

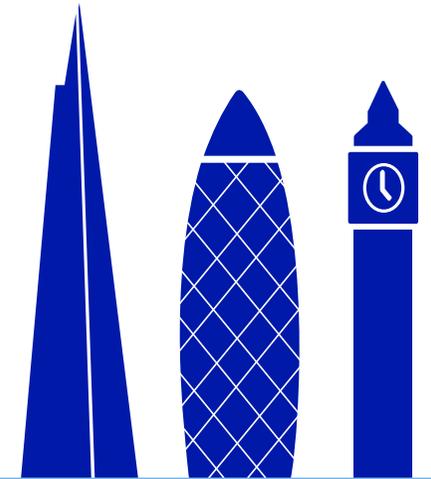
Silvertown Tunnel Implementation Group

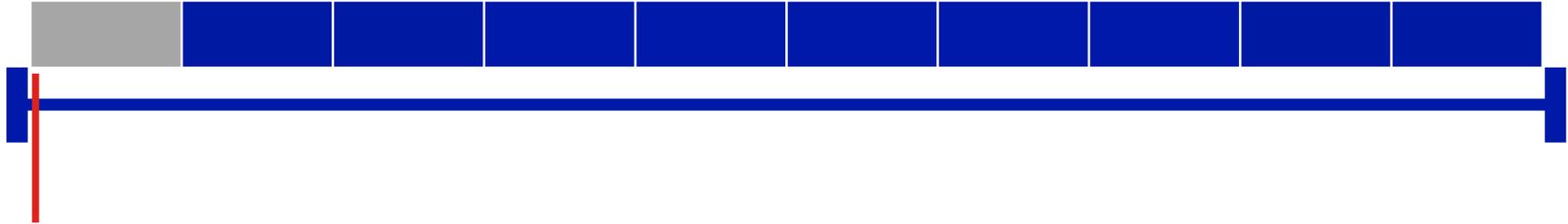
27 May 2021



Agenda

1. Introductions and welcome (All)
2. Review of actions from previous meeting on 28 January 2021 (TfL)
3. Safety, Health and Environment (All)
4. Project update (TfL)
5. Scope of environmental compliance assessment (Lot B) (TfL /AECOM)
6. Approach to socio-economic monitoring (Lot C) (TfL / Arcadis & Steer)
7. Traffic monitoring proposals (Lot D) (TfL)
8. Other relevant updates (All)
9. Obligations and forward meeting planner (All)
10. Next steps and AOB (All)





I. Introductions and welcome



2. Review of Actions from previous meeting



Actions – 28 January 2021

ACTION: TfL to include a standing agenda item for Safety, Health and Environment matters for future meetings.



ACTION: STIG members to provide any comments on Part C of the air quality monitoring decision form (summary of STIG members' views) by 5 March 2021.



ACTION: TfL to add a sixth step to the process for recording decisions so that STIG members have the opportunity to comment on the decision made.



ACTION: TfL to confirm NRMM being used on the scheme's construction will be compliant with the relevant emission standards.



POST MEETING NOTE: Further information on TfL's approach to analyzing the impacts of Covid-19 on travel demand in London can be found in Chapter 10 of the Travel in London report 13, available here: <https://content.tfl.gov.uk/travel-in-london-report-13.pdf>



ACTION: TfL to consider how best to make technical reports completed as part of the MMS workstreams available to STIG members. Consideration also needs to be given to how information can be made accessible to a non-technical audience.



Recording decisions made

Step 1: TfL introduces the matter at a STIG meeting, in the form of a verbal update or a paper for discussion.



Step 2: Where necessary, separate meetings are held with STIG members (either before or after the STIG meeting) and/or further information is exchanged in response to queries raised.



Step 3: TfL will complete parts A, B and C of the 'Record of Decision' form summarising the consultation that has been undertaken and the comments / recommendations / representations that have been received from STIG members.



Step 4: The form will be circulated to STIG members for review, for the purpose of confirming that comments made have been satisfactorily summarised. STIG members will be invited to comment on the form within ten working days.



Step 5: TfL will update the form where necessary and complete part D, explaining the decision that has been made. The completed form will be circulated to STIG members.



New: Step 6: STIG members invited to provide any comments on the decision within ten working days, with comments to be summarised in part E of the form.



Making information available

- Following discussion at the last meeting, consideration has been given to how we can make technical information produced in connection with the MMS workstream available and accessible to STIG members
- We propose the following approach:
 1. Technical reports produced in connection with the workstream will include executive summaries / non-technical summaries as appropriate
 2. Where discussion / consultation on technical issues is required, we will introduce these as a specific agenda item at a STIG meeting where possible, with appropriate supporting information provided as necessary
 3. Further breakout discussions will be offered to STIG members on specific issues if needed (e.g. if a STIG member/s have further queries following discussion at a STIG meeting)





3. Safety, Health and Environment





4. Project update (TfL)





5. Scope of environmental
compliance assessment (Lot B)



STIG Meeting No.3

Scope of Environmental Compliance
Assessment

Martin Birt

Charging Policies and Procedures - Policy 10

Policy 10 states:

“TfL will set the initial charges at a level and subject to conditions so that the Scheme in operation is not likely to give rise to materially new or materially different environmental effects to those reported in the ES.”

Refreshed Assessment

- An 'Assessed Case' was developed, representing the most likely scenario of the Scheme's effects in operation based on central forecasts and it was on this basis that the DCO was approved.
- TfL proposed a requirement as part of the DCO process to undertake a 'Refreshed Assessment' of the Scheme'.
- The Refreshed Assessment will be used pre-scheme opening in:
 - Setting the opening user charges;
 - Defining localised mitigation requirements; and
 - Specifying the bus network.



Refreshed Assessment

The focus of the Refreshed Assessment will be on Scheme opening.

In particular, the Refreshed Assessment will enable uncertainties identified during the DCO examination process to be considered including:

- Duration between the DCO being granted and the predicted opening of the Scheme;
- The rates of growth in population and employment; and
- Anticipated changes in the road and public transport networks due to other schemes.



Refreshed Assessment Approach

- Up-to-date traffic count data
- Updating of the strategic transport modelling
- Updating of environmental modelling
- Development of an updated Reference Case
- Testing of user charge scenarios
- Collection of air quality baseline data
- Identification of likely location and magnitude of any localised impacts
- Use of the strategic and local models to identify and optimise any localised mitigation that may be required

Environmental Compliance Assessment Scoping Note

- To set out the approach to undertaking an Environmental Compliance Assessment.
- Identifying the topics, and the specific matters within those topics, that are to be included in the Environmental Compliance Assessment.
- Establish what is meant by ‘material’.
- Achieve consistency between the Refreshed Assessment and the ES.
- Scoping Note does not seek to update or replace the Silvertown Tunnel EIA Scoping Report.

Topics Scoped In

Scoped In

- Chapter 6 - Air Quality
- Chapter 7 – Community & Private Assets
- Chapter 11 – Effects on All Travellers
- Chapter 14 – Noise & Vibration
- Chapter 17 – Cumulative & Synergistic Effects
- Chapter 18 – Summary of Health & Equality Effects

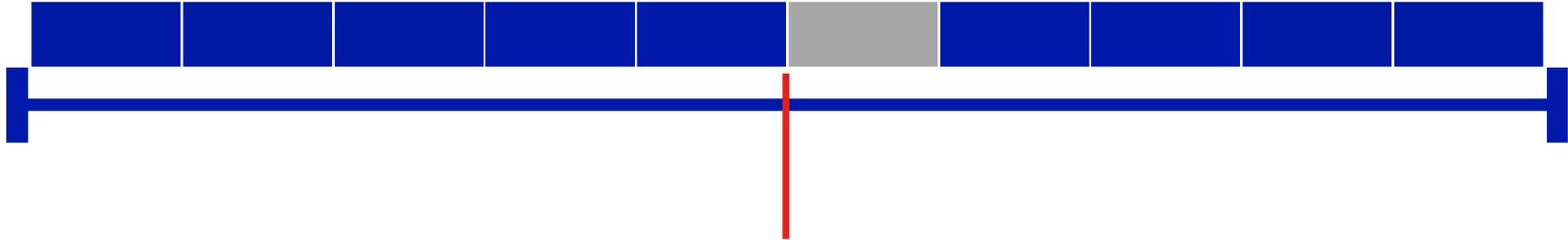
Scoped Out

- Chapter 8 – Cultural Heritage & Archaeology
- Chapter 9 – Terrestrial Ecology
- Chapter 10 – Marine Ecology
- Chapter 12 – Geology, Soils & Hydrogeology
- Chapter 13 – Material Resources & Waste
- Chapter 15 – Townscape & Visual Amenity
- Chapter 16 – Surface Water Quality & Flood Risk

Example Topic Scoping Table – Operational Noise

Impact	Resource	Scope of [original] assessment	Study Area	Outcome of [original] assessment (as described in the Assessment of Impacts Section)	Included within scope of Compliance Assessment
Operational Road Traffic Noise and Vibration (short and long term)	Residential (including the Hoola development), and other noise sensitive receptors such as schools, hospitals and community facilities.	As defined by the DMRB Volume 11 Section 3 Part 7 HD213/11	1km from carriageway edge of the scheme.	Slight Adverse	Yes
Operational Tunnel Ventilation Noise	Residential (including the Hoola development) and other noise sensitive receptors such as schools, hospitals and	As defined by BS 4142:2014 'Methods for Rating and Assessing Industrial and Commercial Sound'.	Selected worst case sensitive receptors within close proximity to the operational plant	Neutral	Yes
Impacts on Noise Important Areas (short and long term)	Noise Important Areas	Impact magnitude as per HD213/11	1km from carriageway edge of the scheme	Mostly neutral, one slight adverse	Yes
Assessment Outside of Detailed Calculation Area (short and long term)	Residential and other noise sensitive receptors (such as schools, hospitals and community facilities)	As defined by the DMRB Volume 11 Section 3 Part 7 HD213/11	Calculation of roadside noise levels for all the roads	Neutral	Yes

AECOM Imagine it.
Delivered.



