

## TfL River Crossings programme

### Responses to issues raised

#### Introduction

This report sets out TfL's responses to the issues raised during our consultation on options for a package of new river crossings for east London, which ran from 7 July – 18 September 2014.

We received around 7,500 responses, many of which were detailed and raised a number of issues. We have published a Consultation Report, which is available at [tfl.gov.uk/new-river-crossings](http://tfl.gov.uk/new-river-crossings) and sets out in full the outcome to the consultation and the issues raised. The comments we received were very helpful and have influenced our work in a large number of ways. Having reflected on the results, we feel that the key issues arising from the consultation are as follows:

- Almost all of the respondents agreed that there is a need for new river crossings for east London, although there were differing views in terms of what these new crossings should be and where they should be located;
- While supportive of the principle of new crossings in general terms, many respondents were nonetheless concerned about local impacts, particularly about traffic impacts;
- Respondents were generally more supportive of bridges than ferry crossings, although some asked that we consider new tunnels as these might release greater land for new housing or other developments;
- A number of respondents asked us to explore what improvements to east London's public transport network could be incorporated within (or instead of) the new road crossings, and others had specific suggestions for particular schemes;
- Other respondents were concerned to know how pedestrians and cyclists could be accommodated within any new crossings.

We consider that it is vital that a package of new highway river crossings be built in east London. Having conducted research with businesses throughout east London, we know that businesses consider the river a barrier to trade, and that introducing new crossings would provide them greater access to their customers, suppliers and staff, helping them to trade more effectively and potentially creating new jobs. A report summarising the outcome of our research is available on our website at <https://consultations.tfl.gov.uk/roads/2d8e57d0>.

New road crossings would create new cross-river connections. These could reduce journey times, create new opportunities for further improvements to the walking, cycling and public transport networks and help to stimulate development in the surrounding area. A package of new crossings in east London, in addition to the Silvertown Tunnel and Lower Thames Crossing proposed by the DfT could help to spread the demand to cross the river by vehicle, reducing the impact at any one location.

Having considered all of the issues raised in the consultation, we will now continue to develop the concepts of new bridges at Gallions Reach and Belvedere, and we will also consider whether tunnels would be more suitable by releasing greater land for development than would be possible with a bridge. In doing so, we will bear in mind the National Networks National Policy Statement (NPS) for road and rail projects, which was published by Government in December 2014. The NPS brings together environmental, economic and other policies to ensure new development is sustainable.

Over the coming months we will undertake a great deal of work to develop our proposals in greater detail. For example, we will:

- Improve and refine our understanding of the likely impacts these new crossings would have on traffic flow and the environment.
- Develop business cases for the new crossings as well as our proposals for user charging, to manage demand for the crossings and fund their construction and operation.
- Consider whether we might need to take additional traffic management or other mitigation steps to ensure the new crossings operate successfully and sustainably.
- Explore how we might best apply for the powers that would be necessary to build and operate the new crossings, since this would impact on our programme.
- Look at how we can make best advantage of the opportunities that new river crossings would give us to improve cross-river links for pedestrians, cyclists and public transport passengers.

We will put our consideration of proposals for a new ferry at Woolwich and a ferry at Gallions Reach on hold, pending the outcome of this work.

We intend to hold a further consultation in the autumn 2015 in which we will present the further work undertaken and seek comments on more detailed proposals. This will give us opportunity to continue to develop our plans for river crossings east of Silvertown with the benefit of public and stakeholder feedback.

### **About this document**

This paper sets out our response to all of the issues raised during our consultation on options for a package of new river crossings for east London. It should be read in conjunction with our Consultation Report, which has also been published.

We asked respondents to rate their support for or opposition to four different options for new crossings, and gave them an opportunity to add any thoughts they had about each option. We also included a final question to give respondents the opportunity to raise any other issues they felt we should be aware of.

The document is split into a number of different sections, reflecting the structure of the questionnaire we included with our consultation:

- A: A new ferry at Woolwich
- B: A ferry at Gallions Reach
- C: A bridge at Gallions Reach
- D: A bridge at Belvedere
- E: Other issues

## **A A new ferry at Woolwich**

In summary we found:

- A total of 37 per cent of respondents supported or strongly supported this option;
- A total of 42 per cent of respondents opposed or strongly opposed this option;
- 21 per cent of respondents stated that they could neither support nor oppose this option.

We also asked respondents what combinations of new crossings, if any, they felt we should progress. The most frequently preferred 'package' of new river crossings which included a new ferry at Woolwich was a new bridge at Gallions Reach and a new ferry at Woolwich, which was identified by eight per cent of respondents. Six per cent of respondents identified a new ferry at Woolwich alone as their favoured package. We also received 323 letters or emails about the proposals, some of which included comments about the proposal for a new ferry at Woolwich.

We received comments both in support of and opposed to this option, and we address the issues raised below.

### *A1, Comments on the effect that a new ferry service at Woolwich could have on traffic flow*

Some respondents commented that a new ferry crossing at Woolwich would assist in helping traffic to flow more smoothly here, or highlighted in some cases that the traffic impacts of operating a ferry crossing at Woolwich were disruptive. Others felt that a new ferry service at Woolwich would not reduce congestion, but may instead increase it.

The existing service is nearing the end of its practical working life, and consequently can be subject to unforeseen delays or cancellations. On the south side of the river, the ferry pier is located close to the road network, with only a short access road between the pier and the A205/A206 roundabout. Although there is a queuing area for traffic waiting for the ferry, vehicles wishing to enter it can be impeded by vehicles moving up from the queuing area to board the ferry.

When this happens, vehicles quickly block back onto the roundabout, disrupting traffic flow on the A205 and A206. A new ferry service at Woolwich could offer more capacity and be more reliable, helping to reduce the number of occasions when traffic waiting to board disrupts traffic on the A205 and A206. Any ferry crossing could become disrupted by fog or other adverse weather conditions, such that it is

unlikely to be possible to avoid occasions in which traffic on the A205 and A206 is disrupted.

#### *A2, The Woolwich Ferry is part of London's heritage/Tourist attraction*

Some respondents felt that a ferry crossing should be retained at Woolwich since this is a traditional crossing point for London. Other respondents went further and suggested that the Woolwich Ferry may have value as a tourist attraction.

Our objective is to develop new river crossings for east London that deliver maximum benefits for the travelling public, to the greatest value for money. We recognise that some transport services are seen to have heritage value but also that opportunities exist including the London Transport Museum to record the historic importance of such services.

#### *A3, The infrastructure for a ferry at Woolwich is already in place*

Some respondents commented that a new ferry at Woolwich should be progressed because the terminals and other infrastructure required are already in place.

Replacement of the ferry at Woolwich with a new service is feasible and may be pursued, but TfL is concerned that many of the problems with the current service, such as an impact on the road networks on either side, a lack of capacity, and poor resilience in poor weather, would remain and therefore this would be a less attractive option than some of the alternatives.

#### *A4, The cost-effectiveness of replacing the Woolwich Ferry*

Some respondents felt that we should progress a new ferry at Woolwich because it would be a more cost-effective option than the others included in our consultation. Others disagreed and commented that they felt a new ferry here would not be a cost effective solution.

While the capital cost of replacing the Woolwich Ferry was the lowest of the four options included in our consultation, ongoing operating costs could cost more than fixed-link options in the long run.

#### *A5, The effect of a new ferry at Woolwich in stimulating redevelopment of the local area*

Some respondents felt that a new ferry at Woolwich would attract new development to the area. Other respondents disagreed, and commented that a new ferry would not increase the attractiveness of the local area to developers.

A new ferry at Woolwich would be more reliable and could offer more capacity than the existing service; it would not create a new cross-river connection or substantially reduce existing crossing journey times. For these reasons, we concluded that a new ferry at Woolwich would have no significant economic impact, and would be unlikely to play a significant role in stimulating the redevelopment of the surrounding area.

Options for crossings at Gallions Reach and Belvedere would create new cross-river connections and fixed crossings that would offer much reduced crossing times, so it is more likely that crossings in these areas would have a greater economic impact with regard to the stimulation of new development in the area generally.

*A6, The environmental effects of a new ferry at Woolwich*

Some respondents commented that they felt a new ferry at Woolwich should be progressed because those others proposed in the consultation would have a greater environmental impact. Other respondents disagreed and felt that a new ferry at Woolwich would have a greater impact on the environment.

A new ferry crossing at Woolwich would emit fewer emissions than the current vessels, which are nearing the end of their practical working life. Our initial environmental analysis to date suggests, however, that this option would not lead to a noticeable change in vehicle emissions.

Any proposal taken forward would be subject to an Environmental Impact Assessment (EIA).

*A7, Closing the Woolwich Ferry would increase congestion at other crossing points / A new ferry at Woolwich is not a solution on its own*

Some respondents were concerned that closing the Woolwich Ferry could lead to an increase in demand for other crossings, increasing congestion and lengthening journey times. Other respondents echoed this concern but added that a new ferry at Woolwich would not be an adequate solution if no other crossings were introduced.

If the Woolwich Ferry were closed either permanently or temporarily (while a replacement ferry was being built), and there were no new crossings for traffic to divert to, there would likely be an increase in demand at the nearest available crossing point.

*A8, Unspecified expressions of support for retaining the Woolwich Ferry*

Some respondents expressed their support for the Woolwich Ferry more simply, for example by commenting only that it should be retained, or that it is a convenient crossing point for them, or by emphasising that a replacement service should be introduced quickly.

