

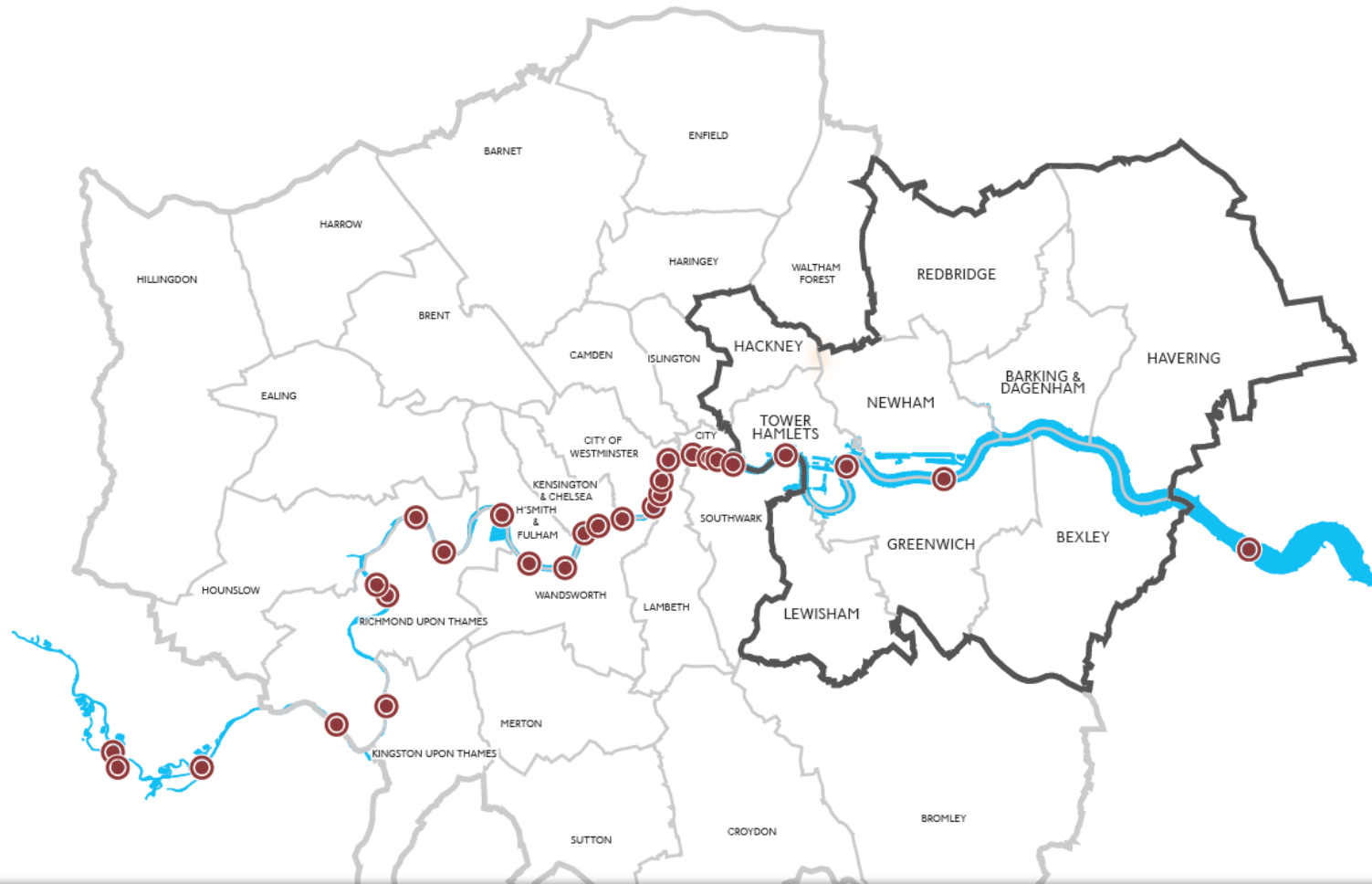
River Crossings in East London



Michèle Dix
Managing Director of Planning
Transport for London



East London has fewer road crossings than west London



Ave. distance
between
crossings

2km

West

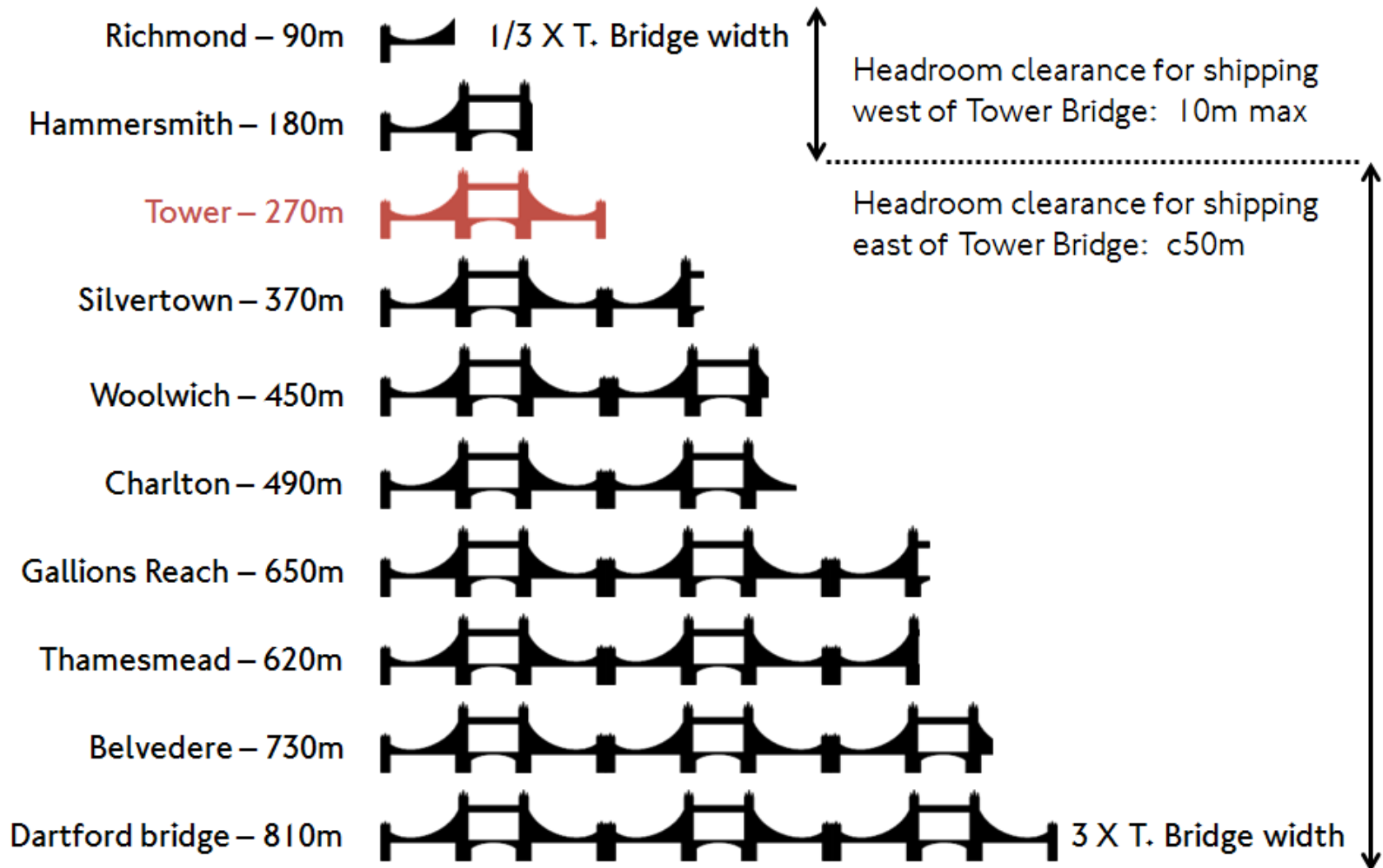
1km

Central

8km

East

River width is a key constraint in the east



The Thames has very different characteristics in east London to West London



Putney – 200m wide

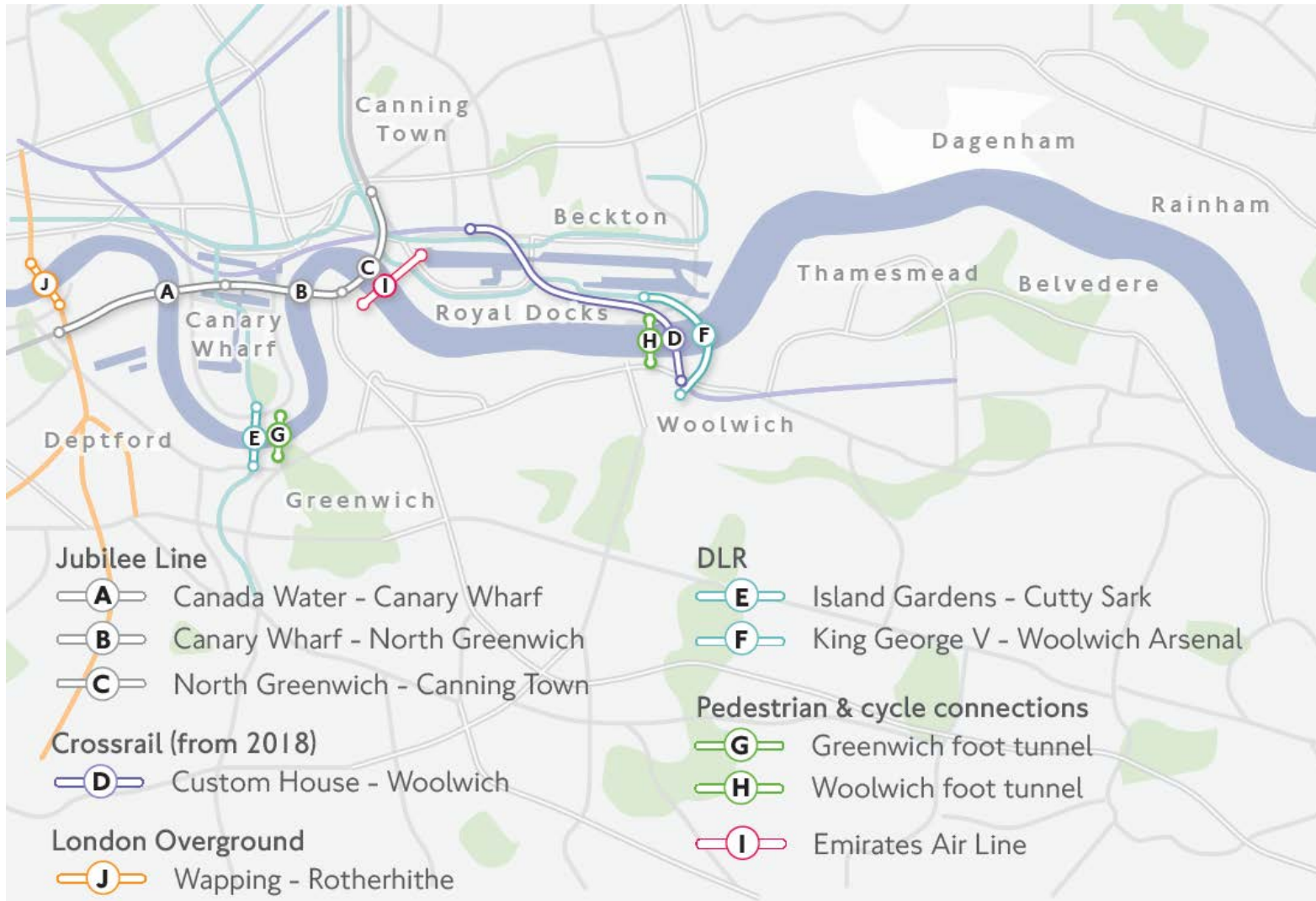
10m height clearance



Charlton – 490m wide