6. Approach to Socio-economic monitoring (Lot C)



Silvertown Tunnel Socio-Economic Monitoring:

Overview of Socio- Economic Monitoring and Summary of Baseline Secondary Data Analysis



Image: flickr.com James Petts*

Client: Transport for London
Date: May 2021
Our ref: 23766101

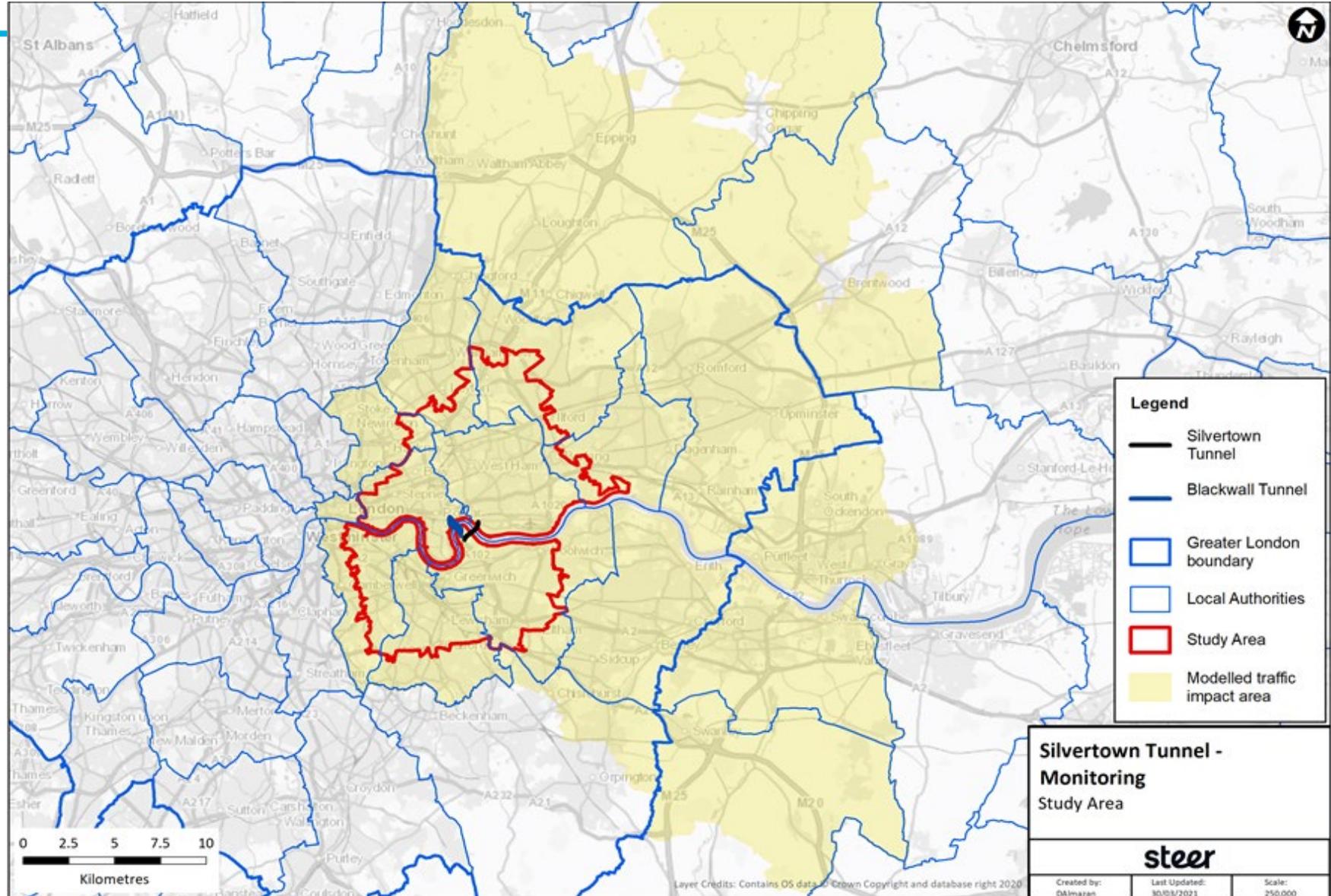


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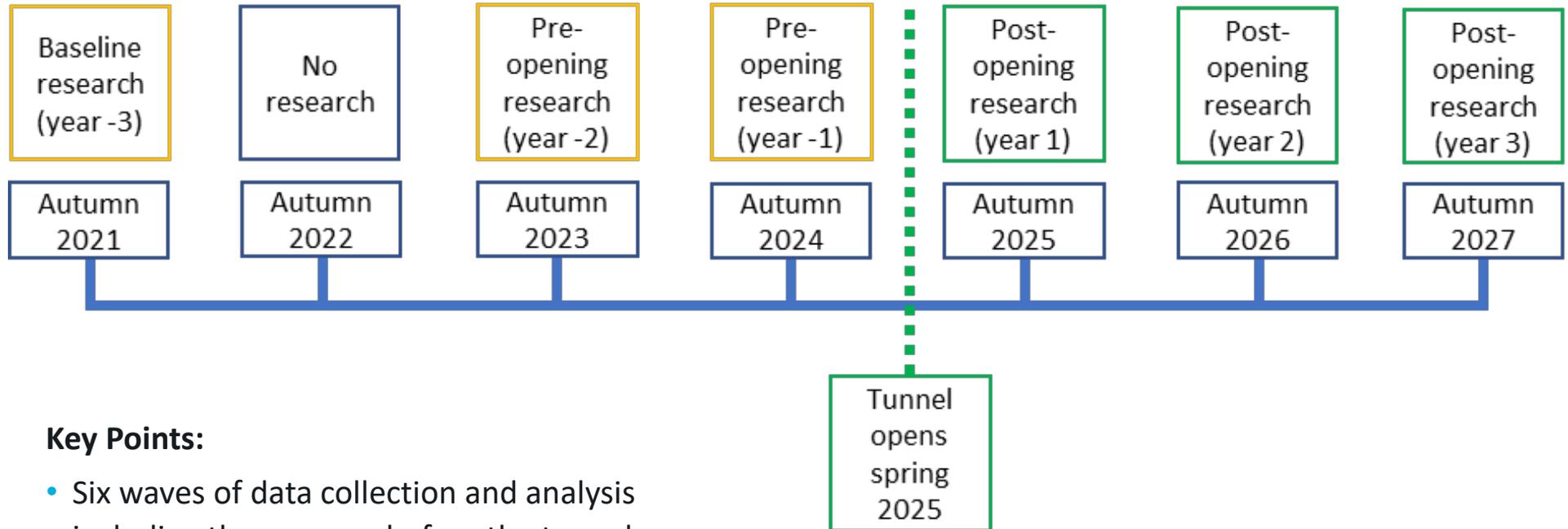
Silvertown Tunnel – Approach to Socio-Economic Monitoring

- Lot A – Traffic modelling
 - Lot B – Air Quality and Noise modelling and monitoring
 - Lot C – Socio-economic monitoring
 - Lot D – Traffic monitoring
 - Lot E – Delivery of mitigation measures
-
- **Purpose of socio-economic monitoring**
 - **Use of primary and secondary data**
 - **Study area**

The Study Area for Socio-Economic Monitoring



Timescales



Key Points:

- Six waves of data collection and analysis including three waves before the tunnel opens.
- Collect primary data at the same time of year.
- Report on secondary data analysis alongside the primary data each year.

Primary Data Collection: Residents

Overview

Annual research with residents will consist of **1,000 face to face surveys** undertaken with people living in the study area.

The research will aim to include a range of demographic types so that it is representative of the people living in the study area. A demographic classification system such as TCOL or ACORN will be used to monitor the demographics of respondents.

Types of questions

- Length of time resident.
- Household confidence (income, spending, children's future) and changes over time.
- Travel habits commuting and accessing education.
- Travel habits visiting friends and family.
- Views on river crossings and Silvertown Tunnel project.

Primary Data Collection: Businesses

Overview

Annual research with businesses will entail **telephone surveys of 300 businesses** in the study area and **up to four focus groups** enabling more detailed discussion of some of the themes and issues to emerge from the surveys.

A range of business types and sizes across the study area will be targeted in the research.

Types of questions

The types of questions will be broadly consistent with 2013-15 research (undertaken by WSP on behalf of TfL) to enable comparison with this earlier research:

- Business outlook and reasons for this.
- Advantages and disadvantages of current location.
- Deliveries and servicing requirements, and challenges.
- Access to labour and skills market.
- Access to customers and business travel.
- Cross river travel, changes in travel and views on river crossings and the Silvertown Tunnel project.

Part 2: Summary of Baseline Secondary Data Analysis

Analysis of Secondary Data

- The secondary data analysis focuses on three areas of interest – economic, social, travel
- Variety of data sources e.g. Office for National Statistics (ONS), central government departments and TfL.
- Datasets have been selected because they provide an overarching narrative to the socio-economic environment within the study area.
- Where possible, we have drawn from datasets that align directly with the study area.
- Emerging trends will be tracked against these baselines.

