From: Tim Steer

Sent: 29 September 2016 16:36

To: Valerie Shawcross Subject: RE: (No Subject)

Val

Some information. This is written from the perspective of protecting resident charging for Silvertown so it comes across as a bit defensive at the moment. Obviously I could re-present the information more neutrally (or we could ask TfL for a more formal briefing) if you want to let Nick have something at any point. But hopefully this is useful for any discussions you have on this imminently.

Tim

#### Notes on the Mersey Gateway bridge

- The borough of Halton is divided by the Mersey, and two town centres (Runcorn and Widnes) sit on opposite sides of the river near the location of the new bridge. Borough services are split between town centres, and local people made the case that the communities would not be connected as intended if a toll was applied to local residents.
- Halton has a population of 125,000, compared to a combined population of 775,000 in Tower Hamlets, Newham and Greenwich (although a more local exemption area could potentially be set in the Silvertown case).
- The local public transport offering in Halton is significantly poorer than in London, and providing local concessions through buses or other public transport is less of a realistic option. The council provides a free bus shuttle between the two town centres, bus this will continue to use the existing bridge. There will be no public transport across the new bridge.
- A road bridge already connects the two town centres the new bridge will be 1.5 miles away and is not designed to cater for local traffic, but for through traffic between the Runcorn Central Expressway and the M62 towards either Manchester or Liverpool. The existing bridge linking the town centres will remain untolled, meaning local people are unlikely to want to use the new bridge for local trips, despite it being free to do so. The exemption will not apply to business traffic.
- The actual motivation for the toll exemption was political. George Osborne's Tatton
  constituency is very close by, and he supported the scheme in his 2010 spending review,
  personally promising a review of the tolling structure in response to Labour's attempt to
  take the political initiative on this issue. Other local constituencies are marginal, and
  promises about the tolling structure have been used locally in support of candidates'
  campaigns.
- Also, demand management wasn't a main driver for the charge it's a revenue raising measure and their discount was subsidised by central government to the tune of £200m.

#### Points about a potential residents' discount for Silvertown

- Most traffic would be paying £1 to cross the river, not £3 because the higher charge only applies AM northbound and PM southbound. For example, from Greenwich 65% of all trips would pay £1.
- While 45% of Blackwall Tunnel trips are made by people who live in the host boroughs
  (which is why a discount would be problematic), most trips by host borough residents don't
  go across the river at all. For Greenwich, only 10% of all trips cross the river by any mode. Of
  those, only 20% do so by car (most of these do go by Blackwall). This means 98% of
  Greenwich residents' trips would be unaffected by any charge.

- Most people drive through Blackwall Tunnel only occasionally. Even during peak commuting time, only 10% of people are seen there five days a week. 50% are there once a week or less. Outside the peak periods around 90% of vehicles are seen once a week or less.
- The proportion of trips made by people on lower incomes is also likely to be small; evidence
  is that tunnel users' incomes are high compared to the average and car ownership is lower
  among lower income groups.
- The single biggest destination for morning peak trips across the Blackwall Tunnel is Canary Wharf.
- Of course there will be some (in the hundreds each day probably) who are on low incomes and get caught by the charge. However, low income groups are the biggest winners because they benefit most from the enhanced cross-river bus services.
- Finally, stats suggest that within 5 years, 50% of people in London will have changed their jobs ie, there is a lot of time for people to prepare for this and make plans if they want to avoid paying the charge.

#### Traffic/environmental impacts of a discount

- A 100% discount would have a big impact on traffic levels. There would be around 30% more traffic across the charged tunnels so scheme benefits would fall to the point that it might not be worth doing. Revenue would fall by about 25%.
- Traffic impacts of a 50% discount on traffic are less severe but would likely still lead to problematic air quality impacts. Revenue would fall by about 12%.
- Obviously a smaller discount or a smaller area would moderate these impacts, but there are very tight margins before the environmental impacts would fall foul of the Development Consent Order tests.
- And a smaller boundary would be very difficult to define a robust boundary and it would be
  instantly and continually challenged as it would be obviously arbitrary (and it would tend to
  grow not shrink). Also, note that parts of Lewisham and Southwark lie far closer to the
  Blackwall Tunnel than much of the host boroughs.
- Finally, offering a residents' discount would be an unhelpful precedent for ULEZ.

#### TRANSPORT FOR LONDON

#### **BRIEFING NOTE**

Subject: Silvertown Tunnel Mayoral Review

#### Manifesto pledge

"The next Mayor must start planning and delivering the infrastructure and new capacity for the future straight away...I will prioritise delivery of new river crossings in the east of the city"

#### 1.0 <u>Background</u>

- 1.1 At the meeting with the Mayor on 14 June 2016 it was agreed that the development and delivery of the Silvertown Tunnel should proceed in line with the timetable set out in the briefing pack and that the review should focus on identifying a series of improvements relating to:
  - Options for improvements for local residents
  - More detail around public transport provision
  - Ideas around how to make the scheme better for pedestrians and cyclists
  - Further information on the Rotherhithe walking and cycling bridge, including details around an interim electric ferry service
  - Responses to concerns about air quality
  - The implications of different configurations of the Ultra-Low Emission Zone.
- 1.2 TfL also agreed to provide in the interim:
  - Potential lines that the Mayor could use if asked about the review
  - Further information about the roundabout at the northern end of the tunnel and why that's the best way to configure the road layout at that location
- 1.3 This briefing addresses the interim information requested.
- 2.0 Potential lines on the Silvertown Tunnel Review
- 2.1 It is suggested that the Mayor adopts the following lines to explain the review which has been initiated.

"It will be really important to provide new river crossings in east London in the coming years, where there are currently very few but there is huge potential for growth and regeneration. These new crossings are needed to break down the



physical barrier between communities that the Thames can represent, and where possible they should promote sustainable travel choices like walking, cycling and public transport.

"The Silvertown Tunnel proposal has the potential to fulfil many of these aims while relieving congestion at the Blackwall Tunnel, but I am sympathetic to the concerns some people have about the existing proposals. I want to be sure that the project will work well for all Londoners, which means it will have to provide:

- a clear commitment to delivering much-needed cross river public transport links;
- environmental assurances, both in terms of how it is constructed and once operational; and
- benefits for pedestrians and cyclists, linking to the wider opportunities for new river crossings, such as the proposed Rotherhithe to Canary Wharf crossing.

"I have therefore decided to review the scheme over the summer, with a particular focus on these elements."