We noted these comments and considered this general support for the Woolwich Ferry in deciding how best to move forward.

*A9, Make improvements to the Woolwich Ferry now*

Some respondents commented that they felt that TfL should make improvements to the current Woolwich Ferry, including by increasing the frequency of the service, enhancing its reliability, or other improvements, such as extending its opening hours.

We are undertaking refurbishment works to the Woolwich Ferry, including the piers, loading bridges and vessels. These works are intended to help the service to operate more reliably and meet today's tough environmental standards. Further details are available on our website at <http://www.tfl.gov.uk/travel-information/improvements-and-projects/woolwich-ferry-upgrade>.

*A10, Keep the Woolwich Ferry open during construction of additional crossings*

Some respondents were concerned that the Woolwich Ferry should remain in service while additional and/or alternative crossings were being built.

We would certainly endeavour to keep the Woolwich Ferry open while alternative crossings were being constructed.

*A11, Comments on defining which users could access the Woolwich Ferry in future*

Some respondents suggested that the Woolwich Ferry should be restricted in some way, for example so that it could be used only by commuters or local residents, or by pedestrians and cyclists only. Some respondents suggested that we should restrict access to the service for HGVs, while others disagreed and felt that HGVs should continue to be allowed to use the service. Other respondents went further still, and suggested that the Woolwich Ferry should be retained as an HGV-crossing point only. Others suggested that the ferries should be retained to act as new cycle parking facilities.

As noted in the consultation, there are very few existing river crossings for vehicles in east London, and there are restrictions on alternative vehicle crossings to the Woolwich Ferry. For example the Blackwall Tunnel northbound bore is not accessible to high HGVs, and the Rotherhithe Tunnel is not accessible to HGVs in either direction. Restricting the Woolwich Ferry in some way before any new crossings are introduced would be likely to increase demand at alternative existing crossing points by some vehicles, which could increase congestion or lead to other network difficulties. We would not wish to restrict access to any new crossing unless it were necessary for operational or safety reasons.

*A12, Make improvements to the Greenwich or Woolwich Foot Tunnels*

Some respondents commented that TfL should invest in improvements to the existing foot tunnels at Greenwich or Woolwich.

The Royal Borough of Greenwich manages both of these tunnels, so we have made the Royal Borough aware of these comments. The Royal Borough has undertaken refurbishment works to both tunnels, and these were completed in 2014.

*A13, Introduce a new bridge crossing at Woolwich*

Some respondents suggested that we should consider building a bridge at Woolwich, rather than a new ferry service.

This section of the river Thames is often used by shipping, so any bridge would either need to be of sufficient height to allow ships to pass beneath, or to be capable of opening to allow ships to pass (in a similar way to Tower Bridge, for example). To ensure the approaches to a bridge were of the correct gradient and not too steep for traffic to access safely, a fixed bridge with sufficient clearance to allow shipping to pass beneath would require very long approach ramps. This would require the acquisition and demolition of very large amounts of heavily built-up residential land in the areas surrounding the ferry terminals.

We estimate that an opening bridge might need to open for some 15 ships a day (although this would vary) for perhaps 20 minutes or more for an individual large ship. Shipping movements are influenced by the tide rather than road traffic conditions, so it is likely that there would be occasions when large numbers of vehicles would need to wait either side of the bridge while the bridge was open to allow ships to pass, or divert to the nearest alternative crossing. This could cause significant congestion problems throughout the Woolwich area.

A tunnel would also have a significant construction impact in such a heavily built up area, with many properties affected and a very high construction cost.

Further details are available in our 'Needs & Options Report', which is available at <https://consultations.tfl.gov.uk/roads/2d8e57d0>

#### *A14, Charging to use a new ferry crossing at Woolwich*

Some respondents commented that they supported a peak-time charge to use the Woolwich Ferry, while others explained that they did not support charging on the basis that the Woolwich Ferry is a free crossing point.

We have proposed user charging as a means to manage demand for new river crossings in east London and to provide a source of funding to help pay for their construction and operation. We have proposed that the Blackwall Tunnel, Silvertown Tunnel and any new crossing further east should all be charged. If there were a nearby and convenient crossing point that was not charged, traffic might divert to it to avoid paying. This would be likely to focus demand and associated congestion at the uncharged crossing point. As such, we would keep the need for any charging strategy to include the Woolwich Ferry under review.

## **B A new ferry at Gallions Reach**

In summary we found:

- A total of 21 per cent of respondents supported or strongly supported this option;
- A total of 57 per cent of respondents opposed or strongly opposed this option;
- 22 per cent of respondents stated that they could neither support nor oppose this option.

We also asked respondents what combinations of new crossings, if any, they felt we should progress. The most frequently preferred 'package' of new river crossings which included a new ferry at Gallions Reach was a new ferry at Woolwich, a new ferry at Gallions Reach, a new bridge at Gallions Reach and a new bridge at Belvedere. Just over one per cent of respondents identified a new ferry at Gallions Reach alone as their favoured package. We also received 323 letters or emails about the proposals, some of which included comments about the proposal for a new ferry at Gallions Reach.

The comments and the issues raised both in support of and opposed to this option, are addressed below.

### *B1, Comments on the effects on traffic of a new ferry at Gallions Reach*

Some respondents were concerned that a new ferry at Gallions Reach would have little beneficial effect on traffic flow, while others went further and suggested that a new ferry crossing here might impede traffic flow and create congestion, or not act as an incentive for the travelling public to switch to public transport options. Other respondents queried whether the demand from traffic was sufficient to make a ferry crossing worthwhile.

The proposed new ferry would change traffic patterns in east and south east London as some drivers would change their route to take advantage of the new crossing. We explained in our consultation that this effect would increase traffic on some roads while reducing it on others. The ferry would create new opportunities to cross the river, reducing existing journey times between Thamesmead and Beckon. A new ferry would also give us opportunities to create new public transport connections, for example by creating bus links to the new ferry terminals to provide easy interchange for foot passengers.

### *B2, Comments on the appropriateness of a ferry at Gallions Reach*

Some respondents felt that a new ferry crossing at Gallions Reach would not be an appropriate solution to the issues that had been described in the consultation. Some of these respondents highlighted a particular reason for commenting in this way, while others were more general. Some disagreed and felt that a ferry crossing would be appropriate, while others were conditional in their support, for example by commenting that they would only support a new ferry crossing at Gallions Reach if it replaced the existing crossing at Woolwich.

A ferry crossing would offer much less capacity to carry vehicles than a fixed link, and crossing times would be slower. Conversely, these constraints would act to limit the demand for a ferry. The capital cost to establish a ferry crossing would be less than that for a bridge, although ongoing operational costs mean that ferries could cost more than fixed-link options in the long run. We have taken into account the views for and against a new ferry at Gallions Reach in considering how best to move forward.

### *B3, The cost-effectiveness of a ferry at Gallions Reach*

Some respondents felt that a new ferry service was not a cost-effective use of our resources, in some cases highlighting what they felt was a high ongoing operational cost. Other respondents felt that a new ferry at Gallions Reach was a more cost-effective option than a new ferry at Woolwich.

While ferry options at both Woolwich and Gallions Reach have a lower capital cost than fixed links, ongoing operational costs mean that ferries are not cost effective.

#### *B4, The effect of a new ferry at Gallions Reach on regeneration*

Some respondents felt that this option would not support the regeneration of the local area, although others disagreed.

A new ferry crossing at Gallions Reach would create new opportunities to cross the river. Residents locally would find that they could travel further within the same amount of travelling time, and so access jobs, education/training, shopping or other leisure opportunities that were further afield. Businesses locally would be more easily accessible to their customers, suppliers and staff and so would likely be able to trade more effectively, creating new jobs. A ferry would offer more limited carrying capacity and slower crossing times than a fixed crossing, and so the economic effects of a ferry crossing would be more limited than for a bridge or tunnel. We have not yet, however, completed the necessary work to determine the specific economic benefits of new crossings.

#### *B5, The environmental impacts of a new ferry at Gallions Reach*

Some respondents were concerned that a new ferry here might be environmentally damaging as it could cause traffic congestion, or attract new vehicles to the area. Other respondents disagreed and commented that they felt a new crossing here would provide environmental benefits.

Our initial work into the potential environmental impact of a new ferry at Gallions Reach concluded that the introduction of the new crossing would cause traffic patterns to change. There would be reductions of traffic on some roads (principally those in Woolwich, since users would divert away from the Woolwich Ferry), with corresponding increases on other roads, where traffic increased. Our initial assessment was that overall, the introduction of a new ferry at Gallions Reach would not lead to a noticeable change in vehicle emissions.

As we continue to develop proposals for new crossings at Gallions Reach and Belvedere we will enhance our understanding of the environmental effects of the new crossings, including the impacts on the ecology of the River Thames and whether additional mitigation might be necessary to offset any negative environmental impacts.

#### *B6, Charging to use the new ferry service*

Some respondents commented about our proposal to introduce a charge to use the new ferry. Some were opposed to charging pointing out that the existing ferry service at Woolwich is free. Others commented that they felt the charge should apply only to particular groups of users, or for only particular times of day.