Economic



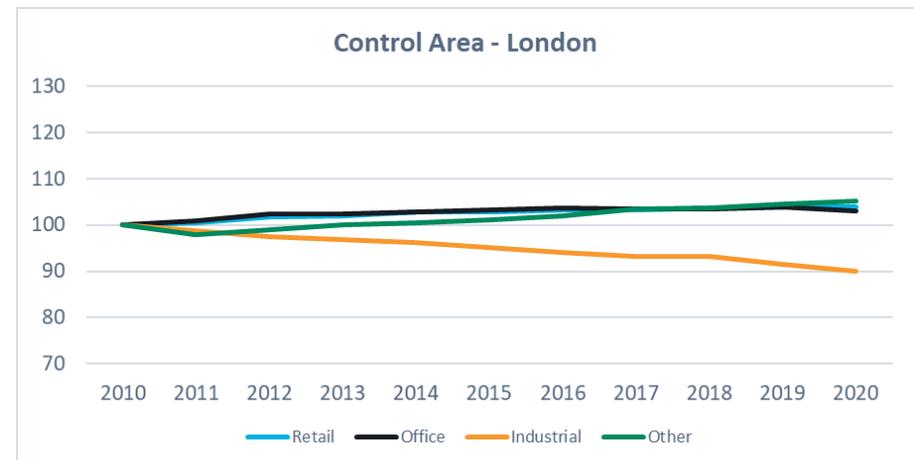
Businesses and Employees by Sector

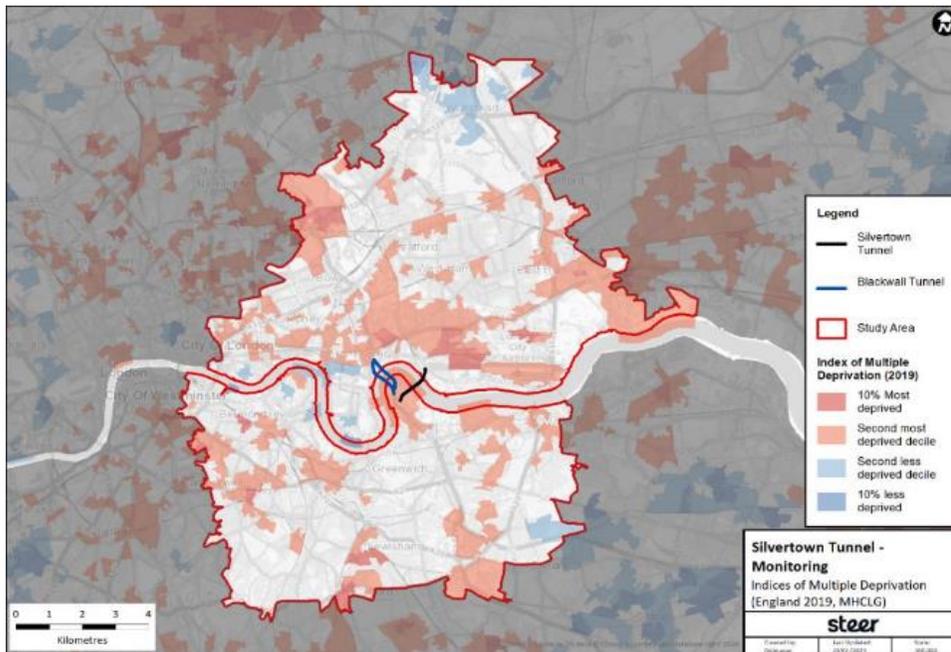
Area	Business size band	1: Primary, Manufacturing	2: Construction	3: TRAD	4: Private services	5: Public services	Total
Study Area	0-9	1.5%	10.4%	38.0%	50.1%	-	53,350
	10-49	2.2%	3.0%	47.7%	47.1%	-	2,510
	50-249	-	1.9%	36.5%	61.5%	-	260
	>250	-	-	11.1%	77.8%	11.1%	50
	Total	1.8%	9.9%	38.1%	50.2%	0.0%	56,170
Comparator Area – West London	0-9	1.8%	9.2%	31.7%	57.3%	-	135,250
	10-49	1.7%	3.1%	43.1%	52.0%	0.0%	10,320
	50-249	2.3%	0.6%	44.7%	52.1%	0.3%	1,550
	>250	1.7%	-	52.5%	39.0%	6.8%	300
	Total	2.0%	8.5%	32.5%	56.9%	0.0%	147,420
Comparator Area - Greater London	0-9	1.8%	11.6%	33.5%	53.1%	-	459,730
	10-49	2.2%	3.5%	42.4%	51.9%	0.0%	28,410
	50-249	1.2%	1.2%	36.6%	60.7%	0.2%	4,140
	>250	1.2%	-	33.1%	62.0%	3.6%	830
	Total	2.0%	10.9%	33.7%	53.4%	0.0%	493,110

Source: Business Register and Employment Survey 2019

Business Floorspace

- Total business floorspace remained steady over the last ten years at around 10 million sqm.
- Decline in floorspace for industrial business and growth in other sectors (Retail, Office, Other).
- This trend is consistent with London as a whole, but is more pronounced within the study area.

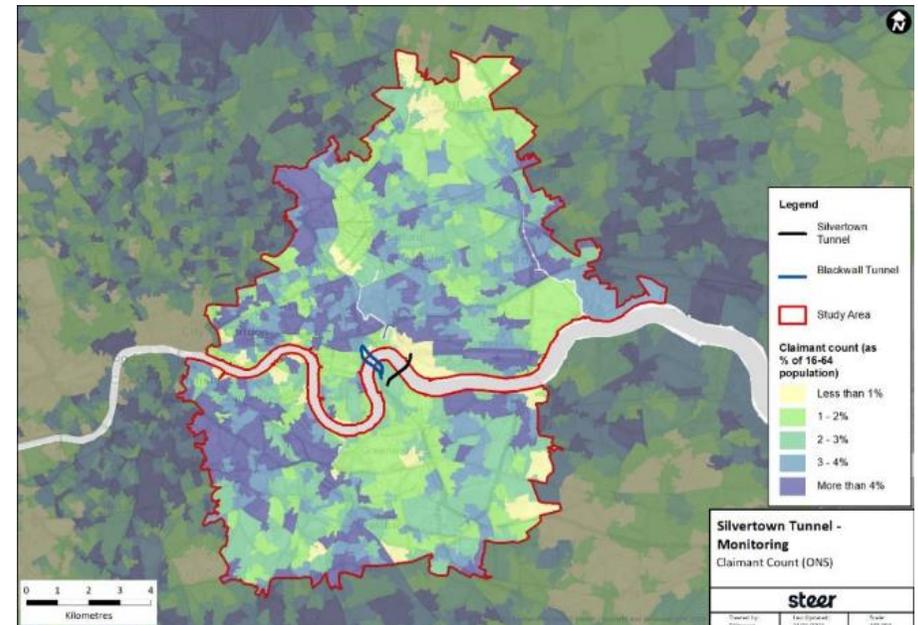




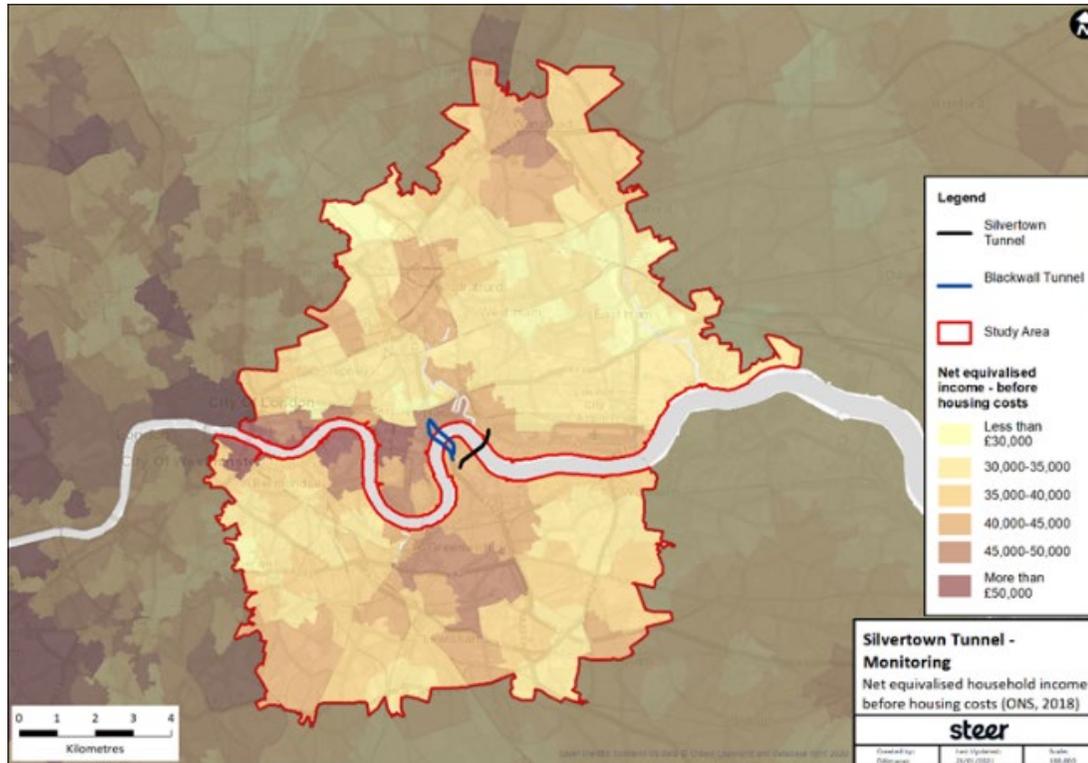
Deprivation

- Substantial proportion of the population living in areas with high levels of deprivation – with instances of relatively high deprivation directly to the north and south of the tunnel.

