

TfL Mayor's Budget 2020/21

GLA Consultation Extracts

December 2019

About Transport for London (TfL)

Part of the Greater London Authority family led by Mayor of London Sadiq Khan, we are the integrated transport authority responsible for delivering the Mayor's aims for transport.

We have a key role in shaping what life is like in London, helping to realise the Mayor's vision for a 'City for All Londoners'. We are committed to creating a fairer, greener, healthier and more prosperous city. The Mayor's Transport Strategy sets a target for 80 per cent of all journeys to be made on foot, by cycle or using public transport by 2041. To make this a reality, we prioritise health and the quality of people's experience in everything we do.

We manage the city's red route strategic roads and, through collaboration with the London boroughs, can help shape the character of all London's streets. These are the places where Londoners travel, work, shop and socialise. Making them places for people to walk, cycle and spend time will reduce car dependency and improve air quality, revitalise town centres, boost businesses and connect communities.

We run most of London's public transport services, including the London Underground, London Buses, the DLR, London Overground, TfL Rail, London Trams, London River Services, London Dial-a-Ride, Victoria Coach Station, Santander Cycles and the Emirates Air Line. The quality and accessibility of these services is fundamental to Londoners' quality of life. By improving and expanding public transport, we can make people's lives easier and increase the appeal of sustainable travel over private car use. We are moving ahead with many of London's most significant infrastructure

projects, using transport to unlock growth. We are working with partners on major projects like Crossrail 2 and the Bakerloo Line Extension that will deliver the new homes and jobs London and the UK need. We are in the final phases of completing the Elizabeth line which, when it opens, will add 10 per cent to central London's rail capacity.

Supporting the delivery of high-density, mixed-use developments that are planned around active and sustainable travel will ensure that London's growth is good growth. We also use our own land to provide thousands of new affordable homes and our own supply chain creates tens of thousands of jobs and apprenticeships across the country.

We are committed to being an employer that is fully representative of the community we serve, where everyone can realise their potential. Our aim is to be a fully inclusive employer, valuing and celebrating the diversity of our workforce to improve services for all Londoners.

We are constantly working to improve the city for everyone. This means freezing fares so everyone can afford to use public transport, using data and technology to make services intuitive and easy to use, and doing all we can to make streets and transport services accessible to all. We reinvest every penny of our income to continually improve transport networks for the people who use them every day.

None of this would be possible without the support of boroughs, communities and other partners who we work with to improve our services. We all need to pull together to deliver the Mayor's Transport Strategy; by doing so we can create a better city as London grows.

Contents

Chief Financial Officer's foreword	4
Delivering the Mayor's Transport Strategy	6
GLA SECTION I	12
GLA SECTION 6 - TfL Main Budget Section	13
Appendix A	38
Appendix B	42
Appendix C: TfL Capital Strategy	43

Chief Finance Officer's foreword

We are moving 11 million passengers per day through our network and delivering significant improvements whilst tackling the challenges of improving toxic air and eliminating deaths and serious injuries on our network.

Our 2018 Business Plan set out how we would turn an operating deficit into a surplus by 2022/23, restore a sustainable cash balance and continue to be a financially resilient and sustainable business. We provided more detail on the first year of this plan in our 2019/20 Budget. In the last year, we have more than delivered on that Business Plan and Budget. We have continued to cut costs and expect to significantly beat our financial targets at the end of this financial year. This means that we will have made solid progress in reducing the operating deficit caused by the withdrawal of our operating grant from the Government and changing economic conditions.

The challenges that we presented in the 2018 plan still remain, the subdued economy which remains uncertain going forward and the delay to Crossrail impacts our capital costs and operating revenue and we still have no long-term assurances on government funding. Despite the subdued economy, we have seen an increase in passenger journeys on the Underground and a slower pace of decline in bus demand than previously assumed. By the end of 2019/20, operating costs (excluding the Elizabeth line) will be lower than five years ago. This performance sets TfL in a strong position to meet the challenges ahead, whilst continuing to transform the organisation.