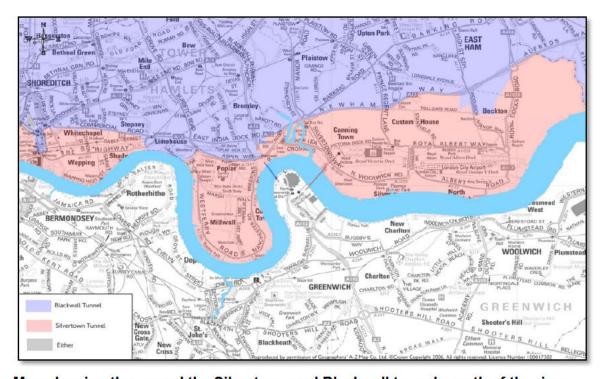
- 3.0 Configuration of the road layout at the northern (Silvertown) portal
- 3.1 The note attached as Appendix A sets out the rationale for the proposed road layout at the northern portal, where the new Silvertown Tunnel connects to the A1020 Lower Lea Crossing / Silvertown Way.



#### Appendix A - Configuration of the road layout at the northern (Silvertown) portal

Following the meeting with the Mayor on 14 June 2016, TfL was asked to provide additional information on the proposed design for the junction at the northern portal where the new Silvertown Tunnel connects to the A1020 Lower Lea Crossing / Silvertown Way.

The Silvertown Tunnel will greatly benefit traffic travelling to or from locations close to its northern portal, principally the opportunity areas of the Isle of Dogs and Royal Docks, as well as providing an important new public transport link. The areas that the new tunnel will directly serve are shown in pink on the map below:

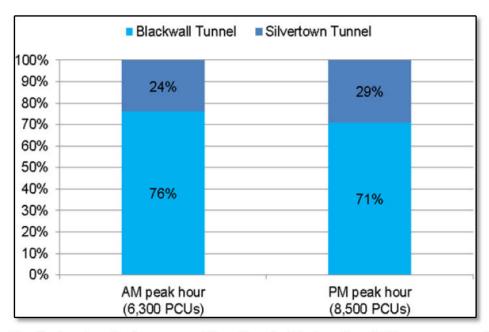


Map showing the served the Silvertown and Blackwall tunnels north of the river

Traffic to and from other locations (shown in purple), such as to the north and towards central London, is expected to continue to use the Blackwall Tunnel which provides direct connections to the A2, A12 and A13.

Overall it is anticipated that approximately 25%-30% of traffic crossing at Blackwall / Silvertown would use Silvertown Tunnel. This level of traffic diverting onto Silvertown is sufficient to effectively eliminate the severe congestion which currently plagues the Blackwall Tunnel, as well as providing the additional crossing resilience needed. The forecast split of traffic between the two crossings is shown on the graph below for the AM and PM peak periods.





Graph showing the forecast traffic using the Blackwall and Silvertown tunnels in the AM and PM peaks

As part of the Silvertown Tunnel scheme the existing Tidal Basin Roundabout will be significantly reconfigured and signalised with new arms to provide access to and from the tunnel, together with a realigned Dock Road. The layout would include a 'hamburger' link for traffic approaching from the A1020 Lower Lea Crossing to pass directly across the roundabout. The new arrangements have been modelled using regional (known as Saturn) and local (known as LinSig and Vissim) traffic models that demonstrate it operates well within capacity under a range of growth scenarios. The benefits of the reconfigured Tidal Basin Roundabout are:

- It allows traffic to reach key destinations, such as Royal Docks and Isle of Dogs, and maintains existing connections
- It enables the safe use of the junction for all road users, minimising visual intrusion and enabling improved pedestrian and cycle connections in this growing area
- It improves the geometry and layout of connecting roads, whilst minimising the overall footprint of land required thereby freeing up currently safeguarded land for redevelopment.
- All the connecting roads, together with the reconfigured Tidal Basin Roundabout, operate comfortably within capacity.

Other options were considered in developing the solution at Tidal Basin Roundabout, including the potential for grade separation of the junction. However, grade separation was discounted on the basis:



- It significantly weakens the connections to the Royal Docks opportunity area and limits opportunities for pedestrian and cycle connections.
- Due to the river depth and DLR viaduct the tunnel alignment is largely fixed and grade separation would require significant departures from design standards leading to safety concerns due to the steep carriageway gradients and excessively tight radii at the junctions.
- It offers no notable transport benefits over the alternative reconfigured Tidal Basin arrangement.

For these reasons the proposed re-configured Tidal Basin Roundabout is the preferred solution. The new arrangements are shown on the plan below.



Proposed re-configuration of Tidal Basin Roundabout







### **Briefing for the Mayor**

- 1. Background & action to date
- 2. Current status review of options
- 3. Recommendations
- 4. Announcement
- 5. Further updates: cleaner buses and air quality, ULEZ interaction and the Rotherhithe-Canary Wharf crossing
- 6. Indicative delivery timeline



#### 1. Background & action to date

- Mayoral pledge to prioritise delivery of new river crossings in the east of the city
- 14 June regular TfL meeting the Mayor confirmed support for Silvertown, but requested a review of options to deliver:
  - o Improvements for local residents
  - Public transport provision
  - Improvements for pedestrians and cyclists
  - Further improvements on air quality (including incentivising clean vehicles)





#### Background and action to date

- The purpose of this presentation is to:
  - provide a summary of the review and recommend a package of enhancements for the Mayor to consider to take forward as part of the development of the scheme
  - update on cleaner buses and air quality, ULEZ interaction and the Rotherhithe-Canary Wharf crossing as requested by the Mayor at 14 June regular meeting





#### Background and action to date

- Progress since the regular meeting with the Mayor on 14 June:
  - Public examination of the Development Consent Order (DCO)
     application into the construction of the Silvertown Tunnel and
     introduction of user charges at the Blackwall and Silvertown
     tunnels expected to start on 11 October 2016
  - Procurement process to start September 2016





### **Briefing for the Mayor**

- 1. Background & action to date
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- 4. Engagement & Announcement
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- 6. Indicative delivery timeline



#### Recommendations

It is recommended that the Mayor consider the following package of enhancements to take forward as part of the development of the scheme:

- Buses Bus Strategy & commitment in 2016 Business Plan for new services
- Free cross river bus travel for a limited period
- Dedicated cycle shuttle service (trial)
- North Greenwich to Canary Wharf ferry feasibility
- EAL fare concessions
- User charge: fee-free account-registration for local residents
- Local urban realm improvements to improve walking and cycling connections
- Increased river transport commitment (construction phase)
- Low Emission Neighbourhoods (LENs) at north and south sides