Employee Claimant Count



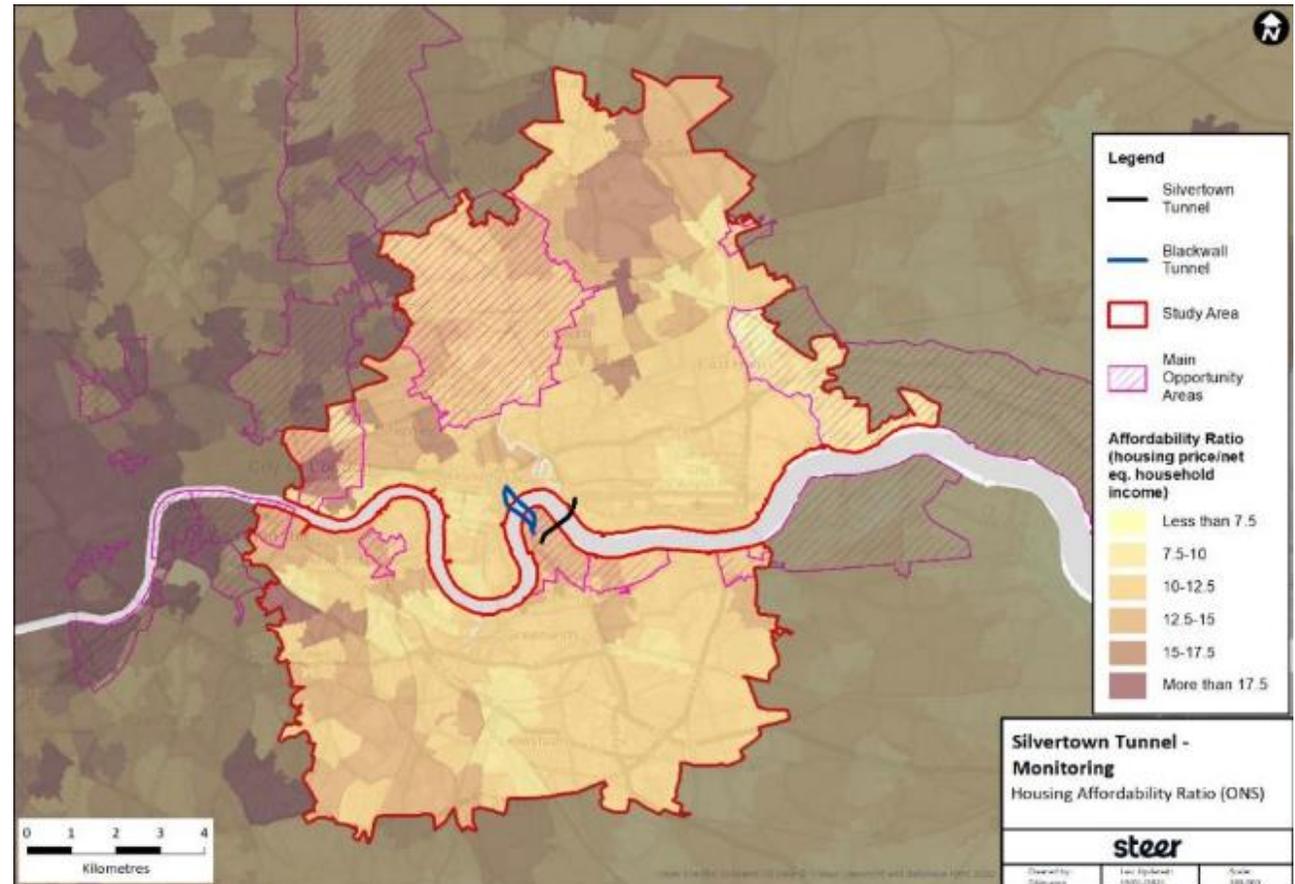
Income



- Average equivalised income in the study area is just under £37,000 per annum, which is lower than London as a whole.
- Within the study area there are large differences between lower income areas to the east, with averages below £30,000 and higher income areas in Wanstead, the Isle of Dogs, Rotherhithe and Wapping – with average incomes over £45,000.

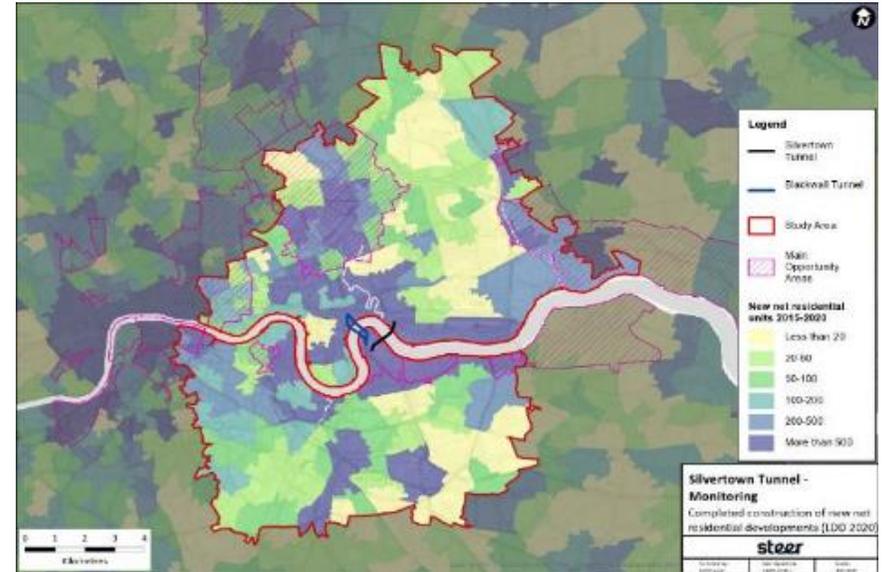
Housing Affordability

- The average affordability ratio in the study area is 12.08, with the east having more affordable homes, and the north being the least affordable.