We consider that user charging is vital to manage demand for the new crossings and provide a source of revenue to pay for them to be built and operated. There would be scope for the charge to incorporate discounts or exemptions although we have not yet considered these issues in detail. We will continue to develop our proposals for charging the new crossings at Gallions Reach and Belvedere and these will be subject to consultation.

*B7, Comments on the requirements for new infrastructure to support a ferry at Gallions Reach*

Some respondents suggested that changes to the local area might be necessary to support a new ferry. These suggestions varied from improvements to the road network, to new public transport services, to improvements to cycling provision.

We recognise that it would be necessary to make changes to the road network to support any new crossing at Gallions Reach, including new link roads to connect the crossings to the existing road network. We will continue to develop our proposals for new crossings, including considering in more detail what changes might be necessary to the local road network, and what changes to the public transport network, might be necessary to make the most of the opportunity that new crossings represent.

*B8, Comments concerning which users could access a new ferry at Gallions Reach*

Some respondents queried whether the proposed service could accommodate particular types of user, such as buses or motorbikes. Other respondents suggested potential restrictions, such as operating the ferry for foot passengers only, while others suggested the ferry should be restricted to HGVs only.

We envisage that any new river crossing would be made available for all users, except where it would be necessary for safety reasons to restrict access; for example pedestrians and cyclists are not normally permitted to use road tunnels. Beyond this, we would wish for our investment in new river crossings to provide the greatest benefits to the travelling public, and would not wish to restrict access to any new crossing provided unless it were necessary for operational or safety reasons.

*B9, Alternative suggestions to a new ferry at Gallions Reach*

Some respondents included suggestions for alternative river boat schemes to a ferry at Gallions Reach. These were specifically that the Thames Clipper river bus service should be extended, or that the free ferry service introduced by the Ford Motor Company for their employees should be restored.

TfL is working to deliver the Mayor's 'River Action Plan', which aims to increase passenger journeys on the river to 12 million a year by 2020. TfL is investing in a range of measures, including new and improved piers, better signage and promotion of river services and improved partnership working with relevant stakeholders. Further details are available on our website:

<http://www.tfl.gov.uk/corporate/publications-and-reports/river-action-plan>

We have no plans to restore the ferry service that Ford Motor Company operated for their employees.

## **C A bridge at Gallions Reach**

In summary we found:

- A total of 80 per cent of respondents supported or strongly supported this option;
- A total of 15 per cent of respondents opposed or strongly opposed this option;
- 5 per cent of respondents stated that they could neither support nor oppose this option.

We also asked respondents what combination of options, if any, for new crossings they felt we should progress. The most frequently preferred 'package' comprised a new bridge at Gallions Reach alone, closely followed by a bridge at Gallions Reach together with a bridge at Belvedere. We also received 323 letters or emails about the proposals, some of which included comments about the proposal for a new bridge at Gallions Reach.

We address the issues arising from the comments both in support of and opposed to this option below.

### *C1, Comments about the reasons behind proposing a new crossing at Gallions Reach*

Some respondents questioned why TfL had proposed Gallions Reach as a location for a new bridge crossing.

There were a number of reasons for this, including that the Gallions Reach area offers good connections to the local road network in east London via the A117 and A206 on the north side and A2016 on the south side. The Gallions Reach area also lies within an Opportunity Area identified for significant development of the coming years, leading to increased employment and housing that would require new supporting infrastructure. Additionally, there is a gap in cross-river highway connectivity between the Blackwall Tunnel and Dartford Crossings and a crossing at Gallions Reach would sit conveniently between these areas. Furthermore, the land required for a new bridge at Gallions Reach has been safeguarded from development for some time.

Further detail on the reasons we proposed introducing a new crossing at Gallions Reach are included within our 'Needs and Options' report, which is available (along

with a number of other technical documents) at <https://consultations.tfl.gov.uk/roads/2d8e57d0>

### *C2, The traffic impacts of a bridge at Gallions Reach*

Some respondents were concerned that building a new bridge here could increase traffic or congestion. Other respondents were concerned specifically about HGV movements on local roads, or that the proposals would require significant additional road building or widening. Conversely, other respondents felt that the proposed new bridge would reduce congestion by giving relief to existing crossing points.

The proposed new bridge would change traffic patterns in east and south east London as some drivers would change their route to take advantage of the new crossing. We explained in our consultation that this effect would be likely to increase traffic on some roads while reducing it on others.

Over the coming months we will refine and increase our understanding of the effect of the new bridge on traffic flow, including whether it would be necessary to take steps to mitigate the impact of increasing traffic in any particular area and. will work closely with the relevant local authorities to this end..

We propose that there should be a package of new river crossings for east London, including the Silvertown Tunnel to relieve congestion at the Blackwall Tunnel. We consider it likely that most non-local traffic would use the combined Silvertown and Blackwall Tunnels as a crossing point, since the tunnels would provide links to the A2, A12, A13 and other strategic routes in east London.

### *C3, The environmental impacts of a bridge at Gallions Reach*

Some respondents were concerned that a new bridge would reduce air quality and / or increase noise, or release contaminants into the river while the bridge was being constructed. Other respondents disagreed, and felt that the new bridge would reduce the distance motorists living in east and south east London would need to drive to cross the river, resulting in a positive environmental effect.

Our initial work into the potential environmental impact of a new bridge at Gallions Reach concluded that the introduction of the new crossing would cause traffic patterns to change. There would be reductions of traffic on some roads (principally those in Woolwich, since users would divert away from the Woolwich Ferry), with traffic increases on other roads.

As we continue to develop proposals for new crossings at Gallions Reach and Belvedere we propose to enhance our understanding of the environmental effects of the new crossings, including whether additional mitigation might be necessary to offset any negative environmental impacts.

### *C4, Comments on the value for money of a bridge at Gallions Reach*

Some respondents commented on the cost effectiveness of the proposal. Some felt the proposed bridge would provide good value for money by creating jobs, stimulating regeneration or by providing other economic benefits. Other respondents disagreed and felt the bridge would cost too much to build and so would not be cost effective, and or that it would not stimulate regeneration or provide any other economic benefits.

A new bridge at Gallions Reach would create new opportunities to cross the river. Residents locally would find that they could travel further within the same amount of travelling time, and so access jobs, education/training, shopping or other leisure opportunities that were further afield. Businesses locally would be more easily accessible to their customers, suppliers and staff and so would likely be able to trade more effectively, creating new jobs. We have not yet, however, completed the necessary work to determine the specific or comparative economic benefits of new crossings.

#### *C5, Comments about the design of the proposed bridge or its associated infrastructure*

Some respondents commented about the size of the bridge; these varied from concerns about the effect of the bridge on flight paths into London City Airport, to concerns that the bridge would not provide enough clearance to permit ships to pass beneath. Other respondents suggested that instead of a bridge, a tunnel should be built.

With respect to shipping and aviation clearances, a bridge at this location has been safeguarded by the government for a number of years and the same navigational requirements as for previous proposals would be adhered to for a new bridge. Nevertheless as the design work progresses we will undertake further work with both the Port of London Authority and London City Airport to ensure that any changes to the design of the bridge would not be incompatible with the movements of ships and aeroplanes and associated systems.

As part of the feasibility work undertaken, the potential for a tunnel to be provided instead of a bridge was considered and not put forward as an option because it would provide much the same traffic benefits but would be a much higher cost. Nevertheless, as some respondents felt that a tunnel would allow more new homes to be built nearby and could eliminate potential conflicts with shipping and air traffic, tunnels will be considered in the next phase of work.

#### *C6, Comments about the users catered for on the proposed bridge*

Some respondents commented about who should be able to use the proposed bridge. For example we received comments suggesting that the approach to the bridge and/or the bridge itself should feature a cycle route or facilities for pedestrians. Other respondents suggested that the bridge should be for pedestrians and cyclists only.

Some respondents asked that we consider integrating a public transport service within the bridge, including a new DLR link across the river. We also received suggestions that the bridge should feature a priority lane specifically for local residents. Other respondents suggested that the bridge should be larger and provide more than two traffic lanes in each direction.

It is intended that any bridge would include facilities for pedestrians and cyclists to cross the Thames. However a pedestrian and cycle crossing without vehicular traffic is considered not to solve the highway network connectivity problems which TfL is seeking to address.

It is also intended that the bridge would include a dedicated public transport facility, most likely in the form of a bus lane, which could then also be shared with HGVs (given the long climb it is considered preferable for HGVs to be in the inside lane if they might be slower moving than traffic in the bus lane). However, in the next phase of work more consideration will be given to whether there is a case for the public transport provision to be upgraded to a rail-based system, such as the DLR.

We consider it appropriate that the bridge should feature one lane in each direction for general traffic (as well as provision for public transport services). We consider that this would provide an appropriate level of capacity given the capacity of the road networks into which the crossing will connect. It should be noted that the bridge is intended to be introduced as part of a wider package, including the proposed Silvertown Tunnel, unlike the previous Thames Gateway Bridge scheme which was intended to be built without the Silvertown Tunnel in place and was therefore expected to carry higher levels of traffic.

#### *C7, Comments about Oxleas Wood*

Some respondents specifically commented on the threat to Oxleas Wood of a new crossing at Gallions Reach. It should be noted however that there are several important differences between the proposal for a new bridge at Gallions Reach today and the former government scheme for an East London River Crossing of twenty years ago, which impacted upon Oxleas Wood.