50m height clearance

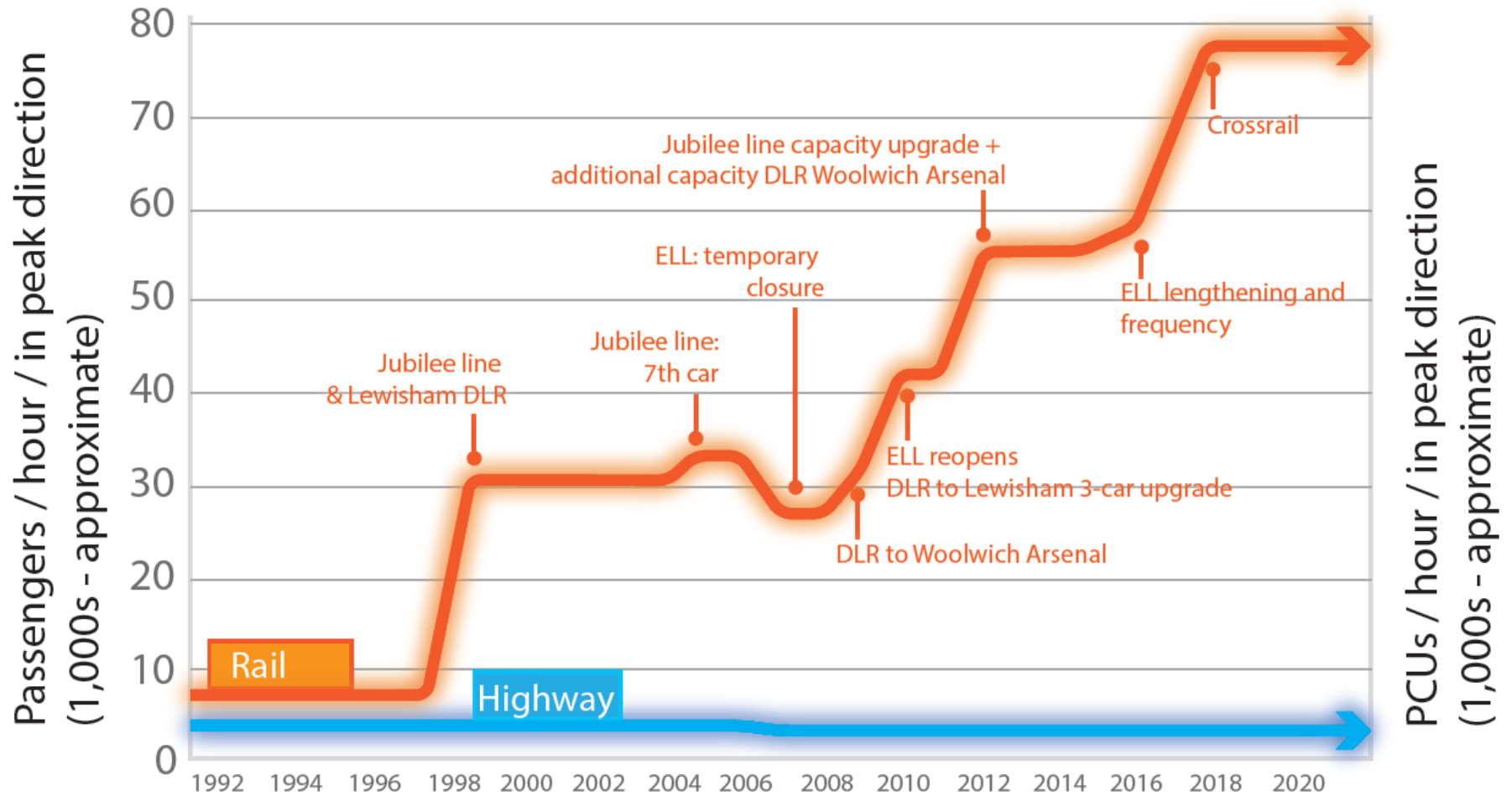
Major improvements in cross-river public transport links have taken place over the past 20 years



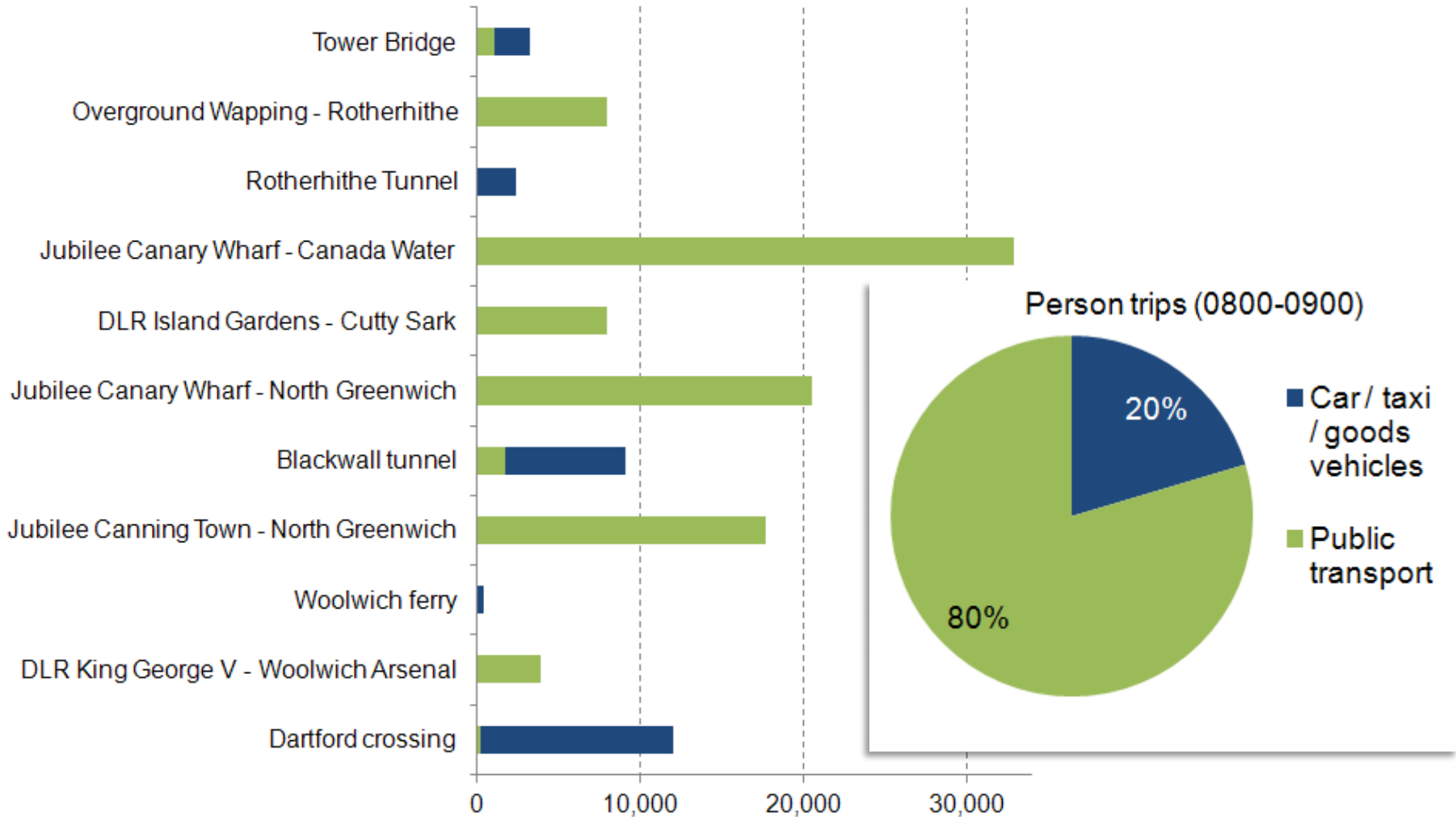
1990 Tube Map



No increase in highway travel in the same period

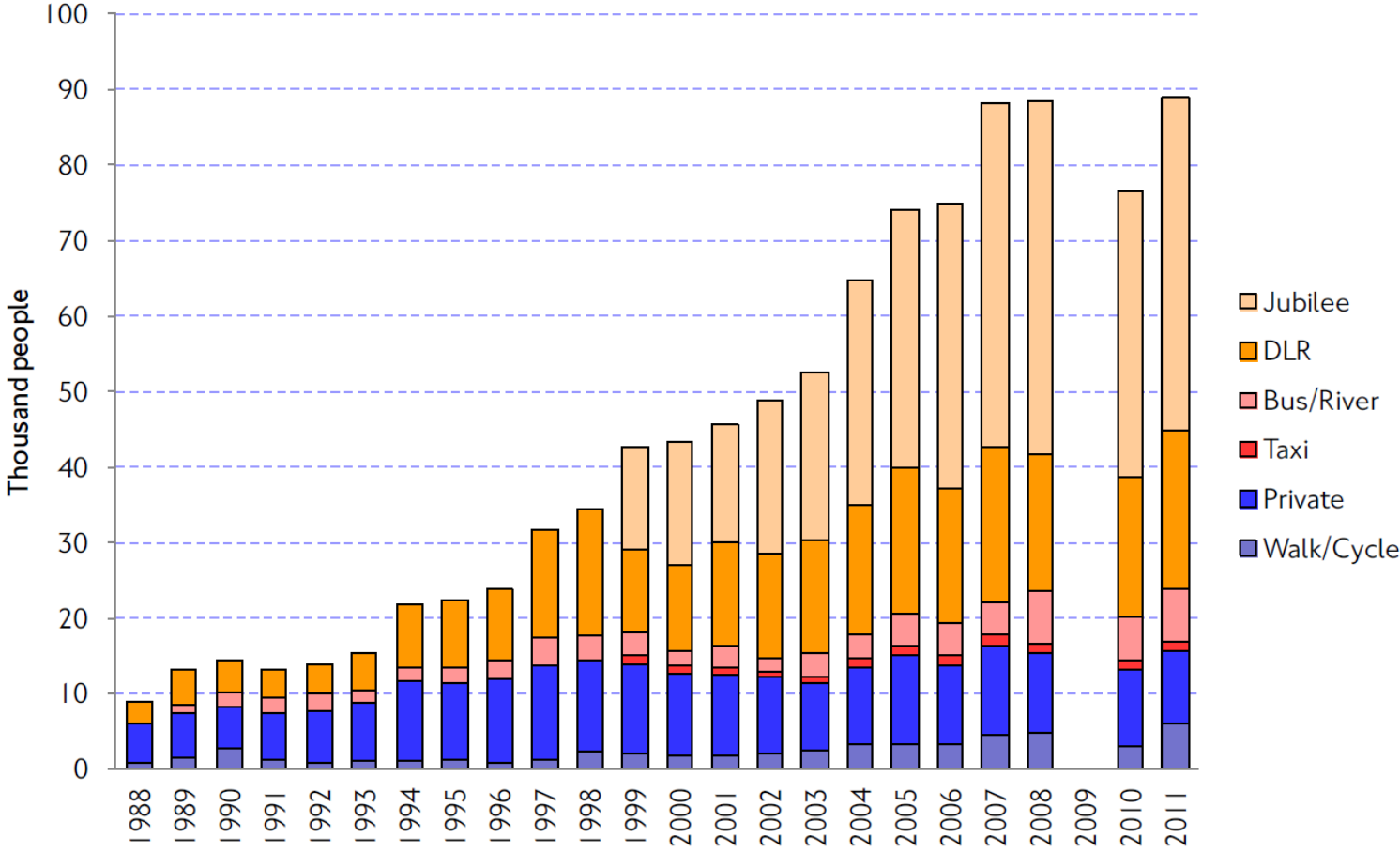


How people cross the river today east of Tower Bridge

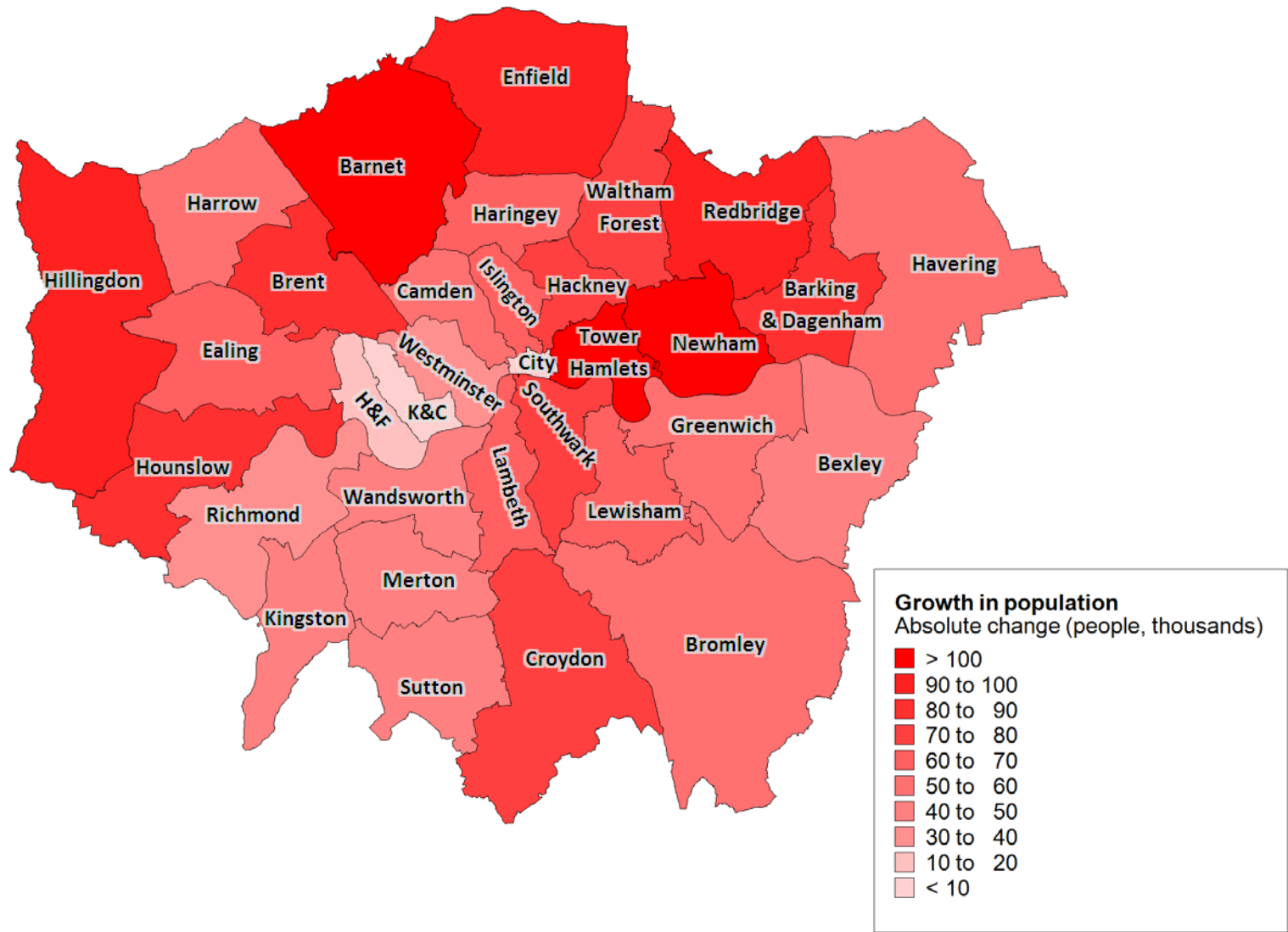


This investment in public transport has achieved high levels of public transport usage for journeys to the Isle of Dogs

