archway ZEN City Fringe Article about the directory

Impact

Based on the potential emissions savings for a business switching to an ultra-low emission supplier listed on the CAV directories (see Appendix B for details), local interest and working with the Zero Emission Network, it is assumed that 8 local businesses will switch to directory suppliers in the first year. The numbers of different conversion types were estimated proportionally using the modal split for suppliers that operate within the Archway village. Assuming an annual mileage of 500 miles per business, the total **impact for 2019/2020** is expected to be:

- **8.1 kg of NOx savings**
- **1,991 kg of CO2 savings**
- **197 g of PM10 savings**

Please see Appendix A – Calculation of Air Quality Impact for background information on the CRP measureBEST tool and calculation of air quality impacts of each solution. measureBEST was developed as part of Clean Air Better Business, a Mayor’s Air Quality Fund project, managed by CRP.

Moving forwards with Clean Air Villages 2, the directory will be expanded into all villages. Further businesses will be added to the directory where applicable. Google Analytics will be reviewed regularly to monitor usage and CRP will seek to create case studies where businesses have switched supplier and will continue to promote the Directory. The impact of the CAV Ultra-Low Emission Supplier Directories are therefore expected to be sustainable, and above that, to increase over time within the villages and beyond.

Islington – Old Street



Figure 21: Map of GLA AQ Focus Area 68 – London Borough of Islington

Background

Archway / Old Street is a thriving area with a mixture of technology and start-up businesses, large retail chains and larger professional consultancies. A number of schools, children’s centres, numerous housing estates and a hospital are located in the area.

The last few years has seen major construction in the area, which has led to a huge and continued increase in volume of people coming to work in the area, particularly in the office sector which invites more businesses (such as restaurants and cafes) to open up. Old Street roundabout is also on the edge of the City of London and links the London Boroughs of Islington and Hackney. It is a thoroughfare for a large volume of traffic. The area is peppered with environmentally conscious businesses and there is a successful Zero Emission Network as well as the Old Street District Partnership operating locally that CRP worked with successfully.

Local engagement

To initiate the Old Street business engagement, CRP met the Council as well as the City Fringe Zero Emission Network, independent and chain businesses. As for the other villages, two seminars were organised:

Workshop 1, 26 July 2018, Impact Hub Islington

Organisations in attendance	
1	First Mile
2	Pedivan Sustainable Delivery
3	Beryl
4	London Borough of Hackney
5	Brainlabs
6	London Borough of Islington

Table 28: Old Street Workshop 1 participants

Workshop 2, 18 October 2018, Impact Hub Islington

Organisations in attendance	
1	Elysia

2	Zedify
3	Capital One

Table 29: Old Street Workshop 2 participants

121 Business Engagement

In total, six 1-2-1 meetings took place finding out about local issues and advising businesses on what they can do to improve local air quality.

CRP met with the property managers of two of the largest multi-tenanted offices by Old Street roundabout who were highly engaged with Clean Air Villages. The Bower (managed by Ashdown Phillips), who were also exploring the idea of completing a Delivery and Servicing Plan for their building and the White Collar Factory (managed by Derwent London plc).

CRP also attended a tenant meeting at the White Collar Factory to discuss the implementation of solutions.

	Organisations engaged with 1-2-1
1	Made.com
2	The Bower
3	Inmarsat
4	White Collar Factory
5	Spark44

Table 30: Old Street 1-2-1 engagement

Additional Engagement to note

CRP presented at an Old Street District Partnership (OSDP) Waste and Delivery Management workshop. OSDP are focusing on waste consolidation for the area and CRP were careful not to duplicate work.



WASTE & DELIVERY MANAGEMENT WORKSHOP
 IMPROVE your business, REDUCE air pollution, SAVE money

If you want your business to achieve the above, book your place now for this hands on action planning workshop.

Key partners are coming together to provide key information to help transform your business and save you money, including information on a new FUNDED waste collection service.

Further information about the agenda can be found at www.oldstreetdistrict.london/healthy-streets

TUESDAY 5TH FEBRUARY 9.30AM – 1PM

Albert House, 56-260 Old Street, London, EC1V 9DD
www.oldstreetdistrict.london    @oldstreetdistrict
 Refreshments and lunch will be provided

To Register please email sarah@oldstreetdistrict.london or call 020 3817 6294

Figure 22: Invitation to the OSDP Waste and Delivery Workshop

# of businesses	Engagement
1	Presentation at an Old Street District Partnership event
1	Presentation at White Collar Factory tenants meeting
1	Attendance at a ZEN City Fringe event
68	Directory posters left with businesses

Table 31: Old Street additional engagement

Solution

Discussions with local stakeholders showed that the idea of an online directory that contains both London-wide businesses that use ultra-low emission vehicles and also local businesses that operate within the village as a resource for businesses to use is a tangible solution. Such a resource could be used by any type of business and is a great way to provide a platform where this information can be shared.

Many businesses do not think about what kind of vehicle their suppliers use and perhaps do not even know the answer. Raising such awareness of vehicle type and the impact that this has on congestion and pollution can lead to changes within procurement processes. Having vehicle-type and supplier location on the agenda of businesses can lead to behaviour change that will improve local air quality.

Implementation

The first step towards the creation of an Ultra-Low Emission Supplier Directory was to find eligible businesses. This has been done by speaking with the local authority partners and relevant industry groups (e.g. TfL's LoCITY programme), as well as businesses in the Clean Air Villages in the chosen areas, internet searches, and via social media such as Twitter, for example.

The Directory inclusion criteria, as agreed with the London Borough of Islington is as follows:

3. Delivery mode:
 - c. Inclusion criteria: Ultra-low emission vehicles* in fleet
 - d. Inclusion criteria: If mixed fleet, must be able to guarantee to deploy ultra-low emission vehicles at least 80% of the time
 - e. Vehicle type:
 - iii. Foot/ cycle/cargo bike delivery
 - iv. Fully electric van/truck
 - v. Hybrid vehicle (petrol hybrid only)

*Ultra-low emission vehicles as [defined](#) by the Office for Low Emission Vehicles (OLEV). Only those currently eligible for a plug-in grant, i.e. not Category 2 and 3 cars.

4. Distance to centre of Clean Air Village – promoting local businesses and reducing congestion. From usual vehicle dispatch point.

The decision to ask businesses to guarantee that they can deliver to the village areas using ultra-low emission vehicles 80% of the time is stringent and has resulted in a shorter list of businesses being on the directory than there otherwise would have been. Nevertheless, the directory is expected to grow over time as more fleets become ultra-low emission and the backend of the website has been designed with that in mind.

The [online directory](#) has been built into the [CRP website](#). Different options were explored and hosting with Boroughs would make it difficult to manage updates. A main directory page has been created with each village then having its own page. All five directories were launched in May 2019, at which point 26 businesses were included on the Bunhill/Old Street Directory.

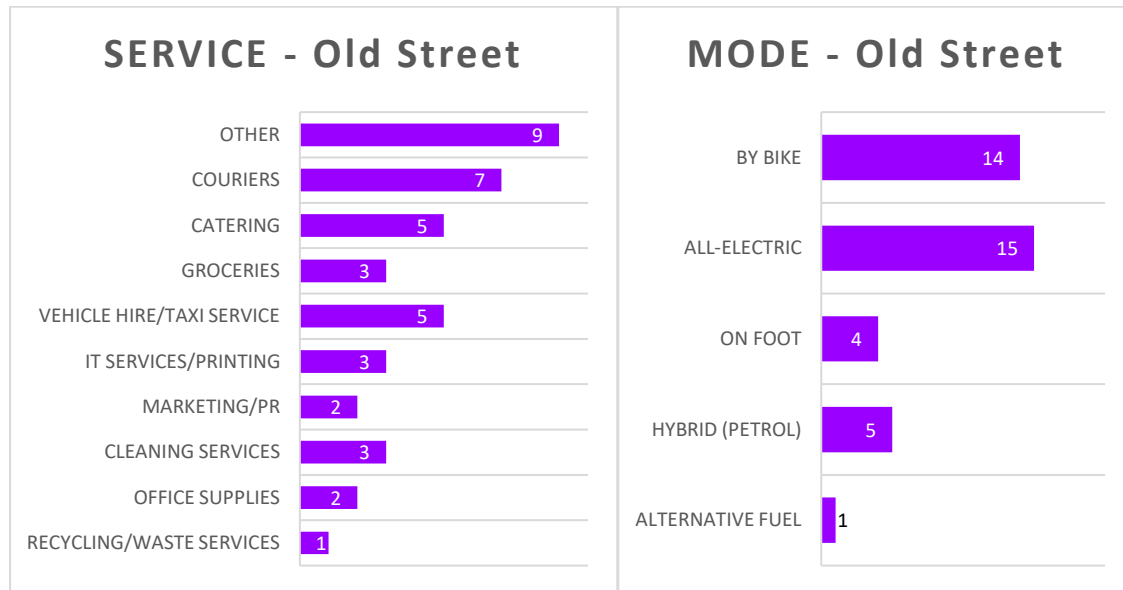


Figure 23: Overview of Directory services and transport modes as of 20th May 2019

On the Directory, each business has a short summary about who they are, with contact details and their distance from the village centre. There is a map and list function. As of 20th May 2019, 32 businesses were listed across the five different CAV Ultra-Low Emission Supplier Directories. Figure 11 below provides an overview of the spread of businesses across services (product groups) and transport modes for the Bunhill/Old Street Directory.

Since the Directory launch on 14th May 2019 and widespread communication about it (see below), more eligible businesses have come forward and CRP is adding these on a continuous basis.

Local communications

Bunhill / Old Street engagement and solution implementation was supported by a range of local communications.



Figure 24: CAV Presentation in Old Street and Hackney Post article



Figure 25: Bunhill/Old Street seminar flyer

Impact

Based on the potential emissions savings for a business switching to an ultra-low emission supplier listed on the CAV directories (see Appendix B for details), local interest and working with the Old Street District Partnership and Zero Emission Network, it is assumed that 8 local businesses will switch to directory suppliers in the first year. The numbers of different conversion types were estimated proportionally using the modal split for suppliers that operate within the Old Street village. Assuming an annual mileage of 500 miles per business, the total **impact for 2019/2020** is expected to be:

- **8.4 kg of NOx savings**
- **2,079 kg of CO2 savings**
- **194 g of PM10 savings**

Please see Appendix A – Calculation of Air Quality Impact for background information on the CRP measureBEST tool and calculation of air quality impacts of each solution. measureBEST was developed as part of Clean Air Better Business, a Mayor’s Air Quality Fund project, managed by CRP.

Moving forwards with Clean Air Villages 2, the directory will be expanded into all villages. Further businesses will be added to the directory where applicable. Google Analytics will be reviewed regularly to monitor usage and CRP will seek to create case studies where businesses have switched supplier and will continue to promote the Directory. The impact of the CAV Ultra-Low Emission Supplier Directories are therefore expected to be sustainable, and above that, to increase over time within the villages and beyond.

