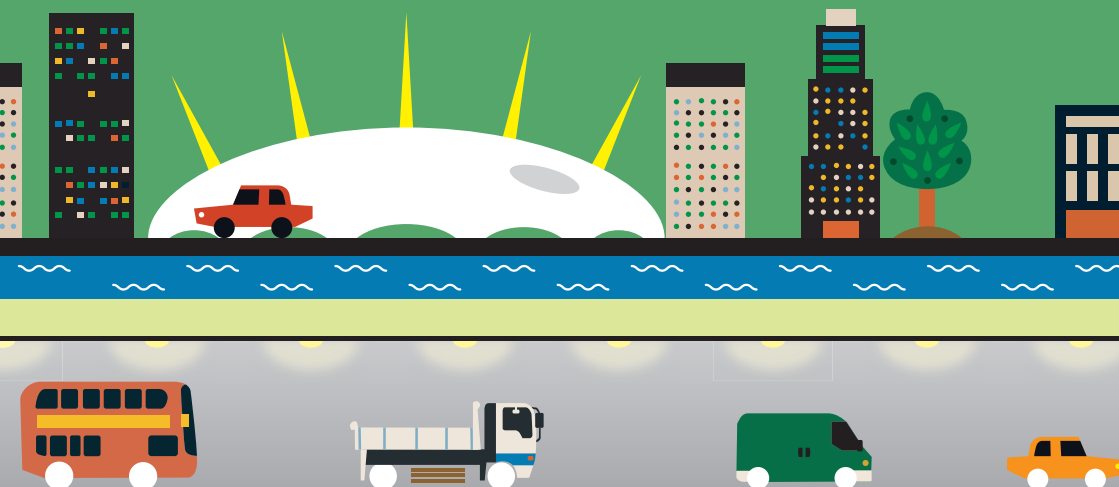


# Have your say

Have your say on the  
Silvertown Tunnel scheme

Consultation closes 29 November 2015



MAYOR OF LONDON



**TRANSPORT  
FOR LONDON**  
EVERY JOURNEY MATTERS

## Overview

Over the next 15 years London will grow at the fastest rate since before World War II. An estimated 10 million people are expected to live here by 2030. With this growth comes increased pressure on existing infrastructure, services and connections to move people and goods.

East London will see the biggest increase in population, housing and employment. Yet the current situation is that – unlike in west London – communities in the east are divided by the River Thames.

Over the last 25 years we have invested heavily in new public transport services to link communities in the east. The river has been crossed five times between Rotherhithe and Woolwich by new railway lines. These new services have supported significant new developments, for example at Canary Wharf. We will continue to invest in new public transport services so that as many trips as possible can be made by train, bus, cycle and on foot.

However the scale of the growth expected to take place in east London in the coming years requires that we invest in all modes, including our highway network. Over the coming 20 years we consider that a package of new highway river crossings will be required, most particularly in east London. We are developing plans for a package of new river crossings, many of which are now being progressed.

The Silvertown Tunnel will reduce congestion at the Blackwall Tunnel, improve the resilience of the surrounding road network and support economic and population growth. In recognition of the importance of the project, it has been designated a 'Nationally Significant Infrastructure Project'.

We will continue our work to develop new river crossings for east London, including with new river crossings at Gallions Reach and Belvedere, to the east of the Silvertown Tunnel. We will hold a consultation on our plans for new crossings at Gallions Reach and Belvedere at the end of November.

## The problems at the Blackwall Tunnel

The Blackwall Tunnel is at the heart of east London's strategic road network, linking the A12, the A13, the A2 and the A20. It is crucial to the success of the east London economy because it is the focus for most of the demand to cross the river by road in the east.

The current levels of demand to use the Blackwall Tunnel greatly exceed the capacity of the tunnel, and there is regularly very significant congestion in and around the area. The tunnel itself was first opened in 1897 and was designed for horse & coaches. While the Blackwall Tunnel is accessible to most vehicles, it wasn't designed for modern freight vehicles, or double deck buses. As a result, it is highly susceptible to disruptive incidents which can require that it be closed at very short notice.



The congestion at the Blackwall Tunnel significantly delays bus and commuter coach services, as well as freight and other vehicles. The congestion is a contributing factor to poor air quality and makes it much more difficult for businesses to trade and grow.

Some key facts about the conditions at the Blackwall Tunnel:

- On a normal day, there can be a **two mile tail-back** to access the Blackwall Tunnel, with queuing each side of the river
- The delays can regularly add around **25 minutes** to journey times through the tunnel
- There are almost **1,000 incidents a year** at the Blackwall Tunnel, including a large number caused by tall HGVs
- The Blackwall Tunnel need only be closed for as little as **six minutes** for there to be a **three mile tail-back** to the tunnel
- Around **1,000,000 hours are wasted each year** by people queuing for the Blackwall Tunnel, costing around **£10m in lost time**

## Developing the Silvertown Tunnel scheme

Over the last few years, TfL has developed the Silvertown Tunnel scheme to help address the challenges at the Blackwall Tunnel. We have developed our scheme with the benefit of feedback to several consultations, as follows:

- **February – March 2012:** our first consultation on our River Crossings programme, which included proposals for a new package of crossings for east London, comprising the Silvertown Tunnel and a new ferry to link Thamesmead and Beckton. Details are available from [consultations.tfl.gov.uk/river/crossings](https://consultations.tfl.gov.uk/river/crossings)

- **October – February 2013:** we held a further consultation on our proposals for new crossings, including new details on how the Silvertown Tunnel might be financed and new options for additional crossings further east. Details are available from [consultations.tfl.gov.uk/rivercrossings/consultation](https://consultations.tfl.gov.uk/rivercrossings/consultation)

- **October – December 2014:** we presented detailed proposals for the Silvertown Tunnel scheme and published a large number of technical reports with further information about the scheme. Details are available from [consultations.tfl.gov.uk/rivercrossings/silvertown-consultation](https://consultations.tfl.gov.uk/rivercrossings/silvertown-consultation)

Over 80 per cent of respondents to our most recent consultation agreed that a new crossing was needed to address the issues at the Blackwall Tunnel.

The Mayor's Transport Strategy and London Plan, which were published in May 2010 and July 2011 respectively and included proposals for the Silvertown Tunnel as well as other river crossings, were also subject to consultation.

## About this consultation

This is a statutory consultation under the terms of the Planning Act 2008. It is intended to give you the opportunity to comment on our scheme before we apply for powers to build and operate it.

This booklet summarises key information about the scheme, including what effects we expect it to have on traffic and the environment. Additional information about the scheme, including detailed background technical reports, is available from [tfl.gov.uk/silvertown-tunnel](https://tfl.gov.uk/silvertown-tunnel) and in hard-copy at a number of locations. We have also organised a series of roadshow events where TfL staff will be available to answer your questions. Further details are provided in the section '**Further reading or questions**', from page 32.