The former proposal was for a new uncharged crossing of the Thames and a direct link road between the A2 and the North Circular. It would have been the only new crossing of the Thames, and a strategic link to effectively by-pass the Blackwall Tunnel.

The current proposal should be seen in the context of new crossings being developed for the Lower Thames Crossing, and the Silvertown Tunnel at Blackwall.

In addition, these new crossings, and any crossing at Gallions Reach, would be subject to user charging to manage traffic demand.

The current plans are based on the strong local demands for improved cross-river highway connections to accompany the development of large brownfield sites along both sides of the Thames and to allow them to deliver thousands of new local homes

and jobs. It is intended that new crossings will help to facilitate the development of these sites. It is not the intent that the new crossings will provide a new strategic route for traffic with no local origin or destination, and it is not intended to carry traffic between the A2 and the North Circular, a journey which would remain more convenient via the Blackwall tunnel.

Our modelling suggests that most traffic using the new crossing options would have a local origin or destination. While there can be some uncertainty in forecasting driver behaviour, the user charge on the crossing provides a powerful tool to manage the use of the crossing.

#### *C8, Comparisons with the Thames Gateway Bridge*

*Some respondents made reference to TfL's proposals for the Thames Gateway Bridge.*

*A bridge at Gallions Reach would be quite different to that proposed for the Thames Gateway Bridge. The Thames Gateway Bridge was a similar scheme to the East London River Crossing that had been proposed by Government around 20 years ago. Both schemes were intended to act as a bypass to the Blackwall Tunnel and so relieve congestion. We have proposed building the Silvertown Tunnel to resolve the congestion issues at Blackwall. We have also proposed introducing a user charge to the Gallions Reach Bridge, unlike our previous proposals for the Thames Gateway Bridge. The charge would help to keep demand for the new bridge within manageable levels.*

#### *C9, Comments about the proposed user charge*

Some respondents commented that they felt the proposed bridge should be free to use. We also received comments that the system for collecting the proposed new user charge should not delay traffic.

We explained in our consultation materials that user charging is an essential element of the package as it would help to keep demand for the new crossings within manageable limits. The charge would also provide a source of revenue to help pay for the crossings to be built and maintained in future. The charge would be collected electronically, without the use of toll plazas or barriers. The proposals for charging at the new crossings would be subject to public and stakeholder consultation.

### **D A bridge at Belvedere**

- A total of 60 per cent of respondents supported or strongly supported this option;
- A total of 24 per cent of respondents opposed or strongly opposed this option;
- 16 per cent of respondents stated that they could neither support nor oppose this option.

We also asked respondents what combination of options, if any, for new crossings they felt we should progress. The most frequently preferred 'package' of new river crossings which included a bridge at Belvedere was a new bridge at Gallions Reach and a bridge at Belvedere, which was identified by 28 per cent of respondents. Eight per cent of respondents identified a bridge at Belvedere alone as their favoured package. We also received 323 letters or emails about the package of proposals, some of which included comments about the proposal for a bridge at Belvedere.

We address the issues arising in the comments received both in support of and opposed to this option below.

#### *D1, Comments questioning the reasoning behind the proposed Belvedere bridge*

*Some respondents wanted to know the background to our proposal for a new bridge at Belvedere.*

*During our previous consultation on the River Crossings programme, which ran from October – February 2013, we received a very large number of suggestions for additional river crossings beyond those we had proposed. Amongst these ideas were suggestions for a new crossing to link Belvedere and Rainham. We gathered together all of the suggestions for new crossings and considered the merits of each. We then set out our short list of options for new crossings in the consultation.*

*For further details, please see our 'Needs and Options report', which is available at <https://consultations.tfl.gov.uk/roads/2d8e57d0>.*

#### *D2, The traffic impacts of a bridge at Belvedere*

Some respondents were concerned that building a new bridge here could increase traffic and associated congestion. Other respondents expanded on this point by highlighting their view that local roads would not be able to accommodate any increased demand from traffic, and that improvements would be need to be made to local roads. Conversely, other respondents felt that the proposed new bridge would reduce congestion by relieving pressure on existing crossing points.

The proposed new bridge would change traffic patterns in east and south east London as some drivers would change their route to take advantage of the new crossing. We explained in our consultation that this effect would be likely to increase traffic on some roads while reducing it on others.

Over the coming months we will refine and increase our understanding of the effects of the new bridge on traffic flow, including whether it would be necessary to take steps to mitigate the impact of increasing traffic in any particular area. We will work closely with the relevant local authorities to this end.

#### *D3, The environmental impacts of a bridge at Belvedere*

Some respondents were concerned that a new bridge would reduce air quality and / or increase noise. Other respondents disagreed, and felt that the new bridge would

reduce the distances motorists living in east and south east London would need to travel to cross the river, such that the bridge would have a positive environmental effect. Some respondents were concerned that construction of the proposed bridge would require the compulsory purchase of and demolition of existing residential property.

Our initial work into the potential environmental impact of a new bridge at Belvedere concluded that the introduction of the new crossing would cause traffic patterns to change. There would be reductions of traffic on some roads, with traffic increases on other roads. Overall, the initial work suggested that the introduction of a new bridge at Belvedere would not lead to a significant change in vehicle emissions.

As we continue to develop proposals for new crossings at Gallions Reach and Belvedere we propose to enhance our understanding of the environmental effects of the new crossings, including whether additional mitigation might be necessary to offset any negative environmental impacts.

#### *D4, The cost effectiveness of a bridge at Belvedere*

Some respondents commented on the cost effectiveness of the proposal. Some felt the proposed bridge would provide good value for money because they considered that it would create jobs, stimulate regeneration or provide other economic benefits. Other respondents disagreed and felt the bridge would cost too much to build and so was not cost effective, or that it would not stimulate regeneration or provide any other economic benefits.

A new bridge at Belvedere would create new opportunities to cross the river. Residents locally would find that they could travel further within the same amount of travelling time, and so access jobs, education/training, shopping or other leisure opportunities that were further afield. Businesses locally would be more easily accessible to their customers, suppliers and staff and so would likely be able to trade more effectively, creating new jobs. We have not yet, however, completed the necessary work to determine the specific economic benefits of new crossings.

#### *D5, Comments on the design of a bridge at Belvedere*

Some respondents commented about aspects of the design of the proposed bridge. For example we received responses suggesting that the approach to the bridge and/or the bridge itself should feature a segregated cycle route or facilities for pedestrians. Other respondents went further and suggested that the bridge should be for pedestrians and cyclists only. Other respondents suggested that we consider integrating a public transport service within the bridge, including a new DLR link across the river.

Some respondents were concerned about the size of the bridge; specifically whether it would impede aeroplanes accessing City Airport or if it would provide sufficient clearance for tall ships to pass beneath. Other respondents suggested that the bridge should include additional lanes for HGV traffic.

We will undertake further work over the coming months, including consideration of the scope for the new crossings to incorporate additional cross-river public transport links and facilities for pedestrians and cyclists. We will also undertake further design work; both of the crossings themselves and of the infrastructure that would be required to support them in the surrounding area.

This will include working with the Port of London Authority to ensure any scheme would be compatible with shipping, and with City Airport to ensure that any design is compatible with the airport's requirements.

#### *D6, Comments about the proposed user charge*

Some respondents commented that they felt the proposed bridge should be free to use, although others suggested that there should be higher charges for particular types of vehicle, to encourage these users to switch to other forms of transport. We also received comments that the system for collecting the proposed new user charge should not delay traffic. There were also suggestions that the tolls at the Dartford crossings should be removed.

We explained in our consultation materials that user charging is an essential element of the package as it would help to keep demand for the new crossings within manageable and sustainable limits. The charge would also provide a source of revenue to help pay for the crossings to be built and maintained in future.

We have made no decisions yet as to the level of charge that would be required for crossings to the east of the Silvertown Tunnel, or when and to whom they would apply. We intend however that any new charge should be collected automatically, without the need for toll booths or similar. The proposals for charging at the new crossings would be subject to public and stakeholder consultation.

The Dartford crossings are managed by the Highways Agency, and we have no remit over the tolling regime that applies to those crossings.

#### *D7, Comments on the timescales for building a bridge at Belvedere*

Some respondents commented on the timings for building a new bridge that were included in our consultation materials. For the most part, respondents made clear that they felt the new crossing was needed urgently, and the timescales for building it should be accelerated.

Our proposals for a new bridge at Belvedere are at a relatively early stage of development and the information included in our consultation materials reflected this. As we continue to develop the scheme we will increase our understanding of the various challenges that would need to be overcome to build the bridge, and so refine and improve our understanding of the time it would take to construct and bring a new crossing into operation.

#### *D8, Comments about land and property issues*

As we made clear in our consultation materials, unlike proposals for crossings at Gallions Reach, the land that would be needed to build a new bridge at Belvedere is not 'safeguarded.' Some respondents were concerned that it may become necessary for TfL to compulsorily purchase existing residential and commercial properties, while others wanted to know more about how the bridge proposals would impact on other local developments. Some respondents went as far as saying that they would move from the area if the bridge was built.

As we develop our proposals for a new crossing at Belvedere, and as we consider whether the crossing could be a bridge or a tunnel, we will increase our understanding of the land requirements that would be needed temporarily and permanently to build the new crossing.