Kensington & Chelsea – Earl’s Court

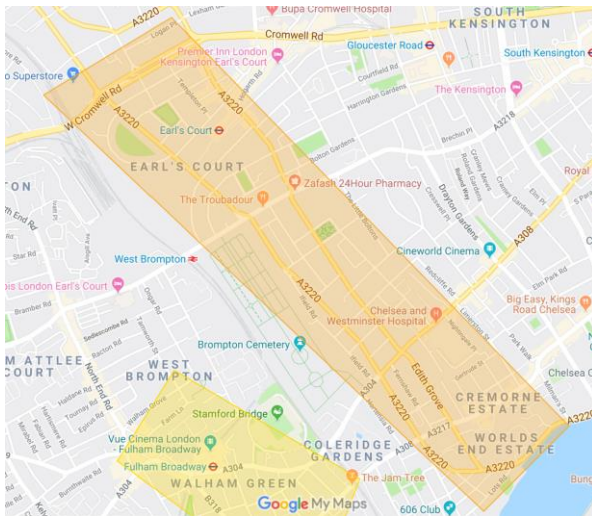


Figure 26: Map of GLA AQ Focus Area 116 – Royal Borough of Kensington & Chelsea

Background

Earl’s Court is made up of residential properties, independent traders, hotels and retail chains. It also is one of the main interchanges for visitors travelling to the Exhibition Road museums, further increasing footfall in the area. A number of schools are located in very close proximity to the heavily trafficked roads that lead on to the A4. A real-time NO₂ analyser is located on Earl’s Court Road and indicates that the annual mean objective is exceeded at this location. The area itself has been in the press in the past year for being one of the most polluted areas in London, with a link to significant health concerns. There are no established business improvement districts or business forums in the Royal Borough of Kensington and Chelsea.

Local engagement

CRP has worked with a range of the businesses in the area. With a very high proportion of hospitality businesses, there has been a focus on hotels. In engaging with these businesses, it was understood that the two different collections/deliveries being done most regularly were waste and laundry. Two workshops were held in Earl’s Court:

Workshop 1, 20 September 2018, Empress Place Project Rooms

Organisations in attendance	
1	Varse LTD
2	Intro Nation
3	Sainsbury’s

Table 32: Earl’s Court Workshop 1 participants

Workshop 2, 14 November 2018, Empress Place Project Rooms

Organisations in attendance	
1	Threshold Residents Association
2	E.C.H.O.
3	Local resident / former Member of Parliament
4	Boka Hotel
5	ECCT
6	Mayflower Collection

Table 33: Earl's Court Workshop 2 participants

121 Business Engagement

In addition to the two seminars held in Earl's Court, 1-2-1 business engagement in the area included four hotels and landowners as well as over 15 visits to hotels.

	Organisations engaged with 1-2-1
1	Capco
2	Lillie Square development
3	K&K hotels
4	Twenty Nevern Square

Table 34: Earl's Court 1-2-1 engagement

Additional Engagement to note

Other ways of engaging with the stakeholders and businesses in the area included:

- Consistent meetings with different departments in the Council including; commercial waste team, climate change team, business officers meeting.
- Attendance at a waste scrutiny meeting at the Royal Borough of Kensington and Chelsea to look at consolidating the number of waste suppliers.

# of businesses	Engagement
2	Meeting with Royal Borough of Kensington and Chelsea (Climate change team and Economic Development team)
1	Meeting with Commercial waste team
31	Surveys sent out to businesses in the area
1	Royal Borough of Kensington and Chelsea Scrutiny meeting on waste

Table 35: Earl's Court additional engagement

Solution

Earl's Court survey work focussed on identifying the number of different suppliers for these two sectors. The survey included questions on who the supplier was, the frequency of the deliveries being made and the timing they regularly got these delivered to their business. The survey results showed that a more joint up approach was needed for businesses to talk about sharing suppliers and delivery days and changing delivery frequency. Survey results from nine hotels showed that:

- Among them they use **four different waste collection service providers**
- **29%** of hotels have their **waste collected more than once a day**
- **57%** of hotels have their **waste collected during the morning peak**
- **None** of the hotels **share laundry service providers**
- **57%** of **laundry is collected once a day**
- **29%** have **laundry collected/delivered during peak hours**

The above results show plenty of opportunity to improve waste and laundry delivery efficiency and reduce air pollution from these trips.

The solution for Earls Court was therefore to create a **Working Group** of businesses in the area who are going to deliver projects and share knowledge of the supply chain in the area. The working group will meet quarterly to discuss being part of a local solution such as; sharing suppliers, consolidating

deliveries, looking for local storage to minimise deliveries in the week and look at a hub for local laundry to be done. The solution is business led but will be chaired by CRP for the remainder of the second phase of Clean Air Villages 2.

Implementation

The first working group meeting took place in May 2019, starting with a small group of businesses looking to invite more of their neighbouring businesses to join. Moving forward the businesses agreed on topic-based meetings, e.g. collections of waste in the area and the potential food waste trial for businesses.

By having a group of businesses look at their supply chain there is a chance for consolidation of suppliers of linen and waste in the local area.

Other outcomes that are anticipated through the Clean Air Working group:

- Further businesses joining the working group
- Creating the first working group focused on air quality in the Royal Borough of Kensington and Chelsea
- Reducing congestion by businesses moving deliveries outside of peak hours

Local communications

Earl's Court engagement and solution implementation was supported by a range of local communications.

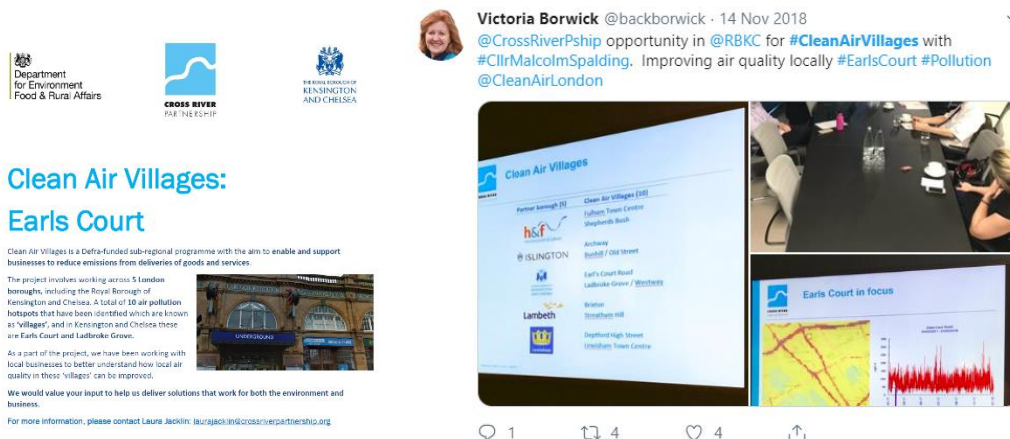


Figure 27: Earl's Court survey handout and Councillor tweet about seminar

Impact

The potential annual emission savings as a result of reducing frequency and re-timing for waste and laundry collections are detailed below:

- **Frequency reductions** - at least **3** (for waste) and **2** (for laundry) of the businesses receiving deliveries once a day to reduce to no more than 3 times a week.
- **Re-timing** (for waste) - **4** businesses receiving deliveries during morning peak to move to night-time off-peak.
- **Re-timing** (for laundry) - **2** businesses receiving deliveries during peak hours to move to day off-peak.

Scenario	Annual emissions saving		
	CO2 (kg) (Tailpipe)	NOX (kg)	PM10 (g)
Waste			
Reducing frequency	936	3.20	271.13
Re-timing	1224	2.51	94.81
Laundry			
Reducing frequency	624	2.13	180.76
Re-timing	180	0.34	13.46
TOTAL	2964	8.2	560.2

Table 36: Potential annual emissions savings Earl's Court

Based on the above, the total **impact for 2019/2020** is expected to be:

- **8.2 kg of NOx savings**
- **2,964 kg of CO2 savings**
- **560 g of PM10 savings**

Please see Appendix A – Calculation of Air Quality Impact for background information on the CRP measureBEST tool and calculation of air quality impacts of each solution. measureBEST was developed as part of Clean Air Better Business, a Mayor's Air Quality Fund project, managed by CRP.

Kensington & Chelsea – Ladbroke Grove

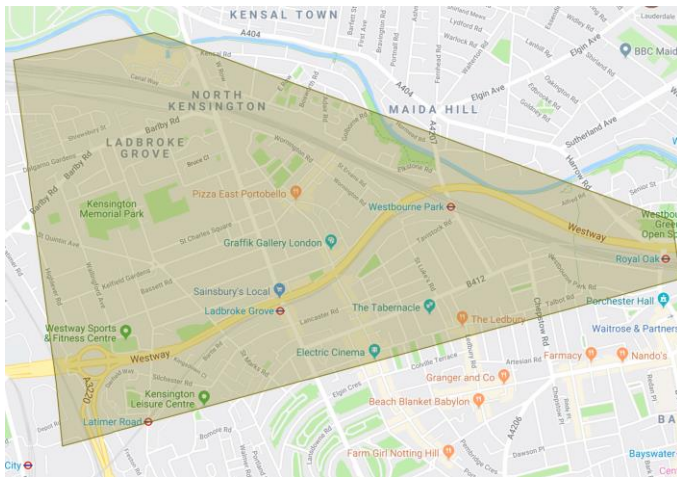


Figure 28: Map of Royal Borough of Kensington & Chelsea Air Quality Focus Area

Background

The Westway trust is a large landowner with a range of tenants under the Westway bypass and works with a range of charities in the area. Several independent traders and community groups occupy the space under the Westway. The high street itself has tenants like Greggs, Sainsburys & Pret A Manger, which are found next to the main road and Ladbroke Grove is popular for its markets that run from Fridays to Sundays and include a range of independent traders and market stall holders. Several schools are located in the area and vulnerable groups visit the Trust premises, which has been taken into consideration during the project. Other than through the Westway Trust, there is no pre-existing business community or BID in the Ladbroke Grove area.

Local engagement

CRP has engaged with the Westway Trust, businesses along the high street and the local market stakeholder group. An issue for the smaller market traders and businesses is the lack of space for storing deliveries, meaning an increase in delivery frequency. There is limited parking and loading bay access for the area creating more congestion in peak hours. Two seminars were held in Ladbroke Grove:

Workshop 1, 14 September 2018, Westway Trust

Organisations in attendance	
1	Biborough Children's Services
2	Greggs
3	Cash
4	Starbucks
5	Royal Borough of Kensington and Chelsea
6	Westway Trust

Table 37: Ladbroke Grove Workshop 1 participants

Workshop 2, 28 November 2018, Westway Trust

Organisations in attendance	
1	Westway Trust
2	Local resident / Green Party member
3	St. John's Wood Society

Table 38: Ladbroke Grove Workshop 2 participants

121 Business Engagement

In addition to the above and two local seminars, three 1-2-1 business engagement meetings were completed in the area, with walk ins to shops along the high street. CRP had engagement with a local e-cargo bike company who could become a supplier for the area and an event was organised to show the cargo bikes to local businesses. There has been strong interest from smaller businesses in the area to use alternative delivery methods such as the cargo bike to expand their business. There has also been engagement with the local market contact, however their main priority is finding local storage.