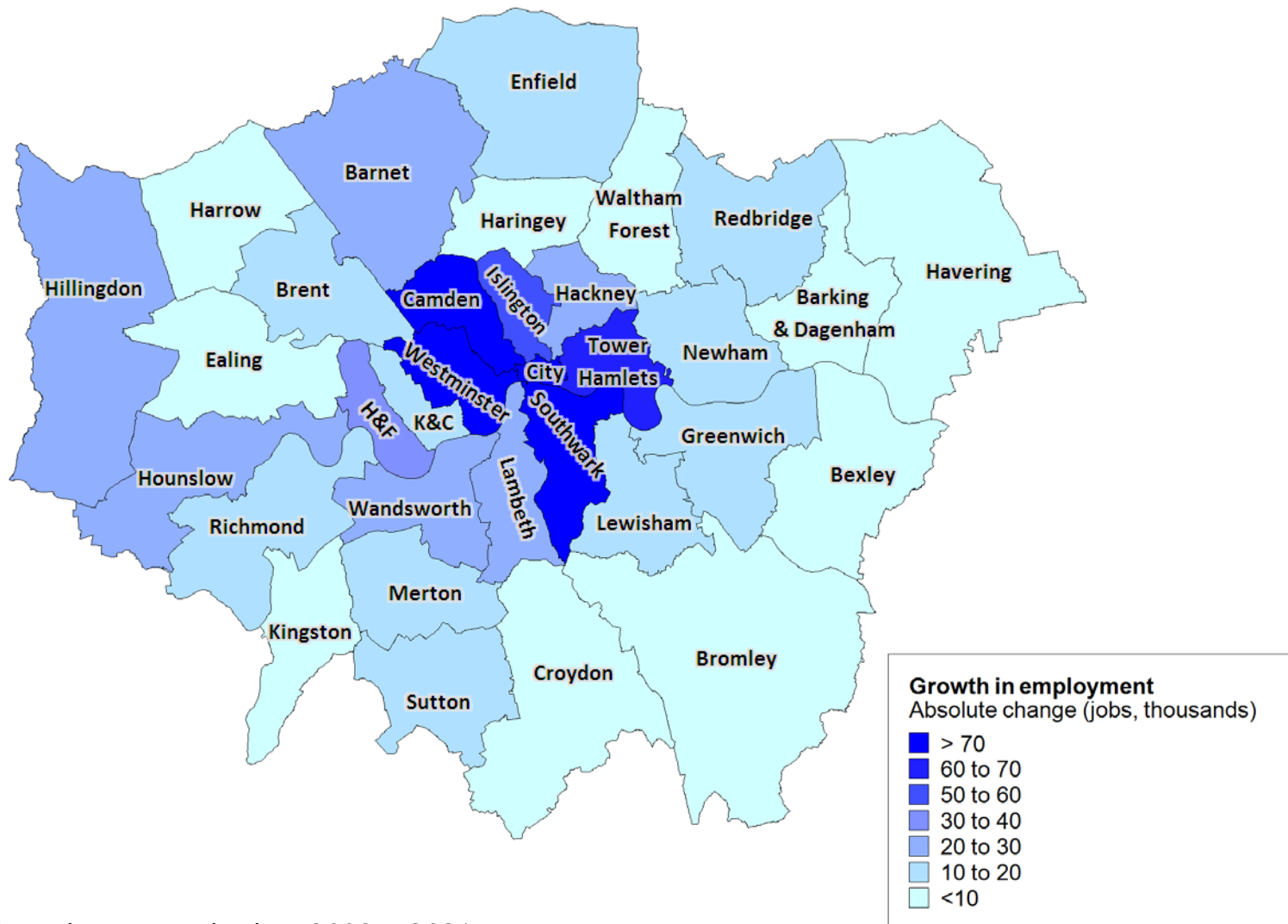
Morning peak travel to the Isle of Dogs (including Canary Wharf) by mode of transport, 1988 to 2011



Forecast changes in London's population to 2031

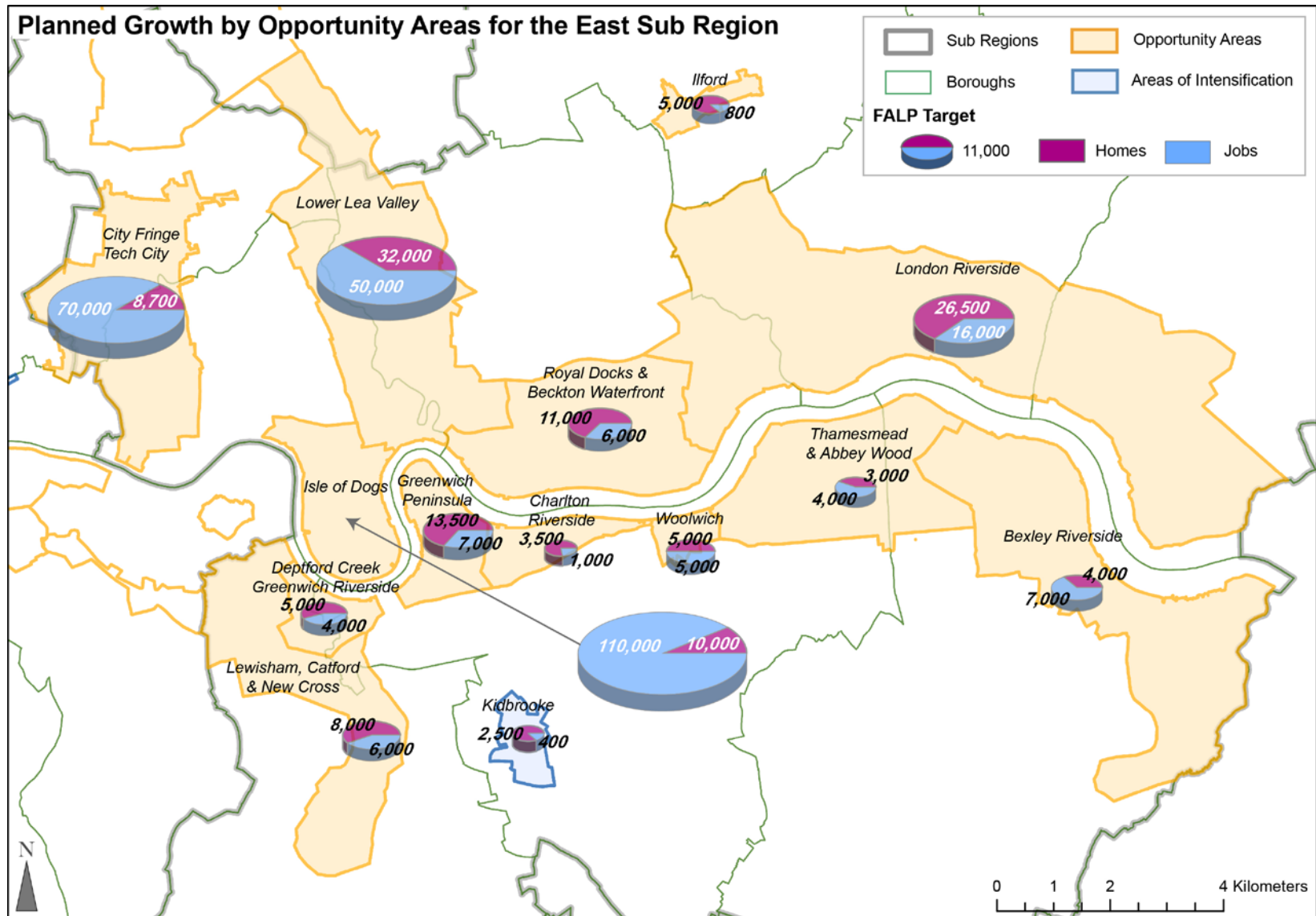


Forecast changes in London's employment to 2031



Source: FALP 2013 employment projections 2006 to 2031

Growth & development context in the immediate area



Current London Plan – growth to 2031 – 2050 projections even higher

What are the problems we face today?

Major issues at Blackwall Tunnel

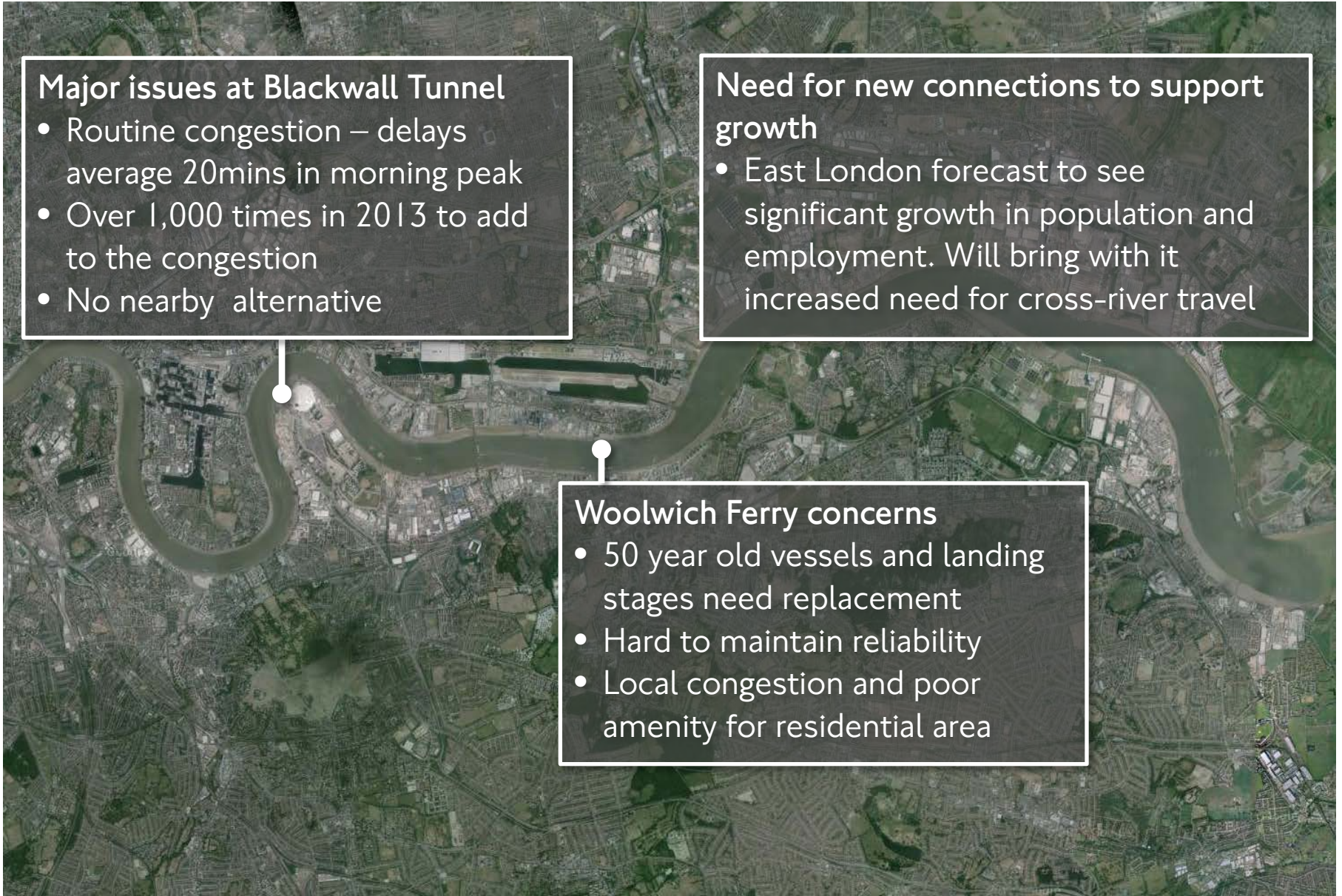
- Routine congestion – delays average 20mins in morning peak
- Over 1,000 times in 2013 to add to the congestion
- No nearby alternative

Need for new connections to support growth

- East London forecast to see significant growth in population and employment. Will bring with it increased need for cross-river travel

Woolwich Ferry concerns

- 50 year old vessels and landing stages need replacement
- Hard to maintain reliability
- Local congestion and poor amenity for residential area