### **Briefing for the Mayor**

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## **Options: bus enhancements**

| Option I    | Silvertown Bus Strategy  |  |  |  |  |
|-------------|--|--|--|--|--|
| Pros        | <ul> <li>Builds on commitment in DCO application by:</li> <li>Making £ commitment to Silvertown bus services and Bus Priority measures</li> <li>Setting out process for route development, including stakeholder engagement</li> <li>Shows immediate commitment</li> <li>Allows for flexibility in planning best services at Scheme opening</li> </ul> |  |  |  |  |
| Cons        | <del>-</del> .   |  |  |  |  |
| CAPEX range | Zero   |  |  |  |  |
| OPEX range  | c£10m/year (enables 37.5 buses/hour).  |  |  |  |  |

| Option 2                  | Free cross-river bus travel   |  |  |  |  |
|---------------------------|---|--|--|--|--|
|                           | For limited period on buses.<br>Available to residents for cross<br>river trips   |  |  |  |  |
| Pros                      | <ul> <li>Demonstrates new PT services<br/>and establishes demand</li> <li>Easily understood</li> </ul>                  |  |  |  |  |
| Cons                      | <ul> <li>May stoke view that the user charge is unfair</li> <li>May be hard to discontinue once in operation</li> </ul> |  |  |  |  |
| CAPEX range<br>OPEX range | Zero<br>£1m - £5m   |  |  |  |  |





## Options: cycle shuttle services

| Option I    | Dedicated cycle shuttle service   |  |  |  |  |  |
|-------------|---|--|--|--|--|--|
|             | Bespoke vehicle designed to carry cycles and cyclists through tunnel. Service could be scheduled or 'turn up and go'.   |  |  |  |  |  |
| Pros        | <ul> <li>Enables cyclists to transport cycles through tunnel</li> <li>Can be trialled to establish demand</li> </ul>  |  |  |  |  |  |
| Cons        | <ul> <li>Journey times may impact on<br/>demand, in particular for<br/>commuters</li> <li>Potential duplication of EAL and<br/>North Greenwich ferry</li> </ul> |  |  |  |  |  |
| CAPEX range | ~ £150k   |  |  |  |  |  |
| OPEX range  | ~ £300k/year  |  |  |  |  |  |

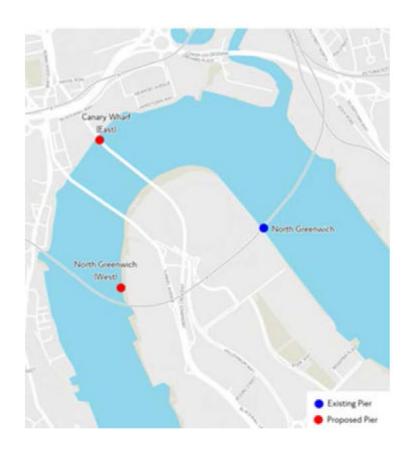
| Option 2    | Modify existing buses   |
|-------------|---|
|             | Add cycle racks to cross-river bus services using Silvertown Tunnel.  |
| Pros        | Enables cyclists to transport cycles through tunnel   |
| Cons        | <ul> <li>Would significantly increase boarding and journey times, to detriment of other passengers</li> <li>Operational constraint on bus services</li> <li>Safety concerns over racks – front mounted racks not permitted</li> </ul> |
| CAPEX range | £500k for bus modifications   |
| OPEX range  | ~ £2m/year  |





### **Options: North Greenwich to Canary Wharf ferry**

| Option      | North Greenwich – Canary Wharf ferry   |  |  |  |
|-------------|--|--|--|--|
|             | New electric ferry service between new<br>piers at North Greenwich West and Canary<br>Wharf East for pedestrians and cyclists  |  |  |  |
| Pros        | <ul> <li>Piers are being provided as part of developer obligations</li> <li>Operating costs potentially cross-subsidised from Blackwall/Silvertown user charging</li> <li>Sponsorship opportunity</li> <li>Relieves Jubilee Line</li> <li>Served by other river services</li> <li>Would not run overnight</li> </ul> |  |  |  |
| CAPEX range | £12m for modifications to piers and new  |  |  |  |
| OPEX range  | vessels<br>£1.5m-£2m/year (subject to fares policy)  |  |  |  |







#### **Options: Emirates Air Line (EAL) concessions**

#### Option EAL: free travel for commuters

 Free anytime return travel for people using EAL between 7am-9am weekdays or

• Half-price return tickets at anytime

#### Pros

· Builds local awareness and usage of EAL

Low cost to TfL

# Cons

· Some administration involved

CAPEX range OPEX range

Zero, subject to leisure fares increasing to offset costs







## **Options: User charge**

| Option I    | Resident discount<br>100% or 50% discount for<br>residents of 3 host boroughs  |
|-------------|--|
| Pros        | Savings for some users   |
| Cons        | <ul> <li>-60% benefits (principally due to increased journey times)</li> <li>- 25% revenue annually</li> <li>Up to + 20% traffic</li> <li>Air quality worsens</li> <li>Any boundary would be arbitrary "why Stratford and not Catford?"</li> <li>Risk to affordability of project</li> </ul> |
| CAPEX range | Zero   |
| OPEX range  | 25% / c.£15m p.a. of revenue lost annually (100% discount)   |

| Option 2    | Free registration  |  |  |  |  |
|-------------|--|--|--|--|--|
|             | The annual fee (c£10) for account registration is waived for a 6-month period for local residents.                               |  |  |  |  |
| Pros        | <ul> <li>Encourages account take-up</li> <li>Can be open to residents of 3<br/>host boroughs or wider London<br/>area</li> </ul> |  |  |  |  |
| Cons        | Some lost income to TfL  |  |  |  |  |
| CAPEX range | Lost opportunity c£1.5m  |  |  |  |  |
| OPEX range  | N/A  |  |  |  |  |





### Options: further improving the public realm

| Options (north) Pros      | Silvertown Way link and Victoria Dock Road DLR bridge Public realm and ambience improvements to pedestrian and cycle link from Dock Road to Royal Docks and DLR bridge to Victoria Dock Road. Including replacement of footway, public art, lighting scheme and wayfinding. • Enhances important future connection into Thames Wharf and to communities in the north • Opportunities to involve local community |
|---------------------------|---|
| Cons                      | Details to be agreed with LB     Newham and DLR   |
| CAPEX range<br>OPEX range | £950k<br>N/A  |

| Options (south) | Boord Street and Tunnel Avenue Enhancements to public realm on Tunnel Avenue and Boord Street, including planting and a shared space.  |
|-----------------|--|
| Pros            | <ul> <li>Would "humanise" and add<br/>greenery to vehicular dominated<br/>space</li> <li>Enhances important future<br/>east-west and north-south links<br/>for pedestrian and cycle links</li> </ul> |
| CAREY           | <ul> <li>Details to be agreed with RB<br/>Greenwich</li> <li>Benefit only realised when area<br/>is fully developed</li> </ul>   |
| CAPEX range     | £900k  |
| OPEX range      | N/A  |
|                 |  |