	Organisations engaged with 1-2-1
1	Westway Trust
2	E-cargo bike
3	What Katie did – SME business

Table 39: Ladbroke Grove 1-2-1 engagement

Additional Engagement to note

# of businesses	Engagement
1	Lunch and Learn at Westway Trust
1	Event on Market day with e-cargo bikes
3	Businesses interested in cargo bike deliveries on event day

Table 40: Ladbroke Grove additional engagement

Solution

Following the engagement and research undertaken in the Ladbroke Grove area, the Westway Trust agreed to pilot the e-cargo bike to reduce the number of vans delivering personal deliveries to the site. A delivery log of two weeks was completed by the Westway Trust to work out the number of different couriers and the timing that these deliveries were coming in. The pilot looked to implement a system in which employees ordering personal deliveries to the site would get it delivered to the e-cargo bike hub and the last mile would be done on the cargo bike.

To engage with the employees who would use the service a “Lunch and Learn” was set up by CRP and the Westway Trust environment manager to educate employees on the many reasons why the business wanted to reduce local air pollution and how the pilot would work in practice.

Implementation

A delivery log was completed by the staff at Westway Trust over a 12-day period to show the different number of suppliers coming to the site. CRP then used the measureBest tool to work out how the pilot would help to reduce emissions by cutting daily van deliveries to the site to two one-hour slots in a 5-day period delivered by e-cargo bike from the local hub. This solution has enabled businesses to look at the cost of using the e-cargo bike hub per hour of use and has the benefit of using a service which has their own rider/employee and would cover liability/insurance. The cost to the Westway trust to exclusively use the e-cargo bike service is £25.00 per hour including the rider. The cost of the trial for a week cost £50.00 and for a month will cost £200.00.

Summary of deliveries log		
Logged period (working days)	Total no. of vans	Personal deliveries (estimate)
12	27	15

Table 41: Summary of Westway Trust 12-day delivery log

Local communications

Ladbroke Grove engagement and solution implementation was supported by a range of local communications, examples of which are shown below:

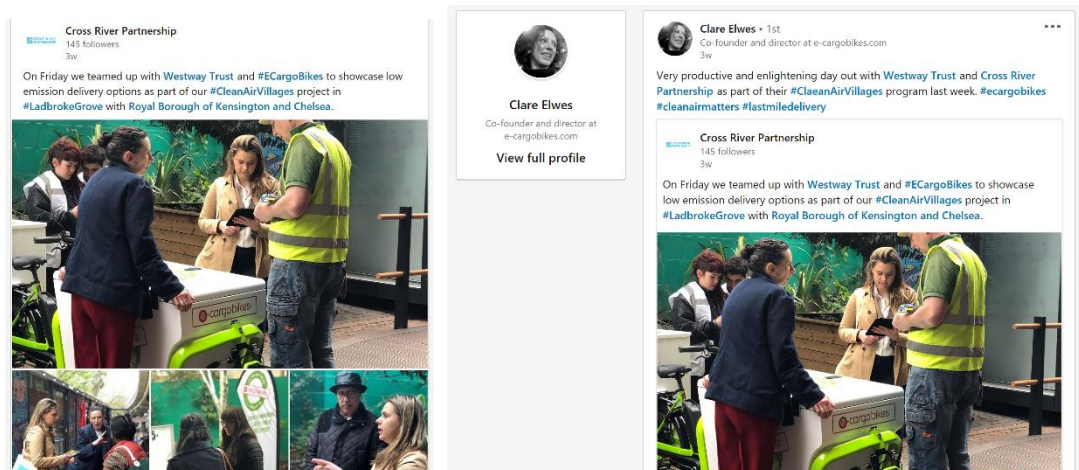


Figure 29: Twitter and LinkedIn posts about Westway Trust e-cargo bike event

In addition, Westway Trust also produced this video about the event:

<https://www.youtube.com/watch?v=FfGfBRzsdLU>.

The Westway Trust Newsletter also covered the e-cargo bike trial and work as part of Clean Air Villages:

Gloria – Environment Manager at Westway Trust

How do you think the CAV project in Ladbrook Grove is going?

“I think it is going well, I have really enjoyed working with CRP and e-cargo bikes and have received plenty of support from CRP. They liaised and created the connection with parties who are all on the same page and keen on reducing air pollution and improving air quality in the area. This pilot, even though it is still on a small scale, will produce a great case study for us to release out to the whole estate with the potential to extend to whole North Kensington area. In just one day we had a few business owners pop down today asking questions and registering their interest.

I am really pleased with CRP. Everyone has been available to support us the whole time, in our offices providing us information, providing connection with other businesses and contacts within the councils.”

Claire – Co-founder of E-Cargo Bikes.com

“We are working with CRP and Westway Trust to do a pilot and see how we can consolidate personal deliveries to employees at the Westway Trust to see if we can reduce some of the air pollution of regular deliveries throughout the day.

It is great working with CRP because they have a really creative approach at changing behaviour and improving the quality of our local environment.”

Impact

Based on the results from the 12-day trial, estimates of the annual emission savings and reduction in vans have been calculated that would stem from continued use of the e-cargo bike to reduce personal deliveries to Westway Trust. Further savings come from extending the use of the cargo bike to four other businesses in the area, based on an average of 10 deliveries per week per business and an average local delivery of 1.5km.

Businesses	Annual savings			
	NOX (g)	CO2 (kg) (Tailpipe)	PM10 (g)	No. of vans
Westway Trust	146.11	49	11.1	312
4 additional businesses	2,191	731	166.4	2,000
TOTAL	2,338	779	178	2312

Table 42: Estimated annual emissions savings Ladbroke Grove

The estimated total **impact for 2019/2020** is expected to be:

- **2.3 kg of NOx savings**
- **779 kg of CO2 savings**
- **178 g of PM10 savings**

Other outcomes that are anticipated through the shared e-cargo bike scheme for the local area;

- To pilot this with market traders/ smaller businesses in the area (had 3 small business owners interested in using the bike to make deliveries)
- Create a new profitable part of a business, to expand the clients of local businesses.
- Reduce local emissions around the Ladbroke Grove area
- Reduce congestion as the e-cargo bike could use cycle lanes
- Community funded project – with the right business case
- The start of a structure using a hub to get deliveries
- Promoting local businesses working together.

Moving forwards with Clean Air Villages 2, CRP will work with local businesses and the e-cargo bike business to create a community funded project in which businesses will become clients to using a local rider/service.

Please see Appendix A – Calculation of Air Quality Impact for background information on the CRP measureBEST tool and calculation of air quality impacts of each solution. measureBEST was developed as part of Clean Air Better Business, a Mayor’s Air Quality Fund project, managed by CRP.

Lewisham – Deptford High Street

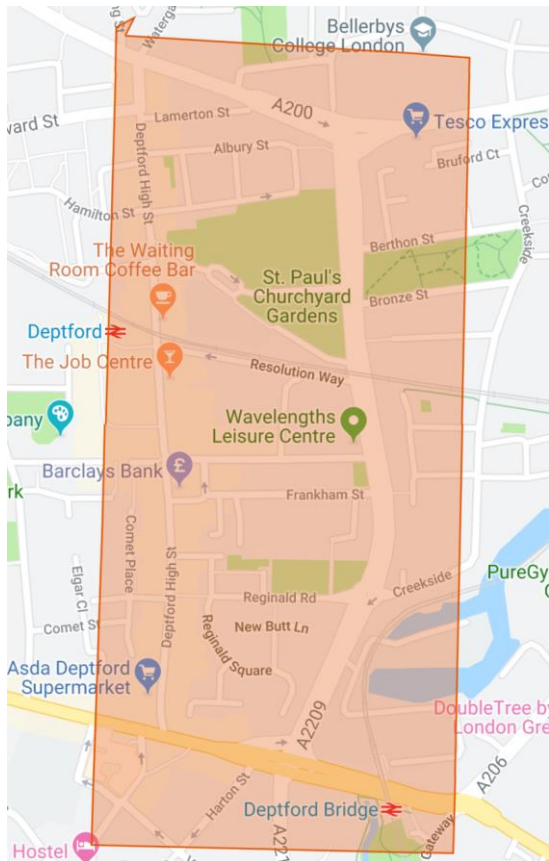


Figure 30: Map of GLA AQ Focus Area 127 - Lewisham

Background

Deptford High Street has a range of independent traders and market stall holders and an active night-time economy with a number of restaurants. The market sells a wide variety of goods and there are several schools in the area. Close by is Creekside, with some newer businesses, like a co-working space and an artisan bakery. There seems to be, for some, a divide between the new ‘trendy’ businesses that are appearing in the area, for example, in Deptford Market Yard and between some of the businesses that have been there for decades. This divide can undermine a business community approach to addressing deliveries and servicing trips.

Local engagement

In Deptford, there are no business community groups or BIDs and as most of the businesses on the high street are very small, it proved very difficult to get them to attend workshops. There were also language barrier issues with some businesses. Walking into shops in person was in general the best way to start a conversation. CRP developed a good relationship with The Albany – a community space, café, tenanted building and theatre. The Albany are interested in going ahead with a Delivery and Servicing Plan for the building but are concerned about ‘buy-in’ from their tenants.

Workshop 1, 12 July 2018, 12 July 2018, Goldsmiths, New Cross

Two workshops were held in Deptford, one of which in collaboration with The Albany and Deptford Lounge (the local library), with the Dek Growth Programme presenting also.

Organisations in attendance	
1	London Borough of Lewisham
2	Pepys Community Forum
3	Goldsmiths

Table 43: Deptford Workshop 1 participants

Workshop 2, 22 November 2018, Deptford Lounge

Organisations in attendance	
1	The Albany
2	DeK Growth Programme
3	London Borough of Lewisham
4	Deptford Neighbourhood Association
5-8	Local residents

Table 44: Deptford Workshop 2 participants

121 Business Engagement

In addition, ten 1-2-1 meetings took place with local businesses, with support offered on what they can do to improve local air quality.

Organisations engaged with 1-2-1	
1	Taproom SE8
2	Spread the Word
3	The Albany
4	Forest / Fresh Flower
5	Greenhouse Café
6	Hop Burns and Black
7	London Velo
8	Heaps Deli Diner
9	Villages
10	Bread and Butler

Table 45: Deptford 1-2-1 engagement

Additional Engagement to note

# of businesses	Engagement
21	Ultra-Low Emission Supplier Directory posters left with businesses

Table 46: Deptford additional engagement

Solution

Discussions with local stakeholders showed that the idea of an online directory that contains both London-wide businesses that use ultra-low emission vehicles and also local businesses that operate within the village would be a useful solution. Such a resource could be used by any type of business and is a great way to provide a platform where this information can be shared.