## **E Other issues**

Our consultation questionnaire included space for respondents to record any other issues they felt we should be aware of and take into account – this section was completed by 1,997 of those respondents who completed our online questionnaire. We also published our freepost and email address for respondents who wished to comment and received 323 responses by letter or email.

In some cases these respondents commented in general terms or about issues not directly related to one or other of the proposed options. These comments are dealt with in this section. Respondents made a large variety of comments which we have grouped these into main themes, with a series of subheadings within each theme.

### **Environmental issues**

#### *E1, Comments on TfL's intended approach to developing Environmental Impact Assessments*

Our proposals for new river crossings will be subject to full Environmental Impact Assessment (EIA). The scope of the EIA would be discussed in detail with relevant stakeholders and ultimately considered by the relevant decision body. The EIA would include modelling of noise and air quality effects to predict change at individual receptor locations, as well as consideration of a number of other environmental effects including nature conservation, visual effects, and contaminated land. Through the EIA process we would identify the likely significant effects of the proposed scheme(s) and develop a package of mitigation measures, which would be subject to consultation.

#### *E2, The effects of the new crossings on air quality*

We have and will continue to take into consideration all relevant policies, directives and guidance regarding air quality in London, including emerging guidance. We have completed initial assessments of traffic emissions and environmental impacts of the proposed new crossings and presented our findings in the consultation. We recognise that further detailed work is necessary to fully understand likely air quality impacts. Any specific mitigation measures that may be required will be examined as

part of further detailed studies which will inform the developing proposals. Any proposal taken forward will be subject to rigorous assessment and will need to comply with air quality standards set out in policy and legislation.

### *E3, The effects of the new crossings on noise levels*

A high level review of potential impacts associated with noise and vibration has been undertaken to determine any adverse or beneficial impacts with each of the proposed options. Our Environmental Options Study is available on our website at <https://consultations.tfl.gov.uk/roads/2d8e57d0>. At this consultation stage it was not possible to account for specific mitigation measures; therefore the impact levels set out in our consultation materials reflected a worst case scenario. Further assessment will need to be carried out to predict significant noise changes at individual receptor locations including giving consideration to variations in the height and alignment of roads and the effects of topography and screening from buildings and other structures which would then inform appropriate mitigation measures such as noise barriers and low noise surfacing.

### *E4, The effects of the new crossings on natural habitat*

A number of ecological studies have been undertaken in the vicinity of the proposed options. Our Environmental Options Study is available on our website at <https://consultations.tfl.gov.uk/roads/2d8e57d0>. The study area comprised the land potentially affected by the proposed options and a 500 metre buffer which was widened to 2km to identify designated sites of national and local importance to nature conservation, and to 15km to identify statutory designated sites of international importance to nature conservation.

Within the next year, more detailed design work will be undertaken on our proposals for new crossings at Gallions Reach and Belvedere. As part of this work, further assessments on the potential impacts on habitats and protected species will be undertaken. Where possible this will influence the design and seek to avoid designated habitat. Discussions with the relevant stakeholders will continue and appropriate mitigation measures will be developed in this process.

### *E5, The effects of the new crossings on heritage assets*

'Baseline' information has been obtained from several online sources, including the National Heritage List for England and the London Archaeological Archive and Research Centre. The National Heritage List for England identified non-designated and designated heritage assets within the areas potentially affected by our proposals for new river crossings. As we continue to develop proposals for new crossings at Gallions Reach and Belvedere, further assessments will be undertaken to understand the full impacts on any heritage assets and appropriate mitigation measures.

### *E6, The potential effect of new crossings on flood defences*

Our proposals for new river crossings will be subject to rigorous flood risk assessments which will include assessment of potential impacts, if any, on existing and new development. Our proposals for new crossings will be developed in line with the Environment Agency's Thames Estuary 2100 plan, which is available from <https://www.gov.uk/government/publications/thames-estuary-2100-te2100> and sets out the strategic approach to protecting London and maintaining and improving flood defences within the tidal Thames. As part of our ongoing work, hydrodynamic modelling will take place to shape the design of any elements of any proposal which would be situated within the River Thames.

#### *E7, The effect of the new crossings on groundwater contamination*

As we develop our proposals for new crossings at Gallions Reach and Belvedere we will consider the risk of disturbing contaminants during construction. We will prepare detailed method statements to avoid contamination of the river or aquifer.

### **Economic impacts**

#### *E8, TfL's consultation concerning the economic benefits of new river crossings*

Prior to the consultation, TfL commissioned surveys of 800 businesses in seven riverside boroughs. The business survey is available on our website at <https://consultations.tfl.gov.uk/roads/2d8e57d0>. These surveys were undertaken to determine what assistance businesses might receive from greater connectivity north to south across the river. We also commissioned a development impacts study to identify how the River Crossings programme might assist in enabling some developments in Opportunity Areas in east and south east London to be brought forward between now and 2030.

Over the coming months we will undertake further work to ascertain the extent to which the proposed crossings could aid growth in London's economy.

#### *E9, The impacts of new river crossings on jobs*

As at present advised, we consider it likely that new crossings at Gallions Reach and Belvedere would have a beneficial impact upon employment and jobs in the developing Opportunity Areas on either side of the River Thames. The crossings would widen the pool of potential employees for new jobs, enabling employers to appoint those with the best available skills from a wider employment catchment extending to both sides of the River Thames enabling improved productivity in the firms involved. In addition, firms locating in the areas adjacent to the proposed crossings would find their access to suppliers and customers improved, potentially leading to improved economic performance.

We commissioned Atkins to produce forecasts of the numbers of jobs which our proposals for new river crossings were likely to help generate. It was not the intention of the Atkins study to allocate numbers of jobs to specific sectors, rather to indicate whether improved connectivity had the potential to boost employment. Atkins's report also included a distribution by borough of the potential for new jobs to

be created as a result of the improved connectivity of the River Crossings' programme.

Over the coming months we will undertake further work to ascertain the extent to which the proposed crossings could aid growth in London's economy.

*E10, The impacts of new river crossings on competition*

We consider it likely that the new crossings will have an overall beneficial impact upon the economy of east and south east London. Evidence gained from a survey of businesses and of land available for development points to the new crossings having a positive impact upon the rate of development in east London.

*E11, The impacts of new river crossings on regeneration*

TfL commissioned Atkins to undertake a study of land available for development in the eight boroughs bordering the River Thames east of Tower Bridge. The River Crossings Development Study is available on our website at <https://consultations.tfl.gov.uk/roads/2d8e57d0>. The purpose of this study was to develop a feel for how much development may proceed at a faster rate, were one or more of the crossings to proceed. The report identified potential changes from the opening of various combinations of crossing in terms of support for additional housing, office, retail, leisure and industrial floorspace. It was published at the start of our consultation.

Over the coming months we will undertake further work to ascertain the extent to which the proposed crossings will assist in regeneration.

*E12, Mitigating negative economic impacts*

Our proposals for new crossings at Gallions Reach and Belvedere are at a relatively early stage. Over the coming months TfL will be examining the case for the new crossings in much greater depth to prepare a business case.

The Mayor's Transport Strategy requires any new roads (which includes river crossings) to be beneficial against a range of criteria. We will research and present evidence of the potential economic impacts of the proposed new crossings, including both positive and negative impacts.

*E13, The potential for new crossings to require businesses to relocate*

We believe that few businesses would need to be relocated in order to free up land for the proposed new crossings. However, as our proposals are developed in greater detail, all current owners of land affected by the schemes will be identified along with any businesses likely to be affected. Any potential relocations that might be necessary to enable the new crossings to proceed will be discussed directly with them.

**Community, housing & related social / development issues**

#### *E14, New crossings could not help with community cohesion*

Our consultation material suggested that new river crossings would help connect communities with jobs, businesses, people and each other. Some respondents questioned this suggestion in their response.

As a consequence of the relative lack of river crossings across the Thames as it widens eastwards communities on either side have developed almost independently of each other. The provision of additional crossings for traffic and bus services at Belvedere, Gallions Reach and Silvertown, would be likely to assist in improving cohesion between east and south east London, by making cross-river trips faster, more convenient and more reliable.

#### *E15, Requests for TfL to commit to new crossing proposals*

TfL recognise that interested parties including investors need to plan with some surety around the transport infrastructure which will be available in the future. It is vitally important therefore that crossing schemes are prepared in a way which engenders broad support prior to related planning applications being submitted. It was for this reason that we undertook the recent public consultation to garner views on which river crossings should be provided and where, so that TfL's final committed schemes are the optimum solution for all users.

#### *E16, Suggestions for improving public access to and enjoyment of the river*

We received a suggestion that replacing the Woolwich Ferry service with an alternative crossing located elsewhere could enable improved public access to the river frontage in Woolwich and North Woolwich.

Having considered all of the issues that were raised in the consultation we have concluded that we will put any further work to develop a new ferry crossing at Woolwich on hold, focussing instead on the development of new crossings at Gallions Reach and Belvedere.

#### *E17, Impact on housing or land available for housing*

We do not believe that our proposals for new river crossings would result in the loss of any existing housing. We will explore the case for new tunnels at Gallions Reach and Belvedere over the coming months.

We also plan to undertake land-use modelling over the coming months so as to be able to report the likely impacts of each option. The results would be included in future consultations at which point stakeholders and the public will be able to express their views on the outcomes.