## Have your say

To have your say about our proposals, please visit [tfl.gov.uk/silvertown-tunnel](http://tfl.gov.uk/silvertown-tunnel), which contains a link to our consultation questionnaire. The questionnaire highlights the specific areas on which we are seeking your feedback. However, you are not limited to commenting on these topics and we welcome feedback on any aspect of the proposals.

If you would prefer to write to us with your thoughts, please email us at [rivercrossings@tfl.gov.uk](mailto:rivercrossings@tfl.gov.uk) or use our freepost address. Simply mark your envelope 'TfL Freepost Consultations'.

The closing date for comments is **29 November 2015**.

## Why is TfL proposing the Silvertown Tunnel scheme?

Much of the demand to cross the river by road in east London is focussed at the Blackwall Tunnel, which simply does not have the capacity to cope. There are no nearby alternative crossings to the Blackwall Tunnel, so if the tunnel becomes unavailable, the congestion becomes much worse.



Congestion in East London. *Please Note: in some printed versions of this booklet this image was incorrectly identified as showing 'Congestion at the Blackwall Tunnel'.*

## There are three core challenges:

- There is regular **congestion** at the Blackwall Tunnel because demand regularly exceeds the capacity of the tunnel. There can regularly be 25 minute delays at the tunnel
- A lack of alternative crossings means that when the Blackwall Tunnel has to be closed – even if only for a short time – the congestion becomes much worse. The **resilience** of the surrounding road network to incidents at the Blackwall Tunnel is poor
- Future **growth** in London's population and economy will put even more pressure on roads and river crossings in east London and will require new infrastructure and services to support it

We have established a number of objectives that the Silvertown Tunnel scheme should meet to address these challenges. We describe these objectives in the document 'The Case for the Scheme', which is available to download from our website at [tfl.gov.uk/silvertown-tunnel](http://tfl.gov.uk/silvertown-tunnel), along with a number of other consultation documents.

We have produced a short film which describes the issues in more detail. The film is available on our website [tfl.gov.uk/silvertown-tunnel](http://tfl.gov.uk/silvertown-tunnel)



## The economic impacts of the challenges at the Blackwall Tunnel

We spoke to 500 businesses throughout east and south-east London to understand in more detail what difficulties the challenges at the Blackwall Tunnel cause employers. Of those we surveyed we found:

- Nearly three quarters said that congestion at the Blackwall Tunnel is a constraint or disruption on their business
- Nearly half said their customer base was smaller than it could be because of poor cross river connectivity at the Blackwall Tunnel
- One third of businesses said they have missed time critical deliveries because of unpredictable journey times
- Just under half of businesses said unpredictable journey times when crossing the river have caused a loss of revenue to their business
- A third of all businesses said staff were late at least once a week because of the delays at the Blackwall Tunnel, with this costing each business on average £26,000 a year
- Almost a fifth of businesses said that they would employ additional staff specifically as a result of the Silvertown Tunnel scheme

## Developing a solution to the challenges at the Blackwall Tunnel

The Mayor's Transport Strategy includes proposals for a package of new river crossings. The Silvertown Tunnel is one element of this package. We are also developing plans for new multi-modal crossings at Gallions Reach and Belvedere. We will hold a consultation on our plans for these crossings at the end of November 2015.

We have considered a wide range of potential solutions to the challenges at the Blackwall Tunnel, including those suggested by respondents to our previous consultations. These have included new rail crossings, new links for pedestrians and cyclists and new road crossings elsewhere.

Our conclusion is that a combination of a new road tunnel between Silvertown and the Greenwich Peninsula, with user charging of the new tunnel and the Blackwall Tunnel, is the most effective solution, delivered as part of a package of new crossings for east London. A factsheet is available on our website [tfl.gov.uk/silvertown-tunnel](http://tfl.gov.uk/silvertown-tunnel), which explains why alternative schemes, such as building a new rail link, would not address the challenges at the Blackwall Tunnel.

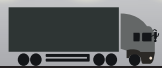
We have highlighted below some of the most commonly suggested alternative solutions by respondents to our previous consultations, and explained why we do not believe they would adequately address the challenges we face:

### Do nothing

As London continues to grow, there will be an increasing number of trips of all kinds, including by bus, freight and other vehicles. Without the Silvertown Tunnel scheme, we estimate that a weekday peak time journey along the approach roads and through the tunnel could take up to 30 minutes by 2031. Currently, journeys along the approach roads to the tunnel are regularly delayed by around 25 minutes. Worsening congestion would lead to further reductions in air quality and other environmental impacts.

### Reduce demand for the Blackwall Tunnel through user charging without building any new infrastructure

While a charge at the Blackwall Tunnel would reduce some demand, a charge alone could not prevent incidents at the tunnel. The resilience of the surrounding road network to closures of the Blackwall Tunnel would remain poor since there would be no nearby alternative to the Blackwall Tunnel for traffic to divert to in the event of a temporary closure. In 2014, there were almost 1,000 incidents at the Blackwall Tunnel – in fact over the entire year there were only 26 days in total when there was not a disruptive incident at the tunnel.



### Build a new crossing for public transport, walking & cycling

Trips through the Blackwall Tunnel are made from across a very wide area of east and south-east London and beyond. One or more new rail links would not directly address the needs of road traffic, and would have very little impact in resolving the issues of congestion and closures at the Blackwall Tunnel.

### Build a new road crossing further east

A key reason for building the new crossing nearby the Blackwall Tunnel is to provide a nearby, accessible alternative for traffic if the existing tunnel must be closed. If the Blackwall Tunnel becomes unavailable due to a breakdown, collision or if an overheight vehicle attempts to access the northbound bore, there are no nearby alternative routes for traffic to take. New crossings at alternative locations would not be close enough to the Blackwall Tunnel to provide a solution to this problem.

### The Silvertown Tunnel scheme

The proposed Silvertown Tunnel is a new twin-bore, dual carriageway road tunnel beneath the River Thames linking the A102 on the Greenwich Peninsula to the Tidal Basin Roundabout in the Royal Docks area.

The proposed crossing has two separate tunnels, each carrying two traffic lanes. One lane in each tunnel would be reserved for buses, coaches and Heavy Goods Vehicles (HGVs). The new tunnel would be accessible to the tall HGVs and double deck buses which are currently unable to use the northbound bore of the Blackwall Tunnel.

We would construct new buildings nearby the tunnel entrances to contain essential control and operational equipment. We will design these buildings so that they are integrated with the local area, and discuss and agree our proposals with the relevant local authorities.