Many businesses do not think about what kind of vehicle their suppliers use and perhaps do not even know the answer. Raising such awareness of vehicle type and the impact that this has on congestion and pollution can lead to changes within procurement processes. Having vehicle-type

and supplier location on the agenda of businesses can lead to behaviour change that will improve local air quality.

Implementation

The first step towards the creation of an Ultra-Low Emission Supplier Directory was to find eligible businesses. This has been done by speaking with the local authority partners and relevant industry groups (e.g. TfL's LoCITY programme), as well as businesses in the Clean Air Villages in the chosen areas, internet searches, and via social media such as Twitter, for example.

The Directory inclusion criteria, as agreed with the London Borough of Lewisham is as follows:

4. Delivery mode:
 - d. Inclusion criteria: Ultra-low emission vehicles* in fleet
 - e. Inclusion criteria: If mixed fleet, must be able to guarantee to deploy ultra-low emission vehicles at least 80% of the time
 - f. Vehicle type:
 - iv. Foot/ cycle/cargo bike delivery
 - v. Fully electric van/truck
 - vi. Hybrid vehicle (petrol hybrid only)

*Ultra-low emission vehicles as [defined](#) by the Office for Low Emission Vehicles (OLEV). Only those currently eligible for a plug-in grant, i.e. not Category 2 and 3 cars.

5. Distance to centre of Clean Air Village – promoting local businesses and reducing congestion. From usual vehicle dispatch point.

The decision to ask businesses to guarantee that they can deliver to the village areas using ultra-low emission vehicles 80% of the time is stringent and has resulted in a shorter list of businesses being on the directory than there otherwise would have been. Nevertheless, the directory is expected to grow over time as more fleets become ultra-low emission and the backend of the website has been designed with that in mind.

The [online directory](#) has been built into the [CRP website](#). Different options were explored and hosting with Boroughs would make it difficult to manage updates. A main directory page has been created with each village then having its own page. All five directories were launched in May 2019, at which point 25 businesses were included on the Deptford one.

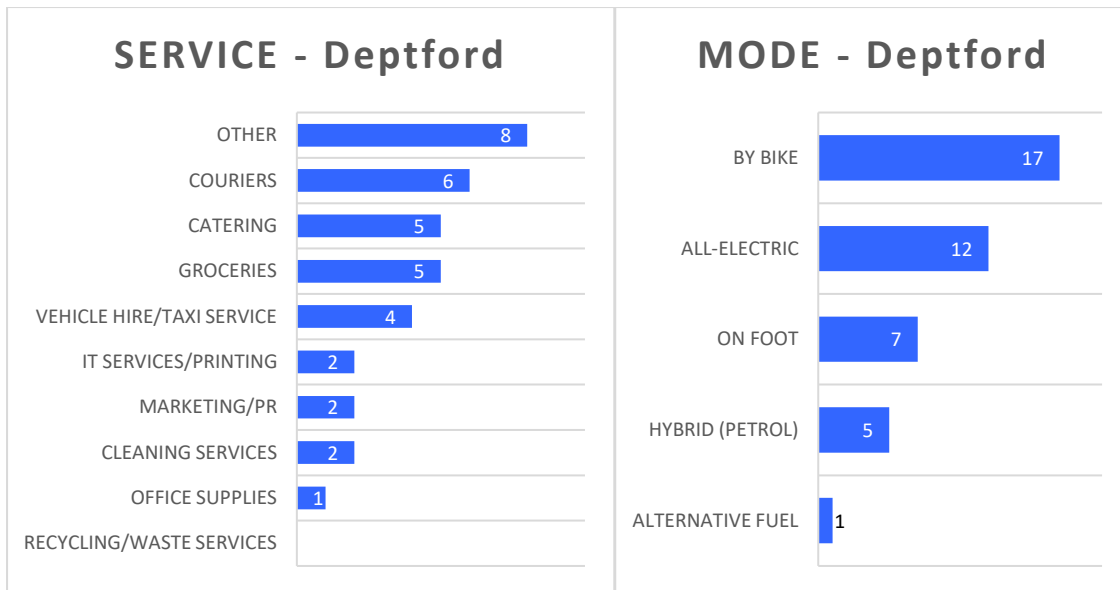


Figure 31: Overview of Directory services and transport modes as of 20th May 2019

On the Directory, each business has a short summary about who they are, with contact details and their distance from the village centre. There is a map and list function. As of 20th May 2019, 32 businesses were listed across the five different CAV Ultra-Low Emission Supplier Directories. Figure 11 provides an overview of the spread of businesses across services (product groups) and transport modes for the Deptford Directory.

Since the Directory launch on 14th May 2019 and widespread communication about it (see below), more eligible businesses have come forward and CRP is adding these on a continuous basis.

Local communications



Figure 32: Lewisham seminar flyer and van parking

Impact

Based on the potential emissions savings for a business switching to an ultra-low emission supplier listed on the CAV directories (see Appendix B for details), local interest and working with the Council, it is assumed that 8 local businesses will switch to directory suppliers in the first year. The numbers of different conversion types were estimated proportionally using the modal split for suppliers that operate within the Old Street village. Assuming an annual mileage of 500 miles per business, the total **impact for 2019/2020** is expected to be:

- **7.5 kg of NOx savings**
- **1,843 kg of CO2 savings**
- **210 g of PM10 savings**

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Moving forwards with Clean Air Villages 2, the directory will be expanded into all villages. Further businesses will be added to the directory where applicable. Google Analytics will be reviewed regularly to monitor usage and CRP will seek to create case studies where businesses have switched supplier and will continue to promote the Directory. The impact of the CAV Ultra-Low Emission Supplier Directories are therefore expected to be sustainable, and above that, to increase over time within the villages and beyond.

Lewisham – Lewisham Town Centre

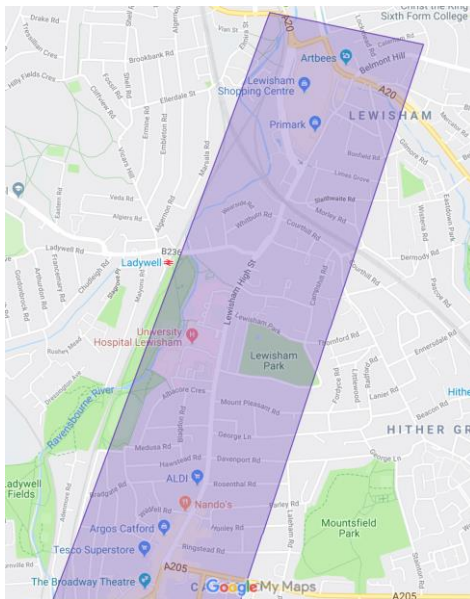


Figure 33: Map of GLA AQ Focus Area 131 - Lewisham

Background

Lewisham Town Centre is characterised by a wide variety of retail including the historic street market, a small number of bars and restaurants and indoor shopping centre. It is among the 20% most deprived areas within England according to the Indices of Multiple Deprivation 2011. Several schools, children’s centres, and a hospital are located near the centre. The GLA defined Air Quality Focus Area is dominated by the A road that goes through Ladywell and Catford. As such, some local businesses feel that air quality is an issue that they cannot make any difference to.

Local engagement

As part of the engagement process, CRP contacted Lewisham Town Centre businesses by a variety of methods. With no BID or other business community group in the area, this was very much of a bottom-up approach with visits in person often being more effective, especially for small businesses. A large area of Lewisham will be affected by ULEZ once it expands in 2021 and so vehicle owners or their suppliers will be affected by this.

CRP met with a variety of businesses in Lewisham Town Centre: from independent shops, to chains, and market traders and their Association representative. There was strong support from local Councillors and interest from local schools. Next to Lewisham Shopping Centre, there is a busy market with daily (un)loading of vans, with a central and busy bus route next to it. As for the other villages, two air quality workshops took place:

Workshop 1, 17 September 2018, Goldsmiths, Place Ladywell Good Hope Café

Organisations in attendance	
1	Primark
2	Lidl
3	Grid Smarter Cities
4	London Borough of Lewisham
5	Emsol

Table 47: Lewisham Town Centre Workshop 1 participants

Workshop 2, 22 November 2018, Deptford Lounge

Organisations in attendance	
1	Tesco
2	St. Saviours School
3	St. Mary's School
4	London Borough of Lewisham

Table 48: Lewisham Town Centre Workshop 2 participants

121 Business Engagement

In addition, seven 1-2-1 meetings were held with businesses individually to find out about local delivery and servicing issues and advise businesses on what they can do to improve local air quality.

Organisations engaged with 1-2-1	
1	Dourof Carpets
2	The Body Shop
3	Your Hair & Beauty
4	Joiners Arms
5	Holy Cross Catholic School
6	Market Trader (Chair of Lewisham Association of Street Traders)
7	Mountsfield Park Café

Table 49: Lewisham Town Centre 1-2-1 engagement

Additional Engagement to note

# of businesses	Engagement
12	Ultra-Low Emission Supplier Directory posters distributed amongst the libraries in the London Borough of Lewisham
1	Ultra-Low Emission Supplier Directory poster sent to Lewisham Shopping Centre to be distributed digitally with their tenants

Table 50: Lewisham Town Centre additional engagement

Solution

The GLA-defined AQ Focus Area is large and diverse. There is no obvious area where consolidation could take place and the lack of a forum for the business community makes implementation of that or preferred supplier schemes challenging. Retiming deliveries is not possible on a grand scale due to the A road and the already inhibiting restrictions.

Discussions with local stakeholders showed that the idea of an online directory that contains both London-wide businesses that use ultra-low emission vehicles and also local businesses that operate within the village is a tangible solution. Such a resource could be used by any type of business and is a great way to provide a platform where this information can be shared.

Many businesses do not think about what kind of vehicle their suppliers use and perhaps do not even know the answer. Raising such awareness of vehicle type and the impact that this has on congestion and pollution can lead to changes within procurement processes. Having vehicle-type and supplier location on the agenda of businesses can lead to behaviour change that will improve local air quality.

Implementation

The first step towards the creation of an Ultra-Low Emission Supplier Directory was to find eligible businesses. This has been done by speaking with the local authority partners and relevant industry groups (e.g. TfL's LoCITY programme), as well as businesses in the Clean Air Villages in the chosen areas, internet searches, and via social media such as Twitter, for example.

The Directory inclusion criteria, as agreed with the London Borough of Lewisham is as follows:

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 - g. Vehicle type:
 - v. Foot/ cycle/cargo bike delivery
 - vi. Fully electric van/truck
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*Ultra-low emission vehicles as [defined](#) by the Office for Low Emission Vehicles (OLEV). Only those currently eligible for a plug-in grant, i.e. not Category 2 and 3 cars.

6. Distance to centre of Clean Air Village – promoting local businesses and reducing congestion. From usual vehicle dispatch point.

The decision to ask businesses to guarantee that they can deliver to the village areas using ultra-low emission vehicles 80% of the time is stringent and has resulted in a shorter list of businesses being on the directory than there otherwise would have been. Nevertheless, the directory is expected to grow over time as more fleets become ultra-low emission and the backend of the website has been designed with that in mind.