Some respondents commented that they found estimates for the amount of new housing that could be delivered by the new river crossings misleading. The purpose of the report by Atkins was to provide TfL with an initial understanding of the

potential for development on sites in the eight riverside boroughs in east and south east London. As we continue to develop our proposals we will refine and enhance our understanding of the potential for new river crossings to stimulate development.

#### *E18, Queries about TfL's 'Development Impacts' study*

Some respondents queried the 'Development Impacts' study we published at the start of the consultation. This is available on our website at <https://consultations.tfl.gov.uk/roads/2d8e57d0>.

These studies were intended to provide us with an insight into the development potential of sites within eight riverside boroughs over the next 20 years. In addition, developers' views were sought as to the likely impact on their sites of the river crossings proposals. In parallel, we undertook research with 800 businesses throughout east London to seek their views on the river crossings programme and its impacts on them. These studies were undertaken as a pre-cursor to producing a 'WebTAG' compliant Regeneration Report, which will assess the potential for any particular crossing to effect regeneration within east and south east London's Opportunity Areas. The development sites study has been additional to that required by 'WebTAG' and was designed to provide additional information not normally collected.

As the River Crossings programme moves forward, and TfL assembles the information necessary to support applications for powers to build and operate the new crossings, a full WebTAG appraisal of each scheme will be prepared. We will supplement WebTAG with additional information where we consider this would be beneficial to the business case.

#### *E19, The impact of a non-highway river crossing on regeneration*

Some respondents suggested that a crossing for pedestrians, cyclists or public transport modes only would have a greater beneficial impact on regeneration than our proposals for new highway river crossings.

There has been significant investment in cross-river public transport links between east and south east London, comprising the Docklands Light Railway, the Jubilee Line extension, London Overground, the Emirates Air Line; and the soon to be completed Crossrail. However, there have been no corresponding increases in the numbers of cross-river bus services in east London. There is only a single bus route – the 108 – crossing the Thames to the east of Tower Bridge within the GLA boundary. This is in contrast to west and central London, which have many cross-river bus services. In addition to light and heavy rail, bus routes play an important part in assisting regeneration, particularly where the numbers of passengers travelling are lower than needed to make light or heavy rail a realistic proposition. Buses also have the advantage of being able to serve a range of local destinations each side of a crossing.

In the areas of London's Docklands which have already benefitted from regeneration, virtually all supplies and servicing to shops, restaurants and buildings

are made by road. The lack of river crossings in east London, however, results in congestion at the available crossings at peak times.

#### *E20, The land required for new river crossings*

As noted, our proposals for new crossings are at a relatively early stage of development. As we continue to develop proposals for new crossings at Gallions Reach and Belvedere, we will increase our understanding of the land that would be required permanently and temporarily to build and operate the new crossings.

#### *E21, The impacts of changes at the Dartford crossings*

Some respondents commented on the need for TfL to consider the impact of future plans for the Dartford Crossings on our river crossing proposals.

TfL welcomes measures such as the new free-flow tolling system and views the proposed Lower Thames Crossing as complementary to any new river crossings in east London. We have worked with the DfT during our modelling work to understand the effects of any additional cross-river capacity at or east of Dartford and we will continue to take this into consideration as both projects are progressed.

Whilst the expansion of capacity from any Lower Thames Crossing is welcome, it does not diminish the need for new crossings in east London to address the current cross-river connectivity problems and the associated need to facilitate the regeneration of the area.

#### *E22, The impacts on/from other developments*

Some stakeholders queried the possible impact of TfL's river crossings on other planned major infrastructure projects.

TfL aims to minimise any disruption to other infrastructure projects and as the new crossings are progressed, we will make our proposed mitigating measures known in greater detail. We will work closely with boroughs, developers and other stakeholders as we continue to develop our river crossing proposals.

### **Traffic issues**

#### *E23, The ability of local routes to accommodate traffic using the new river crossings*

Some respondents were concerned whether roads surrounding the new crossings would be able to accommodate the increases in traffic they anticipated might be associated with the opening of new crossings.

Our proposal for a new user charge is a tool to manage the use of the crossings; for example, to dissuade some people from using the new crossings by car when they might instead reasonably look to using public transport. In this way, the charge would help keep demand for the new crossings within manageable limits, which would in

turn help to ensure efficient journeys for cross-river road trips that could not be made by public transport.

We have published our traffic modelling outputs which identify broad changes in traffic. Our Traffic Impact Report is available from <https://consultations.tfl.gov.uk/roads/2d8e57d0>. In general terms, we expect that the larger traffic changes would take place on roads that have larger capacities. Local roads would experience smaller changes. As the project progresses we will investigate further how our proposals would affect traffic in local areas and how any negative effects might be mitigated.

*E24, Comments about traffic management arrangements to support the new crossings*

Some respondents were concerned about how any negative effects of the new crossings on traffic would be mitigated. As we continue to develop our proposals we will explore whether additional steps – beyond our proposed user charge – would be necessary to mitigate any negative effects in areas surrounding the new crossings.

*E25, Impacts on road safety*

Some respondents were concerned that our proposals for new river crossings might risk the safety of some road users. Often these respondents commented that they felt this might be a consequence of increasing demand for the new crossings from vehicles.

Ensuring the safety of all road users is of critical importance and the crossings will be designed to the latest standards, and where any increases on existing roads are predicted, we will work with the local authorities to identify any appropriate road safety measures to mitigate against any changes in traffic flows.

*E26, The potential for construction of a new river crossing to disrupt traffic*

Some respondents wanted to know what disruption the construction of new river crossings might cause.

Our proposals for new crossings at Gallions Reach and Belvedere are at a relatively early stage. As we continue to develop our proposals we will gain a greater understanding of the engineering challenges that we would face in building the new crossings, and how these might best be addressed. We will keep disruption to residents and the travelling public to a minimum during construction, for example by using the River Thames for transporting materials as much as possible.

*E27, The effects on a new river crossing of unplanned disruption elsewhere*

Some respondents were concerned that the unplanned closure of the Blackwall Tunnel and/or Dartford Crossing could increase pressure on a new river crossing at either Gallions Reach or Belvedere.

The demand to cross the river by vehicle in east London is concentrated at a small number of crossings. This leads to congestion and other issues at the available crossing points. The 'resilience' of the road network in parts of east London is poor, particularly in areas locally to Blackwall, Woolwich and Rotherhithe. If there is an incident at one of these crossings and it becomes unavailable, there is very often significant congestion on the approaches to it and the local road network takes much longer to return to normal levels of flow than when compared to roads elsewhere. There can also be an increase in pressure on the nearest alternative crossing point, as some vehicles attempt to find another way across the river.

The proposed Silvertown Tunnel would provide an easily accessible diversionary route for traffic if the Blackwall Tunnel becomes unavailable. The Department for Transport has proposed the Lower Thames Crossing to increase capacity and improve resilience at Dartford; in the event of a closure at Dartford Crossing this would reduce the likelihood of traffic diverting into London.

We consider that the introduction of a package of new river crossings for east London would reduce the overall impact of disruption at existing crossings. We will, however, carry out further work to understand the operational performance of the proposals for new crossings and the wider road network in response to network operational scenarios, including disruption at existing crossings..

*E28, Requests for more detailed traffic modelling information, and for the results to be published*

TfL will be conducting further strategic to examine the impact of new river crossings on the highway network in future years. There is further information in our Traffic Impacts Report, which is available from <https://consultations.tfl.gov.uk/roads/2d8e57d0>.

Further work will also be undertaken to examine the potential public transport options for use of the proposed crossings at Belvedere and Gallions Reach.

More detailed models will be created to look at the performance of roads and junctions that are located in the vicinity of any potential crossing.

*E29, Concerns that TfL's traffic projections may not include aspirations for growth in housing in particular areas*

TfL's strategic model includes population and employment forecasts as included in the London Plan. TfL will conduct a number of sensitivity tests that will reflect the full aspirations for housing and employment at individual sites and will agree this data with the relevant boroughs.

*E30, Concerns that TfL's traffic projections do not include land use/ regeneration changes that will result from the construction of the new crossings*

TfL's strategic model does not reflect changes in land use that might result from changes in accessibility or congestion. Instead, TfL is developing a land use and transport interaction model, which will be able to examine the impact of changes in

accessibility and congestion on future population and employment levels. This approach reflects recommendations from the Department for Transport.

*E31, Concerns that TfL's traffic projections do not reflect the potential for 'induced' traffic*

Some respondents were concerned that new highway river crossings might attract new trips by vehicle. Our proposal for a new user charge is intended to manage use of the crossings; for example, by dissuading some people from using the new crossings where they might instead reasonably use public transport. In this way, the charge would help to keep demand for the new crossings within manageable limits, which would in turn help to ensure efficient journeys for cross-river trips that could not be made by public transport.

TfL's strategic model LoRDM reflects the potential impact of people transferring between public transport and private vehicles as a result of new river crossings being constructed. The model also includes the impact of people changing their destination and route choice as a result of the availability of a new crossing.

*E32, Suggestions that TfL should publish traffic modelling data beyond 2021*

Some respondents were concerned that TfL's traffic modelling data reflected traffic conditions in 2021 and asked that we model the impact of the schemes on traffic flow for years beyond this date.

We will develop and test the impact of new river crossings on traffic for a number of future years scenarios.