Demand would be managed through a new charge on vehicles using it. The charge would also pay for the new tunnel to be built and operated. For more information, please see the section '**User charging**', from page 19 of this booklet.

We estimate that the scheme would cost around £1bn to deliver at the time of construction, although these costs would be covered by the proposed user charge. Construction would last around four years and the tunnel could be open by 2022/23.

A drive-through video is available on our website. Please see [tfl.gov.uk/silvertown-tunnel](https://tfl.gov.uk/silvertown-tunnel) for details.







The alignment of the Silvertown Tunnel.



## The benefits of the Silvertown Tunnel scheme

The proposed scheme would provide a number of benefits:

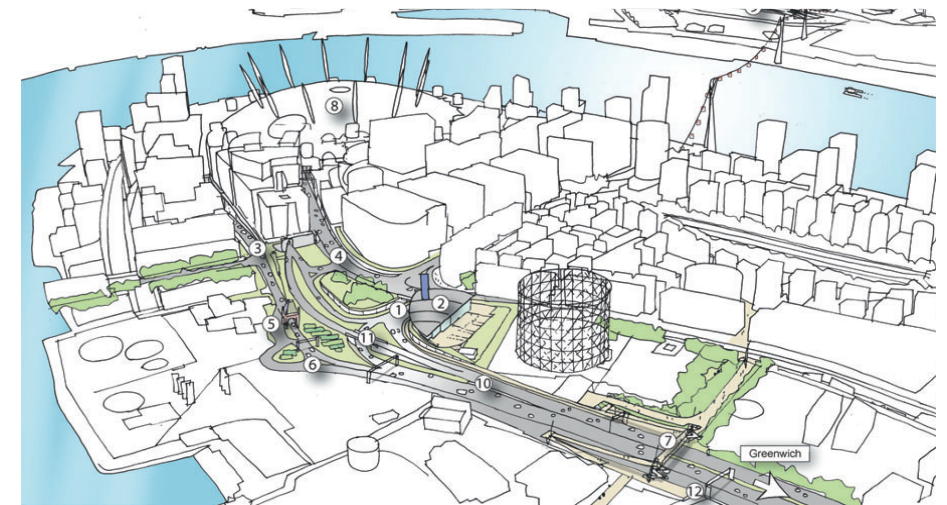
- Congestion at the Blackwall Tunnel would be significantly reduced
- Our current work shows that the scheme would be paid for through the user charge – there would be no cost to the city's fare and tax payers
- The number of unplanned closures of the Blackwall Tunnel would be greatly reduced, in particular closures caused by vehicles which are too tall for the tunnel
- The cross-river road network would be more resilient to incidents at the Blackwall Tunnel because traffic would have a nearby alternative route to take
- The scheme would help support population growth as it would keep traffic moving in east London
- Opportunities for new cross-river bus links would be created, enabling us to transform cross-river bus services in this area
- Journeys for deliveries and servicing would be more reliable and this could help local employers to access new markets. This could help to create new jobs in the local area, and help the UK and London economies to grow
- In a recent survey, almost a fifth of businesses said they would take on more staff as a direct result of the Silvertown Tunnel scheme
- The environmental impact of current traffic congestion on some of London's most polluted roads would be reduced
- There would be new and improved connections to and from Docklands and east London from south London

## Changes to the existing road network

We propose to make changes to the existing road network to create new connections to the Silvertown Tunnel.

On the south side of the river, we would make the following changes to the A102 Blackwall Tunnel Approach Road:

- Widening the A102 Blackwall Tunnel Approach Road to create space for the Silvertown Tunnel Approach lanes
- Building a new flyover for southbound traffic from the Blackwall Tunnel to cross above the Silvertown Tunnel Approach lanes
- Introducing new signage to direct drivers



<b>KEY:</b>	① Proposed tunnel portal	⑤ Gatehouse	⑨ Proposed Silvertown tunnel portal
	② Proposed tunnel ventilation and control buildings	⑥ Tunnel Avenue	⑩ Widening the A102 Blackwall tunnel Approach Road
	③ Blackwall Tunnel portals	⑦ Replacement pedestrian and cycle bridge	⑪ New flyover for southbound traffic from Blackwall Tunnel
	④ Millennium Way	⑧ O2 Arena	⑫ New signage to direct drivers

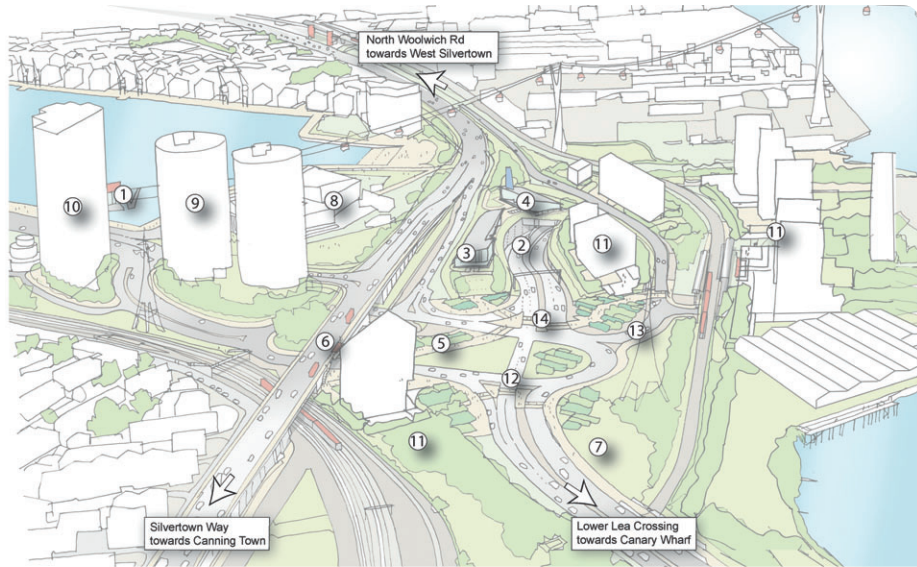
Changes to the road network on the Greenwich peninsula.





On the north side of the river, we would make the following changes:

- Modifying the existing Tidal Basin Roundabout to connect the Silvertown Tunnel approach roads with Dock Road and the Lower Lea Crossing
- Realigning Dock Road so that it links with the modified roundabout
- Introducing new pedestrian and cycle facilities within the modified roundabout



- KEY:**
- |  |                                     |   |
|--|-------------------------------------|---|
| ① Emirates Air Line                    | ⑥ Silvertown Way                    | ⑪ Potential development area  |
| ② Proposed tunnel portal               | ⑦ Area for ecological mitigation    | ⑫ New Tidal Basin Roundabout is modified to connect to the Silvertown Tunnel approach roads |
| ③ Proposed tunnel control building     | ⑧ Siemens Crystal                   | ⑬ Dock Road is realigned to link with the modified Tidal Basin Roundabout                   |
| ④ Proposed tunnel ventilation building | ⑨ Hoola Towers (under construction) | ⑭ New pedestrian and cycling facilities within the modified roundabout                      |
| ⑤ Pedestrian space                     | ⑩ Pumphouse (consented)             |   |

Changes to the road network in the Royal Docks area.

