

Committee	Dated:
Port Health and Environmental Services Streets and Walkways	6 March 2018
Subject: Low Emission Neighbourhood: Update on proposals for an ultra-low emission street	Public
Report of: Director of Markets and Consumer Protection	For Decision
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Summary

In July 2016 the Mayor of London awarded the City of London Corporation £990,000 over three years to implement a Low Emission Neighbourhood (LEN) in the Square Mile. The project formally commenced in September 2016. The work forms part of a package of measures that the City Corporation delivers to improve air quality and support the Mayor of London with his Air Quality Strategy.

Several small projects have been successfully delivered within the LEN. However, the funding was awarded to the City Corporation on the basis that there would be a 'transformational' element to the scheme. The original intention was to improve air quality in Beech Street, and support the introduction of zero emission taxis, by delivering a scheme based on an Ultra-Low Emission Vehicle (ULEV) traffic restriction.

A feasibility study has been undertaken to assess the impact of different traffic restriction scenarios to improve air quality in Beech Street. Due to the significant impact that the traffic restrictions would have had on Transport for London and neighbouring borough's street networks, in addition to the work underway for the Cultural Mile and Centre for Music, delivery of an ultra-low emission vehicle traffic restriction in Beech Street will not be possible within the timescales of the LEN. Moor Lane is therefore under consideration for similar traffic restrictions to enable the City Corporation to deliver the Mayor of London's requirements for receiving the LEN funding.

Recommendation

Members are asked to support the proposal for the development of options for an ultra-low emission vehicle traffic restriction in Moor Lane. The principle of using ULEV only streets more widely will be considered as part of the Corporate Transport Strategy. This is currently being developed and is expected to be consulted upon in Autumn 2018, with a view to adoption in Spring 2019.

Given the ongoing problem with poor air quality in the City, Members are asked to note that a range of measures will be necessary, including encouraging the use of zero and ultra-low emission vehicles in the Square Mile, to reduce unacceptable levels of nitrogen dioxide in several areas of the City.

Main Report

Background

1. The Mayor of London awarded the City of London Corporation £990,000 over three years to implement a Low Emission Neighbourhood (LEN). This followed a successful application for funding submitted in April 2016. The funding covers the period September 2016 to March 2019.
2. The aim of the LEN is to pilot initiatives that will lead to a measurable improvement in local air quality. This includes encouraging and supporting the transition to ultra-low and zero emission vehicles. It is intended that the most successful, cost beneficial measures would be rolled out across the City. Where measures involve restricting traffic, then careful consideration of the implications such as congestion, road safety, access/egress and network resilience will be given to ensure that such change can be accommodated.
3. The funding was awarded to the City Corporation on the basis that there would be a 'transformational' element to the scheme. This was outlined in the City Corporation application for funding as a reduction in traffic volumes and the introduction of an Ultra-Low Emission Vehicle (ULEV) restriction in Beech Street. Ultra-low emission vehicles are defined as emitting less 75 g/km of carbon dioxide from the tailpipe. They include electric, plug-in hybrid, fuel cell and range extended vehicles, such as the new taxi for London. Some conventional hybrid vehicles also meet this emission limit. The Greater London Authority is looking to the City of London Corporation to lead the way, and set an example that could be replicated in other areas of local concern across London.
4. Beech Street was chosen due to the high levels of pollution and the local concerns about air quality in the vicinity. As many taxis use Beech Street, restricting access to the new zero emission (range extended) taxi may provide an additional incentive for taxi drivers to purchase or lease the new taxi. Further support and encouragement will be provided through the LEN by zero emission taxi ranks and rest bays, and electric charging infrastructure.
5. This course of action supports the delivery of Action 32 in the City Corporation Air Quality Strategy 2015: *Options for implementing measures to significantly reduce the impact on pedestrians of air pollution in Beech Street will be considered.*
6. The City Fringe Low Emission Neighbourhood, being implemented by the London Boroughs of Hackney and Islington, is consulting on plans to implement [Ultra Low Emission Streets](#). This covers nine roads, in two zones, in the City Fringe area. The aim is for implementation by Summer 2018. It is a time-based scheme that includes pedestrian and cycle zones during peak hours. The only vehicles allowed to enter would be ULEVs.