The [online directory](#) has been built into the [CRP website](#). Different options were explored and hosting with Boroughs would make it difficult to manage updates. A main directory page has been created with each village then having its own page. All five directories were launched in May 2019, at which point 24 businesses are included on the Deptford one.

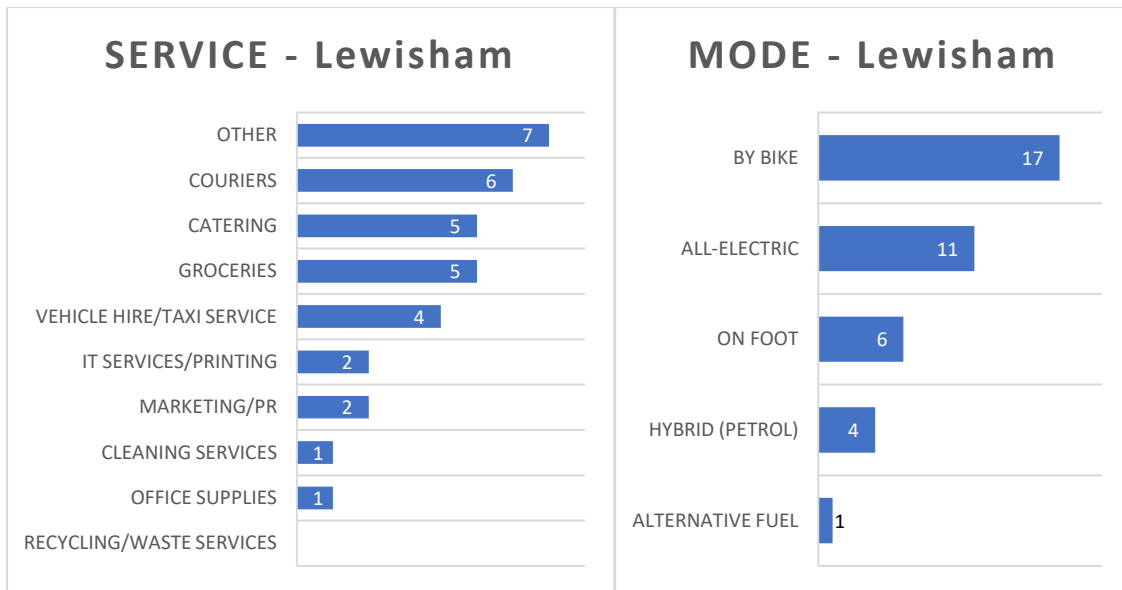


Figure 34: Overview of Directory services and transport modes as of 20th May 2019

On the Directory, each business has a short summary about who they are, with contact details and their distance from the village centre. There is a map and list function. As of 20th May 2019, 32 businesses were listed across the five different CAV Ultra-Low Emission Supplier Directories. Figure 11 provides an overview of the spread of businesses across services (product groups) and transport modes for the Lewisham Town Centre Directory.

Since the Directory launch on 14th May 2019 and widespread communication about it (see below), more eligible businesses have come forward and CRP is adding these on a continuous basis.

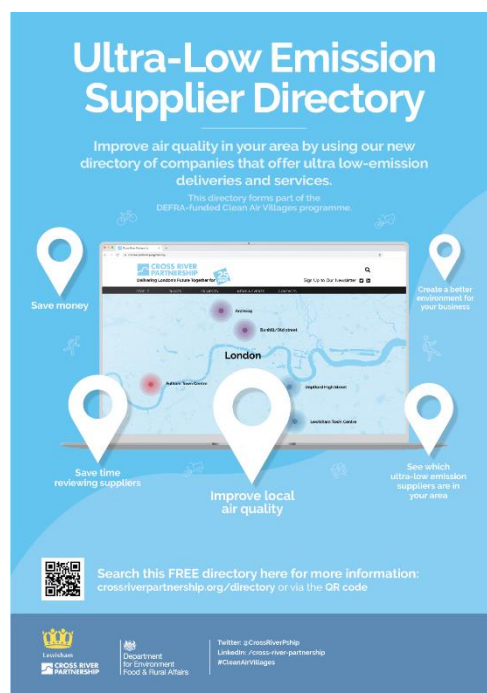


Figure 35: Image of Lewisham Town Centre Directory Poster

Local communications

Tweets about seminars have routinely gone out. Lewisham Local (an online local news, events and community organisation) have been highly supportive of the Clean Air Villages project in terms of promoting events and spreading word to encourage engagement.



Figure 36: Examples of Lewisham Town Centre local communications

CLEAN AIR VILLAGES PROJECT LAUNCHED

Lewisham council have joined forces with four other boroughs to launch the Clean Air Villages project.

A new Defra-funded scheme will put £232,850 towards helping businesses, schools and other organisations reduce emissions from deliveries of goods and services.

“Road transport causes almost half of London’s air pollution” said a council spokesperson. “One third of this comes from delivery vehicles, such as vans and trucks.”

The four other boroughs involved in the project are: Lambeth; Hammersmith and Fulham; Kensington and Chelsea; and Islington.

The new programme will work with organisations in 10 air quality hotspots across the five boroughs, including Deptford High Street and Lewisham town centre.

Figure 37: Extract of a Lewisham CAV article from News from Crystal Palace, August 2018

Impact

Based on local interest and working with the Council, it is assumed that 8 local businesses will switch to directory suppliers in the first year. The numbers of different conversion types were estimated proportionally using the modal split for suppliers that operate within the Lewisham Town Centre village. Assuming an annual mileage of 500 miles per business, the total **impact for 2019/2020** is expected to be:

- **7.5 kg of NOx savings**
- **1,842 kg of CO2 savings**
- **213 g of PM10 savings**

“The directory is a fantastic idea - simple to use and easy to access the platform gives access to businesses to use zero/low emission transport. For health and environmental purposes, it is crucial to use low emission transport - making those services more accessible will I hope help making them mainstream and inspire businesses/people to start more initiative reducing emissions. When I need a specific service, I will definitely search on the platform to find a supplier”.

Sophie Andre, Elysia Catering

Please see Appendix A – Calculation of Air Quality Impact for background information on the CRP measureBEST tool and calculation of air quality impacts of each solution. measureBEST was developed as part of Clean Air Better Business, a Mayor’s Air Quality Fund project, managed by CRP.

Moving forwards with Clean Air Villages 2, the directory will be expanded into all villages. Further businesses will be added to the directory where applicable. Google Analytics will be reviewed regularly to monitor usage and CRP will seek to create case studies where businesses have switched supplier and will continue to promote the Directory. The impact of the CAV Ultra-Low Emission Supplier Directories are therefore expected to be sustainable, and above that, to increase over time within the villages and beyond.

5. Dissemination

With the help of project partners, stakeholders and engaged businesses, CRP has communicated extensively about the Clean Air Villages project. In addition to the wider business community, CRP communicated project progress and findings to the Mayor of London and the GLA, London Boroughs, Business Improvement Districts and other CRP Partners. Table 51 below provides an overview of dissemination outputs versus the original targets.

Target as per proposal	Output
10 quantified case studies	Complete and used in further business engagement
30 locally-relevant communications (e.g.10 flyers; 10 specific emails and 10 social media bespoke messages as a minimum) 3 magazine/press articles	This is another target that has been exceeded with around five rather than 3 local communications for most villages
deliverBEST online tool updated with at least 10 new locally-relevant actions for businesses to take	Complete
200 businesses across 5 boroughs complete deliverBEST	88 businesses have completed the deliverBEST survey as a result of the project. Additional data gathering to refine village solutions for, e.g. Earl's Court, have led to another 96 responses to specific surveys on deliveries, timings, suppliers, current vehicle use etc.
5 Stakeholder steering group meetings	5 Stakeholder steering group meetings held with representatives from all 5 boroughs present: <ul style="list-style-type: none"> • 2 May 2018 • 2 July 2018 • 1 October 2018 • 14 January 2019 • 4 April 2019 In addition, a launch event took place on 11 July 2018, attended by local Councillors and Officers from each borough
4 Quarterly project update reports and one overall project evaluation report	Herewith complete

Table 51: Overview of dissemination and governance outputs vs targets

Communications and dissemination material

CRP communicated through a range of channels and produced dissemination material that will be used beyond project end. Paid advertising was not utilised.

- CRP produced **10 case studies**, one for each village. These are concise, clear and visually attractive, providing quantified impacts and highlighting the benefits for businesses addressing inefficiencies in their delivery and servicing trips. The case studies cover a range of different business sizes, sectors, and approaches to reducing air pollution and have been designed to inspire other businesses to take action.

All case studies are available on the [CAV webpage](#) and CRP and partners are now actively using them in business engagement activities, both for Clean Air Villages project and beyond.

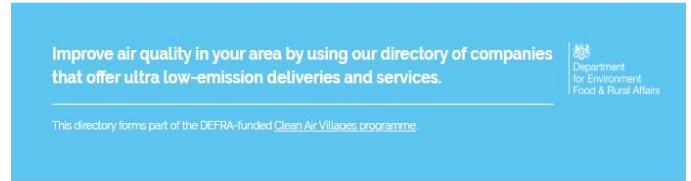
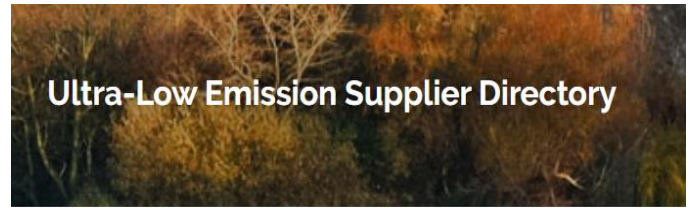


Figure 38: Overview of Clean Air Villages case studies

- For the five Clean Air Villages Ultra-Low Emission Supplier Directories, a [central webpage](#) was created with links to individual village pages. The webpages launched in May 2019 and by the end of May have received a total of 604 pageviews. In addition, **A3 posters** were designed and printed for each of the five directories. These posters have been distributed to local businesses and organisations to promote the use of the directories.



Figure 39: Ultra-Low Emission Supplier Directory promotion poster



This directory lists businesses providing their services using ultra-low emission' vehicles, cargo bikes or by foot. The distance from vehicle dispatch point to village centre is highlighted to support local businesses and reduce congestion.

Using suppliers from the directory below allows businesses to actively reduce local air pollution through their procurement. To be included in this directory, suppliers guaranteed they would deploy ultra-low emission vehicles at least 80% of the time when delivering/collecting in the Clean Air Village concerned."

Use our interactive map below to search all suppliers or click on each village to search locally.