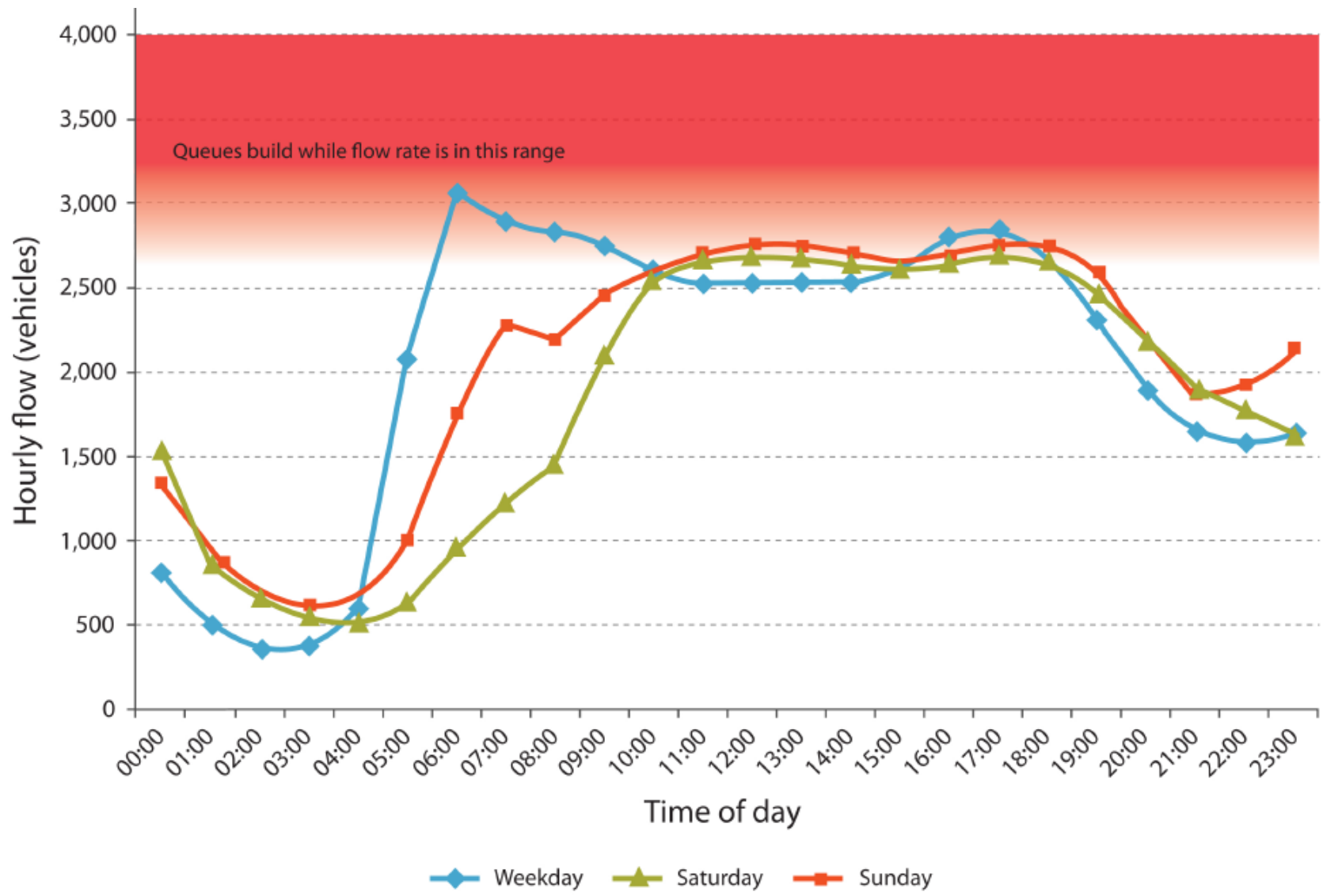


The Challenges with the Blackwall Tunnel

- Northbound tunnel – constructed in 1897 – max height restriction of 4m
- Southbound tunnel – completed in 1967 – clearance of 4.7m
- Operating at 99% of capacity in the peak direction – causes regular congestion
- Regular incidents at the tunnel cause this congestion to worsen
- Lack of resilience – so when there is an incident – there are no viable alternative routes which adds to the congestion

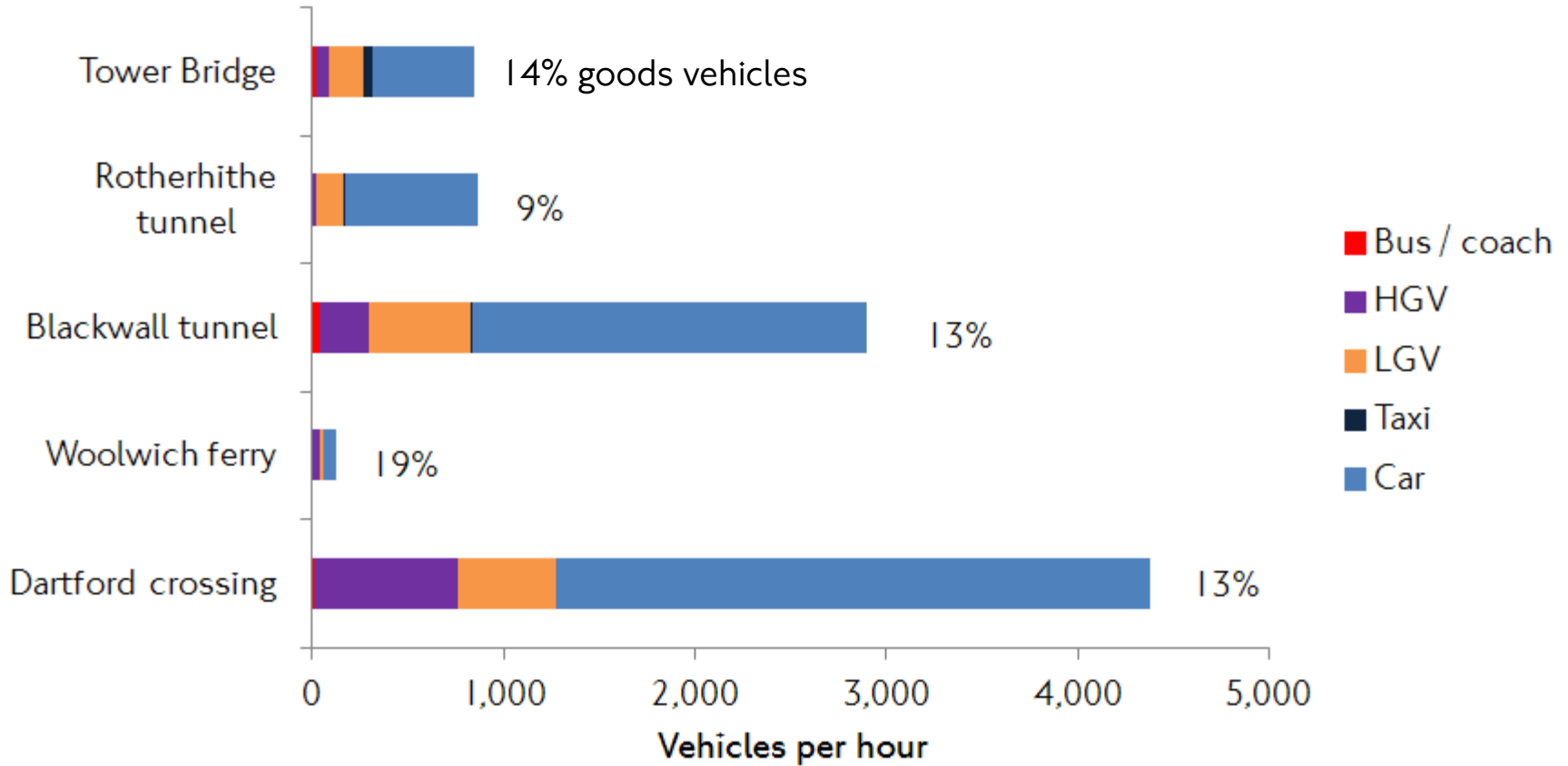


Blackwall Tunnel northbound – average hourly flows by day type



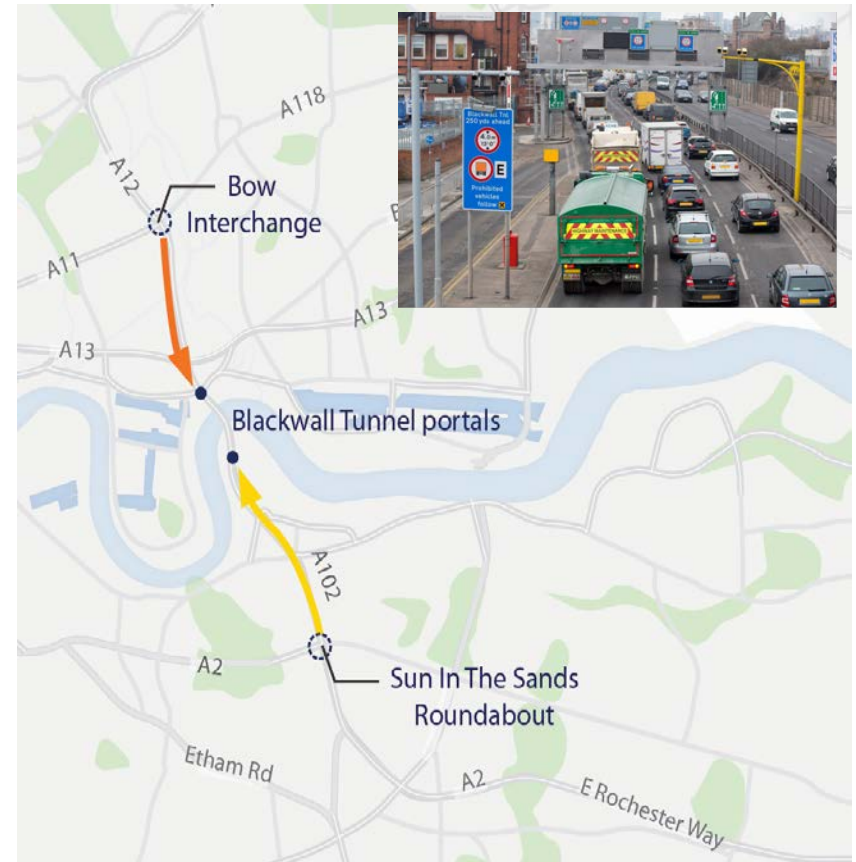
Usage of the Blackwall Tunnel

Northbound vehicle trips (0800-0900)



Blackwall Tunnel Impacts

- Daily congestion over extended peak periods
- Extended journey times for users – impacts on local employers and business
- Impacts across the wider network – adding delay to other vehicle journeys
- Impacts on bus service reliability and performance
- Congestion causes poor air quality



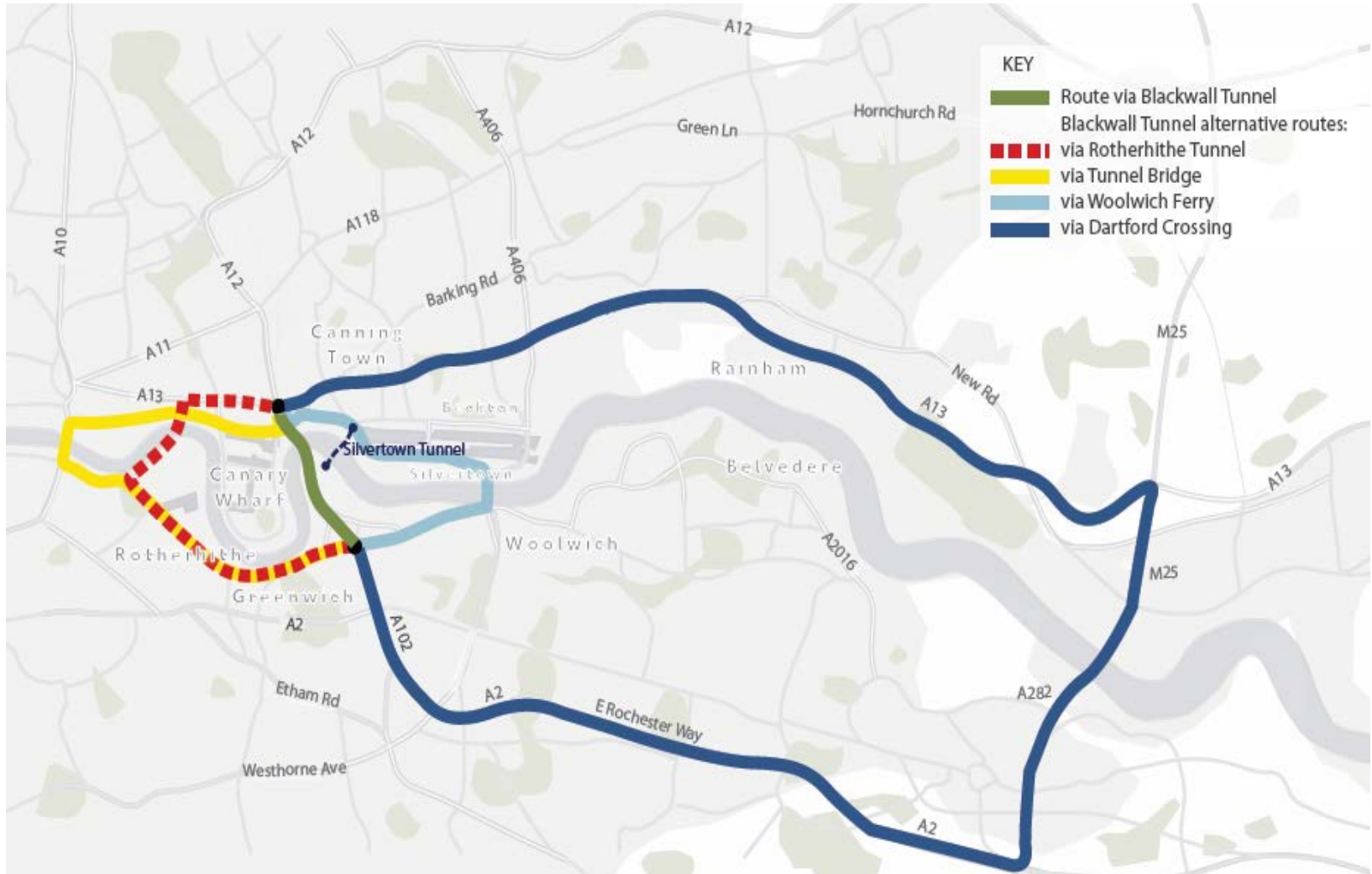
When incidents happen

- 2013 – over 1,000 incidents per year which impacted on journey times
- Only 10 days during 2013 that were unaffected by a tunnel closure
- Incidents add on average between 15 and 30 minutes to each journey
- Some incidents add considerably more

Nature of incident	No of incidents in 2013
Overheight vehicle attempting to access the northbound bore	649
Vehicle breakdown on the approach to or within the tunnel	234
Other – eg. Debris within the tunnel	86
Road traffic accident	67



When incidents happen – lack of alternative routes



Alternative Cross-River Routes to the Blackwall Tunnel

Blackwall Tunnel Incident 11 September 2014

6.45am Northbound bore of the Blackwall Tunnel closed to carry out emergency repair

7am Tunnel fully reopened
Queue for the tunnel extended as far back as the A206 Woolwich Road (approx two km).