## Options: river transport commitment

| Option I                  | Higher river transport target A commitment to carry a minimum 55% of construction material by river (50% in DCO application)   |
|---------------------------|--|
| Pros                      | <ul> <li>This takes equivalent of 2,000 large concrete trucks off the roads</li> <li>Reduces air quality, noise and safety impacts of construction</li> <li>Reduces traffic impacts</li> </ul> |
| Cons                      | May increase cost and limit supplier options   |
| CAPEX range<br>OPEX range | Negligible impact (included in contract costs)   |







### **Options: Low Emission Neighbourhoods**

Option 1 Low Emission Neighbourhoods

(LENs) in RB Greenwich and LB

Newham

Future proofing developments on each side of the Silvertown Tunnel to ensure air quality measures are delivered through regeneration.

Pros

 Allows borough to develop and implement its own measures

 Implementation primarily funded via developers, but with TfL complementary support

 Geo-fencing could be added once technology is proven.

Cons

N/A

CAPEX range

£50k / borough for initial study

OPEX range

Zero







### Summary of enhancements reviewed

|   | Tangible benefits to:  |            |              | Appraisal: |  |  |             |
|---|------------------------|------------|--------------|------------|--|--|-------------|
|   |                        | Public     | Pedestrians  | Air        | Costs and  |  |             |
|   | Residents              | Transport  | and cyclists | quality    | Affordability  | Feasibility  | Recommended |
| Buses – Bus Strategy & commitment in 2016<br>Business Plan for new services | <b>√</b> ✓             | <b>√</b> √ |              |            |  | <b>√</b> √   |             |
| Free cross river bus travel for a limited period                            |                        |            |              |            | See<br>footnote  |  |             |
| Dedicated cycle shuttle service (trial)                                     |                        |            |              |            | , and the second |  |             |
| Bus service with provision for cyclists                                     |                        |            |              |            |  |  |             |
| North Greenwich to Canary Wharf ferry                                       | <b>√</b> √             |            | <b>√</b> √   |            | See<br>footnote  |  |             |
| Emirate Air Line fare concessions   |                        |            |              |            |  | <b>//</b>  |             |
| User charge: discounts for certain residents                                |                        |            |              |            |  |  |             |
| User charge: fee-free account-registration                                  |                        |            |              |            |  | <b>//</b>  |             |
| Local urban realm improvements  | $\checkmark\checkmark$ |            |              |            |  | is and the second secon |             |
| Increased river transport commitment (construction phase)                   | <b>√</b> √             |            |              | √√         |  |  |             |
| LENs at north and south sides   |                        |            |              |            |  |  |             |
| = significant benefits  | = be                   | nefits     |              | = no no    | otable benefit   | cs   | = disbenefi |

Footnote: Costs will depend upon the fares policy adopted

### **Briefing for the Mayor**

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#### **Announcement**

- Mayoral improvements to Silvertown Tunnel will benefit locals, cyclists and pedestrians and mean a greener and fairer scheme
  - TfL to deliver a Silvertown Tunnel bus strategy with funding for bus services and bus priority measures
  - Free cross river bus travel for local residents for a limited period
  - Trial of a new free cycle shuttle service
  - Commitment to investigate a North Greenwich Canary Wharf ferry service
  - Urban realm improvements to help cyclists and pedestrians
  - More use of the river in construction, taking lorries off the road
  - Free account registration for Londoners
  - Changes to EAL to make it more affordable for cycle and pedestrian commuters

A separate briefing will be provided at the end of September on the other river crossings (Rotherhithe to Canary Wharf, Belvedere and Gallions Reach).

### **Briefing for the Mayor**

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#### **Further Updates**

#### Air Quality

- Euro VI buses: delivers a reduction of ~3% NO<sub>2</sub>. Both Silvertown and Blackwall could be designated as Clean Bus Corridors
- The scheme supports early compliance with EU limit values. Further modelling underway using new Defra AQ toolkit.

#### ULEZ

- TfL is examining potential traffic and environmental impacts of various ULEZ boundary options
- Impact on Silvertown is unlikely to be significant and is within the range of sensitivity testing

#### Rotherhithe to Canary Wharf crossing

- Options being considered include a bridge, tunnel and enhanced ferry service –
  options are not mutually exclusive a ferry could be a shorter term solution.
- Engineering, demand forecasting and cost estimation work underway to help inform a Mayoral decision on which option/s to progress - options will be presented at the end of September



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## Indicative delivery timeline

|      | DCO                              | Procurement  | Construction                       |
|------|----------------------------------|--|------------------------------------|
| 2016 | DCO acceptance (May)             |  |                                    |
|      | Pre-examination (Jun-Oct)        |  |                                    |
|      | Public examination (Oct-Apr)     | OJEU & Pre-Qualification Questionnaire issued (Sept) |                                    |
|      |                                  | PQQ responses (Nov)                                  |                                    |
| 2017 | Recommendation (Apr-Jul)         | Shortlist bidders (Mar )                             |                                    |
|      | SoS decision (Oct)               | Tender issued (Apr)                                  |                                    |
|      | Judicial Review period (Oct-Nov) | Tender return (Dec)                                  |                                    |
| 2018 |                                  | Preferred bidder selection (Jun)                     |                                    |
|      |                                  | Financial close / contract award (Jul-Dec)           |                                    |
| 2019 |                                  |  | Design & enabling start (Jan)      |
|      |                                  |  | Construction starts (Jun)          |
| 2023 |                                  |  | Commission & testing (Jan-<br>Jun) |
|      |                                  |  | Opening (Jun)                      |



## **Appendix – Public Realm Improvements**





#### Committed public realm: Silvertown

Public realm designed in conjunction with L.B.Newham and GLA Land / Housing to provide dedicated pedestrian/cycle connections to key attractors (e.g. Emirates Airline and DLR) and facilitate regeneration of development sites.