## Land Requirements

As part of our application we propose to seek powers to acquire or temporarily occupy the land needed to construct and operate the Silvertown Tunnel and the new road connections.

The extent of the land expected to be needed for the project is shown in the Scheme Proposals: Consultation Maps, Plans and Drawings, which forms part of the consultation documents available on our website

[tfl.gov.uk/silvertown-tunnel](https://tfl.gov.uk/silvertown-tunnel)

If you think that your land may be affected by the scheme and are looking for more information, or wish to discuss this with a member of our team, please contact us or attend one of our roadshow events. Details are in the section 'Further reading or questions' from page 32.

## Building the Silvertown Tunnel

We would plan the construction of the Silvertown Tunnel to cause the least disruption possible, although our work in planning how the tunnel might be built is at a very early stage.

We would establish work sites in areas nearby the proposed tunnel alignment, on each side of the river. These would be used for facilitating the necessary construction works. As much as possible, we would move materials to and from our compounds using the river and this may require a new temporary jetty in the Silvertown area.

It would be necessary, however, to move some construction and other materials by road. We will agree how this might work in practice with the relevant local authorities.

## Road closures and diversions

It would be necessary to introduce some temporary road closures and diversions while the tunnel is being built, although we would keep these to an absolute minimum. We would work closely with the relevant local authorities in planning and implementing any temporary network alterations and would ensure that any closures are publicised well in advance.



It is likely to be necessary to introduce the following temporary road closures and diversions:

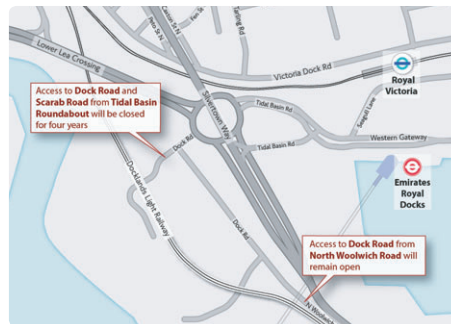
- Sections of Edmund Halley Way would be closed for significant periods of the works, however access will be maintained to the car parks which are accessed via Edmund Halley Way
- While Millennium Way would remain open throughout the works, we may need to manage traffic with temporary traffic signals and local diversions for some periods during the works

We would also need to replace the footbridge near the junction of the A102 Blackwall Tunnel Approach Road with Boord Street. We would replace the footbridge with an entirely new structure.

On the north side of the river, there would be no access to Dock Road or Scarab Close from the Tidal Basin roundabout for the duration of construction, although we will make arrangements to provide access to local businesses. Dock Road will still be accessible from North Woolwich Road



Edmund Halley Way would be closed during construction



There will be some restrictions to access to Dock Road during the construction

We do not expect that any major closures of the Blackwall Tunnel or its approach roads would be required during the works. Where temporary closures are thought to be necessary, these would be restricted to overnight periods.

## User charging

We propose to introduce a charge to use the Blackwall and Silvertown Tunnels. The charge is necessary to manage demand and ensure that the local road network can accommodate future traffic levels, reducing the environmental impacts of traffic congestion. The charge will also pay for the new tunnel to be built.

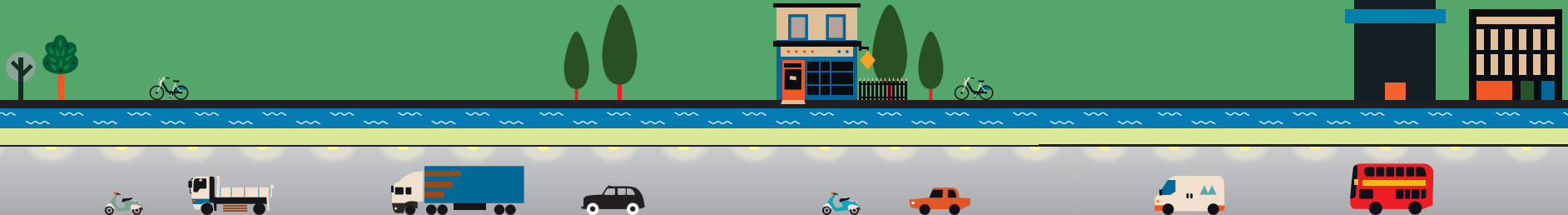
The level of the charge would be set closer to the time that the Silvertown Tunnel opens, taking account of the conditions that exist at that time. This approach would maximise the effectiveness of the scheme in helping to resolve the challenges at the Blackwall Tunnel.

For the purposes of this consultation, we have identified an indicative charge based on the conditions we predict would exist at the time the tunnel opens in 2022/23. These indicative charging levels have been used to assess the likely traffic and environmental impacts of our scheme. Further information about the user charge is available in our Preliminary Charging Report, which is available from our website [tfl.gov.uk/silvertown-tunnel](https://tfl.gov.uk/silvertown-tunnel)

## About the charge

The charge would apply from 6am until 10pm every day, including Bank Holidays. The charge would apply each time a motorist used the tunnels. We would collect the charge automatically, using systems similar to those we use to collect the Congestion Charge: there would be no toll booths at the Blackwall or Silvertown Tunnels.

There would be a peak and an off-peak rate, based on the time and direction of travel. The charge to use the tunnels during off-peak times would be substantially discounted, enabling local people to use the crossings at a lower cost at those times when traffic levels are lighter. The tunnels would be free to use between 10pm and 6am; so some trips could be made for free.



We would set up an account system, to make it easier to pay the charge. Users who set up an account would register their details with us, and we would collect the charge automatically for every journey they make through the tunnels. This would make it easier to collect and we would pass on the saving we would make. We would also vary the charge by time of day and direction of travel. We would charge a higher 'peak' rate for those times and direction of travel when demand is greatest, as shown in the table below.

Time of travel	Travelling northbound	Travelling southbound
0600 - 1000	Peak rate	Off-peak rate
1001 - 1600	Off-peak rate	
1601 - 1900	Off-peak rate	Peak rate
1901 - 2200	Off-peak rate	
2201 - 0559	Free	

The charge will vary by time of day and direction of travel

The table below indicates how the charge might vary between peak and off-peak times. The charges are at today's prices.