7.30am Queue extended as far back as the A2 Kidbrooke Interchange (approx five km).
Local bus services, delaying bus passengers.

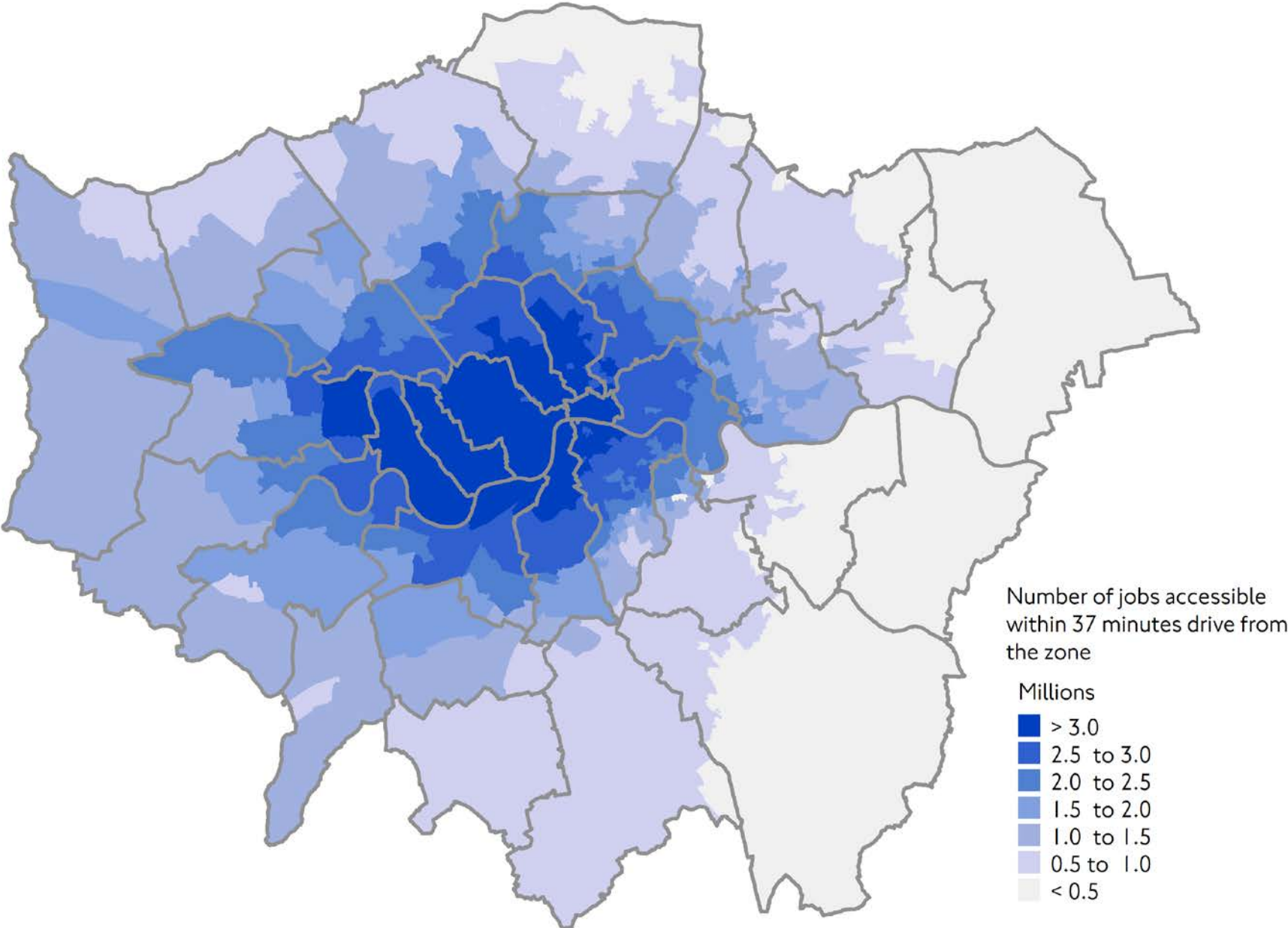
9am Queue begins to clear, traffic returns to normal levels just after 9am.

Woolwich Ferry

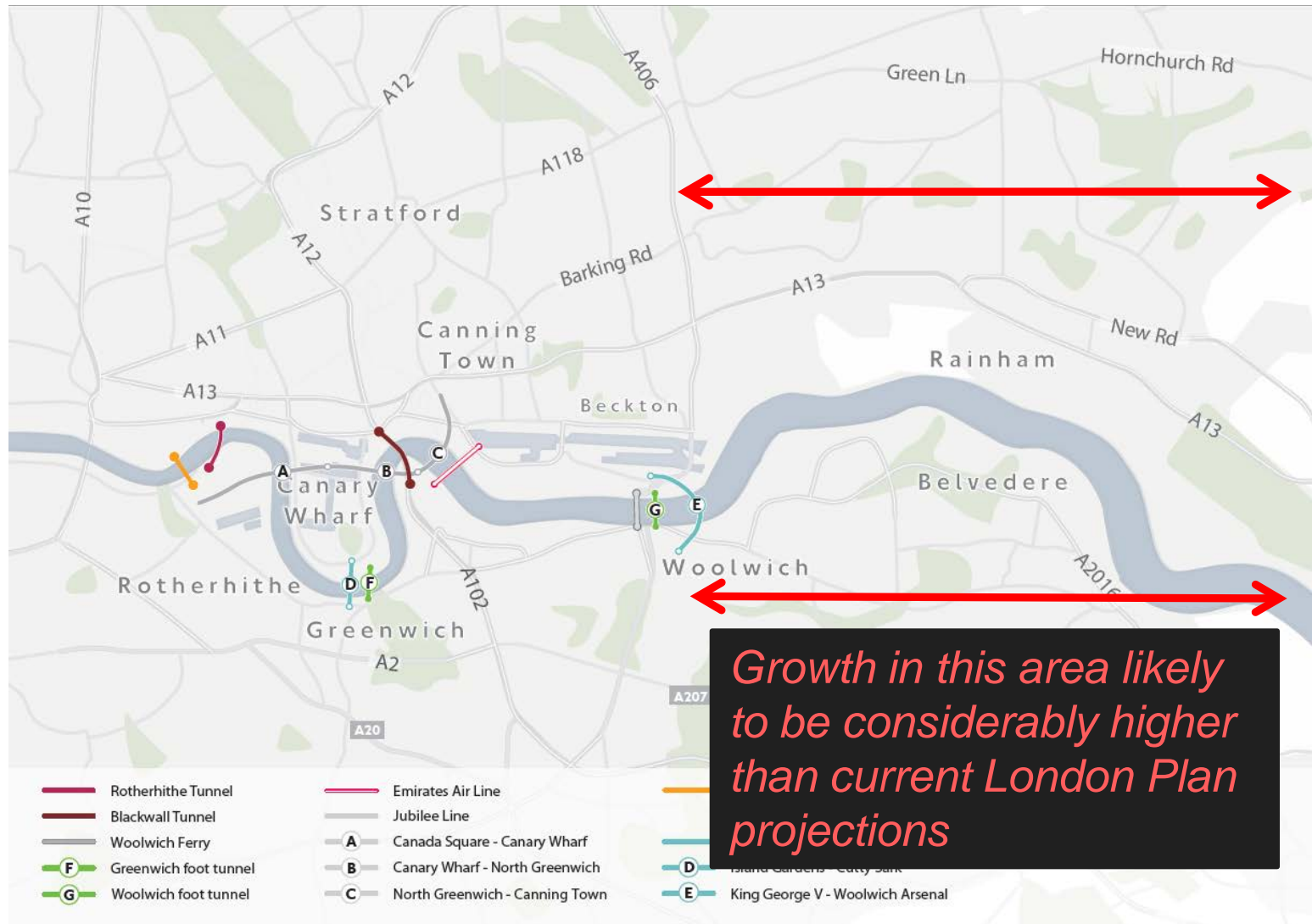
- The current vessels and infrastructure started service in 1963
- Capacity is limited, so users often have to queue to use the ferry
- Constraints around the ferry terminals mean that queues can be disruptive to the local area on both sides of the river
- Current infrastructure is either life-expired or fast approaching expiry
- Assumption is that assets will be beyond repair in 2024 – terminal date
- Repairs to maintain safe operations risk becoming more expensive and time-consuming