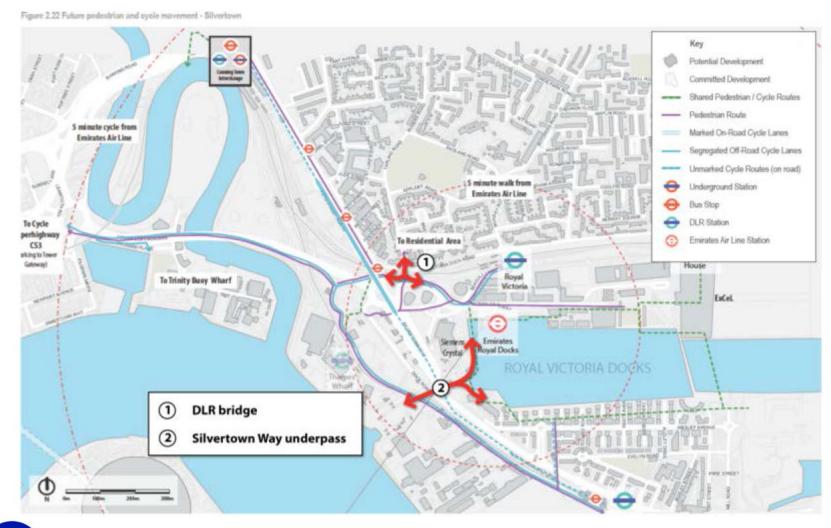
Tunnel portal and public realm proposals at northern portal Note: white spaces indicate development sites

Tunnel portal and port

Public realm proposals looking south west towards tunnel portal across Tidal Basin Roundabout

Since Mayoral review was initiated the footprint for scheme has been reduced to support more housing, segregated cycle lanes confirmed and opportunities for further walking/cycling links identified (see overleaf).

## Further improving linkages in Silvertown







### Further improvements: DLR bridge

#### **Existing Bridge**



Location



Structure

#### Potential improvements





Cycle guide rail



Laser cut artwork



LED hand rail lighting





## Further improvements: Silvertown Way

#### **Existing Underpass**









#### Potential improvements









Artwork





Improved materials



Architectural lighting





#### Committed public realm: Greenwich Peninsula

Public realm designed in conjunction with R.B.Greenwich and GLA Land / Housing to minimise land take, support development (e.g. Knight Dragon) and reflect design quality for Greenwich Peninsula masterplan.

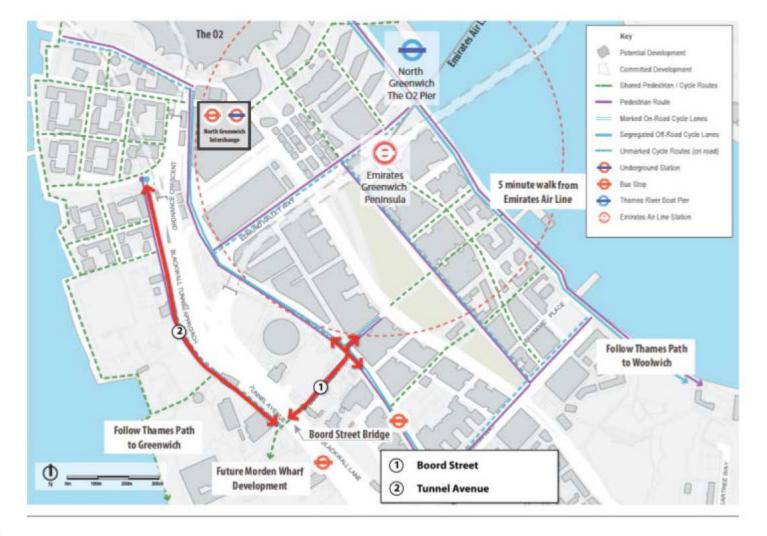


Tunnel portal and public realm proposals at southern portal Note: white spaces indicate development sites



Since the Mayoral review was initiated the footprint for scheme has been reduced to support more housing and opportunities for further walking/cycling links identified (see overleaf).

### Further improving linkages on the Greenwich Peninsula







### Further improvements: Greenwich Peninsula

#### Existing environment - Tunnel Avenue





#### Existing environment – Boord Street



#### Potential improvements







Street furniture and wayfinding





Improved materials





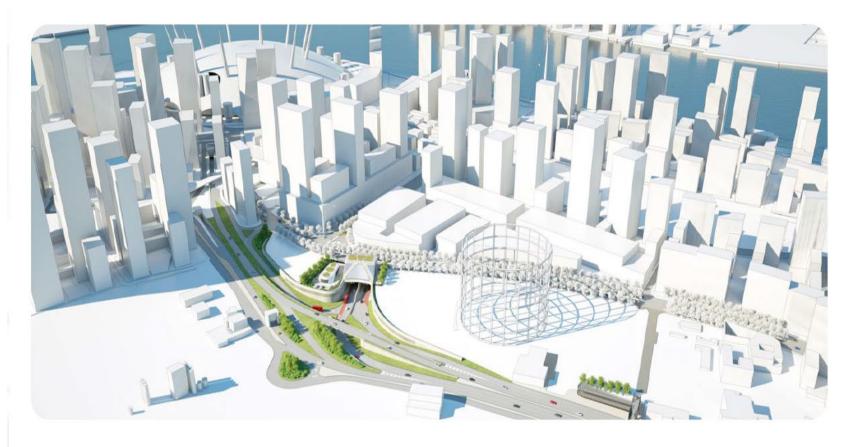


Cycle parking









TUESDAY 14TH JUNE 2016

### **TfL Silvertown Tunnel**



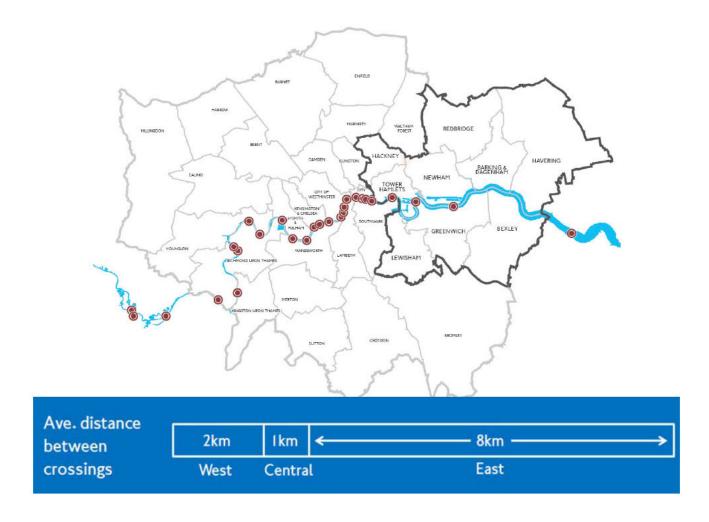
#### **Presentation overview**

- Background and rationale for the scheme
- The Silvertown Tunnel scheme
- Opportunities for transforming the bus network in east London and improving conditions for walking and cycling
- Air quality
- Designation as a Nationally Significant Infrastructure Project
- Consultation and community engagement
- The role of user charging
- Costs and affordability
- Mayoral Review
- Timescales