	Indicative off-peak charge for account holders	Indicative peak charge for account holders
Motorbike	£1	£2
Car & small vans	£1	£3
Large van (less than 3.5 tonnes)	£1.65	£5
HGV (more than 3.5 tonnes)	£4	£7.50

Indicative charges for account holders

In common with many other schemes, larger vehicles would pay more, reflecting the greater impact they have on maintenance costs, traffic and the environment.

Users who do not register for an account would pay a set amount per journey. For further details, see our Preliminary Charging Report, which is available to download from [tfl.gov.uk/silvertown-tunnel](https://tfl.gov.uk/silvertown-tunnel)

### Setting and varying the level of the charge

We have assessed the likely traffic and environmental impacts of the Silvertown Tunnel based on the charging levels indicated above. These effects would differ if the charge were set at a higher or lower level.

If the charge were set at a higher rate, it would have a greater effect on reducing demand for the Blackwall and Silvertown Tunnels. It could however lead to increased demand at other crossing points, as motorists seek alternative routes. If the charge were set at a lower rate, it could be less effective in managing demand for the Blackwall and Silvertown Tunnels. This could mean that the local road network becomes congested in future.

To ensure the scheme remains effective over time, we would keep the level of the charge under review. There would be a number of circumstances that could lead us to amend the level of the charge in future. For example, if London's population or employment grew at a faster rate than is currently predicted, there could be need to set the charge at a higher rate than that indicated in this booklet. We might set the charge at a lower level than indicated in this booklet if London's population grew at a slower rate than is expected and demand for the crossings were not as great.



## Further discounts & exemptions

By setting up an account, motorists could pay the charge more easily and at a discounted rate. We also plan to introduce a new Community Fund, to invest in projects that would enhance the environment or benefit people and areas most directly affected by the Silvertown Tunnel. For further details, please see the section '**Further benefits of the Silvertown Tunnel scheme**', from page 29.

We have considered whether further discounts or exemptions might be possible, including those suggested by respondents to our last consultation.

A key objective of the user charge is to manage demand for the tunnels, to ensure the benefits of the Silvertown Tunnel scheme are fully realised. Introducing extensive further discounts, or those which might apply to large numbers of people such as a residents discount, could increase demand to use the tunnels, potentially to a level beyond the capacity of the local road network. We do however believe that some exemptions and discounts from the charge might be possible. We propose that largely the same discounts and exemptions as are available for the London Congestion Charging zone apply to the Silvertown and Blackwall Tunnels. These discounts and exemptions are currently:

Exempt from charge:

- Emergency services vehicles
- NHS vehicles exempt from vehicle tax
- Vehicles which are exempt from paying road tax as they are used by disabled people
- Military vehicles
- 'Non-road mobile machinery', such as industrial equipment not intended to carry passengers or goods

Subject to 100% discount:

- Recovery and accredited breakdown vehicles
- Buses and coaches
- Blue Badge holders

- Low emission vehicles
- Taxis and Private Hire Vehicles
- Vehicles used in the provision of particular public services, for example refuse lorries

**We would keep the discount regime under review, and could in future consider what steps we could take to encourage greater use of low-emission vehicles.**

## The charge in future

We consider that there will likely always be a need to manage demand for the Blackwall and Silvertown Tunnels through user charging. For this reason, we expect that some level of user charging would continue to apply at the crossings even once the costs of implementing the Silvertown Tunnel scheme had been recouped. Future revenue would be used to help fund further enhancements to transport in London.

## Traffic impacts

The Silvertown Tunnel scheme would greatly improve the efficiency of the road network in the Blackwall Tunnel area. Our scheme would provide a number of key benefits:

- We estimate that by 2031, delays on the approach to the tunnel would be virtually eliminated
- The new tunnel would act as an accessible, alternative route for modern freight vehicles, greatly reducing the volume of disruptive incidents caused when these vehicles try to access the northbound bore of the Blackwall Tunnel



- There would be a nearby alternative crossing if there was an incident at the Blackwall Tunnel (such as a traffic accident or breakdown), avoiding the need for lengthy diversions and greatly reducing the impact of incidents on journey times
- New approach lanes to the Silvertown Tunnel would remove the need for traffic to merge from three lanes to two on the approach to the Blackwall Tunnel, which is currently a major source of delay
- We would introduce new bus services to use the Silvertown Tunnel. Further details are in the section '**Further benefits of the Silvertown Tunnel scheme**', from page 29

### Effects at other east London river crossings

We have considered whether the Silvertown Tunnel scheme would cause motorists to divert to other river crossings.

Our assessment is that while some drivers might choose to use another crossing to avoid the charge at the Blackwall and Silvertown Tunnels, others could be expected to divert to the Blackwall or Silvertown Tunnel from other crossings, even with charging in place. This is because it would be much quicker to cross the river via the Blackwall or Silvertown Tunnels than at other east London river crossings such as the Rotherhithe Tunnel or Woolwich Ferry.

At certain times during the busy peak periods, there could be small reductions in demand for the Rotherhithe Tunnel and Woolwich Ferry, depending on the direction of travel. At other times during the peak periods, and additionally at off-peak times, there could be small increases in demand for these crossings. These changes are negligible however, and it is unlikely that they would lead to any particularly noticeable increase in traffic levels or delays.

### Managing the impacts of the scheme on traffic

The new user charge would keep demand for the crossings within manageable levels.

We have carefully modelled the traffic impacts of the scheme and do not anticipate that implementing the Silvertown Tunnel scheme would lead to any significant overall increase in traffic levels. Our scheme would improve the performance of the road network and enable vehicles to travel far more efficiently. Our modelling suggests that no further steps beyond the proposed user charge would be necessary to mitigate the impacts of the Silvertown Tunnel scheme on traffic.

We recognise however that the effects of new developments on the road network are complex and can change over time. To ensure the scheme does not give rise to adverse impacts on the wider road network we would monitor traffic levels before and after the opening of the new tunnel, taking into account any relevant new developments. We would take appropriate measures to manage and mitigate any negative effects that might occur as a result of the scheme, working closely with the relevant local authorities. These measures could involve adjusting traffic light timings or other traffic management measures. Varying the user charge would also provide an important tool to mitigate any negative traffic impacts.