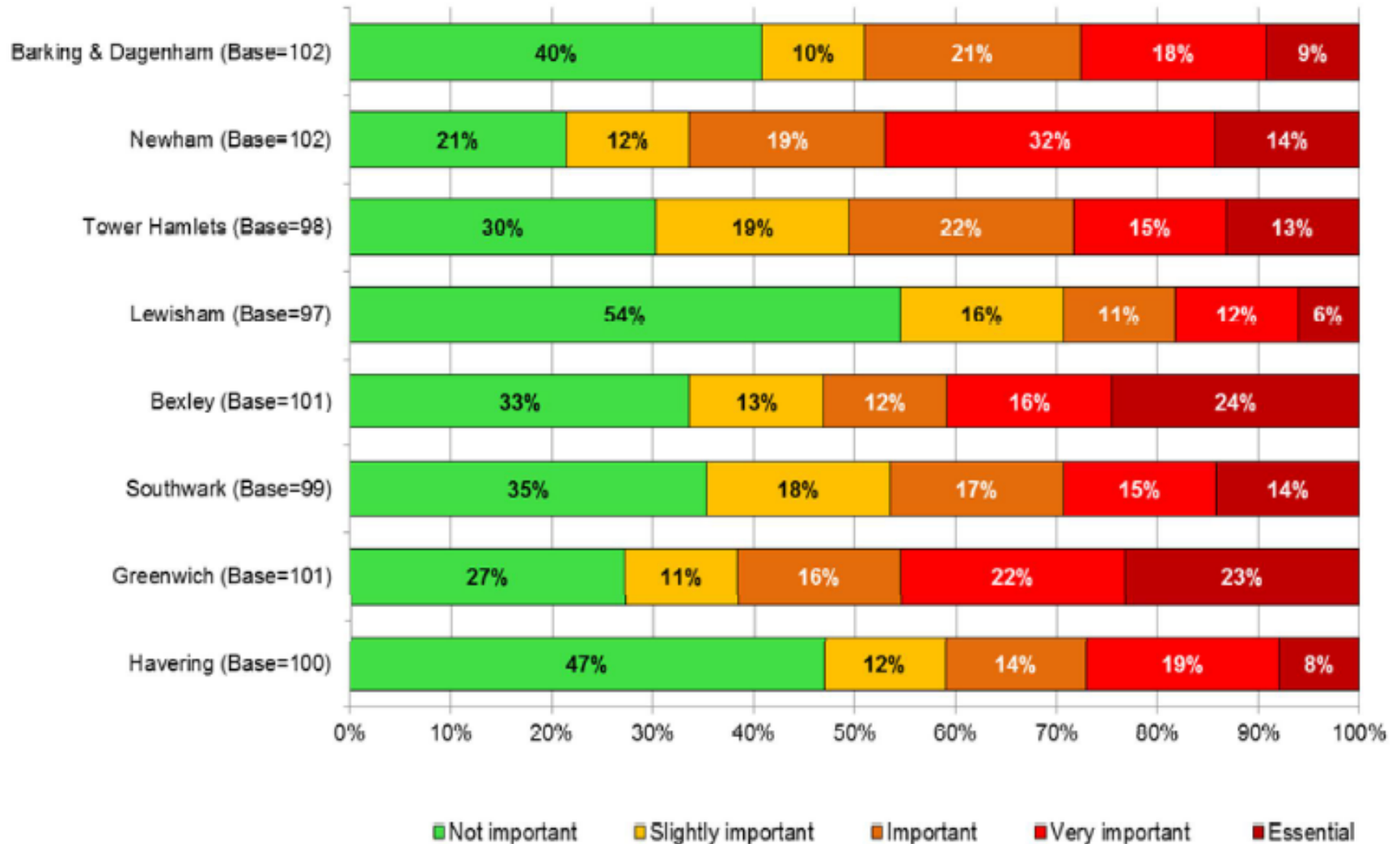
Lack of Connectivity east of Woolwich



Growth & development context in the immediate area



Local businesses tell us that river crossings are important



Policy support for a package of improvements

There is very clear policy support for new river crossings in east London

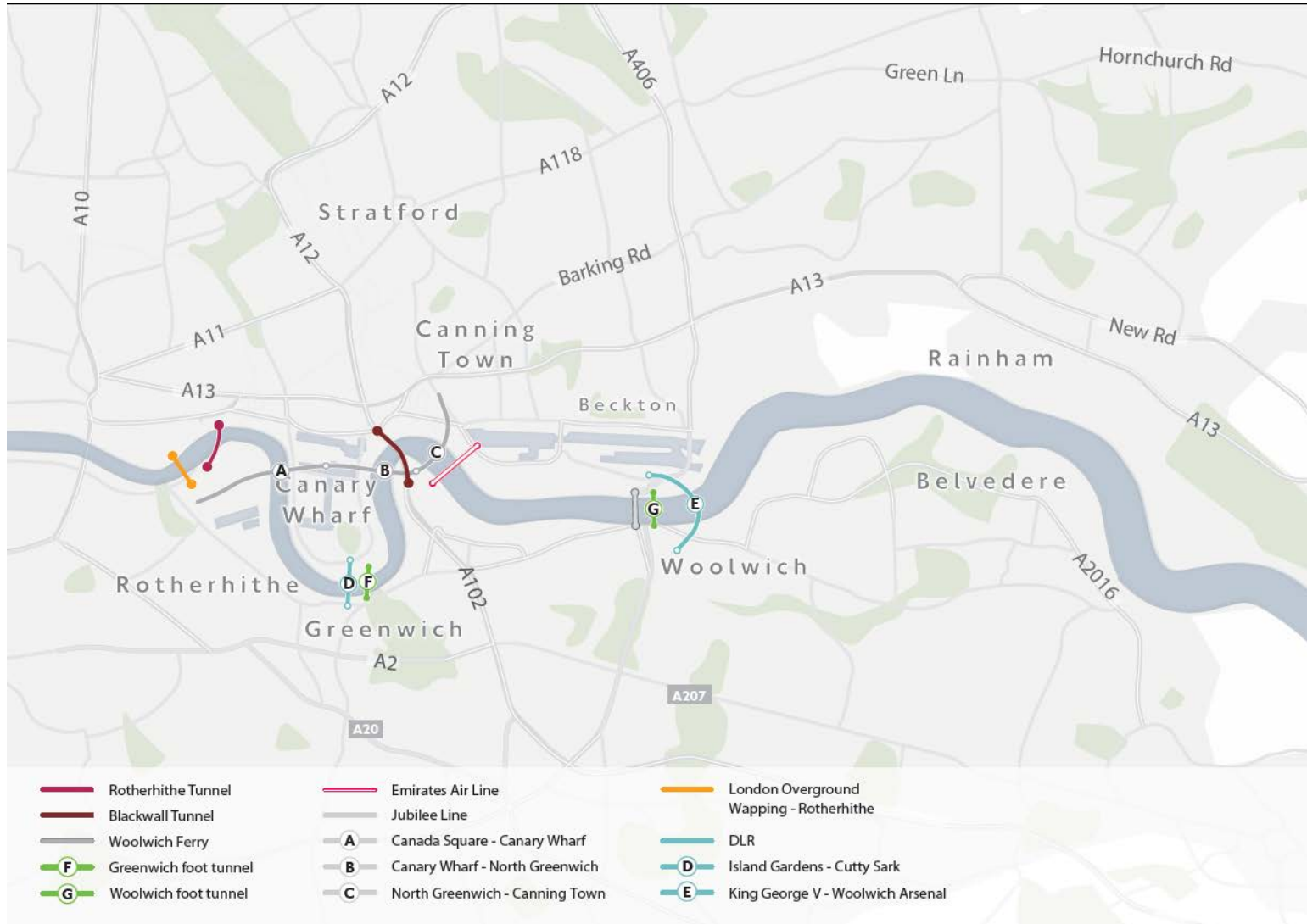
- The London Infrastructure Plan 2050:
 - “A series of new river crossings in East London beyond the proposed Silvertown tunnel to overcome the major barrier effect which constrains travel between Thamesmead, Belvedere, Barking Riverside and Rainham” (Chapter 14)
- The London Plan:
 - “New and enhanced road vehicle river crossing(s) in east London (package of measures) “ (Para. 6.1)
- The Mayor’s Transport Strategy:
 - “The Mayor, through TfL and working with the London boroughs and other stakeholders, will take forward a package of river crossings in east London...” (Proposal 39)

The need for a package approach

- The package has to address the problems we experience today and those we are forecasting for the future. This includes the following:
 - A new road crossing to address the problems with congestion at Blackwall
 - The introduction of user charges to manage demand and fund the cost of new infrastructure
 - New road crossings further east to improve connectivity and support growth
 - Additional public transport connections further east - delivered through the new crossings or additional rail crossings
 - Facilities for pedestrians and cyclists further east

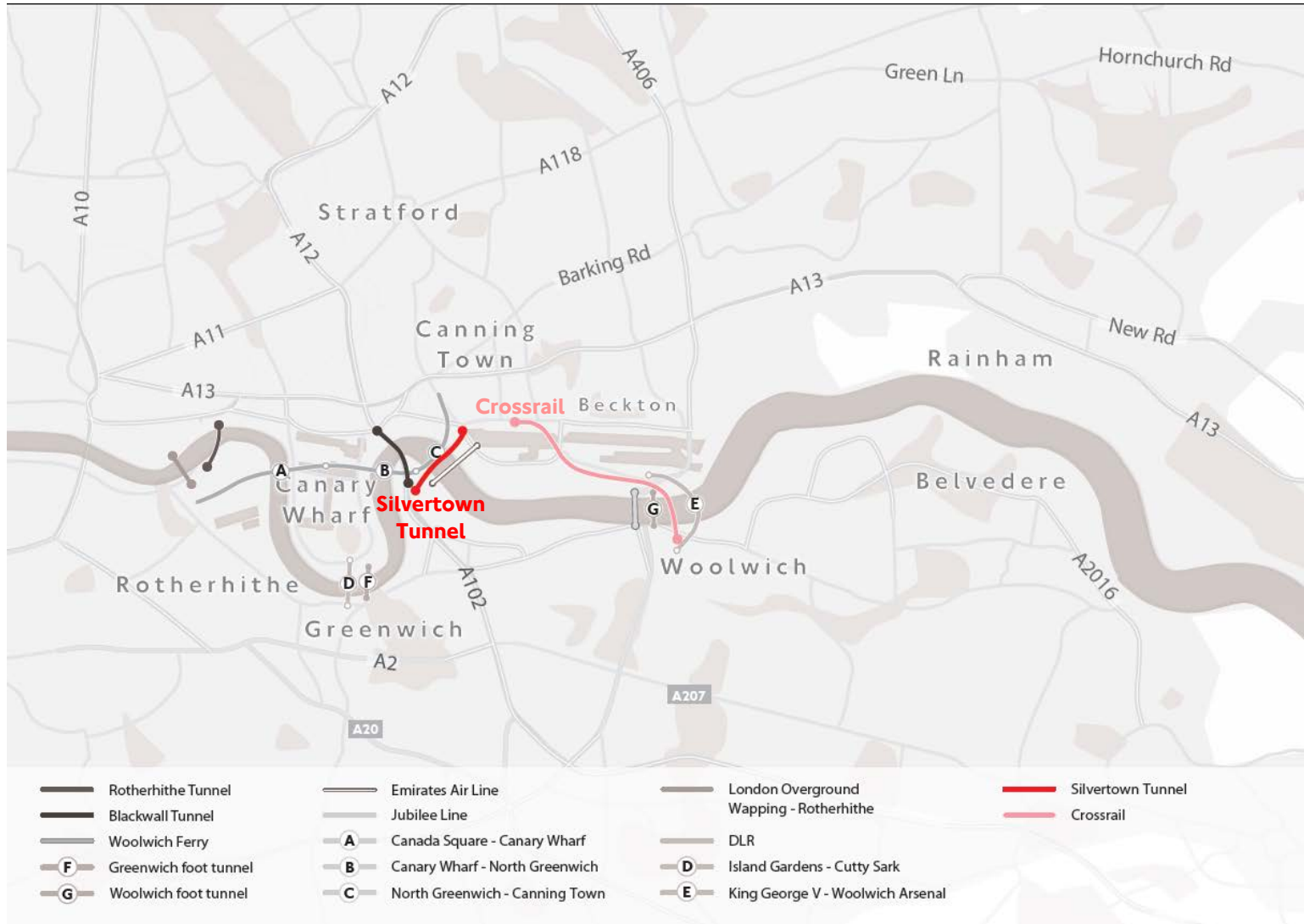
The need for a package approach

Crossings today



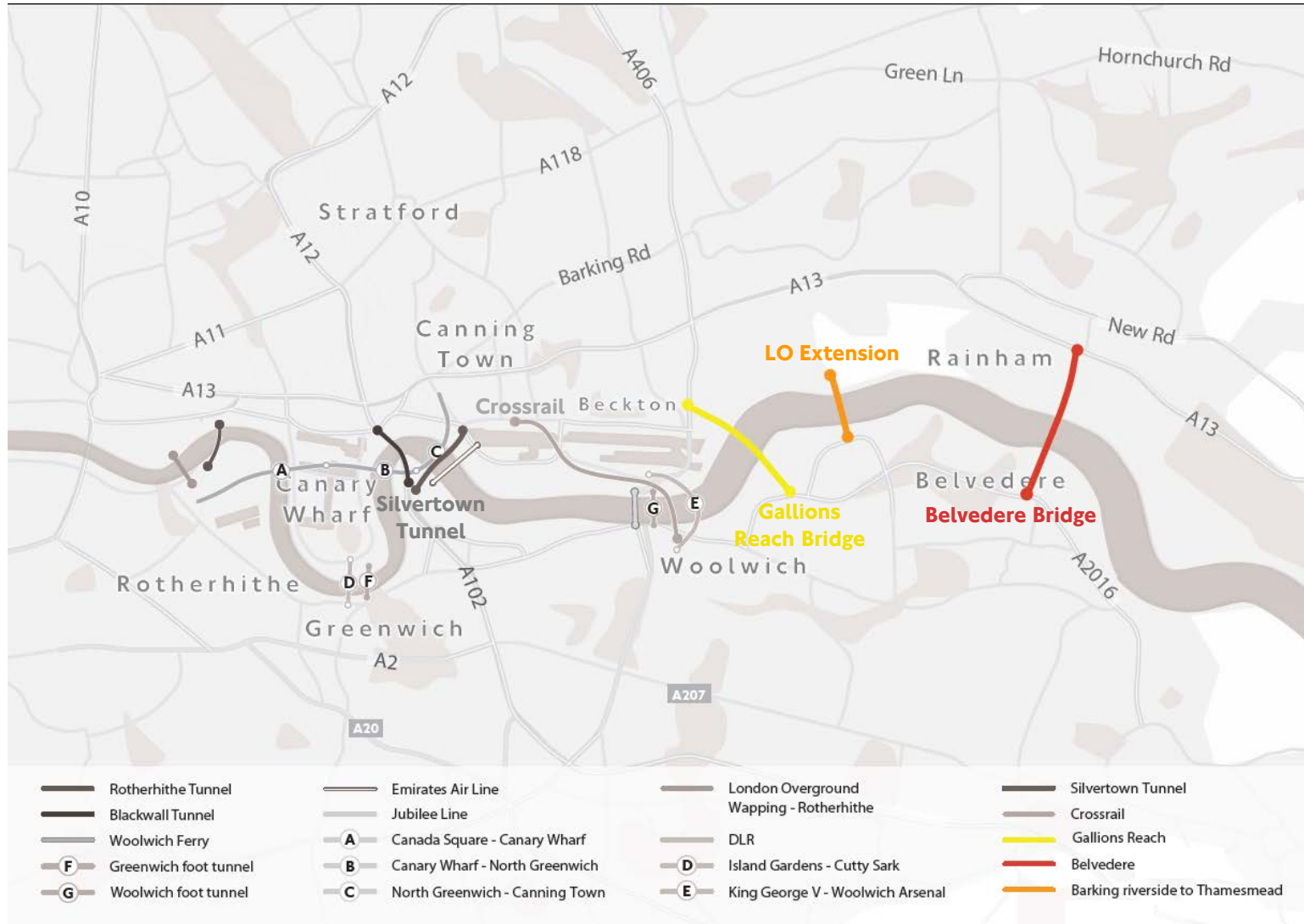
The need for a package approach

Crossings in 2022



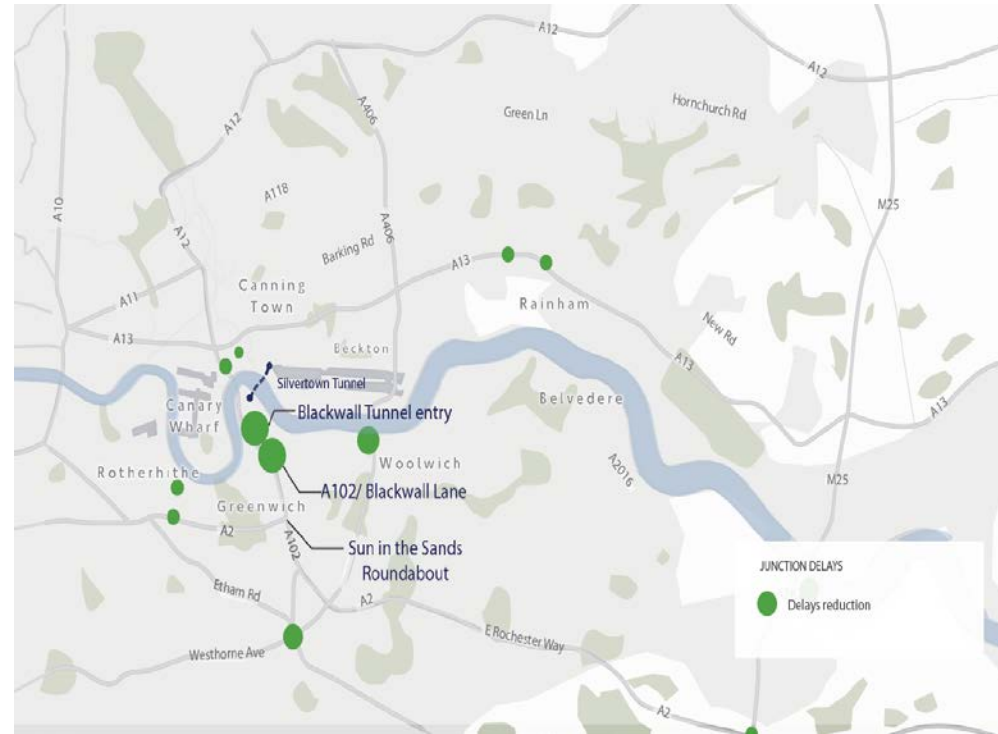
The need for a package approach

Crossings in 2025 and beyond



Silvertown Tunnel – key benefits

- Congestion addressed and journey times reduced:
 - Current Lewisham - Stratford AM peak journey time is 45 minutes
 - In 2021, this will increase to 53 minutes
 - With Silvertown and user charging the 2021 journey time would reduce to 40 minutes
- Resilience of the network improves so impact of incidents greatly reduced
- Supports economic and population growth in east London
- Creates opportunities for new public transport connections across the river