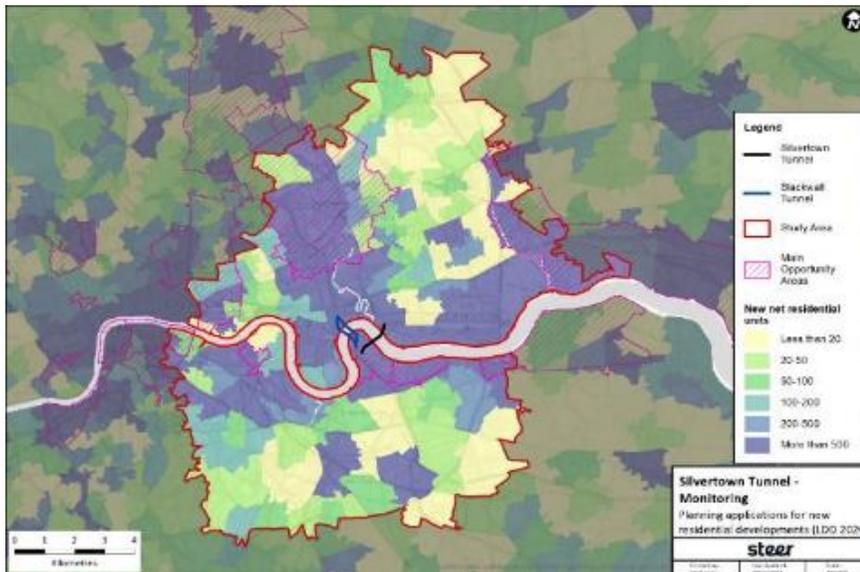


Housing Developments

Completed new developments 2015-2020



Planned new developments 2020

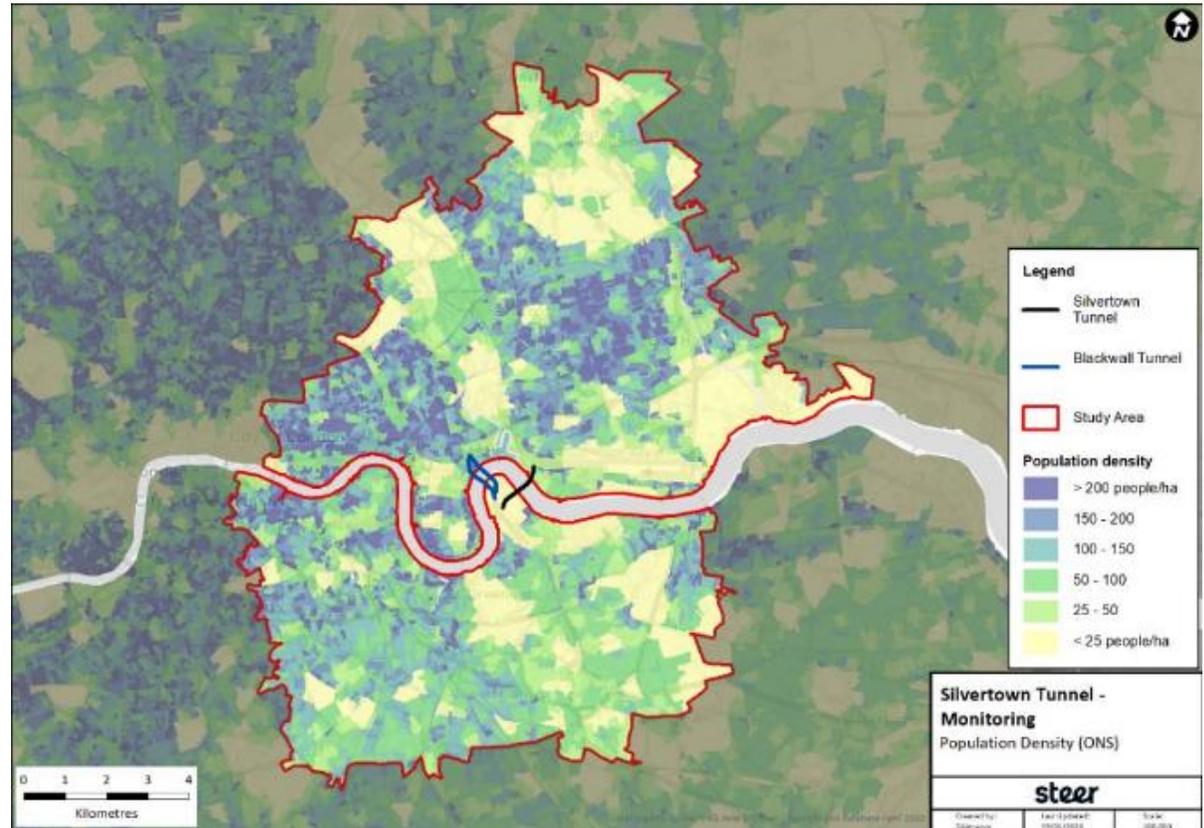


Social



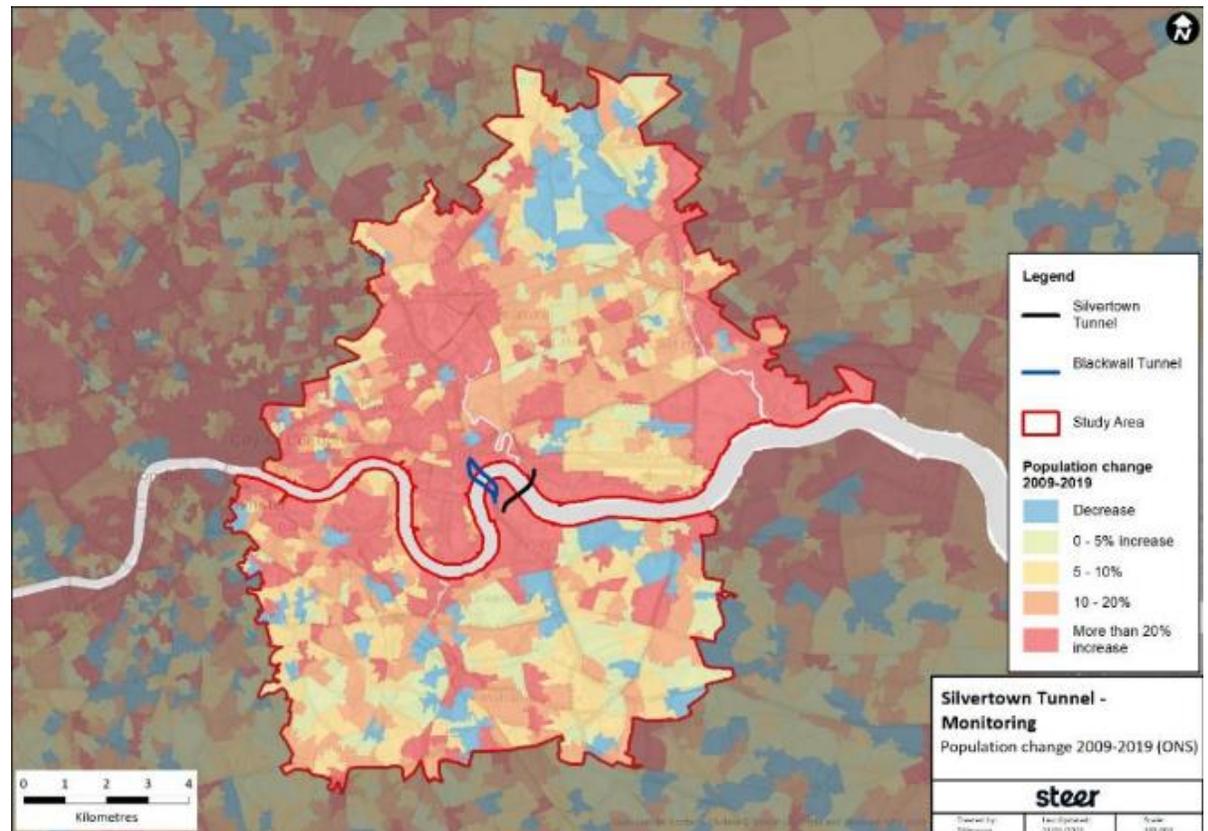
Population density

- The population of the study area was 1.4 million people in 2011
- population density is higher (over 200 people/hectare) in most areas of Tower Hamlets, and central Newham.
- Population density is currently lowest in the Lee Valley (corresponding with the Lee Valley Regional Park) and North Greenwich and Woolwich.



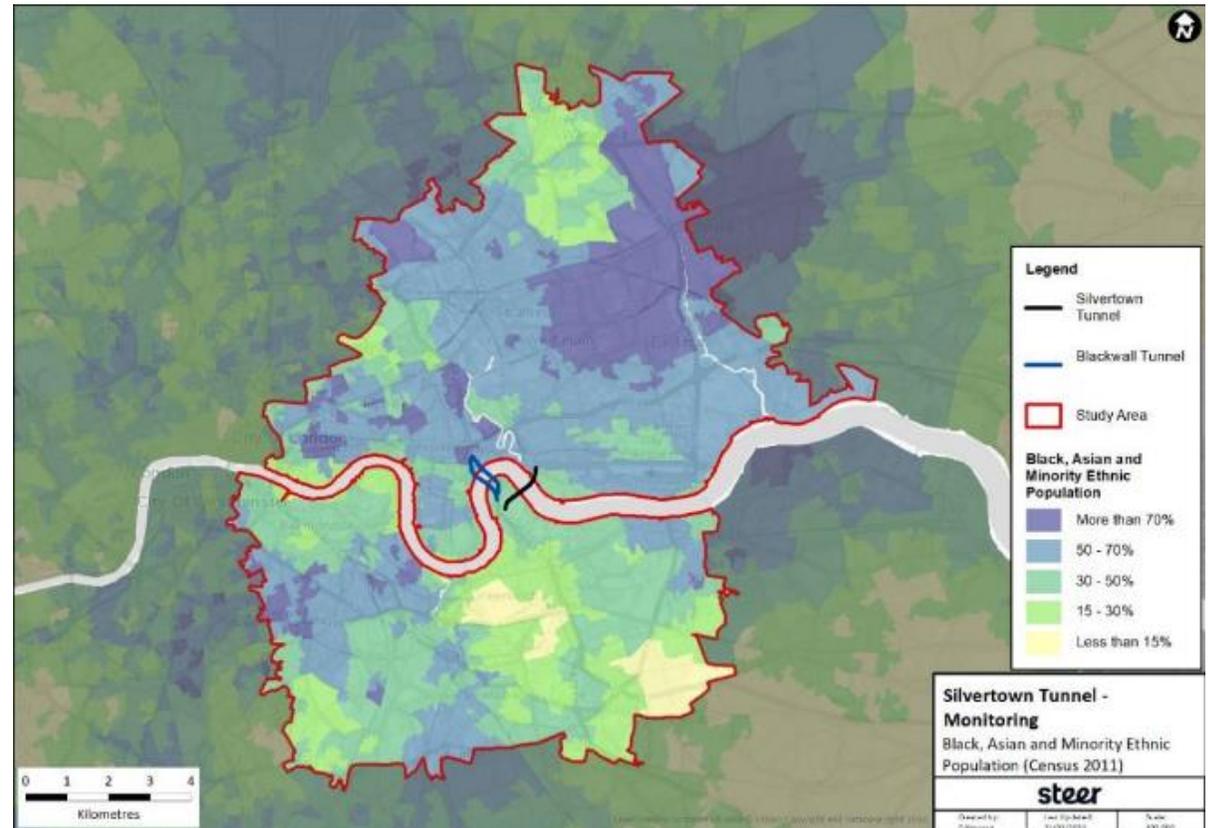
Population growth

- Population growth has been higher within the study area than comparator areas at 22.1% over the period 2009-2019 – compared with less than 13% in the comparator area of west London and London a whole.



Ethnicity

- The largest ethnic groups are people identifying themselves as white (45%), followed by Asian (28%) and Black (19%). Population from Black, Asian and Minority Ethnic (BAME) groups in combination represent a majority in the study area, comprising 55% of the total population.