### Environmental effects

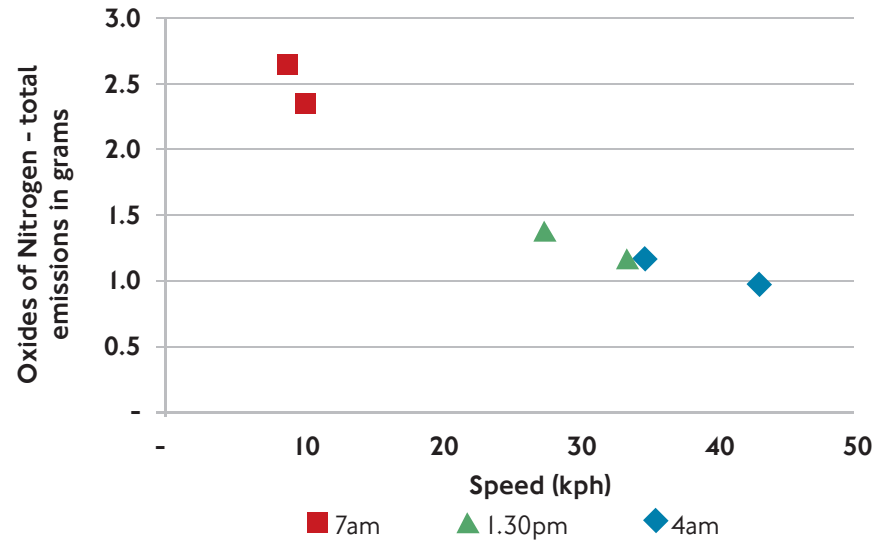
Traffic congestion is a major contributing factor to poor air quality in London.

Engines work much less efficiently at lower speeds, and vehicles emit greater levels of harmful emissions when driving in exactly the sort of congested traffic conditions we find so regularly at the Blackwall Tunnel.





To demonstrate this effect, we measured the level of harmful emissions produced by an average diesel-engined car when driven in each direction through the Blackwall Tunnel at 4am, 7am and 1.30pm on an average weekday. Traffic congestion at the Blackwall Tunnel is heaviest at 7am and lightest at 4am. The results of our test are plotted in the chart below.



Emissions from a diesel-engine car driven through Blackwall Tunnel  
(Source: TfL vehicle emissions testing study)

The vehicle produced the greatest level of emissions at 7am, when average speeds were at their lowest because traffic was heaviest. Total emissions at 1.30pm and 4am, when average speeds were higher because traffic was flowing more freely, were almost half those levels found in the morning peak period. As London grows in the coming years, harmful traffic emissions resulting from congestion in the area surrounding the Blackwall Tunnel will worsen unless we build the Silvertown Tunnel scheme, to ease congestion at the tunnel.

More generally, we are taking a number of steps to improve London's environment. Amongst other initiatives these steps include:

**Smarter Travel.** Travel planning advice and tools for businesses, schools and residents to support them reducing car use

**Encouraging walking and cycling.** Improving the urban environment, developing a range of walking and cycling routes to help people easily and safely get around the Capital

**The London Freight Plan.** Proposals to encourage more efficient freight operations. An increasing number of operators are now adopting green fleet management principles which save money, reduce pollution and enhance operational efficiency

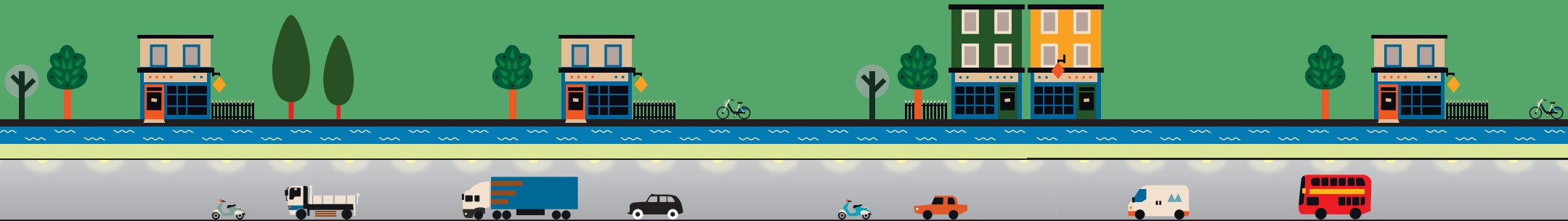
For further details, please see our website [tfl.gov.uk/corporate/about-tfl/corporate-and-social-responsibility/environment](https://www.tfl.gov.uk/corporate/about-tfl/corporate-and-social-responsibility/environment)

#### Changes in emissions

The opening of the new tunnel would bring about a change in the way that traffic uses the road network, and this could lead to changes in emissions and noise from traffic.

The scheme would bring about an overall air quality improvement on the main approach routes to and from the Blackwall Tunnel, where traffic levels would be reduced through the effect of the user charge and traffic flow would be considerably improved. There would likely be small increases in traffic flow on routes leading to and from alternative river crossings. There would also be an increase in traffic and emissions in the vicinity of the new northern portal at Silvertown and the Royal Docks. Traffic levels in this area are currently low; it would however form the main access point to the tunnel when it opens.

Overall, the introduction of the Silvertown Tunnel scheme would lead to a reduction in traffic noise, although there may be some increases in noise around



the Silvertown area as it would form the main access point to the tunnel on the north side of the river. We would take the following steps to mitigate the effects of the Silvertown Tunnel scheme on existing traffic noise levels:

- Installing noise barriers along the approaches to the tunnel,
- Constructing the new tunnel and approach roads with low-noise road surfacing

### Building and operating the new tunnel

Construction of the new tunnel would inevitably result in some temporary environmental impacts because it would involve the use of heavy machinery. All plant and vehicles used in the construction of the new tunnel would be required to meet the most up to date emissions standards. We would plan construction of the new tunnel to cause the least impact possible and would take the following steps:

- Installing fencing around the perimeter of the construction site
- Where possible moving the majority of materials to and from our work sites by barge, to reduce impact on the road network
- Agreeing working hours with the relevant local authorities in advance
- Working to recognised good practice in keeping any dust and emissions from the works to the absolute minimum possible
- We would continue to monitor the impact of the scheme beyond the opening of the new tunnel. We would take appropriate measures to mitigate any negative effects which occur as a result of the scheme

### Further reading

The information included in this section is a summary of our 'Preliminary Environmental Information Report' (PEIR). This document contains the results of the assessments carried out to date of the likely environmental effects of building and operating the Silvertown Tunnel scheme and how we plan to

manage these. The PEIR is available on our website and in hard-copy at various locations during the consultation period (see the section 'Further reading or questions' from page 32 for details).

### Further benefits of the Silvertown Tunnel scheme

The Silvertown Tunnel scheme would provide a number of further benefits. For example, the new tunnel would enable the introduction of a number of new cross-river bus routes in east London. This section sets out our initial thoughts on the kinds of improvements that might be possible.

Some of these improvements would be secured and delivered as part of the Silvertown Tunnel scheme. Others would be developed by TfL separately from our application for powers.