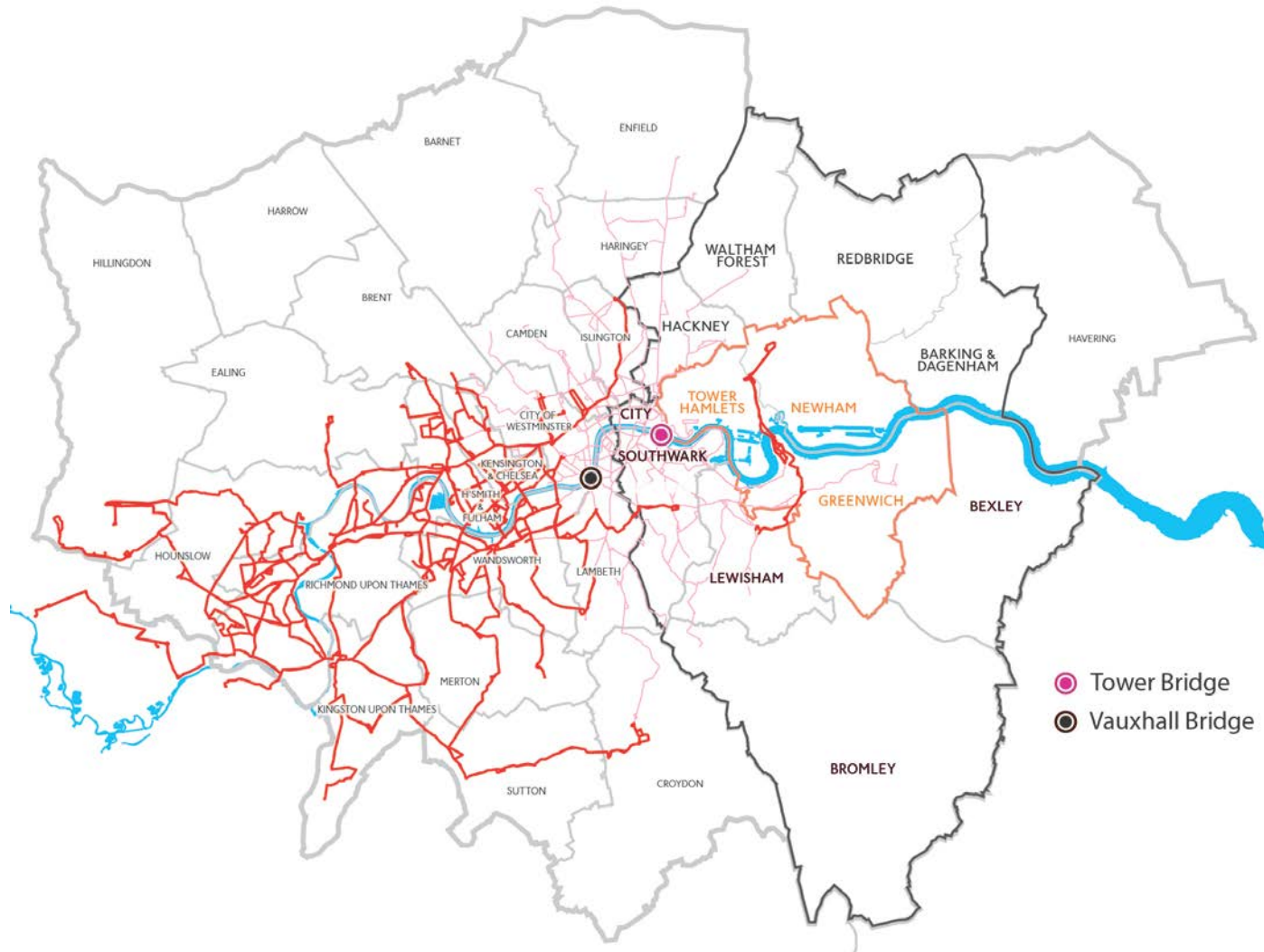
Map to show the effects of the Silvertown Tunnel in reducing morning peak delays in 2021

Emirates Air Line



The Emirates Air Line provides a high quality crossing for pedestrians and cyclists at the location of the proposed Silvertown tunnel

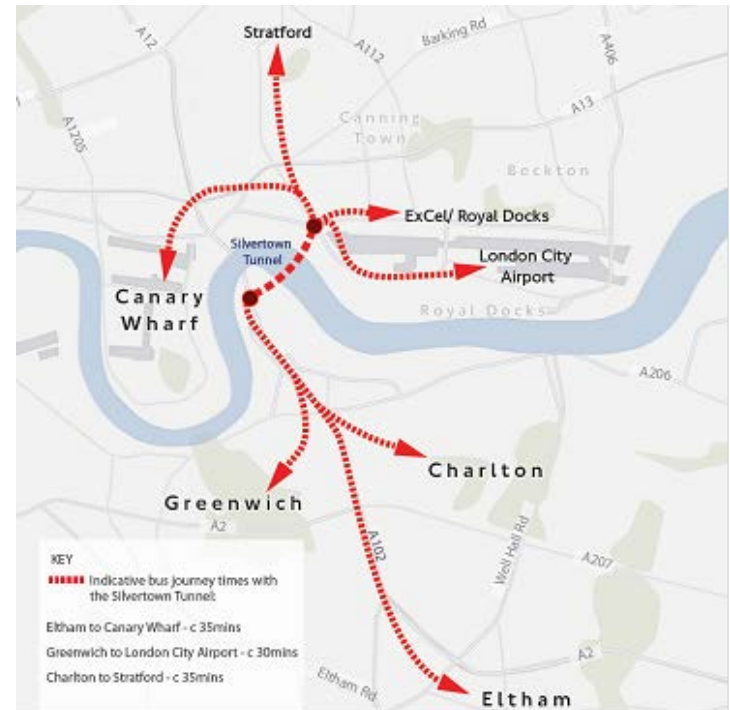
Opportunities for new public transport connections



Cross-river bus services in London

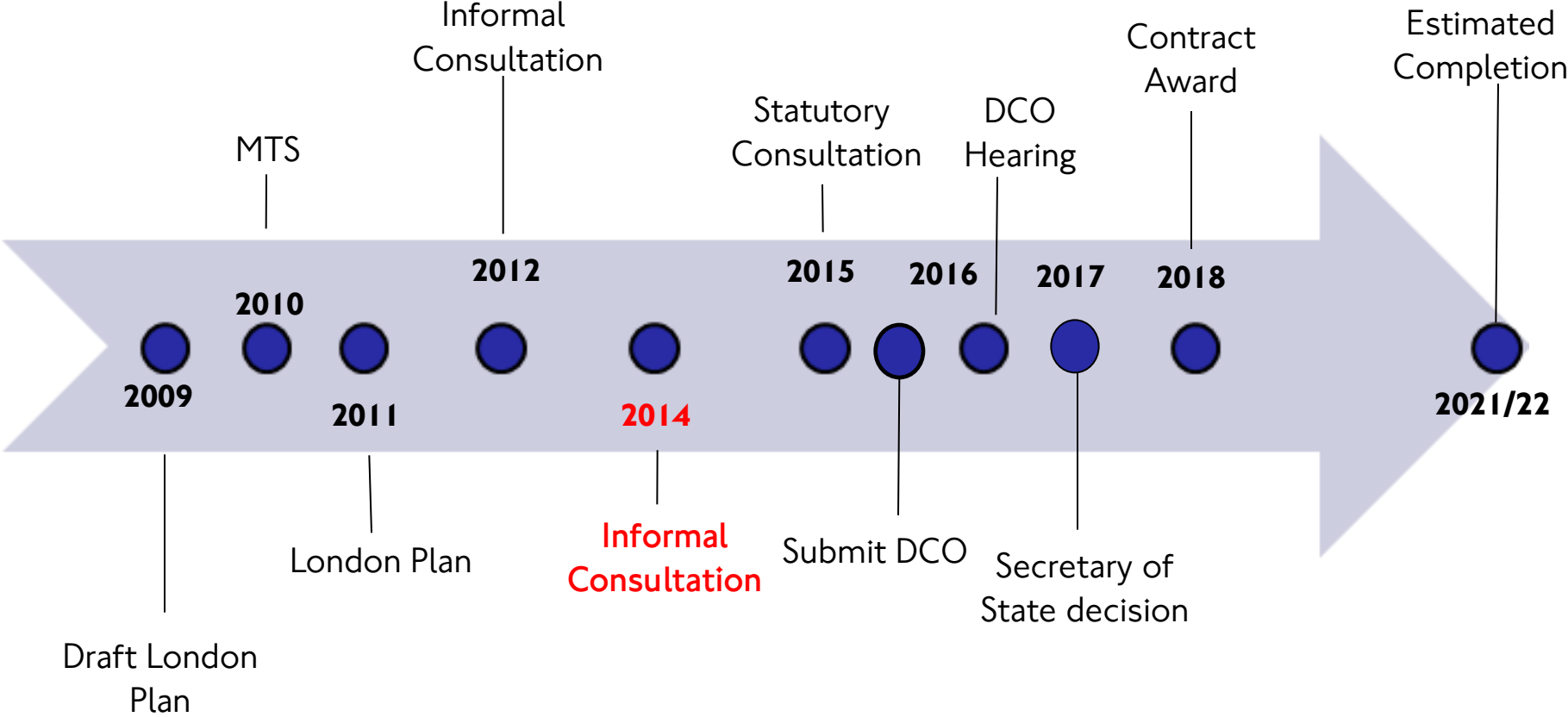
Opportunities for new bus links

- Even with major investment in the rail network, there are certain corridors where connectivity by public transport could be enhanced
- A key priority for east London is improving access to jobs
- The Silvertown tunnel will address the congestion that impacts on bus service reliability and performance today
- It is being design to allow for full height clearance by double deck vehicles with a dedicated lane in each direction currently planned for bus/freight traffic
- This creates major opportunities for new bus connections across the river – focusing on those corridors less well connected by rail



Eltham to Canary Wharf by bus with Silvertown – c35minutes

Silvertown - next steps



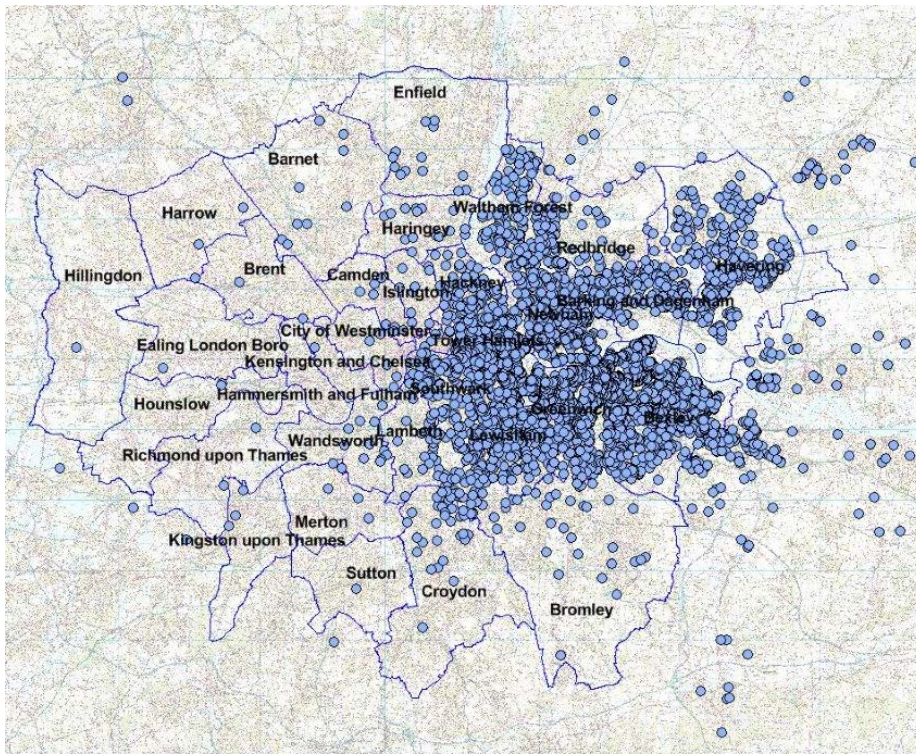
Crossings east of Silvertown consultation