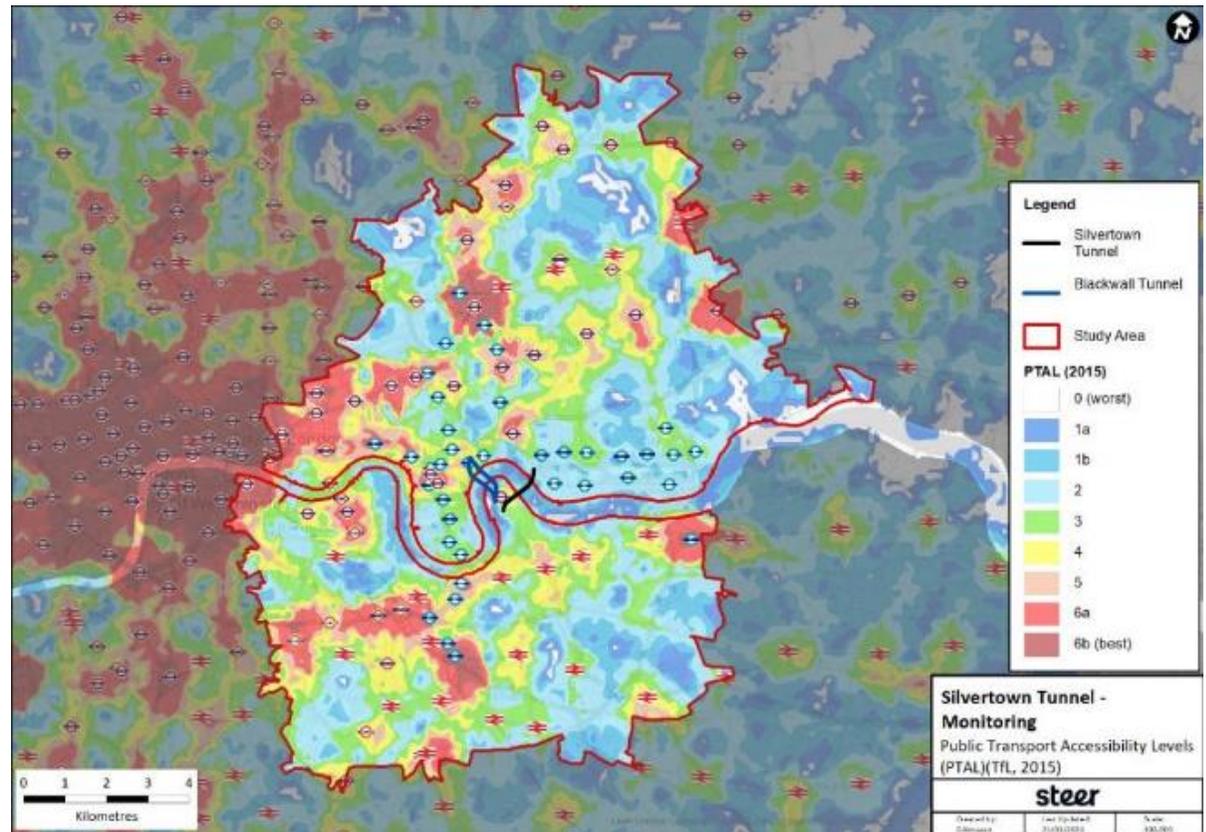


Travel



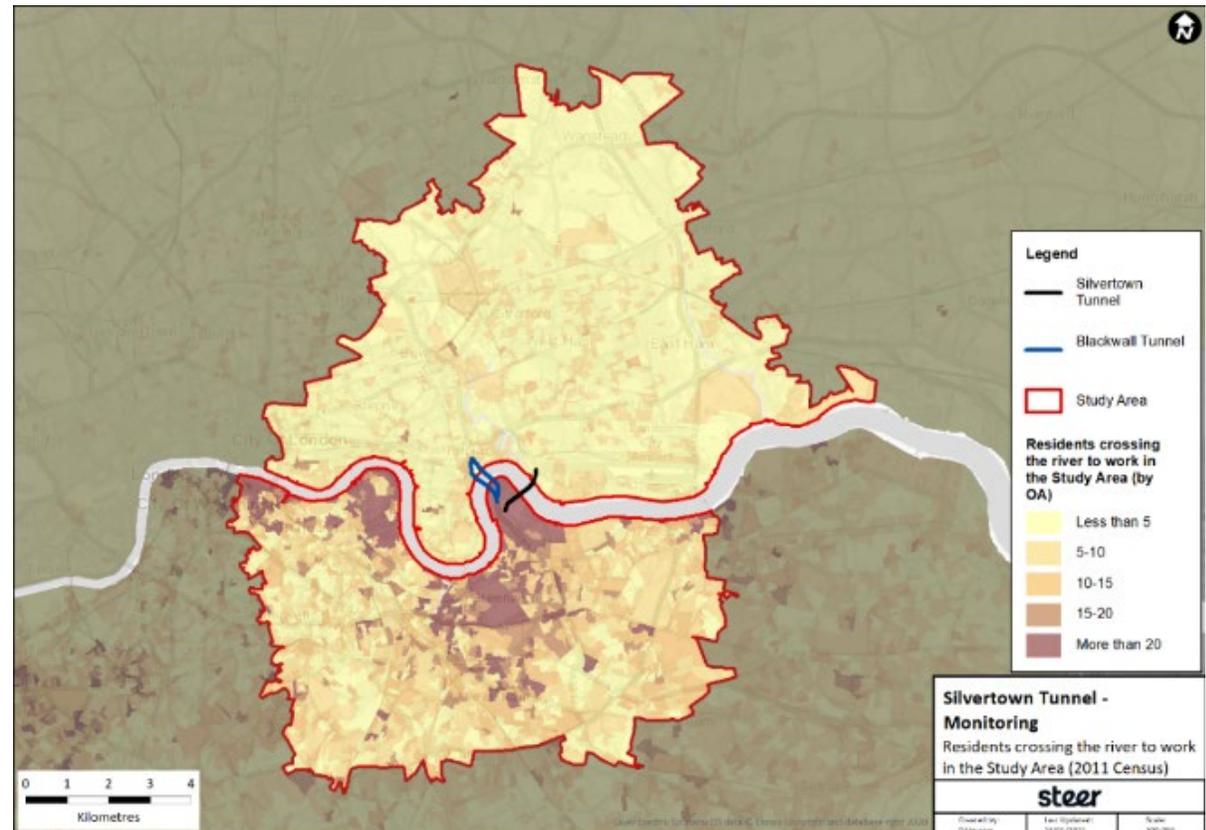
Public Transport Accessibility

- Public Transport Accessibility Level (PTAL) is a metric used by Transport of London to measure access of a given location to the public transport network. This takes into account not just walking time to access transport – but also frequency, reliability, and number of services.
- Larger areas of high PTAL can be identified; these are where there is a combination of different rail services and bus routes, such as interchanges (e.g. Stratford or Lewisham). Alternatively, areas with poor access can be identified and are mostly concentrated to the north, east, and south-east.



Commuting Patterns – Census Travel to Work Data

- Cross-river commutes are south-north dominated – with many more residents in the south crossing the river for work.



The London Travel Demand Survey

- Updated annually by TfL
- Provides insights into journeys across the study area.
- Residents within the study area make a daily average of 1.8 trips, slightly lower than the average for Greater London (just over 2).
- Study area has lower levels of car ownership than the Greater London as a whole.
- Distances travelled and reasons for travel are shown to be broadly similar between the study area, and Greater London.

Mode	Trips per person per day		Mode split	
	Study Area	Greater London	Study Area	Greater London
Active modes (walking and cycling)	0.663	0.681	36.5%	33.8%
Private transport	0.509	0.741	28.0%	36.7%
Public transport	0.644	0.596	35.5%	29.5%
Total	1.816	2.018	100%	100%

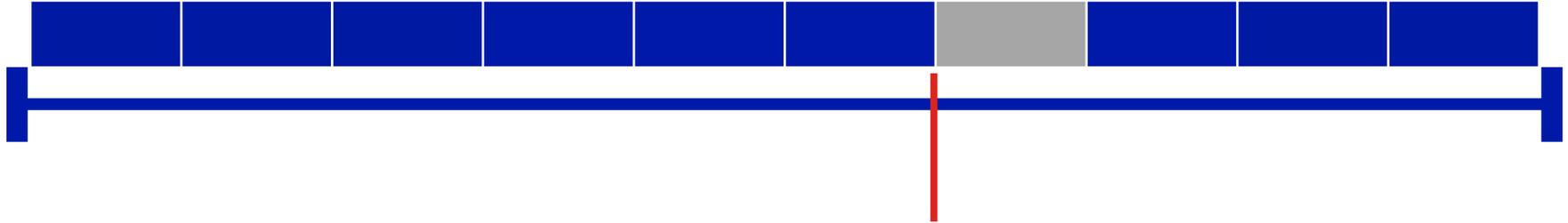
Car availability	Study Area	Greater London
No car	55.0%	44.3%
1 car	37.5%	40.8%
2 or more cars	7.5%	14.9%

Distance band	Study Area	Greater London
Less than 2km	48.6%	47.9%
2 to 5km	21.0%	22.2%
5 to 10km	16.4%	14.6%
10 to 20km	10.0%	10.3%
20 to 50km	2.4%	3.5%
more than 50km	1.7%	1.6%

Any Questions?



steer



7. Traffic monitoring proposals (Lot D)



Background

- Aim of the Traffic Monitoring Plan is to monitor performance changes on the network in the Silvertown Area of Influence using the suite of technology currently available.
- Traffic impacts will be measured using a range of metrics. Key metrics to be used will be vehicle flow and journey time data. These will be used to analyse the effects of the scheme along the key corridors, river crossings and other strategic local links.
- TfL will commence traffic monitoring in late 2021 to provide a robust baseline. Monitoring will continue for at least 3 years post scheme opening to ascertain the main effects of the scheme in operation.