*E33, Concerns that TfL's traffic modelling should not assume that background traffic continues to grow in the future*

Some respondents were concerned that TfL's modelling assumed that additional population would lead to increasing trips by vehicle and so additional pressure on London's roads. Some of these respondents commented that recently there has been only a limited growth in traffic, despite London's growing population.

The Department for Transport has produced guidance recommending how the effects of transport schemes on traffic should be modelled, and TfL follows the approach set out by the Department for Transport.

At present we consider that new river crossings in east London are essential to help facilitate and manage the impacts of future growth by creating new opportunities to cross the river and better connecting people with opportunities for employment and businesses with employment catchments. We consider also that our consultations have shown that there is widespread support for this view.

*E34, Comments concerned with the potential for new crossings to attract long distance trips*

Some respondents were concerned over the potential of the new crossings to attract long distance through-traffic rather than catering solely for local trips.

We have proposed new crossings at Gallions Reach and Belvedere as a means to help to serve local connectivity needs. The modelling outputs contained within our 'Traffic Impact Report', which was published at the start of the consultation, suggest that the overwhelming majority of car trips would either start, end or start and end within the boroughs of Tower Hamlets, Newham, Barking & Dagenham, Havering, Lewisham, Greenwich or Bexley. The amount of longer distance traffic expected to use these crossings is small. The strategic crossings at Blackwall and Dartford would better serve longer distance through-traffic, with the planned Silvertown Tunnel and Lower Thames Crossing helping to meet future demand at these strategic locations.

*E35, The traffic impact report did not cover demand for cycling*

The traffic impact report was intended to provide a high level summary of the main impact of the proposed new crossings on vehicular trip demand and road traffic patterns and further work will be undertaken to understand the demand for cycling in more detail.

*E36, The impacts of the Lower Thames Crossing*

Some respondents commented that we should consider the impact of the Department for Transport's proposals for a new Lower Thames Crossing on our proposals for new crossings in east London. As we continue to develop our proposals for new crossings, we will evaluate the likely impact that the proposed Lower Thames Crossing would have on these proposals.

*E37, The impact of new river crossings without the Silvertown Tunnel in place*

Some respondents questioned what impact crossings at Woolwich, Gallions Reach and/or Belvedere would have if the Silvertown Tunnel were not built.

The proposal is that the Silvertown Tunnel will be the first part of the river crossings programme to be built, and therefore the consultation materials presented the material on this basis. However if for any reason the Silvertown Tunnel were not pursued, the modelling and other assessments would be revisited without the Silvertown Tunnel in place.

*E38, Comments about the size of the traffic modelling study area*

The highway model used to examine the impact of the proposed river crossings covers in detail an approximate area from Dartford Crossing to Southwark Bridge and from the northern section of the M25 to Orpington. The remainder of the network in London and across south east England and beyond is covered by the model but in less detail. We considered that the extensive coverage of the model is suitable for the purposes of evaluating the impact of new crossings in East and South East London.

### *E39, Comments questioning the reliability of TfL's traffic forecasts*

Some respondents questioned the accuracy of TfL's traffic forecasts, emphasising the need for the public and stakeholders to have confidence in our traffic modelling data. We agree that such data must be robust, so as part of the model development process, independent consultants were appointed on behalf of the local boroughs to review whether the highway model was 'fit for purpose' to examine the strategic impacts that additional river crossings would have on the wider highway network. The consultants confirmed the suitability of the highway model.

We will continue to involve independent consultants to ensure that our traffic model, as it is enhanced and refined, remains fit for purpose.

### **Alternative options to highway river crossings**

#### *E40, Build a new river crossing for pedestrians and cyclists only*

We considered building a dedicated river crossing for pedestrians and cyclists only and set out our findings in the report 'Assessment of Needs and Options East of Silvertown', which was published at the start of our consultation and is available from <https://consultations.tfl.gov.uk/roads/2d8e57d0>. Whilst this type of crossing may have some very local benefits, its cost would be very high and its connectivity benefits (especially for road freight, local road traffic and buses) and ability to facilitate economic development are limited.

Increasing the number of trips that are walked or cycled has clear support in the Mayor's Transport Strategy. TfL has already undertaken work to develop a strategic network of walking routes (which cover the key cross-river links of the Greenwich and Woolwich foot tunnels) and to expand the Cycle Superhighway network. TfL will continue to explore how cycling and walking provision can be improved and expanded; and with particular regard to the river crossing programme, how they can be incorporated into any new crossings built at Gallions Reach and Belvedere.

#### *E41, Build a new river crossing for public transport services only*

TfL is building new river crossings dedicated for public transport. The new Crossrail tunnels between Plumstead and the Royal Docks which are already under construction will provide a frequent and rapid new public transport connection between east and south east London when Crossrail opens in 2018, dramatically increasing public transport capacity in the area as well as bringing very large reductions in journey times. This follows previous investment in cross-river public transport links including the DLR extension to Woolwich which opened in 2009.

These public transport crossings have been prioritised over new vehicular links in order to ensure that the public transport network is able to accommodate the rapidly rising population in the area. However our models suggest that the rate of growth is such that even following this heavy investment in improving public transport, and an increasing share of trips being made by public transport, the need for more cross-

river road capacity remains if the large increase in population is to be accommodated.

#### *E42, Improve river boat services*

Some respondents suggested that existing river boat services should be improved and the network expanded further east. The 'River Action Plan', which is available from <http://www.tfl.gov.uk/corporate/publications-and-reports/river-action-plan> sets out a range of objectives for improvement river services. TfL will continue to work with key stakeholders to deliver these. Riverside developments in east London are expected to increase demand for river services and additional river crossings could play a part in connecting passengers to these. The TfL Business Plan, which is available from <http://www.tfl.gov.uk/corporate/publications-and-reports/business-plan> contains dedicated funding for river schemes to improve and expand the current river network, with several new sites in east London marked for possible new piers.

However such schemes are expected to have only very local effects in the areas adjacent to the piers, and do not replace a need for enhanced rail or road connectivity if the planned level of growth is to be accommodated.

#### *E43, Comments about existing or potential future public transport services*

Some respondents queried what effect our proposals for new crossings might have on the level of service provided within the existing public transport network in east London, or what level of service might be provided in future, with the new crossings in place.

New bridges or tunnels would open up a range of new opportunities for bus services to connect communities on either side of the Thames, and TfL would provide bus services across new bridges (or through tunnels). However the precise services operated would not be defined until closer to the time of opening, as the current bus network will continue to evolve in the meantime and new developments in the area will influence the route options.

Our work going forward will also explore the opportunities for the public transport service to be enhanced to include rail services such as a DLR extension, which would come at a higher cost but may offer wider benefits (such as faster journey times).

### **User charging and funding the new crossings**

#### *E44, The costs to build new crossings*

Some respondents wished for greater certainty on the costs to build new crossings.

We provided a high level estimate of the cost to build each crossing option, expressed as a range. The ranges reflect the relatively early stage of development of each crossing option and therefore the level of uncertainty. As we continue to

develop new crossings at Gallions Reach and Belvedere, we will increase our understanding of the build and operating costs involved.

*E45, Funding construction and operation of the new crossings*

We think it likely that crossings will be funded from a combination of the proceeds of user charging and TfL grant funding. We will consider all potential sources of funding, including land value and business rate capture mechanisms, however it is likely that the income raised from alternative sources would be modest. Additionally, user charging is necessary to manage demand for the new crossings. As we develop our proposals for new crossings at Gallions Reach and Belvedere, we will explore every option for funding the crossings, recognising the need to manage demand for them.

*E46, Funding complementary or mitigating measures*

We will undertake further work to assess the likely traffic and environmental impacts of the new crossings and plan any necessary mitigation. We will take into consideration the cost of any mitigation measures in the overall cost and funding package for the crossings.

*E47, The necessity for user charging*

Some respondents questioned why it was necessary to charge to use the new crossings at all. We proposed user charging both as a way to manage the demand for the new crossings to ensure that they do not become congested, and to provide a source of funding to help pay for them on the principle that those users benefitting most should contribute to the cost, as new crossings in this area are very expensive to construct. A charge would dissuade some car trips, particularly where there was a public transport alternative; and it provides a means to ensure the crossing is used as intended.

*E48, The duration of the charge*

Some respondents wished to know whether user charging might be a temporary measure, for example to cease once the costs to build the new crossings had been collected.

Charging is required both to manage the demand for the new crossings to sustainable levels and provide a source of funding to help pay for construction and operation. We anticipate that charging would be a long term measure, although as technology and local and national policy changes the exact level and form of the charging regime may change over time.

*E49, Charging to cross the river in east London in the context of uncharged crossings in west London*

There are two main reasons charging is proposed; to provide a means to manage demand, and to provide a revenue stream.

On the first point, the issue is that if a new crossing were to be built and not charged, experience demonstrates that the volumes of traffic and local congestion would rise considerably. In TfL's view that is unlikely to be acceptable locally, and would undermine the case for constructing the crossing. The charge is therefore a means to ensure that the overall volume of traffic is managed such that the traffic and environmental effects are appropriate. It also provides a means to prioritise certain types of user, for example local traffic and/or more environmentally vehicles, such that the crossing does not become a preferred route for longer distance traffic or more polluting vehicles.