Beech Street Feasibility Study

7. In January 2017, the City Corporation invited applications from consultants to undertake a feasibility study to assess the impact of different traffic restriction scenarios to improve air quality. The work was completed in October 2017. A copy of the full report is available in the Member's reading room.
8. The study considered six traffic access restriction scenarios and assessed their impact on air quality, together with the potential for displacement of traffic on the surrounding roads. The scenarios were:
 - I. ULEV only: full two-way access restriction
 - II. ULEV in zero emission mode only: full two-way access restriction
 - III. No diesel vehicles: full two-way ban on diesel vehicles
 - IV. One-way westbound traffic only (eastbound closure)
 - V. ULEV only between Aldersgate and Golden Lane
 - VI. One-way westbound and ULEV only
9. An options assessment exercise was undertaken. All six scenarios were scored against multiple criteria. The options assessment for each scenario, together with the predicted air quality impact, is attached as Appendix 1. Colour copies of the Appendix will be available at the Committee meeting.
10. Option VI scored the highest, followed by Option I. Option II and Option VI would deliver the most significant reductions in NO₂ concentrations, with the modelling forecasting a reduction down to 39 - 42 µg/m³ as an annual average. In 2017, the annual average nitrogen dioxide concentration in Beech Street was 80 µg/m³. This is a slight reduction from 2016 when it was 85µg/m³, and 2015 when it was 89 µg/m³. Annual average concentrations of nitrogen dioxide in the City need to be no greater than 40 µg/m³, below which it is considered there are no impacts on health.
11. Traffic modelling of a potential ULEV for Beech Street demonstrated that 80% of current motorised vehicles would be restricted. Further broad traffic modelling demonstrated that the traffic impact would be significant and potentially wider ranging than the current Bank Junction scheme. The model identified traffic impacts on neighbouring borough's and TfL's road networks. Given these issues, together with the evolving proposals for the Cultural Mile and the Centre for Music, it became clear that delivery of a ULEV only traffic restriction in Beech Street would not be deliverable within the life of the LEN programme.
12. In addition, studies are under way to improve the whole of Beech Street include proposals for alternative traffic restrictions and improving pedestrian conditions and the public realm, as well as improving air quality. The timescale for the wider Beech Street work is beyond that of the LEN project. Consequently, delivery of a scheme to improve air quality in Beech Street as part of the LEN project would not be possible by March 2019, which marks the end of the LEN funding.

13. An alternative to Beech Street, that could be delivered within the timescales required by the LEN was therefore sought. It was agreed with the Department of Built Environment and Transport for London, who is overseeing the LEN work programme, that Moor Lane could be considered. The reason for selecting Moor Lane is that it has a relatively high proportion of taxis that use the street and, as the traffic displacement impacts would be smaller, only limited traffic analysis is required. It is possible therefore that it could be delivered by March 2019.
14. In 2017 the annual average nitrogen dioxide concentration in Fore Street was $41\mu\text{g}/\text{m}^3$ and in Silk Street, $42\mu\text{g}/\text{m}^3$. So, although monitoring doesn't take place in Moor Lane itself, the air quality will be very similar. A ULEV scheme in Moor Lane will not deliver the same air quality benefits as Beech Street, and not fulfil all of the original aims of the LEN. However, it would still have some benefit by trialing the concept and effectiveness of a ULEV only street, and potentially provide an incentive for the uptake of zero emission capable taxis.
15. Initial work has commenced to progress Moor Lane as the alternative scheme. Officers from the Department of Built Environment are due to appoint consultants to undertake feasibility and traffic impact assessment within the next month. The intention is that public consultation would be undertaken before Summer 2018. Subject to the necessary approvals, and outcome of a public consultation exercise, it is anticipated that implementation could commence towards the end of 2018, with launch of the scheme expected in early 2019.

Financial Implications

16. The City Corporation has been awarded £900,000 over three years to for the Low Emission Neighbourhood programme. This has been matched by the City Corporation from a variety of sources such as Local Implementation Plan money, department underspend, City businesses, Transport for London, staff time and Planning obligations under Section 106 of the Town and Country Planning Act 1990.
17. Transport for London has approved the alteration to the original programme to consider Moor Lane as a ULEV only street rather than Beech Street. Consequently, the City Corporation will still receive the allocated funding for the third and final year of the LEN project.
18. Should Moor Lane become a ULEV only street in early 2019, the operation costs for the first year would be covered by the LEN funding. The scheme would then be assessed to consider whether it should be continued given its cost, local impact and effectiveness.

Corporate & Strategic Implications

19. The LEN project supports the aims and objectives of the City of London Air Quality Strategy 2015–2020, in addition to many other corporate policies and strategies. It also goes towards addressing air quality, which has been identified as a corporate risk.

Conclusion

20. Funding has been awarded to the City Corporation by the Mayor of London to implement a Low Emission Neighbourhood in the City. It was awarded on the basis that there would be a 'transformational' element to the scheme. It was envisaged that this would be delivered by the introduction of 'Ultra Low Emission Vehicle and Access Only' restriction in Beech Street, which would lead to significant improvements in air quality in this heavily polluted street and support the aims of the City Corporation Air Quality Strategy.
21. Due to the significant impact that the traffic restrictions would have on TfL's and neighbouring borough's street networks, in addition to the work underway for the Cultural Mile and Centre for Music, it is clear that delivery of an ultra-low emission vehicle traffic restriction in Beech Street will not be possible within the timescales of the LEN. Moor Lane is therefore under consideration for similar traffic restrictions to enable the City Corporation to deliver the Mayor of London's requirements for receiving the LEN funding.

Appendices:

Appendix 1: Beech Street ULEV options assessment, with air quality impact

Further information

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