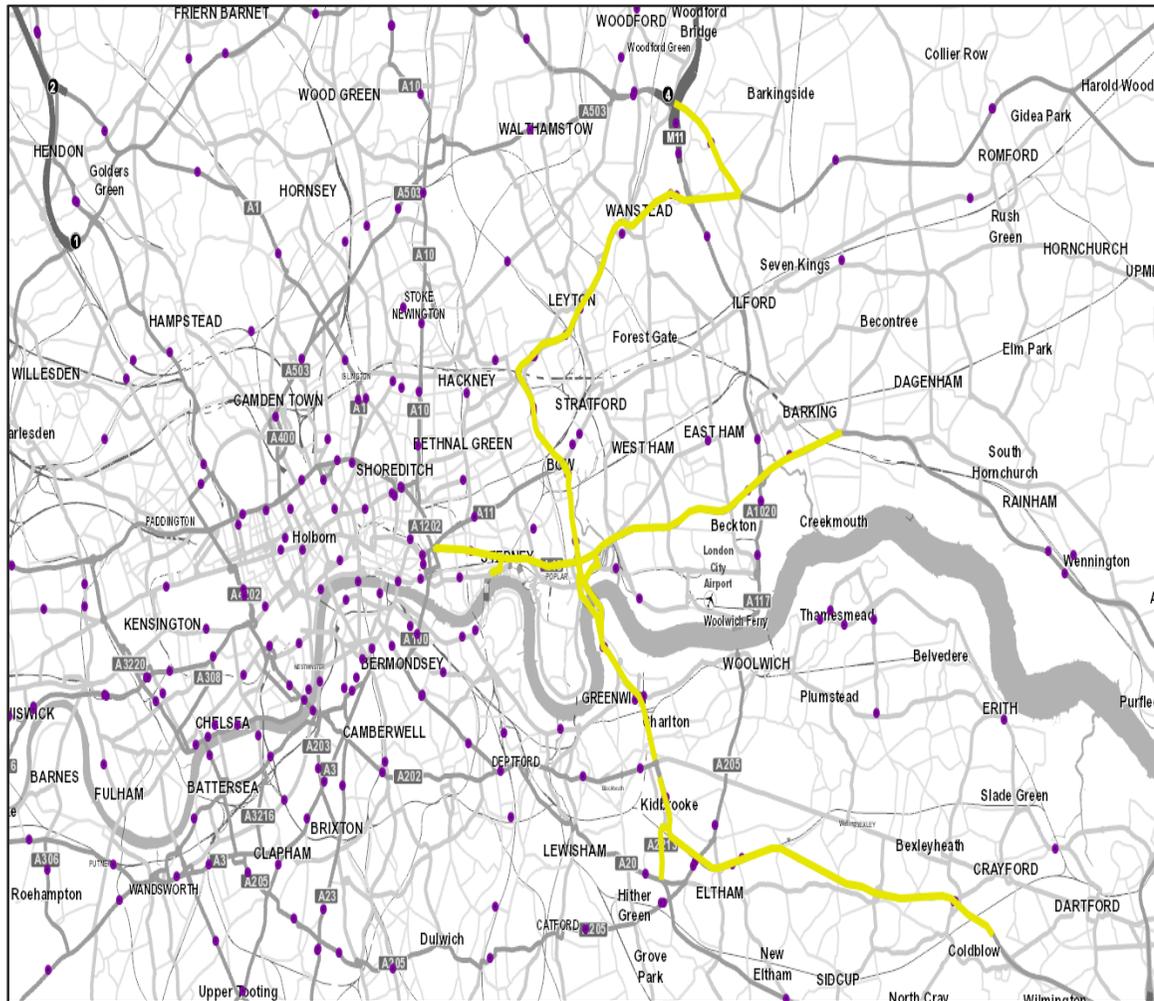


Traffic Monitoring Plan

- Initial Traffic Monitoring Plan set out in the Monitoring and Mitigation Strategy (MMS) forms the basis for TfL's traffic monitoring in the Silvertown area.
- Since the MMS was produced we have new technology and data sources available to us and already have a number of new sensors on the network, data from which will feed into the monitoring programme.
- Key metrics include:
 - Traffic flow including cyclists
 - Journey times
 - Journey time disruption
 - Bus and rail data
 - Road safety
 - Travel behaviour



Metric: traffic flows



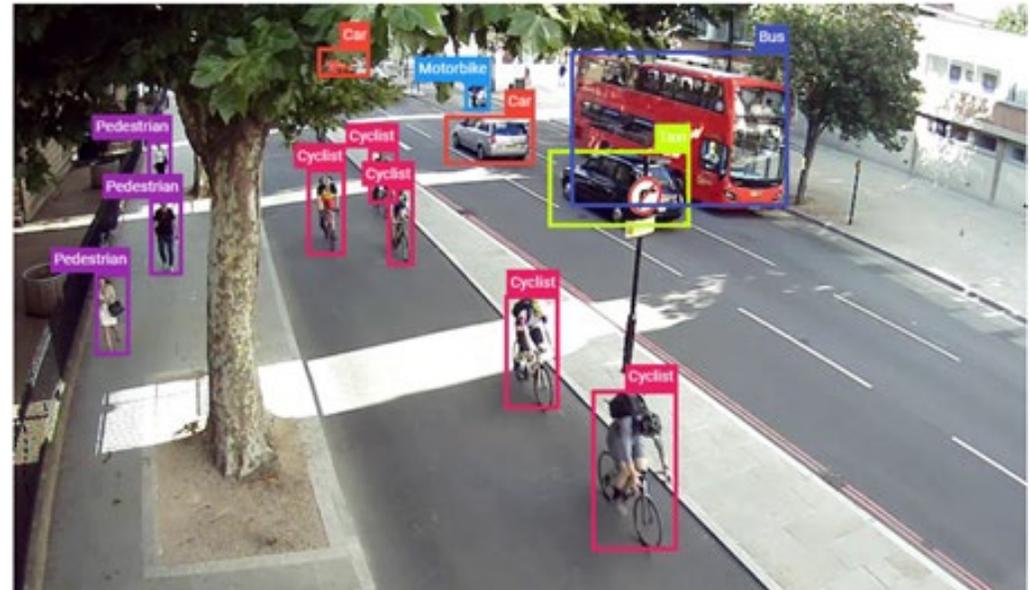
Existing Automatic Traffic Counters (ATCs)

- We have 305 existing ATCs across the network which supply accurate volumetric data.
- These will be used to monitor flow along the key corridors as well as some river crossings and key strategic sites.



Use of video analytic sensors

- This new technology provides full multi-modal classification including cyclists
- Each sensor has an on-board camera, a processor and 3G connectivity. The camera takes video continuously and feeds this through to the processor, where machine learning algorithms are used to extract useful data and identify learnt objects within the video.
- Once objects have been identified and classified, the video feed is discarded, and the anonymous data is sent to cloud servers and made available for use through web interfaces.
- It will complement the existing loop based ATCs that we have on the network which do not record by mode
- Where possible they will be co-located near air quality sensors
- Also used to record pedestrian data at some designated sites
- Aim to install approx. 40 new sensors at strategic sites across the Area of Influence



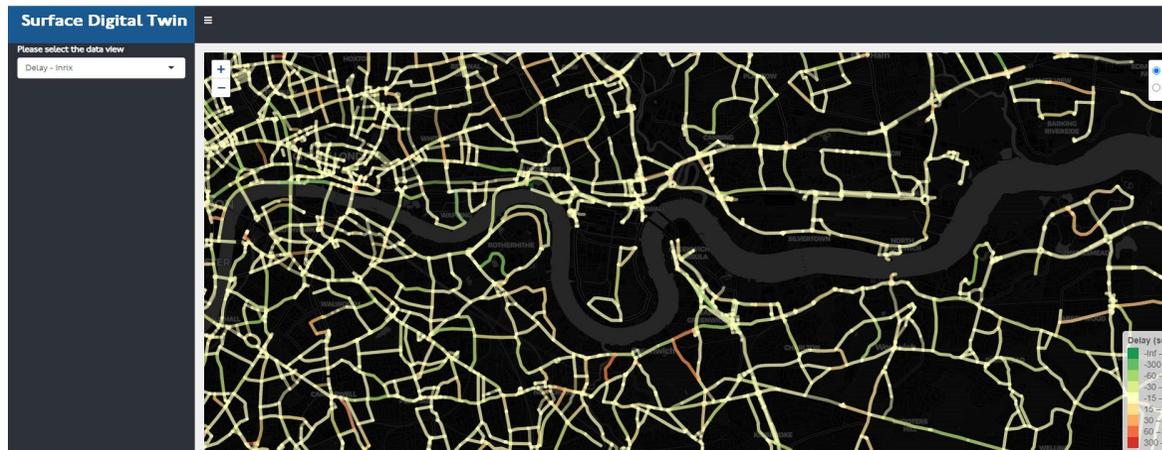
Metric: journey times

LCAP

- Freight & Traffic Journey Times can be reported using London Congestion Analysis Project (LCAP) links, where available. This data is based on Automatic Number Plate Recognition (ANPR) camera captures and comprises of long links between these cameras in key strategic positions.

INRIX

- Provides speed data using GPS data from vehicles
- Can be used for point to point journey times using thousands of shorter tactical links which can be used to complement LCAP data
- Provides journey time performance of major routes and corridors



Metrics: journey time disruption and PT

Journey time disruption

- New – Journey Time Disruption metric has replaced the old Journey Time Reliability metric to reflect our Scorecard
- Disruption is represented as the total amount of additional delay between a set day and the baseline figure, as a proportion of baseline historical delay

Bus and rail data

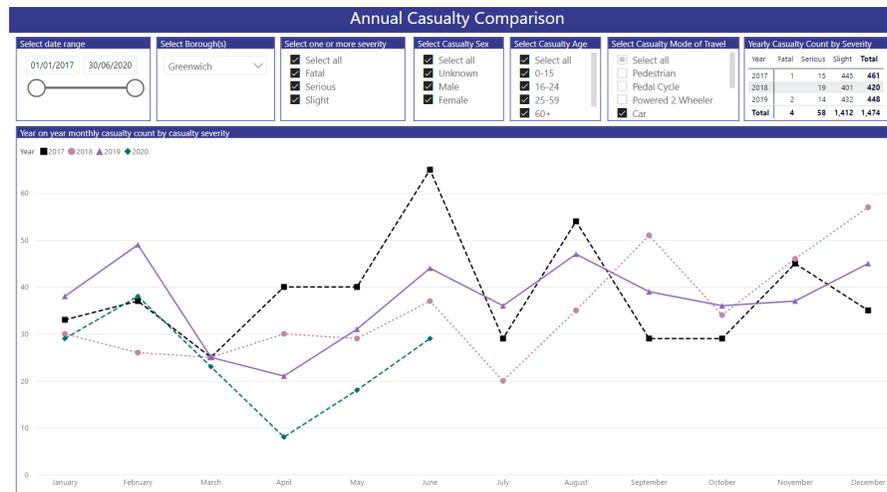
- a) Key bus routes in the Area of Influence and key corridors will be identified
- b) iBus is an automatic vehicle location system which tracks buses on the network
- c) TfL is provided with weekly and period average journey time data by peak which has been used to develop the iBusMap dashboard. This enables changes in bus journey times and performance comparisons
- d) NIMBUS is the Near Instant Monitoring of accumulative Bus delay across the network. The tool presents live bus performance and highlights delay against schedule in near real-time
- e) Data gathered by other TfL departments to feed into reporting e.g. Excess Wait Times & bus/ rail patronage data