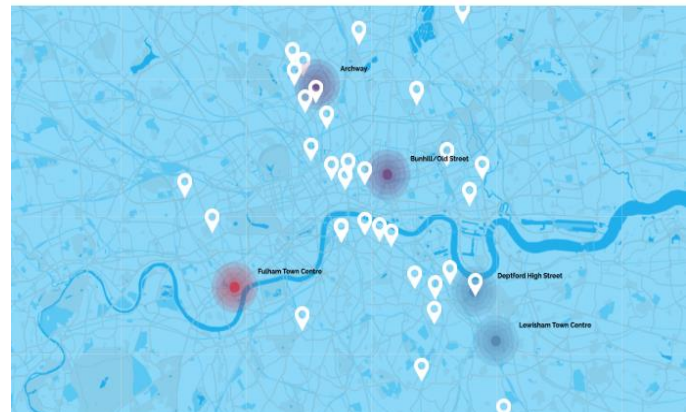


Figure 40: Screenshot of the Directory webpage

- CRP published 11 **articles** about the Clean Air Villages project in their [monthly newsletter](#), which goes out to over 3,200 partners and stakeholders

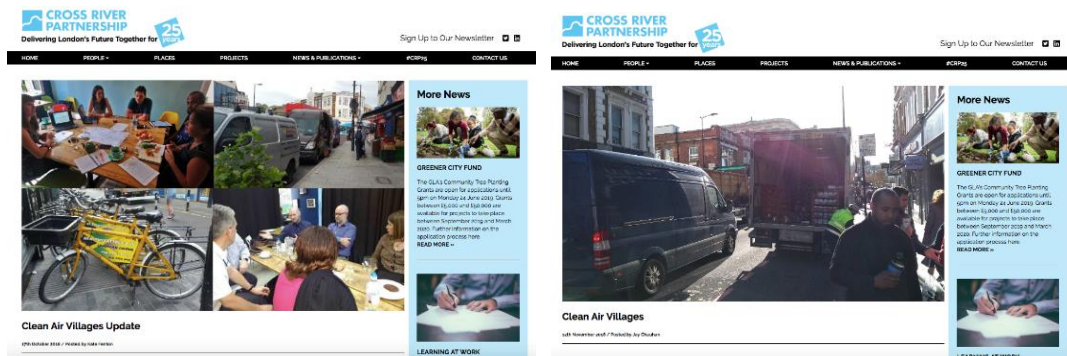


Figure 41: Examples of CRP Newsletter articles covering CAV

- 78 **tweets** have been sent from the @CRPCleanAir account in relation to Clean Air Villages, e.g. invitations to seminars, promoting the Ultra-Low Emission Supplier Directories, etc. These were re-tweeted by partners, stakeholders and engaged businesses who also sent their own tweets

- In addition to the above, **local communications** were developed and disseminated. Please see individual village summaries for details

Best practice exchange

The collaboration of five different local authorities on the Clean Air Villages project allowed for best practice exchange and the promotion of a coordinated approach to deliveries and servicing trips and their impact on air quality across boroughs.

CRP has promoted the extension of proven interventions to areas and communities not resourced or enabled to do so in the past.

A project-internal **launch event** was held on 11 July 2018 with borough partners, local Councillors as well as Cross River Partnership to discuss project background, strategy as well as any relevant local activities and networks. Councillors Harcourt Wesley (Cabinet Member for the Environment, Hammersmith & Fulham), Claire Holland (Deputy Leader of the Council, Environment and Clean Air, Lambeth), Louise Krupski (Air Quality Champion, Lewisham) and David Lindsay (Lead Member for Healthy City Living, Kensington and Chelsea) came together to launch their joint Defra-funded [Clean Air Villages](#) project. Councillor Claudia Webbe (Executive Member for Environment and Transport, Islington) was unable to attend in person but wished the project a successful launch.

At the start of the meeting, the group was shown around CRP's Clean Air Together Exhibition at New London Architecture Galleries. The 2-months exhibition showcased CRP's public and private partners' efforts to improve air quality to almost 20,000 visitors. Visitors made a total of 120 pledges ranging from choosing click & collect for online shopping deliveries and taking clean air routes to installing more green screens at schools and sharing cargo bikes with friends and neighbours.

This event was important in order to ensure local support for the project as well as any future knowledge transfer activities. Partner boroughs were provided with a draft press release for distribution.



Figure 42: Clean Air Villages launch event in July 2018

In addition to this launch event, four further **Steering Group meetings** were held with representatives from the five participating local authorities, each event allowing for a presentation of project progress within the villages as well as cross-referencing other relevant air quality work within the boroughs and beyond.

Community and network building

The Clean Air Villages project has contributed to community and network building whose results are likely to last beyond project end. This is especially the case in areas with little pre-existing business communities and/or BIDs. Examples here are:

- The partnership between the public and private sector to provide storage for cargo bikes in Archway
- The Earl's Court working group of hotels
- The collaboration between BID and local bike shop in Streatham to apply to the TfL Healthy Streets for Business fund for a shared cargo bike
- Hotels collaborating on supplier consolidation and re-timing in Shepherds Bush
- Facilitating a renewed and ongoing discussion around storage space between market stallholders and the Council in Lewisham

6. Lessons learned

Clean Air Villages has been a hugely rewarding project with a large number of small and large changes made to how businesses see and organise their deliveries and servicing. Being a behaviour change project, its impact will last well beyond project end and is expected to increase over time.

Key lessons learned throughout the process are:

- **Deliveries and servicing trips remain hugely inefficient** for many businesses, especially small and medium sized ones, and addressing these inefficiencies and making businesses aware of the link between these trips and local air pollution has significant air quality improvement potential.
- **Supplier consolidation as well as the re-localisation of services** (e.g. laundry) can significantly benefit local air quality. However, the larger the organisations involved in the process, the longer it might take to implement, due to centrally negotiated procurement contracts.
- The **lack of local storage space** is a significant driver of delivery frequency and hence also local air pollution levels. Adequate storage provision is therefore something that might need to be taken into account at planning stage. Alternatively, *shared* storage space could be an interesting solution but identifying available space and the costs involved remain prohibitive in most cases.
- Local authority partners as well as BIDs, other local business groups and town centre managers are all keen to explore **consolidation hubs** and are looking for potential space. However, identifying the ideal distance of consolidation space to the final destination, the practicalities of running such a space, the costs involved and who would cover these, are points that are still unresolved for most.
- The sharing economy concept is increasingly finding its way into the freight / deliveries and servicing field as highlighted by the interest in **shared vans and shared cargo bikes**. These can play an important role for businesses that deliver themselves. However, the Clean Air Villages project has shown that setting up a shared scheme of this type takes a considerable amount of engagement and detailed implementation work. Best practice examples will support a more efficient roll-out of these schemes.
- Hooks are very useful **conversation openers** in business engagement around deliveries, servicing and air quality. The introduction and future expansion of the London Ultra Low Emission Zone, for example, has shown to make businesses more open to having a conversation about these issues. Other hooks can include local road/building works with temporary impacts on traffic flows and congestion; local press on air quality; etc. Public authorities communicating about this type of issue could include information on more efficient deliveries and servicing in their materials.

- In areas of little pre-existing business communities, the engagement activity requires a **significant amount of face to face engagement**, including walk-ins. This is time and resource intense but will pay off throughout the project duration. 12 months for bottom-up business engagement to solution identification, implementation and then impact analysis is a hugely ambitious timeframe for a project of this kind.

These lessons learned will be applied and further explored in Clean Air Villages 2. Please see Next Steps below for more details.

7. Next steps

CRP and partners are thrilled to have been awarded further Air Quality Grant funding to deliver Clean Air Villages 2 in 2019/20 and look forward to working with Defra on this renewed opportunity.

The year-long programme will see CRP deliver the work with London Borough of Lewisham as lead authority in partnership with the London Boroughs of Camden, London Boroughs of Hammersmith and Fulham, Lambeth, Wandsworth, the Royal Borough of Kensington and Chelsea and Westminster City Council, Cadogan Estates (landowners), and Euston Town BID.

This work will build on Clean Air Villages 1 and continue to focus on reducing air pollution from business delivery and servicing trips whilst also saving them time and money through more efficient operations. In recognition of the positive experience made by partners in the first Clean Air Villages year, the number of participating boroughs has increased from five to seven and the number of villages from ten to 13.

As noted above, business engagement can be a slow, lengthy process, especially with the climate that many businesses are currently operating in (retail closures, uncertainty around Brexit, increased business rates etc.). As part of CAV1, significant time and effort has gone into building relationships with businesses and community organisations, engaging them on air quality and deliveries and building support for local solutions and action. In many villages this engagement has been hard fought, with most not having an existing business improvement district, town centre manager or other pre-existing active business community. Continuing supporting these villages will secure the investment made to date, maintain momentum built through CAV1 efforts and deliver sustained emission reductions.

CAV2 will therefore reduce NO_x and PM emissions from delivery and servicing activity generated by businesses located in 13 polluted villages by:

- Building on the success of CAV1, securing the investment made to date and the momentum built up in existing villages;
- Extending this proven approach to additional areas where there is business appetite, and borough support;
- Working closely with pan-London businesses, to identify and implement co-ordinated solutions that support them to reduce emissions from their delivery and servicing.

8. Contact

For further information please contact Tanja Dalle-Muenchmeyer at tanjadallemuechmeyer@crossriverpartnership.org.

9. Appendix

Appendix A – Calculation of Air Quality Impact

Calculation of Air Quality Impact

Emission savings have been calculated throughout this report using the CRP in-house ‘measureBEST’ tool. This was originally commissioned by CRP to support businesses to understand and implement best practice to make their deliveries more efficient and reduce emissions. measureBEST was developed as part of [Clean Air Better Business](#) programme, a Mayor’s Air Quality Fund project, managed by CRP.

As much information as possible was gathered from businesses and partners concerning vehicle type and journey. CRP cannot guarantee the accuracy of the information provided, and therefore recommend that emissions calculations are used as guidance values based on the information available. In some cases, reasoned assumptions had to be made concerning the journey and vehicle type. Where assumptions have been made, averaging techniques have been used to minimise misrepresentation of emission savings.

In order to calculate emissions produced, the following information is required:

- **Vehicle type** (as defined by the *Emissions Factor Toolkit* – further information below)
- **Time period**
 - Morning peak (07:00-10:00)*
 - Inter-peak (10:00-17:00)*
 - Evening peak (17:00-19:00)*
 - Off-peak (outside these times)

* On working week days only.
- **Trip length** (in km)
 - If known, the split by distance within each London zone (central, inner and outer) is required.
 - If unknown, an average can be used, calculated using an average distance from the centre of each borough to the M25 via arterial routes.
 - In some cases, where relevant, a standardised ‘per mile’ calculation was used.
- **Delivery frequency** (if an annual estimate is required)

Calculation method

The vehicle type, time period and distance split within London zones are used by measureBEST to determine the appropriate emissions factor. These are then multiplied by trip length to give an emission total per trip. Delivery frequency is then used to inform an annualization factor, from which the emissions produced for a year are calculated.

DEFRA’s Emissions Factor Toolkit (EFT)²

The EFT is a speed-based model of tailpipe emissions. The EFT also includes estimates of brake and tyre-wear but does not consider non-tailpipe emissions of CO₂ associated with alternative technologies. The EFT can be used to provide emission rates (in g/km) for oxides of nitrogen (NO_x),

² <https://laqm.defra.gov.uk/review-and-assessment/tools/emissions-factors-toolkit.html>

particulate matter (PM₁₀ and PM_{2.5}) and carbon dioxide (CO₂). These can be calculated by vehicle type for a user-defined average speed.