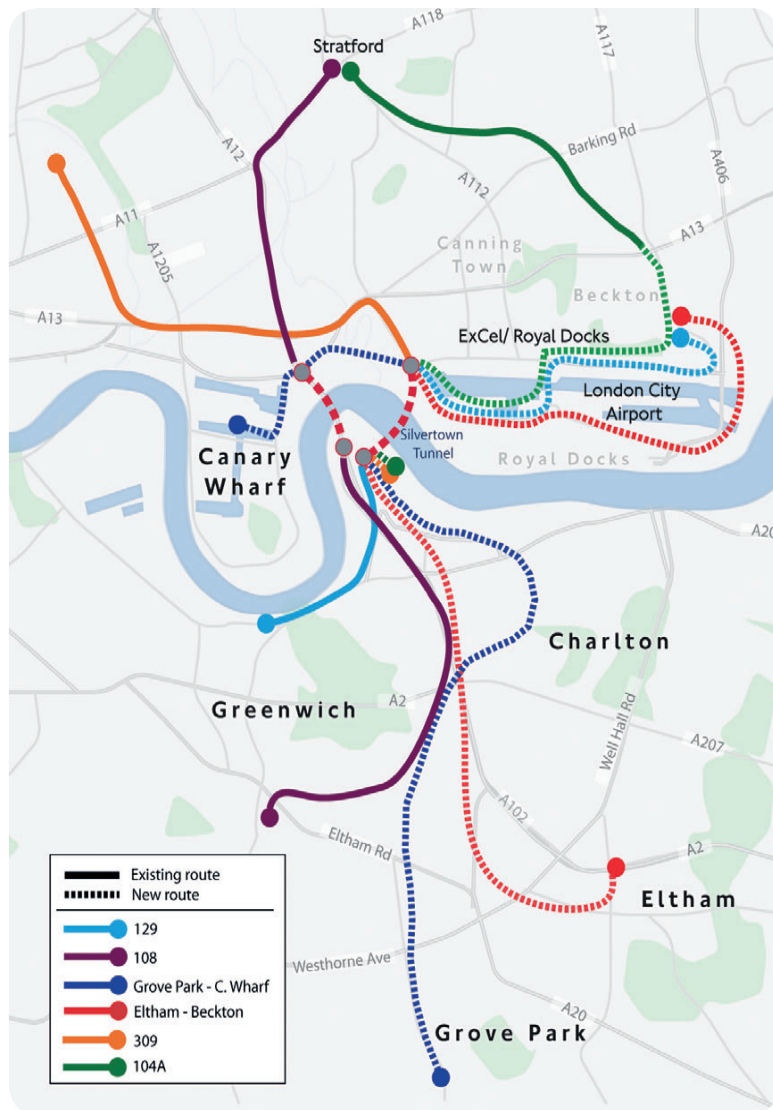
### New cross-river bus services

The congestion and disruption at the Blackwall Tunnel prevents us introducing reliable new cross-river bus services in east London. The height restriction at the Blackwall Tunnel also prevents us operating double-deck buses here. The Silvertown Tunnel scheme would help to address these issues and create the potential to enable us to transform cross-river bus services in this area.

In our last consultation, we asked respondents for their thoughts on what areas we might link with new cross-river buses in east London. We used the feedback we received to develop proposals for an example network of new bus links that could use the Silvertown Tunnel. The network we planned would operate at a combined frequency of a bus around every two minutes through the Blackwall or Silvertown Tunnels during the busiest periods.

We would begin the detailed bus route planning process around two years before the opening of the Silvertown Tunnel. The map on page 30 indicates the scale of the enhancements to bus services we plan.





An example network of new cross-river buses for east London

### New bus priority measures

TfL is investing in a range of new bus priority measures to further improve the reliability of the bus network across London. Proposals for new bus priority measures in the vicinity of the Silvertown Tunnel would be developed closer to the opening of the new tunnel.

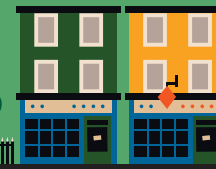
### A new Community Fund

We propose to implement a new Community Fund. The fund would invest in projects that would enhance the environment or benefit people and areas most directly affected by the Silvertown Tunnel. Details of the fund would be determined closer to the opening of the new tunnel, through discussions with the relevant local authorities. Our application for powers to implement the Silvertown Tunnel scheme will include further details.

### Improvements for pedestrians and cyclists

Although the Silvertown Tunnel would not be suitable for cyclists and pedestrians, as part of the scheme we propose to enhance pedestrian and cycle connections in the areas around the tunnel entrances on both sides of the river. This would include the introduction of better routes and footways for walking and a number of fully segregated cycle facilities to improve access and safety for cyclists. These improvements could improve access to the Emirates Air Line Cable Car.

We are also looking at ways to encourage the use of the cable car for additional regular pedestrian and cyclist work-related journeys. We would design the scheme to make it easy to deliver further improvements in the future as the area around the new tunnel changes and the numbers of pedestrians and cyclists increase. We will progress this element separately, and would not include details within our application for powers.



## Further reading or questions

We have produced a number of documents for this consultation which explain our proposals in more detail. A full list of these documents is set out below.

Preliminary Environmental Information Report (PEIR)

Consultation Plans, Maps and Drawings

Preliminary Case for the Scheme

Preliminary Charging Report

Preliminary Transport Assessment

Preliminary Engineering Report

Preliminary Design & Access Statement

Preliminary Outline Business Case

Preliminary Sustainability Statement

Preliminary Equalities Impact Assessment

We have also prepared a reading guide to the consultation documents which explains in plain English the purpose of each document, the methodology we followed in producing it and summarises its main findings.

All of the consultation documents are available on our website at [tfl.gov.uk/silvertown-tunnel](http://tfl.gov.uk/silvertown-tunnel)

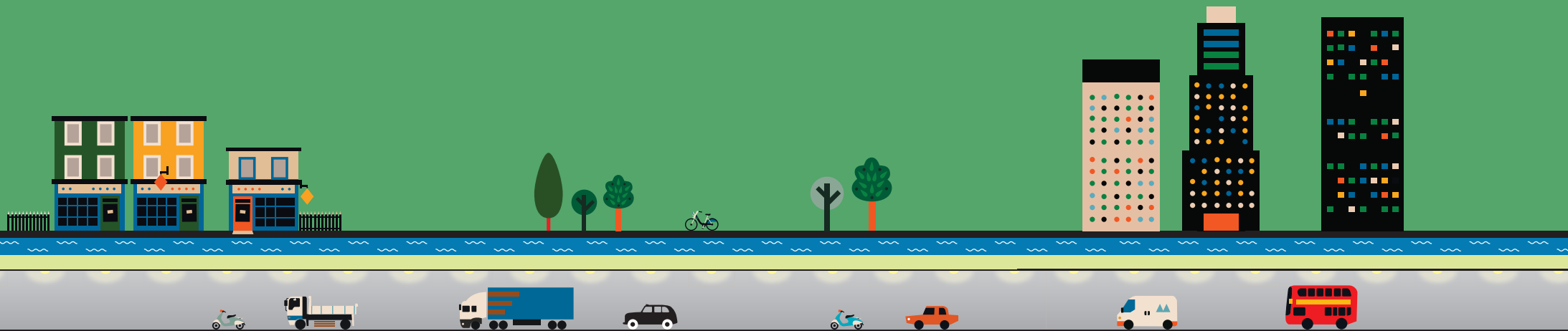
Hard copies of the consultation documents are also available to inspect from 5 October to 29 November 2015 (inclusive) at the locations and times listed in the table on page 33.