On the second point, a new crossing would represent a very significant capital investment; the costs of constructing a bridge or tunnel in this area are significantly higher than in west London, where the river is narrower and no large ships need be accommodated. Furthermore, no new road bridges to the west are proposed; it is likely that if TfL did build a new road bridge to the west, it would also be charged. As it is there are no outstanding costs from the construction of other road bridges in London. If a new crossing were not charged and was funded instead directly from TfL's budget, the costs would fall to all taxpayers and farepayers, with public transport users effectively subsidising new infrastructure for car drivers. TfL considers it reasonable and appropriate for the users and beneficiaries of the new crossings to contribute to the costs.

#### *E50, Charging as an additional cost to businesses/the public*

We recognise that user charges would represent a direct cost for those who pay them. However there is a significant indirect cost which businesses and the public are already incurring in the form of time lost on journeys across the river because the existing infrastructure is congested, unreliable and does not have sufficient capacity. The lack of crossings also affects people's access to jobs and business access to a much wider economically active population.

The proposed new river crossings are intended to significantly improve cross-river highway links in east and south east London. The additional capacity provided by the new crossings would help to manage the impact of economic and population growth, reduce congestion and make journey times more reliable in this part of London. Both public and businesses in these areas would benefit from the greater accessibility provided to opportunities elsewhere.

As noted, user charging on these new crossings is required to both manage the demand and provide a source of funding for the schemes. Charging would help to keep the demand for the crossings within levels that the wider network can efficiently accommodate, so that users would benefit from more reliable journey times.

No decisions have been made on what charges would apply, when they would be applied and to what classes of traffic they would apply. These issues will be subject to further consultation.

#### *E51, The level of user charges*

Some respondents wished to know how much we would charge users to cross using the new crossings.

As noted above, we have made no decisions on what level of charges would be required for new crossings at Gallions Reach or Belvedere, when they would apply or who would pay them. We will continue to develop our proposals for charging the new crossings and these will be subject to consultation.

#### *E52, The potential for discounts and exemptions to user charging*

We received a range of suggestions for particular users or groups to be exempt from the charge, including local residents and business users such as freight.

We have not made any decisions on any discounts or exemptions that might apply to the charge at the new crossings at Gallions Reach and Belvedere.

Wide ranging discounts and exemptions could undermine the scheme's benefits if, for example, it became cheaper to use a private car at peak times than to use the public transport alternative, which would increase congestion and worsen environmental impacts. Therefore such discounts will need to be considered carefully to target the most appropriate users. In developing the charging strategy for the new crossings, we will consider the need for discounts and exemptions and the impact it has on the traffic and local economy and this strategy will be subject to consultation.

#### *E53, The level of user charges in future years*

Some respondents wanted to understand if and how the user charge would increase in future.

The charges would be kept under review to ensure that the scheme is delivering the intended benefits, such as shortening journey times and assisting the local economy, rather than, for example, attracting too much traffic from further afield and causing local congestion and worsening air quality. The charging structure will be amended as appropriate to get the maximum benefits from the bridge while protecting the local community from any adverse impacts.

#### *E54, Collecting the charge*

Some respondents wanted to know how we would collect the charge, including in some cases from foreign-registered vehicles.

There would be no physical booths or barriers at the crossing entrance or elsewhere for the collection of tolls. The charges would be collected automatically, probably using a system of cameras. Where possible, we would seek to make the charge collection systems interoperable with Congestion Charging and those we will use to collect the charge at the Blackwall and Silvertown Tunnels. We would put in

place effective systems to ensure that overseas drivers also pay the required charges.

#### *E55, Charging London's entire road network*

Some respondents suggested that we should go further with our proposals for user charging, and apply a charge to use the entire London road network. There are currently no plans to introduce a Londonwide road user charging scheme.

If such a scheme were to be proposed in the future, it is likely that such a scheme would incorporate and supersede any charging at river crossings.

#### *E56, Charging the Rotherhithe tunnel*

The traffic modelling undertaken to date does not indicate that significant additional traffic would pass through the Rotherhithe Tunnel under these proposals, and therefore at present no charges at the Rotherhithe Tunnel are proposed. However, TfL will continue to monitor the impact of any new crossings or charges on Rotherhithe Tunnel and if necessary will reconsider whether charges should be introduced.

#### *E57, Charging of Blackwall Tunnel in advance of the construction of any other crossings*

TfL is not currently proposing to charge Blackwall Tunnel in advance of the construction of Silvertown Tunnel or any other crossings. Charging the Blackwall Tunnel without providing new infrastructure would not address the issue of poor cross river connectivity and capacity in east London. We see the provision of additional crossings together with user charging as the best solution to addressing the cross-river connectivity issues in east London.

### **Comments about the consultation**

#### *E58, The materials included insufficient information about the proposals*

Some respondents were concerned that our consultation did not include sufficient information, including in regards the impacts of the new crossings we had proposed. We designed our consultation to include as much information about the new crossings and their impacts as we had available, to enable respondents to make a more informed decision about which new crossings they felt we should progress. We also published on our website at <https://consultations.tfl.gov.uk/roads/2d8e57d0> all of the detailed technical reports that were available and which had been summarised and simplified in our consultation leaflet and online. We also arranged a series of roadshow events at venues across east London to provide the public with an opportunity to speak to staff involved in the project if they had any questions.

We recognise the need to find a balance in the provision of our consultation materials. We aim to provide sufficient information for a respondent to come to an

informed view about our proposals, without publishing so much information such that it becomes unwieldy.

*E59, Comments about the timeliness of TfL's responses to queries*

We received some questions about our proposals during the consultation, and endeavoured to reply to these as quickly as possible. Some respondents however were critical of the time we had taken to respond.

We aim to reply to all queries as quickly as possible; some queries are relatively straight forward and can be answered quickly, however others are more complex and required much longer to investigate.

*E60, Suggestions for continued joint-working*

Some respondents – principally the relevant Boroughs – asked that we continue to work closely with them in developing our proposals for new crossings. We welcome this cooperation and wish it to continue; and will be in contact with all relevant stakeholders at the most appropriate times during the further development of our river-crossing programme.

*E61, Separating-out consultation on the proposed Silvertown Tunnel*

Some respondents were critical of our decision to separate consultation on the proposed Silvertown Tunnel from options for new crossings further east. These respondents felt that we should consult on the proposals for new crossings as a unified package.

Our plans for the Silvertown Tunnel are at a more advanced stage in comparison to options further east. In addition, the Silvertown Tunnel has been designated a 'Nationally Significant Infrastructure Project', requiring that we seek and obtain a 'Development Consent Order' to build and operate the tunnel. The application process contains specific requirements for consultation, so we took the decision that it was preferable to consult the public and stakeholders on our proposals for the new tunnel separately.

*E62, Comments about our roadshow event at Thamesmead Morrisons*

We received some criticisms of the material used during our roadshow event at Thamesmead Morrisons, held on Saturday 23 August.

We used the same materials throughout all of our roadshow events – these were intended to enable our staff to discuss our proposals for the new crossings with the public. We planned for our consultation material to be comprehensive, clear and accessible, and we will continue to work to ensure that this is the case for all of our materials.

*E63, Criticisms of the timing and duration of the consultation*

We recognise that many people will go away on holiday for a time during the summer period. For this reason we planned our consultation to run for a total of over ten weeks, from 7 July until 18 September, to ensure that there was ample time for all those with an interest to reply.

Our previous consultation ran during the winter period from October – February 2013 and we received just fewer than 7000 responses. In contrast, we received over 7,500 responses to our most recent consultation. The timing and duration of the consultation does not appear to have limited the number of responses we received.

#### *E64, Comments about the perceived need for further consultations*

Some respondents were critical that TfL had held a further consultation on plans for new river crossings, and emphasised how urgently they felt new crossings were needed.

We recognise that there is a need for new river crossings for east London. We recognise also, however, the value of developing our proposals with the benefit of public and stakeholder input.

Our consultations are a very important element in the development of new plans. This is demonstrated, for example, by the inclusion in this consultation of the new idea of a crossing at Belvedere. A crossing there had not previously been proposed but was suggested following the last consultation and showed sufficient merits to be included within this consultation so that the public and stakeholders' views could be sought. It is essential that TfL receives feedback all the way through the process to ensure that all local residents and businesses have had an opportunity to help to shape the proposals.

#### *E65, Expressing a priority of preference for new river crossings*

We asked respondents to our consultation what package of new river crossings they felt we should introduce. Some respondents felt that we should have added an additional question in which we asked respondents what priority should be given to the new crossings.

Our consultation was intended to enable us to come to a better informed decision as to what new river crossings should be progressed. A number of factors will influence what priority new crossings at Gallions Reach and Belvedere are delivered to, and we will need to undertake further work to determine all of the issues.

#### *E66, Criticisms of the consultation publicity*

While there is a limit to the budget available for promoting consultations, we took a number of steps to encourage the public to let us know their thoughts on our proposals. These included:

- A letter to almost 400,000 properties throughout a wide area of east and south east London;

- An email to around 850,000 registered Oyster card holders;
- Press advertising in many London-wide and local newspapers;
- A range of digital marketing tools such as TfL's website and social media accounts (such as Twitter);
- Distribution of our consultation materials to passengers waiting to board the Woolwich Ferry or walking through the Greenwich and Woolwich foot tunnels.

In addition there was a high level of news coverage in the media, including local newspapers, radio and television.

We received over 7,500 responses, in contrast to our previous consultation (which ran from October – February 2013), to which we received just fewer than 7,000 responses.