- Consultation ran from 7 July- 18 September 2014
- Options for a package of new river crossings to the east of the Silvertown Tunnel:
 - A new ferry at Woolwich
 - A new ferry service at Gallions Reach
 - A bridge at Gallions Reach
 - A bridge at Belvedere



Crossings east of Silvertown consultation

- Approx. 7,500 responses
- Good level of response from all local boroughs

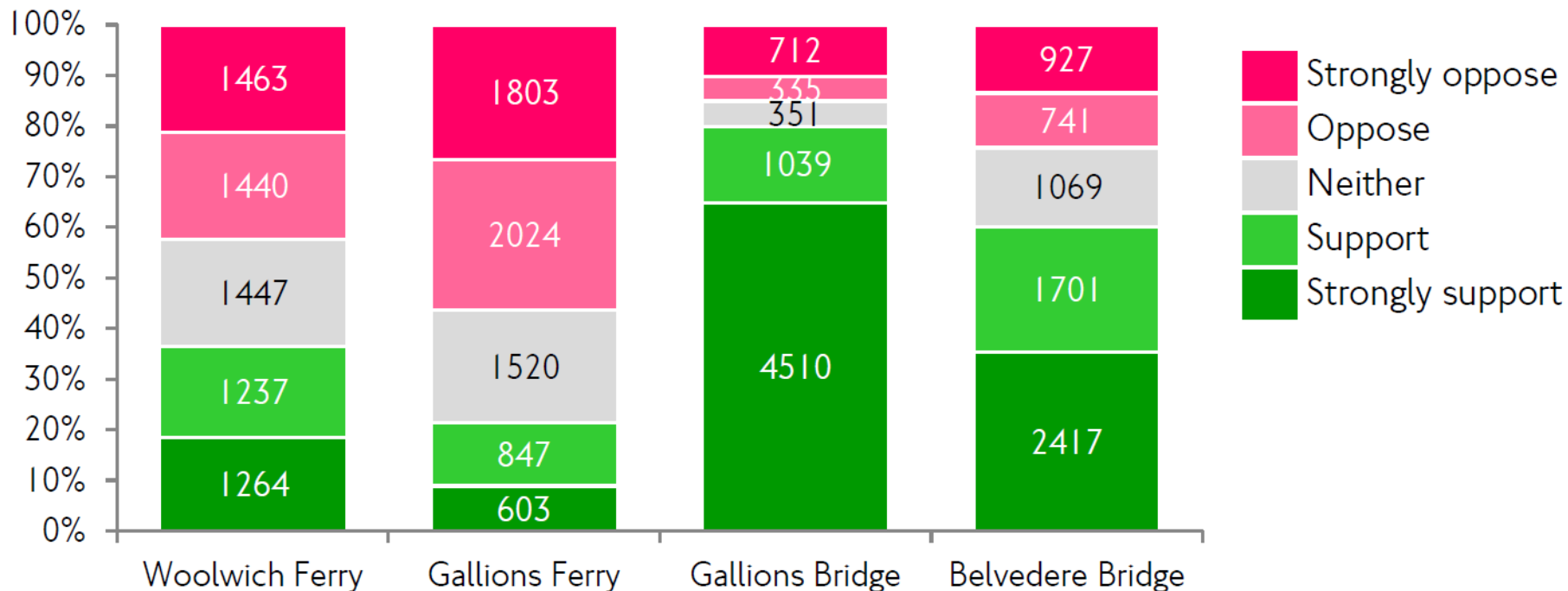


Postcode plot of responses

Key messages:

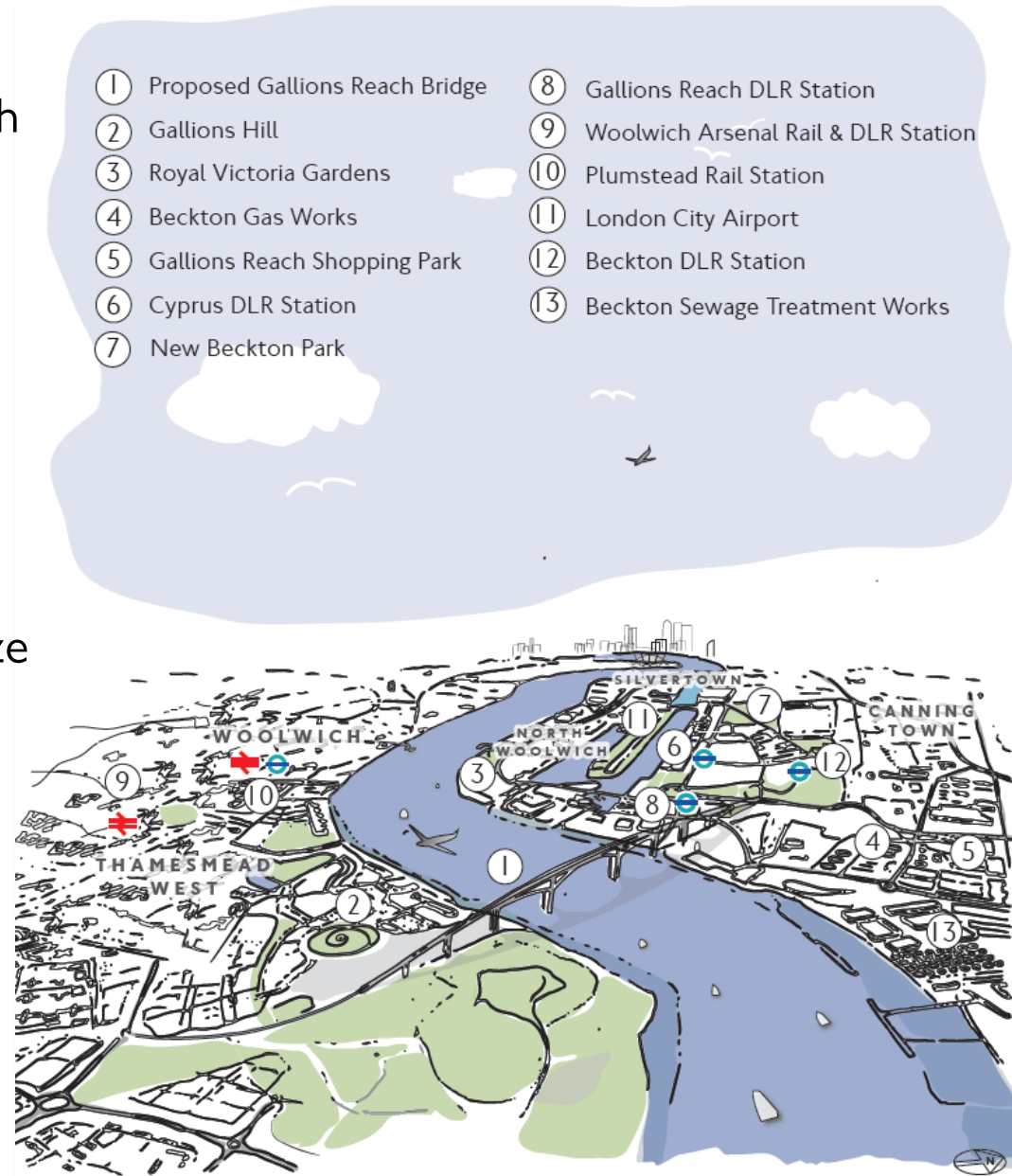
- Clear support for fixed link options
- Less support for ferry options
- Additional emphasis on integrating public transport services with the crossings

Overall responses to the consultation



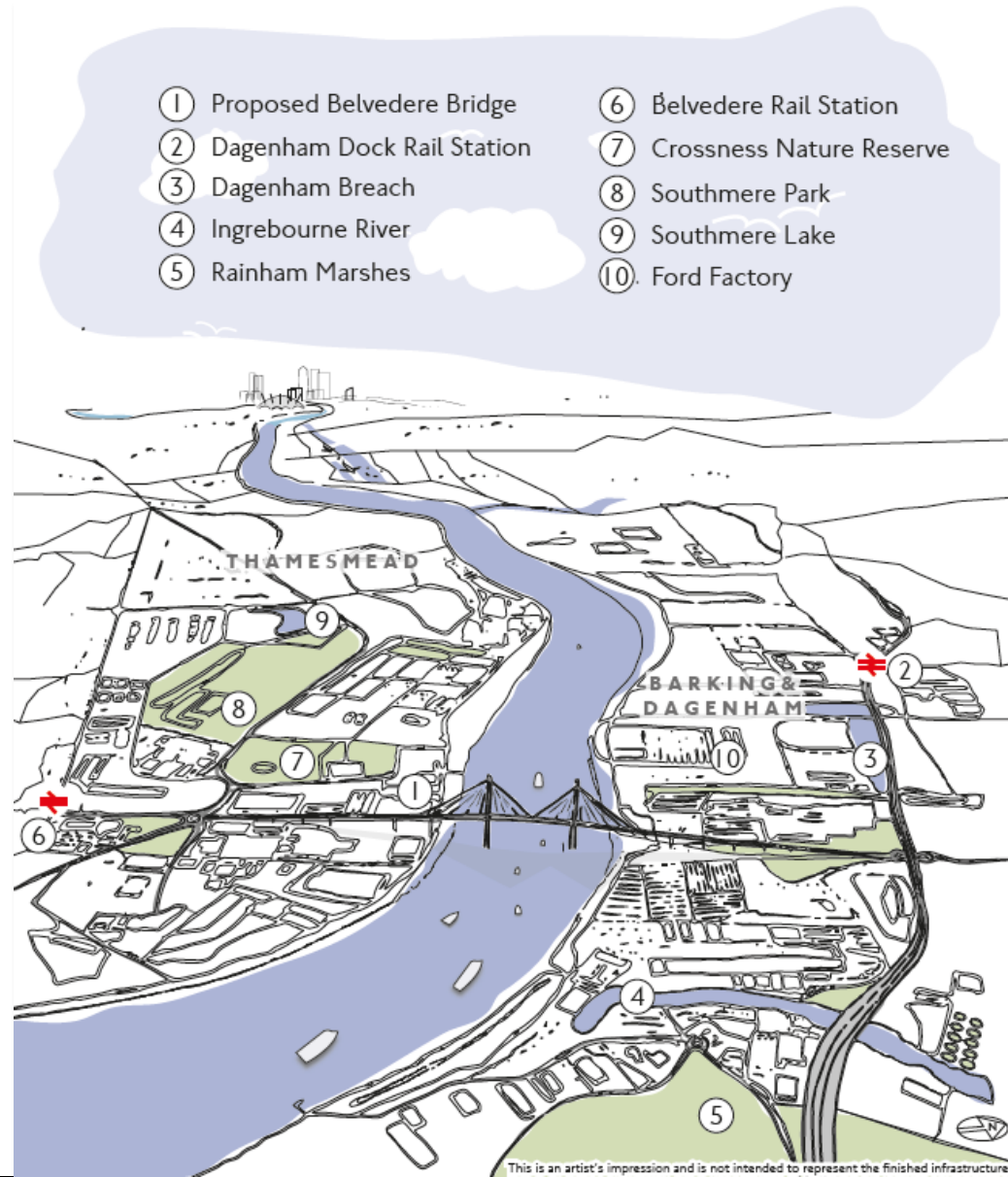
Gallions Reach crossing

- Would connect Thamesmead (Greenwich) with Gallions Reach (Newham)
- Would provide good connections to Royal Docks along safeguarded corridor
- Potential for good public transport links and new pedestrian/cycle connections
- Some concerns about scale (size of bridge) and traffic impacts
- Future work will revisit tunnel options, consider public transport provision, and look more closely at traffic impacts



Belvedere crossing

- Would connect Belvedere/Thamesmead (Bexley) with Rainham (Havering)
- Would provide good connections to London Riverside and the A13 (for M25)
- Some potential for public transport links
- Some concerns about property and traffic impacts
- Future work will consider public transport provision, and look more closely at traffic impacts



Next steps – east of Silvertown crossings

- Proceed in developing two new crossings in parallel:
 - Gallions Reach Bridge
 - Belvedere Bridge
- Work closely with boroughs and other key stakeholders
- Work to date has been focused on a bridge at both locations – we will re-visit tunnel options
- Assess potential for public transport integration with these new crossings – including potential integration with orbital rail concept outlined in London Infrastructure Plan 2050
- Progress business case – impact on transport and economic benefits
- Consider funding options

Indicative timescale for next 12 months

Publish detailed Consultation Report and 'Responses to Issues Raised' report	Nov 2014
Progress designs for each crossing option	Nov 2014 – Sep 2015
Develop overall business case for each crossing	
Preliminary environmental impact assessment	
Funding and finance study	
Assessment of public transport options	
Further consultation on more detailed proposals including public transport, walking and cycling provision	Sep 2015

Timescales for delivery

Component of the Package	Completion Date
Emirates Air Line cable car	2012
Jubilee line capacity enhancements	2012
Dartford crossing free flow charging	2014
Overground 5th Car	2014/15
Crossrail 1 completion	2018/19
Silvertown Tunnel	2021/22
Gallions Reach Bridge	2025
Belvedere Bridge	2025
Orbital rail link	2025+
New Lower Thames crossing	2025+