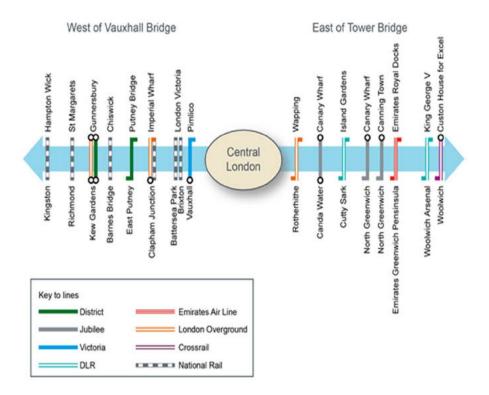


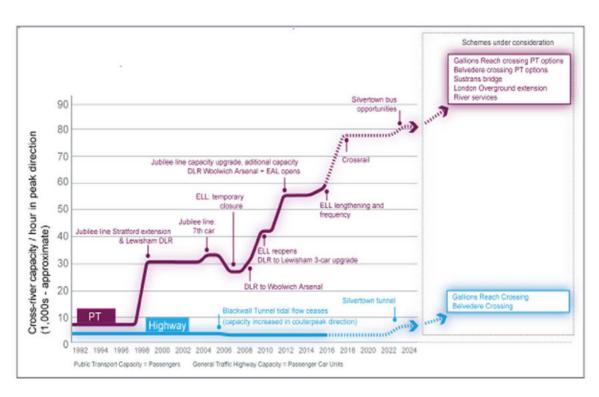
## East London has fewer road crossings than west London





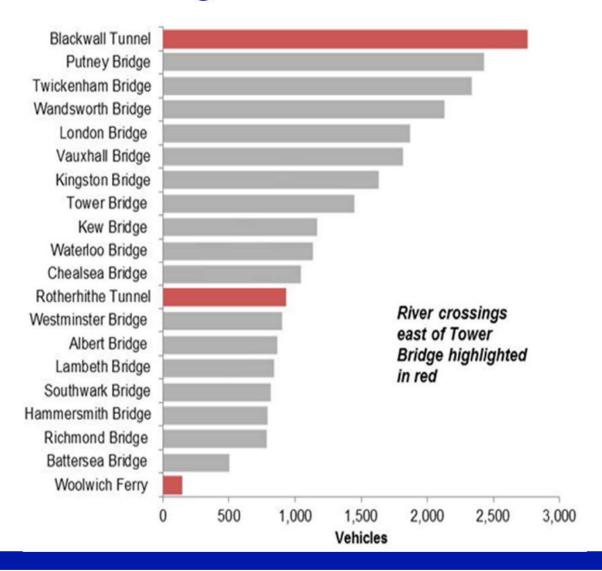
#### Increase in rail capacity in east London







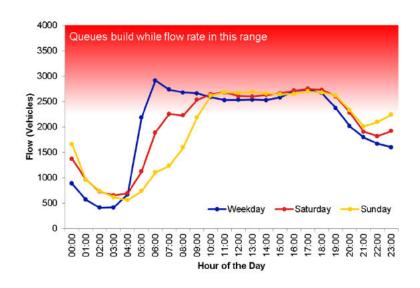
# Weekday AM peak hour northbound traffic flows across GLA bridges, tunnels and ferries





#### **Current Issues at Blackwall Tunnel**

- Daily congestion over extended peak periods
- Impacts across the wider network, including the bus network.
   Congestion means vehicles travel less efficiently, worsening air quality
- The resilience of the tunnel is poor only 26 days in 2014 when there wasn't any closure at Blackwall (10 days in 2013)
- Future growth will lead to greater pressure on the road network



| Nature of incident requiring closure                           | No of incidents in 2014 |
|--|-------------------------|
| Over height vehicle attempting to access the northbound tunnel | 412                     |
| Vehicle breakdown on the approach to or within the tunnel      | 376                     |
| Other – e.g Debris within the tunnel                           | 169                     |
| Road traffic accident  | 37                      |



### Typical queues at Blackwall

- On a normal day, there can be a two mile tail-back to access the tunnel
- Journeys are regularly delayed by around 25 minutes
- A six minute closure can lead to a three mile tail-back
- Around 1,000,000 hours are wasted each year, costing around £10m in lost time

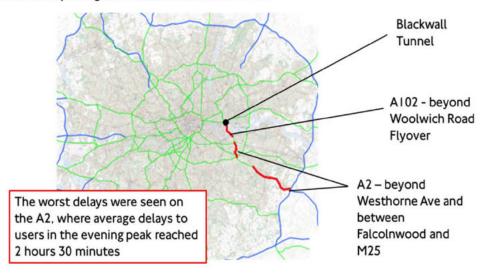


### Resilience at Blackwall – 24 May 2016

A spillage discovered in the Blackwall Tunnel at 7:00am on Tues 24 May 2016 resulted in the closure of the northbound tunnel bore for almost 20hrs. Extreme congestion and heavy traffic was reported across much of east and south east London throughout the day, with queues of over 5 miles across the area.



#### Extent of queuing traffic within London on TLRN:



Kent & Sussex Courier
Severe delays at Dartford
Crossing following
Blackwall Tunnel closure

#### **BBC News**

...major disruption for commuters in south-east London. Buses are delayed by up to three hours and traffic is severely congested

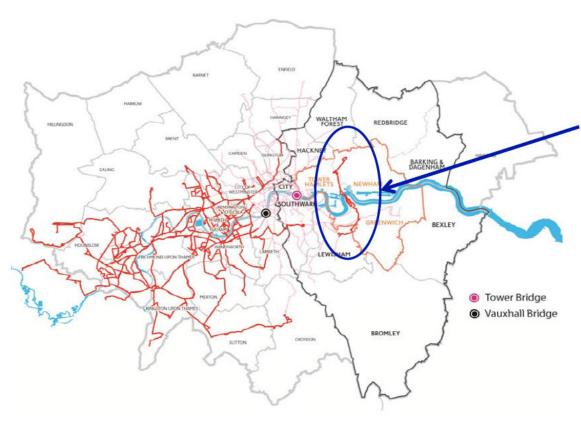
#### LBC

Blackwall Tunnel shut all day and drivers are furious at the delays caused by it.

Evening Standard
Commuters stuck in
tailbacks said the incident
highlighted the urgent need
for an alternative crossing
in east London



## Limitations on the cross river bus network in east London



Due to the problems of poor reliability and the height restrictions at Blackwall only one bus route crosses the river in east London – the single decker 108 service that is the least reliable route in Newham and Greenwich.