Average speeds were provided for four time periods across each London zone, sourced from TfL’s Travel in London – Report 9³ (presented in Table 1).

	Central	Inner	Outer
Morning peak	12.4	17.7	39.4
Inter-peak	11.1	19.2	33.4
Evening peak	11.7	16.1	27.0
Off-peak	22.0	32.5	49.2

Table 52. Average traffic speeds by area and time period (in km/h)

Version 7.0 of the EFT was used to produce the emissions factors for measureBEST. Emissions factors for additional vehicle types, such as diesel and petrol cars, and PM_{2.5} were required as part of the Clean Air Villages project. These had not been calculated for deliverBEST and were obtained using the latest version of the EFT (version 8.0) and incorporated within measureBEST using the ‘custom vehicle’ option.

Vehicle types

Vehicle types from the EFT incorporated within measureBEST as part of this report⁴:

- Petrol cars
- Diesel cars
- Electric HGV
- Full hybrid LGV
- Plug-in hybrid LGV
- Battery electric LGV
- **HGV**: comprised of both rigid and articulated heavy goods vehicles (over 3.5 tonnes). It is weighted according to the fleet mix for London in 2017.
- **LGV**: a general representation of a light goods vehicle (those under 3.5 tonnes) that takes into account the split between petrol, diesel and the various Euro emissions standards.
- For both **LGV** and **HGV** classes, the default weighting between different sub-classes (fuel type, body type, emission standard) for London and the year 2017 were used.

Using CRP’s measureBEST tool, the following emissions generated per mile were calculated for both conventional and ultra-low emission delivery methods:

Vehicle/method	Emissions generated per mile		
	NOX (g)	CO2 (kg) (Tailpipe)	PM10 (g)
HGV	6.00	1.46	0.23
LGV	1.18	0.39	0.09
Diesel car	1.26	0.31	0.07
Electric HGV	0.00	0.00	0.18
Full hybrid LGV	0.04	0.33	0.06

³ <http://content.tfl.gov.uk/travel-in-london-report-9.pdf>, page 164

⁴ <https://laqm.defra.gov.uk/documents/EFTv8-user-guide-v2.pdf>

Vehicle/method	Emissions generated per mile		
	NOX (g)	CO2 (kg) (Tailpipe)	PM10 (g)
Plug-in hybrid LGV	0.03	0.15	0.06
Battery electric LGV	0.00	0.00	0.06
Bike, cargo bike or on foot	0.00	0.00	0.00

Table 53: Emissions per mile

Emissions from alternative fuel vehicles could not be calculated due to unavailability of data in measureBEST, further complicated by the range of different fuel types within this category.

The potential emissions savings for a business switching to an ultra-low emission supplier listed on the CAV directories are as follows:

Conversion to:	From:	Conversion savings (%)		
		NOX	CO2 (Tailpipe)	PM10
Electric HGV	HGV	100%	100%	19%
Full hybrid LGV	LGV	97%	16%	28%
Plug-in hybrid LGV	LGV	97%	62%	29%
Battery electric LGV	LGV	100%	100%	29%
Bike, cargo bike or on foot	Diesel car	100%	100%	100%

Table 54: Estimated emission savings switching to ultra-low emissions suppliers

Appendix B – Business engagement details

Seminars

Date	Borough	Village	Event	Details
20 June 2018	Lambeth	Brixton	Seminar 1	Adulis Restaurant, SW9 9PB
04 July 2018	Lambeth	Streatham Hill	Seminar 1	Streatham Wine House
05 July 2018	Islington	Archway	Seminar 1	Il Mio Mosaic Restaurant
11 July 2018	Lambeth	Brixton	Seminar 2	Electric Avenue Market Stall
10 July 2018	Lewisham	Deptford High Street	Seminar 1	Deptford Town Hall, Room 110
24 July 2018	H&F	Fulham Town Centre	Seminar 1	Fulham Town Market
26 July 2018	Islington	Old Street & Bunhill	Seminar 1	Impact Hub Islington
31 July 2018	Lambeth	Streatham Hill	Seminar 2	Hood
24 August 2018	Islington	Archway	Seminar 2	Vantage Point
12 September 2018	H&F	Shepherds Bush	Seminar 1	Petit Miracle
14 September 2018	RBKC	Ladbroke Grove	Seminar 1	Westway
17 September 2018	Lewisham	Lewisham Town Centre	Seminar 1	Place Ladywell, Good Hope Café
17 October 2018	Lewisham	Lewisham Town Centre	Seminar 2	Place Ladywell, Good Hope Café

Date	Borough	Village	Event	Details
18 October 2018	Islington	Old Street & Bunhill	Seminar 2	Impact Hub Islington
06 November 2018	RBKC	Earl's Court Road	Seminar 1	Empress Place Project Rooms
07 November 2018	H&F	Shepherds Bush	Seminar 2	Petit Miracle
14 November 2018	RBKC	Earl's Court Road	Seminar 2	Empress Place Project Rooms
22 November 2018	Lewisham	Deptford High Street	Seminar 2	Albany
27 November 2018	H&F	Fulham Town Centre	Seminar 2	Manuka Kitchen
28 November 2018	RBKC	Ladbroke Grove	Seminar 2	Westway Trust

Table 55: 20 CAV Seminars

List of 1-2-1 Business Engagement

	Borough	Village	Business Name	121	Sector
1	Lambeth	Streatham Hill	Fish Tale	30/07/2018	Food retail
2	Islington	Archway	Well Pharmacy	13/08/2018	Pharmacy
3	Islington	Archway	Planet Kebab	13/08/2018	Take away
4	Lambeth	Streatham Hill	Tariq Halal Butcher	16/08/2018	Food retail
5	Islington	Archway	Fresh Flower Scent	17/08/2018	Flower retail
6	Lambeth	Streatham Hill	Dr Dolittles Pet Shop	07/09/2018	Miscellaneous
7	Lambeth	Streatham Hill	Starbucks	07/09/2018	Café
8	H&F	Shepherds Bush	Westfield Shopping Centre	11/09/2018	Retail
9	Lewisham	Lewisham Town Centre	Dourof Carpets	12/09/2018	Retail
10	Lambeth	Brixton	Creams Café	25/09/2018	Café
11	Lambeth	Brixton	The Beehive	25/09/2018	Pub
12			Boots (HO)	26/09/2018	Retail
13	Islington	Archway	Joy Café	27/09/2018	Café
14	Islington	Archway	St. John's Tavern	27/09/2018	Pub
15			Pret a Manger (HO)	02/10/2018	Food retail
16	Islington	Archway	St. John's Upper Holloway CE Primary School	03/10/2018	School
17	H&F	Shepherds Bush	K West Hotel	04/10/2018	Hotel
18	Lambeth	Brixton	Blues Kitchen	11/10/2018	Pub
19	Lambeth	Brixton	Prince of Wales	11/10/2018	Pub

	Borough	Village	Business Name	121	Sector
20	Islington	Old Street & Bunhill	Made.com	24/10/2018	Miscellaneous
21	Lewisham	Lewisham Town Centre	The Body Shop	25/10/2018	Retail
22	Lewisham	Lewisham Town Centre	Your Hair & Beauty	25/10/2018	Retail
23	Lewisham	Lewisham Town Centre	Joiners Arms	25/10/2018	Pub
24	Lewisham	Lewisham Town Centre	Holy Cross Catholic School	30/10/2018	School
25	Islington	Old Street & Bunhill	The Bower	31/10/2018	Tenanted office building
26			New Look	30/10/2018	Retail
27	Lambeth	Brixton	Corpus Christi School	01/11/2018	School
28			Capital Arches Group	13/11/2018	Food retail
29	Lambeth	Brixton	The Body Shop	28/11/2018	Retail
30	Lambeth	Brixton	Kata Kata	28/11/2018	Café
31	Lewisham	Lewisham Town Centre	Market Trader (Chair of LAST)	28/11/2018	Food retail
32	Lewisham	Deptford High Street	Taproom SE8	05/12/2018	Pub
33			WH Smith	18/12/2018	Retail
34	Lewisham	Deptford High Street	Spread the Word	19/12/2018	Office
35	Lewisham	Deptford High Street	The Albany	19/12/2018	Community centre
36	Lewisham	Deptford High Street	Forest / Fresh Flower	30/01/2019	Flower retail
37	H&F	Shepherds Bush	Brewdog	09/01/2019	Pub
38	RBKC	Ladbroke Grove	Westway Trust	09/01/2019	Landowner
39	H&F	Shepherds Bush	West 12 Shopping Centre	10/01/2019	Landowner
40	H&F	Fulham Town Centre	Metro Bank	23/01/2019	Retail
41	Lambeth	Brixton	Healthy Eaters	23/01/2019	Café
42	H&F	Fulham Town Centre	Whole foods	24/01/2019	Food retail
43	H&F	Fulham Town Centre	Evans Cycles	24/01/2019	Retail
44	RBKC	Earl's Court Road	Capco	24/01/2019	Landowner
45	H&F	Fulham Town Centre	Chelsea FC	12/02/2019	Stadium
46	Lambeth	Brixton	Inuse Reuse	08/02/2019	Miscellaneous
47	Islington	Old Street & Bunhill	Inmarsat	13/02/2019	Office
48	Islington	Old Street & Bunhill	White Collar Factory	13/02/2019	Multi-tenanted office
49	Lambeth	Brixton	Urban Growth	14/02/2019	Miscellaneous
50	Lambeth	Brixton	3 Space	14/02/2019	Office

	Borough	Village	Business Name	121	Sector
51	RBKC	Earl's Court Road	Lillie Square development	13/02/2019	Landowner
52	H&F	Fulham Town Centre	Jam Tree Chelsea	14/02/2019	Food retail
53	RBKC	Ladbroke Grove	E-cargo bike	19/02/2019	Logistics
54	Lewisham	Deptford High Street	Greenhouse Café	25/03/2019	Café
55	Islington	Old Street & Bunhill	Spark44	27/03/2019	Office
56	Lewisham	Lewisham Town Centre	Mountsfield Park Café	29/03/2019	Café
57	H&F	Fulham Town Centre	Fulham BID	28/03/2019	Miscellaneous
58	H&F	Shepherds Bush	Dorsett & K West	28/03/2019	Hotel
59	H&F	Fulham Town Centre	Compass Group (Chelsea supplier)	20/03/2019	Logistics
60			Anglo	27/03/2019	Logistics
61			LWARB	26/03/2019	Miscellaneous
62	H&F	Fulham Town Centre	Market halls	01/04/2019	Food retail
63	RBKC	Earl's Court Road	K&K hotels	02/04/2019	Hotel
64	RBKC	Earl's Court Road	Twenty Nevern Square	16/04/2019	Hotel
65	Lewisham	Deptford High Street	Hop Burns and Black	16/05/2019	Retail
66	Lewisham	Deptford High Street	London Velo	16/05/2019	Café
67	Lewisham	Deptford High Street	Heaps Deli Diner	16/05/2019	Restaurant
68	Lewisham	Deptford High Street	Villages	16/05/2019	Brewery
69	Lewisham	Deptford High Street	Bread and Butler	16/05/2019	Café