Location	Opening times
<b>Transport for London</b> 230 Blackfriars Road, Southwark London SE1 8NJ	<b>Monday – Friday</b> 10am – 4pm
<b>Royal Borough of Greenwich</b> The Woolwich Centre, Wellington Street Woolwich SE18 6HQ	<b>Monday – Friday</b> 10am – 4pm
<b>London Borough of Newham</b> Newham Dockside, 1000 Dockside Road London E16 2QU	<b>Monday – Friday</b> 10am – 4pm
<b>London Borough of Tower Hamlets</b> Town Hall, Mulberry Place, 5 Clove Crescent, London E14 2BG	<b>Monday – Friday</b> 10am – 4pm

We will provide paper or electronic copies of the consultation documents on reasonable request. To request a document, please contact us at **0343 222 1155** or email us at [rivercrossings@tfl.gov.uk](mailto:rivercrossings@tfl.gov.uk)

## Roadshow events

We have organised a number of roadshow events at which TfL staff involved in the Silvertown Tunnel project will be available to answer questions. All of the consultation documents will also be available to view at these events. The dates, times and venues for the roadshow events are shown in the table on page 34.



Venue	Dates
<b>Idea Store, Chrisp Street</b> At the Ground Floor Foyer, 1 Vesey Path, London, E14 6BT	10am – 4pm, <b>Saturday 7 November</b> 12pm – 7pm, <b>Tuesday 17 November</b>
<b>Canary Wharf Shopping Centre</b> At the Canada Place crossroads, London, E14 5AB	10am – 7pm, <b>Tuesday 20 October</b> 11am – 5pm, <b>Saturday 14 November</b>
<b>The Forum</b> Trafalgar Road, London, SE10 9EQ	10am – 4pm, <b>Saturday 10 October</b> 12pm – 7pm, <b>Tuesday 10 November</b>
<b>Britannia Village Hall</b> 65 Evelyn Road, London, E16 1TU	12pm – 5pm, <b>Saturday 17 October</b> 12pm – 7pm, <b>Tuesday 27 October</b>
<b>Canning Town Library</b> Barking Road, London, E16 4HQ	10am – 4pm, <b>Saturday 24 October</b> 1pm – 7pm, <b>Thursday 19 November</b>
<b>Charlton House Community Centre</b> Charlton Road, London, SE7 8RE	12pm – 5pm, <b>Saturday 31 October</b> 12pm – 7pm, <b>Thursday 26 November</b>

To request a copy of this booklet in Braille, large-text or another language, please call us on **0343 222 1155\*** or email [rivercrossings@tfl.gov.uk](mailto:rivercrossings@tfl.gov.uk)

## Have your say

To have your say about our proposals, please visit [tfl.gov.uk/silvertown-tunnel](http://tfl.gov.uk/silvertown-tunnel), which contains a link to our consultation questionnaire. Our questionnaire seeks your views on specific issues, however please feel free to express your thoughts more generally if you would prefer. Please use our email address [rivercrossings@tfl.gov.uk](mailto:rivercrossings@tfl.gov.uk) or our freepost address. Simply mark your envelope 'TfL Freepost Consultations'.

The closing date for comments is **29 November 2015**.

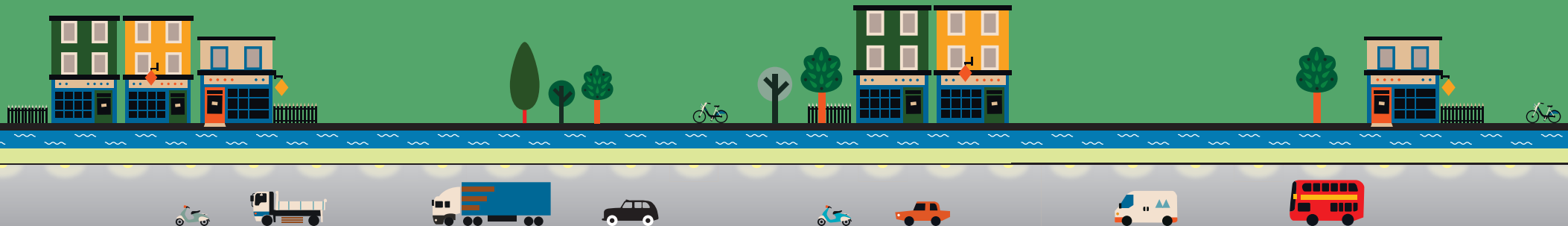
## Next steps

The Silvertown Tunnel scheme has been designated a 'Nationally Significant Infrastructure Project'. This means that the Silvertown Tunnel can only be authorised by a Development Consent order (DCO) made by the Secretary of State under the Planning Act 2008.

After the consultation we will consider your comments, review the scheme and make any final amendments. We will also finalise our environmental studies and technical assessments.

We plan to submit our DCO application to the Planning Inspectorate in the spring 2016. The application will include a Consultation Report setting out the issues raised by respondents and our responses to these. We will continue to keep our website up to date with key information about the scheme.

The Planning Inspectorate will only accept the application for examination if it complies with the relevant statutory formalities and standards.





If the application is accepted for examination, TfL will carry out further publicity in relation to the scheme. Interested parties will then be able to register their interest with the Planning Inspectorate, who will examine the application on behalf of the Secretary of State. Registering will enable interested parties to participate in the Examination and to be kept informed of opportunities to present their views.

During the Examination, interested parties will be able to submit written comments on the proposals and participate in the public hearings. The Examination must be completed within six months.

Following the Examination, the Planning Inspectorate will make a recommendation to the Secretary of State for Transport who will then decide whether or not to make (approve) the DCO.

The DCO application must be decided in accordance with the National Policy Statement for National Networks (NNNPS), which sets out the Government's policies for nationally significant road and rail projects. Further information about the NNNPS is available online: <https://www.gov.uk/government/publications/national-policy-statement-for-national-networks>

Further information about the DCO process is available on the Planning Inspectorate's website at <http://infrastructure.planningportal.gov.uk>

\*Service and network charges may apply. Visit [tfl.gov.uk/terms](http://tfl.gov.uk/terms) for details.