## Business views on the Blackwall Tunnel

A survey of 500 businesses in 2015 found:

- Nearly three quarters said that congestion 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
- 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, with this costing each business on average £26,000 a year





## Why Silvertown?

|  | Silvertown | Gallions Reach | Belvedere |
|--|------------|----------------|-----------|
| Day to day conditions  |            |                |           |
| Connection to the strategic road network and suitable alternative to Blackwall   | ✓          | ×              | ×         |
| Potential for significant reduction in traffic and/or congestion and delay at the Blackwall Tunnel   | ✓          | ×              | ×         |
| Closures & incidents   |            |                |           |
| Potential to reduce the number of incidents at<br>Blackwall and provide a suitable alternative route<br>in the event of a Blackwall Tunnel closure | ✓          | ×              | ×         |
| Connectivity and supporting growth   |            |                |           |
| Improving network performance, cross-river connectivity and supporting growth  | ✓          | ✓              | ✓         |
| Costs and affordability  |            |                |           |
| Cost of new crossing can be met through user charging revenue  | ✓          | ×              | ×         |



#### Silvertown Tunnel

Twin bored tunnel linking A102 Blackwall Tunnel Approach on the Greenwich Peninsula to the Tidal Basin roundabout in the Royal Docks area

- User charging at the Blackwall and Silvertown Tunnels
- Designed for taller HGVs and double decker buses, with a dedicated bus / coach / HGV lane in each direction.
- Indicative construction programme opened mid 2023.

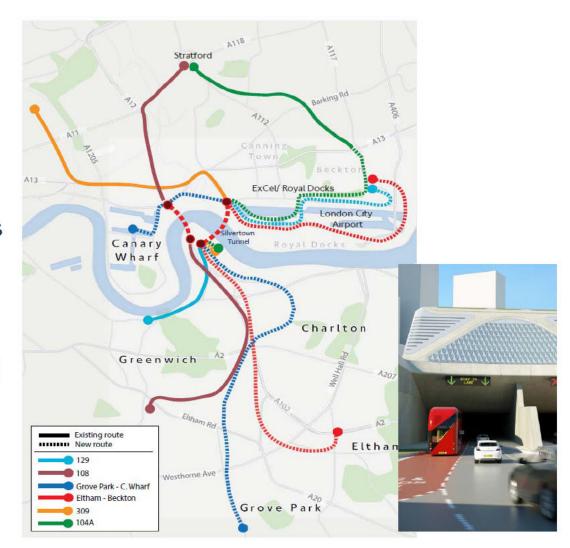






## An opportunity to radically improve the east London bus network

- Illustration of what a network using the Silvertown & Blackwall could look like
- Infilling gaps in rail provision the 'missing mode'
- Services assessed equal 37.5 buses per hour per direction
- Projected increase from 10% to 30% for proportion of trips made by public transport using Blackwall / Silvertown crossings
- Increases public transport accessibility for key development sites, such as the Royal Docks





#### Improving walking, cycling and the public realm



- Improve access to Thames Wharf from Royal Victoria

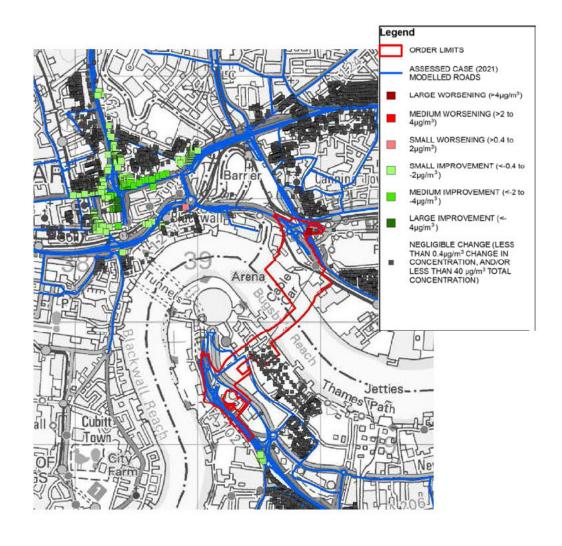
  Dock to tie in with future regeneration opportunities
- Improve future link between Royal Victoria Dock and
  Thames Riverside under barrier of Silvertown Way.
- Complete off-carriageway route for cyclists on NCN Route 13,
- 4 transport such as DLR, Emirates Air Line & Crossrail

Landscaping, pedestrian, cycling and public realm designed in conjunction with host boroughs and developers to provide connections to key attractors (e.g. Emirates Airline and DLR) and enable regeneration of development sites.



#### Air quality impacts

- The new tunnel with user charging ensures no additional traffic is generated and queueing is effectively eliminated.
- The air quality impacts are therefore largely beneficial, with:
  - 222 sites experiencing a perceptible improvement
  - just 4 sites experiencing a perceptible deterioration (at the new tunnel mouths).





### National Significant Infrastructure Project & DCO

"The Secretary of State is of the view that this development [Silvertown Tunnel] by itself is nationally significant, for the reasons set out below:

 London is an engine for growth nationally – the proposed development is intended to have a significant impact on reducing both current and forecast congestion in London

- Current infrastructure is likely to be unable to absorb this
  additional capacity, leading to even greater congestion.
  Given the position of London as an economic driver
  nationally any decrease in the efficiency of London's
  transport network may have a consequential detrimental
  impact nationally.
- Current congestion at the Blackwall tunnel is having a direct impact on the strategic road network.

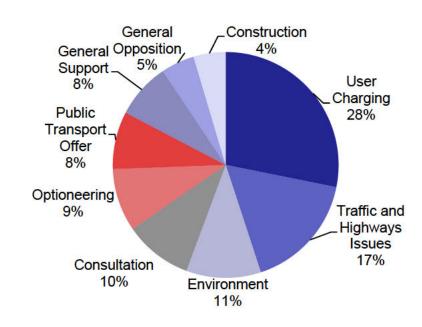
Extracts from the Secretary of State's letter dated 26/6/2012



### Statutory public consultation

- TfL's fourth public consultation on the scheme
- Ran from 5 October 29 November 2015 and was extensively publicised using a variety of tools. (e.g. email, twitter, press, post)
- TfL received 4,137 responses in total, from a range of organisations as well as members of the public.
- 58% of respondents were in support of the Silvertown Tunnel Scheme, with 31% opposed and 11% not responding to the question.
- Comments focussed upon the 10 key themes:

| Theme                       | Comments | % Comments |      |
|-----------------------------|----------|------------|------|
| User Charging               | 6973     |            | 28%  |
| Traffic and Highways Issues | 4158     |            | 16%  |
| Environment                 | 2655     |            | 10%  |
| Consultation                | 2415     |            | 10%  |
| Optioneering                | 2229     |            | 9%   |
| Public Transport Offer      | 2041     |            | 8%   |
| General Support             | 1967     |            | 8%   |
| General Opposition          | 1185     |            | 5%   |
| Construction                | 1138     |            | 4%   |
| Grand Total                 | 25331    |            | 100% |