Table 56: Businesses engaged with 1-2-1

Pan-London engagement (some via 121 meetings, some via attendance at seminars):

	Business	Date of meeting	Discussion
1	Primark	17/09/2018	Strong on return logistics which maximise store delivery fleet capacity with recycling and collections.
2	Lidl	17/09/2018	Lidl get lots of personal deliveries. They are running trials with chiller/CNG vehicles. Extensive use of telematics to educate drivers.
3	Boots	26/09/2018	Potentially open to piloting an EV and to re-exploring night-time deliveries. Have been looking into alternatively-fuelled technology with DHL.
4	Pret a Manger	02/10/2018	One truck for all products. Deliver outside peak hours. Looking into trialling GTL fuel. Information on CRP's Smart Electric Urban Logistics project was shared. Electric truck trial planned for June 2019.
5	Tesco	17/10/2018	Served by Tesco lorries plus 3x bread deliveries (Hovis, King's Mill and Walburton), plus milk lorry, plus newspaper delivery. Potential to have ClickCollect in store. Issue of noise/resident complaints in relation to night time deliveries.
6	New Look	30/10/2018	Considering exploring return logistics for their waste. Open to consolidation of deliveries.
7	Sainsbury's	06/11/2018	E-cargo bike trial in Streatham. Green deliveries and review of fleet. Potential to explore EVs for online orders.
8	Capital Arches Group (McDonald's Franchise)	14/11/2018	Pioneer in return logistics. Used cooking oil converted to bio-oil. All product delivered on one vehicle. Cups and uniforms returned and recycled.
9	WH Smith	18/12/2018	Have removed non-compliant ULEZ vehicles from their fleet. Usually one big delivery per week (daily for newspapers). Want to explore return logistics further. Some publications get taken back. Will share McDonalds's case study once complete. Strong CSR agenda.
10	LWARB	26/03/2019	Waste consolidation and improvement of waste management beyond the public sector.
11	Anglo	27/03/2019	Consolidation site. Use EVs. Scheduled deliveries. Diverse range of products and services.

Table 57: Pan-London businesses engaged with

Businesses on the Ultra-Low Emission Supplier Directory

Business Name	Business Name
3F EV Ltd	Fancy Kombucha
Anglo Ltd	Farmdrop
AV2Hire	FasterBy.Bike
Bread By Bike	Fresh Flower Scent
Captain Cyan	GLH
CarryMe Bikes	Gnewt Cargo Ltd
Champagne Lasseaux	LeasePlan
Cleanology	London Calling Arts
Colyer London	Made in Brockley
Coolvan	Mango Logistics Group
Cooper's Bakehouse	Moose Mail
Drings Butcher	Pedivan
Drive Electric	TheEcoSmart Ltd
E-Car Club	Today Bread
E-cargo Bikes	Working Well Together
Elysia Catering Ltd	Zedify

Table 58: Businesses on the Ultra-Low Emission Supplier List as of May 2019

List of deliverBEST completes

	Borough	Village	Business Name	deliverBEST Survey	Sector
1			Pedivan	24/07/2018	Courier
2	Islington	Archway	Fresh Flower Scent	21/09/2018	Flower retail
3	Lambeth	Streatham Hill	Starbucks	07/09/2018	Café
4	Lambeth	Brixton	Creams Café	25/09/2018	Café
5	Lambeth	Brixton	The Beehive	25/09/2018	Pub
6	Islington	Archway	Joy Café	27/09/2018	Café
7	Islington	Archway	St. John's Tavern	27/09/2018	Pub
8	Islington	Archway	Absolute Print	27/09/2018	Retail
9	Lambeth	Brixton	Blues Kitchen	11/10/2018	Pub
10	Lambeth	Brixton	Prince of Wales	11/10/2018	Pub
11	Islington	Old Street & Bunhill	Made.com	24/10/2018	Miscellaneous
12	Lewisham	Lewisham Town Centre	The Body Shop	25/10/2018	Retail
13	Lewisham	Lewisham Town Centre	Your Hair & Beauty	25/10/2018	Retail

	Borough	Village	Business Name	deliverBEST Survey	Sector
14	Lewisham	Lewisham Town Centre	Joiners Arms	25/10/2018	Pub
15	Lambeth	Brixton	Kata Kata	28/11/2018	Café
16	Lambeth	Brixton	Malika	25/01/2019	Retail
17	Lewisham	Deptford High Street	Forest / Fresh Flower	31/01/2019	Flower retail
18	Lambeth	Brixton	Inuse Reuse	08/02/2019	Miscellaneous
19	Islington	Old Street & Bunhill	White Collar Factory	13/02/2019	Multi-tenanted office
20	Lambeth	Brixton	Remakery	04/03/2019	Community centre
21	Lambeth	Brixton	Get Rid of and Donate	04/03/2019	Charity
22	Lambeth	Brixton	Phillip Butchers	04/03/2019	Food retail
23	Lambeth	Brixton	Father Nature	04/03/2019	Social enterprise
24	Lambeth	Brixton	Dewan	04/03/2019	TV production
25	Lambeth	Brixton	Market Trader	04/03/2019	Food retail
26	Lambeth	Brixton	Daily Fresh Fish & Meat	04/03/2019	Food retail
27	Lambeth	Brixton	Studio 73	04/03/2019	Art Gallery
28	Lambeth	Brixton	Ariz cash and carry	04/03/2019	Food retail
29	H&F	Shepherds Bush	Le Pain Quotidien	07/03/2019	Café
30	H&F	Shepherds Bush	Byron	07/03/2019	Restaurant
31	H&F	Shepherds Bush	Topshop	07/03/2019	Retail
32	H&F	Shepherds Bush	Kiko Milano	07/03/2019	Retail
33	H&F	Shepherds Bush	Rituals	07/03/2019	Retail
34	H&F	Shepherds Bush	Lovisa	07/03/2019	Retail
35	H&F	Shepherds Bush	Claire's	07/03/2019	Retail
36	H&F	Shepherds Bush	Apricot	07/03/2019	Retail
37	Lewisham	Deptford High Street	Greenhouse Café	25/03/2019	Café
38	Islington	Old Street & Bunhill	Spark44	27/03/2019	Office
39	Lewisham	Lewisham Town Centre	Mountsfield Park Café	29/03/2019	Café
40	RBKC	Ladbroke Grove	Everyone Active	12/04/2019	Gym
41	RBKC	Ladbroke Grove	The Angelic Boutique and Coffee Bar	12/04/2019	Café
42	RBKC	Ladbroke Grove	Adamoflondon	12/04/2019	Retail

	Borough	Village	Business Name	deliverBEST Survey	Sector
43	RBKC	Earl's Court Road	William A Bong Limited	08/02/2019	Miscellaneous
44	RBKC	Earl's Court Road	K+K Hotel George	08/02/2019	Hotel
45	RBKC	Earl's Court Road	The Lyceum	07/02/2019	Theatre
46	RBKC	Earl's Court Road	Lillie Square	06/02/2019	Other
47	RBKC	Ladbroke Grove	Westway Trust	21/02/2019	Office
48	RBKC	Earl's Court Road	Boka Hotel	12/02/2019	Hotel
49	H&F	Fulham Town Centre	Gianluca's	14/02/2019	Café
50	H&F	Shepherds Bush	Dorsett Hotel	12/02/2019	Hotel
51	H&F	Shepherds Bush	K-west hotels	12/02/2019	Hotel
52	H&F	Fulham Town Centre	Jam Tree Chelsea	14/02/2019	Bar
53	H&F	Fulham Town Centre	Megans	14/02/2019	Restaurant
54	H&F	Fulham Town Centre	Shuro Shirin	14/02/2019	Restaurant
55	H&F	Fulham Town Centre	Vagabond wines	14/02/2019	Bar
56	H&F	Fulham Town Centre	The Malt house	14/02/2019	Restaurant
57	H&F	Fulham Town Centre	Press Coffee	14/02/2019	Café
58	H&F	Shepherds Bush	Waterstones	13/02/2019	Retail
59	RBKC	Earl's Court Road	Kensington Court hotel	12/02/2019	Hotel
60	RBKC	Earl's Court Road	Garden View hotel	12/02/2019	Hotel
61	H&F	Fulham Town Centre	Al Santo Restaurant	18/02/2019	Restaurant
62	RBKC	Earl's Court Road	Saint James Backpackers Hostel	19/02/2019	Hotel
63	RBKC	Earl's Court Road	St Joseph Hotel - IONIC HOTELS	19/02/2019	Hotel
64	H&F	Fulham Town Centre	Market Halls-operations	25/02/2019	Other
65	H&F	Fulham Town Centre	Market Halls-Press Coffee & Co	25/02/2019	Café
66	H&F	Fulham Town Centre	Market Halls-Ahi Poke	25/02/2019	Restaurant
67	H&F	Shepherds Bush	Defectors Weld	19/02/2019	Pub
68	H&F	Shepherds Bush	Belushis	20/03/2019	Pub
69	H&F	Shepherds Bush	Wa'doo clothing	04/02/2019	Retail
70	H&F	Shepherds Bush	Petit Miracles	04/02/2019	Social enterprise

	Borough	Village	Business Name	deliverBEST Survey	Sector
71	RBKC	Earl's Court Road	Best Western the Boltons Hotel	07/03/2019	Hotel
72	RBKC	Earl's Court Road	Ionic Hotels	07/03/2019	Hotel
73	RBKC	Ladbroke Grove	What Katie did	21/02/2019	Retail
74	H&F	Fulham Town Centre	David Lloyd	26/02/2019	Gym
75	Lewisham	Deptford High Street	Mouse Tail Coffee Stories	16/05/2019	Café
76	Lewisham	Deptford High Street	Hop Burns and Black	16/05/2019	Retail
77	Lewisham	Deptford High Street	Vapes London	16/05/2019	Other
78	Lewisham	Deptford High Street	Isla Ray	16/05/2019	Café
79	Lewisham	Deptford High Street	London Velo	16/05/2019	Café
80	Lewisham	Deptford High Street	Heaps Deli Diner	16/05/2019	Restaurant
81	Islington	Archway	Theatre of Wine	16/05/2019	Retail
82	Lewisham	Deptford High Street	Villages	16/05/2019	Brewery
83	Lewisham	Deptford High Street	Bread and Butler	16/05/2019	Café
84	H&F	Fulham Town Centre	Headmasters	16/05/2019	Hairdressers
85	H&F	Fulham Town Centre	Nisbets	16/05/2019	Retail
86	Islington	Old Street & Bunhill	Giovanni Restaurant	16/05/2019	Restaurant
87	Islington	Old Street & Bunhill	Singer Tavern	16/05/2019	Pub
88	H&F	Fulham Town Centre	House of Vapes	16/05/2019	Retail

Table 59: CAV deliverBEST completes