Metrics: road safety and travel behaviour

Road Safety

- Finalised data from accident statistics to be provided annually, a year in arrears
- External dashboard available to visualise the Road Safety Collision Data Extracts using police and self reported casualties. This can be used to filter the data by location, date, severity etc



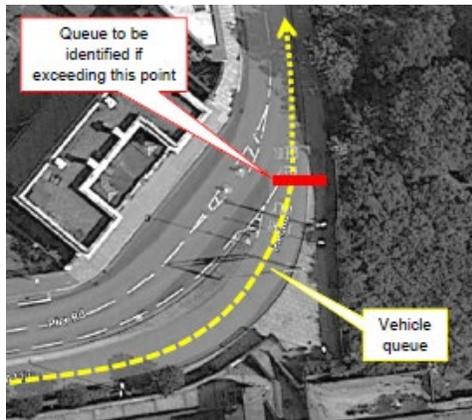
Travel Behaviour

- Traditionally carried out using road side surveys – further work required to develop this with other TfL departments



Ad-hoc / bespoke surveys

- Woolwich Ferry (now TfL run) – annual bespoke video survey proposed at northern and southern terminals so that the % of time per day that the ferry traffic queue extends to a point that then impacts on through (non-ferry) traffic can be monitored



- Emirates Airline – boarding figures to be obtained and ad-hoc surveys completed if necessary



Frequency of collection and reporting

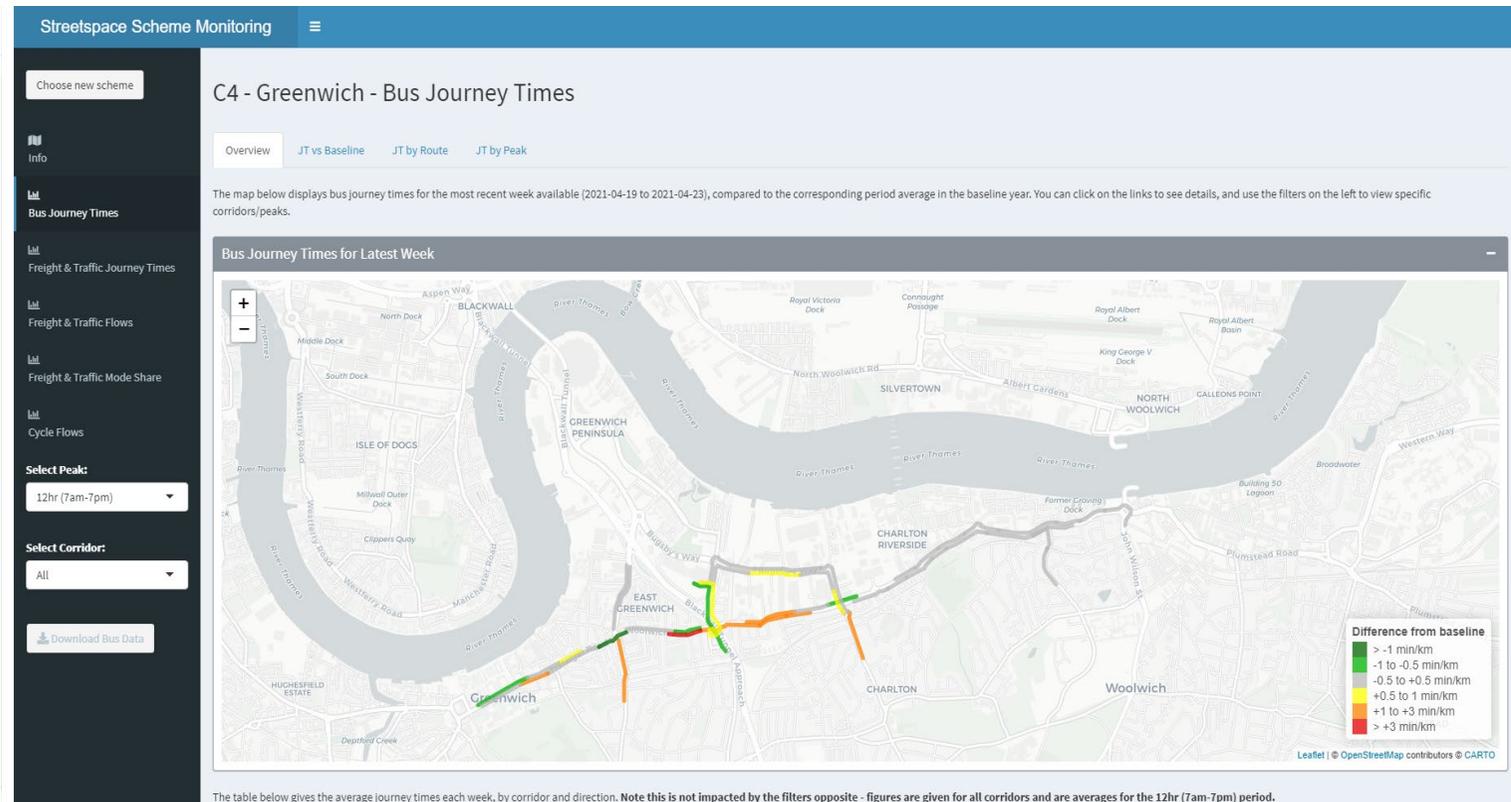
- Certain types of data collected via the monitoring programme will be available on a 'live' basis
- Where possible we aim to make the monitoring data available to members of STIG via online data platforms
 - Live data ingested into dashboards in real time (Inrix/ibus)
 - ATC and flow data updated next day
 - Dashboards updated daily/weekly as required
 - Daily data available to create baseline figures and for use in strategic reporting
- We will produce annual monitoring reports on the impacts of the scheme across key areas, using comparisons to baseline figures.
- Within this report we will carry out high level analysis across the area of influence as well as focussed analysis of critical corridors, junctions and strategic sites.



External data sharing

Interactive dashboards

- Building on existing examples created for current schemes
- Can include traffic flow, journey times, delay
- Visual displays of real time and historical data





8. Other relevant updates (All)





9. Obligations and forward meeting planner



Forward Meeting Planner

Silvertown Tunnel Implementation Group – forward meeting planner

26.05.2021

Meeting 1 – 24 September 2020

- Terms of Reference
- Update on MMS procurement
- High-level milestones and engagement
- Air quality monitoring proposals



Meeting 2 – 28 January 2021

- Election of chairperson
- Recording of decisions made
- Approach to strategic transport modelling
- Lot B, C and D – general update



Meeting 3 – 27 May 2021

- Scope of environmental compliance assessment
- Approach to socio-economic monitoring
- Traffic monitoring proposals

Meeting 4 – 30 September 2021

- Update on refreshed assessment including:
 - Initial bus proposals
 - Emerging modelling outcomes
- Update on traffic and socio-economic monitoring
- Approach to identifying / consulting on mitigation measures

Meeting 5 – January 2022

- Opportunities for bus priority measures
- Update on bus proposals
- User charging assessment framework
- Reporting of data collected through monitoring programme

Meeting 6 – May 2022

- Environmental Compliance Assessment report
- Emerging mitigation measures

Meeting 7 – September 2022

- User charging assessment framework
- Proposed scheme of mitigation
- Submission to Secretary of State

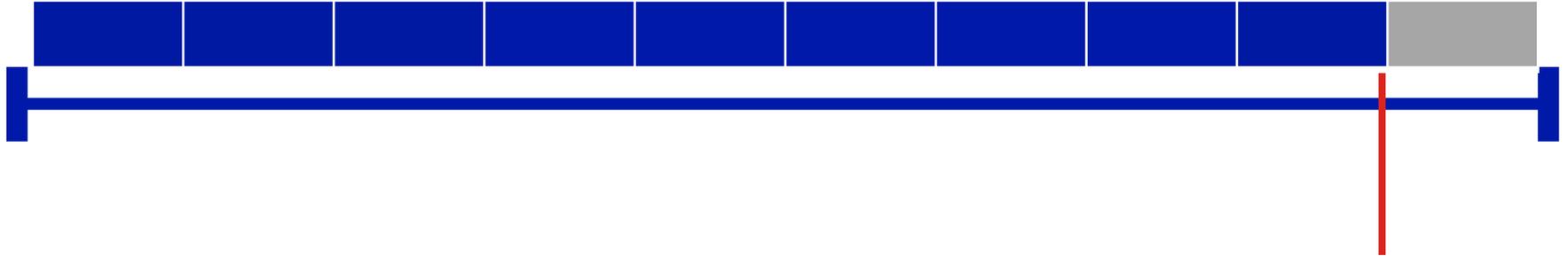
Meeting 8 – January 2023

TfL Key Milestones

Indicative Milestone Description/ Date	Milestone Date	2021		2022		2023		2024		2025
		H1	H2	H1	H2	H1	H2	H1	H2	H1
B: Commence air quality monitoring	End 2020									
A&B: Commence Refreshed Assessment	Jul 2021	X								
C: Commence socio-economic monitoring (primary surveys)	Oct 2021		X							
D: Commence traffic monitoring	Late 2021		X							
Conclusion of Refreshed Assessment (modelling and identification of mitigation)	Q3 2022				X					
Submission to Secretary of State	Q1 2023					X				
SoS decision	Q2 2023					X				
Scheme of Mitigation delivery	Q4 2024									
Scheme opening	Q1 2025								PTU:	X

KEY: H1 = JAN to JUN/ H2 = JUL to DEC





10. Next steps
and AOB