#### Issues raised by the London boroughs

 Two/three weekly cycle of meetings with 'host' boroughs of Greenwich, Newham and Tower Hamlets and meetings with 'neighbouring' boroughs at key stages; eg. prior to and post statutory consultation

| Theme                       | Actions  |
|-----------------------------|--|
| Public transport/walk/cycle | Borough involvement proposed in detailed bus route planning for Silvertown; EAL fares strategy review; improvements for pedestrians and cyclists proposed.                                   |
| User charging               | Modelling of high/low values of time and residents discount; TfL ongoing liaison with boroughs through the Silvertown Tunnel Implementation Group (STIG) to set and review the user charges. |
| Traffic and highways        | Modelling independently reviewed and sensitivity testing undertaken; revisions to highways layouts and land requirements: STIG to oversee any future local mitigations.                      |
| Environment                 | Development of monitoring strategy. Commitment to Euro6 equivalent buses.  |
| Construction                | Commitments to maximising use of the river (minimum of 50% of all materials by river) and Code of Construction Code Practice (CoCP) produced.  |
| Tunnel design               | Buildings redesigned and repositioned, improved cycling, walking and landscaping proposals provided.   |

### **Engagement with the wider community**

- Developed a contact database to include all known residents associations, civic societies and other community groups (in addition to other stakeholders)
- Consulted the host boroughs on the database to ensure all 'hard to reach' groups were included, and offered meetings with all groups at key stages (eg. prior to statutory consultation)
- Sourced commercially available mailing lists of businesses in the host boroughs to supplement the contact database, and held a number of 'Business Breakfast' events to ensure business was aware of the scheme (April, July and September 2015)
- Ran a Twitter campaign in the run up to the statutory consultation to raise awareness of the scheme and planned statutory consultation
- Produced a short film and held roadshows to explain the purpose and benefits of the scheme in an attractive, accessible way.





#### The role of user charges

The charges are required to meet the Government's policy test for new roads by managing demand so that overall traffic levels do not increase and air quality does not worsen:

- If the charges are set too high traffic will divert onto other river crossings impacting on safety, congestion and air quality over a wide area.
- If the charges are set too low, it will generate too much additional traffic, eroding the benefits of free-flowing, reliable journeys.
- User charging also provide a relatively steady, long-term revenue stream to pay for the scheme.



Charging Hours 6am to 10pm

Peak periods 6am-10am NB 4pm-7pm SB

## 100% Discounts, such as for:

- Blue Badge holders
- Low emission vehicles
- Taxis, buses and coaches.

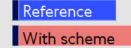
All figures are in 2015 prices

Actual charges will be set closer to the time of opening with the objective of balancing traffic and environmental considerations. TfL will liaise with boroughs through the Silvertown Tunnel Implementation Group (STIG) in setting the charges.

## New tunnel with user charging – key combination to deliver benefits

### Tunnel without charging

15-30% increase in levels of traffic



Up to 10 mins delay remains on Blackwall Tunnel approach



Average speeds in host boroughs remains broadly unchanged

More traffic and continued congestion increases emissions

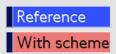


No ability to influence use of cleaner vehicles



## Tunnel with 'Assessed Case' charges

No increase in traffic (slight reduction)



Current severe delays effectively eliminated



Average speeds across host boroughs improves by 4-6% (less queueing)

Same traffic moving more efficiently reduces emissions



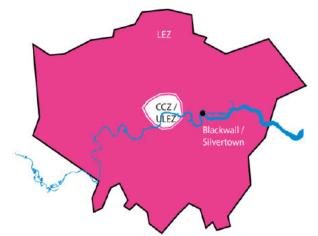
Discounts encourage low emission vehicles



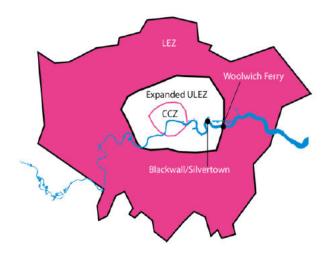


#### Silvertown with / without an extended ULEZ

#### Scenario 1: ULEZ in central zone only



Scenario 2: ULEZ expanded to inner London



- Silvertown traffic modelling assumes this scenario (little direct traffic impact from ULEZ)
- Assumed charges at BWT/ST include 100% low-emission discount
- Exploring scope for T-Charge for polluting vehicles (impact of displacing pollution needs evaluation)
- Expansion of ULEZ would improve baseline air quality and fleet emissions
- Unlikely to significantly affect traffic at BWT/ST, unless tunnels are exempted from ULEZ charge (eg if BWT forms part of boundary route)



#### Costs and affordability

Costs Income Scheme costs (£1.055m The scheme is financially **PPP** outturn) are split User charging positive. Income generated **DBFM** between TfL's direct from user charging completely income 30 year costs (e.g. land costs) covers the cost of the project and the PPP costs TfL direct costs

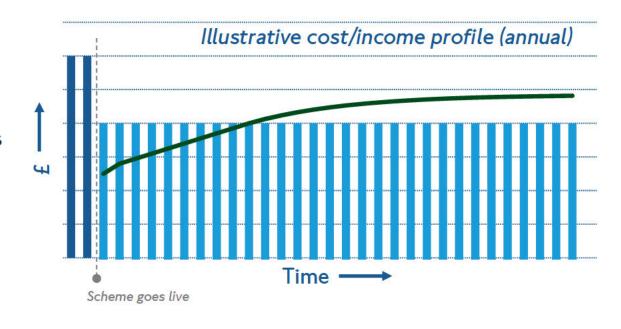
#### Profiling of costs and income

#### Early years:

Annual shortfall between unitary charge and income from charges (funded by TfL Business Plan)

#### Later Years:

Net surplus for TfL to invest in other transport improvements.



## **Mayoral Review**

What sort of review and areas of focus?

- Air Quality concerns:
  - Hot spots and mitigations
  - Links with an expanded ULEZ
- Public realm improvements and addressing community concerns
- Construction traffic use of river
- Public transport improvements commitment
- Balanced tolling
- Environmental issues





#### Silvertown Tunnel Indicative Timetable