In November 2019 Crossrail Ltd confirmed that the tunnelled section of the Elizabeth line will not open in 2020 but will enter customer service as soon as practically possible in 2021. Crossrail Limited will provide further certainty about when the Elizabeth line will open in 2020. This further delay will have a direct impact on our projected fare revenues. This plan includes a prudent assumption that Elizabeth line fare income will be up to £1.3bn lower than we assumed in 2017, with that impact spread over four years. This is a pressure of £750m in addition to the £600m included in last year's plan. The overall impact will be, in part, mitigated by the early introduction of TfL Rail services between Paddington and Reading, which will launch in December 2019.

This plan continues to eliminate our operating deficit and deliver operational break even covering the cost of financing, asset renewals and deliver a surplus on net cost of operations by 2022/23. To achieve this TfL are implementing organisational change and efficiency initiatives across the whole business, including structural integration programmes and have already created a single Business Services function to streamline common processes.

Our current capital funding levels are inadequate to support full level of investment required to ensure that London remains a competitive World Class city. We have no certainty of government capital funding beyond 2020/21 and over the next twelve months we will be making the case to Government for confirmed capital support to enable these critical projects. Through careful financial and commercial management, we will deliver the £3.5bn spend on major projects over the

plan years at or below planned project cost. Alongside our organisational redesign, we are supporting a collaboration project with the GLA to improve efficiencies across finance, HR, IT, procurement and estates and facilities management, by sharing services across the GLA family.

Aside from financial and economic uncertainties, we have a wide range of key strategic risks that could affect our customers, staff, suppliers and other stakeholders. They include threats and opportunities around health, safety and the environment; capital investment projects; technology; and our stakeholders' confidence in us. A disruptive Brexit is likely to have a significant financial impact, primarily through reduced revenue driven by a weaker economy. This is likely to have implications for the level of service we can provide and most importantly, for the investment we can commit to. We are developing management structures that enable us to make capital investment decisions based on our overall financial position and continue to put our case to central government for secure, long-term funding to support transport investment in London.

We are challenging ourselves to deliver our investment programme, which covers hundreds of projects, within a tightened, affordable funding envelope. We have developed our approach to better reflect the complexity and range of external challenges that sometimes frustrate our work. This enables us to make more agile decisions in response to the financial context, affordability and the latest business needs.

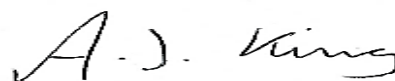
The capital programme we have committed to is funded for the first five years, and in accordance with Section 25 of Local Government Act 2003, I confirm that the proposed reserves and the financial estimates are respectively prudent and robust.

In this time of uncertainty, this Business Plan is focused on running safe and reliable services while investing to improve travel in London. But cities can only thrive if they benefit from steady, sustained funding in existing and new infrastructure. We now need to embark on the next phase of investment to modernise the Tube and create vital new capacity and connections. We are working urgently with the Government to secure this investment to keep London and the country moving.

It is only by investing in our people and our services that we can deliver on our promise that "Every Journey Matters".



Simon Kilonback
Chief Finance Officer
Transport for London



Antony King
Group Finance Director
Transport for London

Delivering the Mayor's Transport Strategy

The Mayor's Transport Strategy (MTS) sets the priorities and longer-term direction for the plan. The central aim of the strategy is to create a city that is not only home to more people but is a better place to live, work and spend time. It acknowledges the key role of transport in shaping London and its global competitiveness, as well as improving the health, opportunities and quality of life for those that live and work in it. This means a safer, healthier, cleaner, greener, inclusive and better-connected city.

The Mayor's Transport Strategy aims for a significant shift in travel behaviour so that by 2041, 80 per cent of trips will be made on foot, by cycle or using public transport. Improving safety and security, and achieving Vision Zero, will be fundamental in supporting this strategy.

The investment outlined in the 2019 Business Plan will enhance the capacity and quality of the public transport network to improve connectivity, boost economic productivity, make travel more accessible and inclusive, and facilitate growth in jobs and homes. TfL will reduce the environmental impact of the transport network by cutting emissions, while becoming more resilient to climate events.

The plan also supports the approach that transport is not only a means of moving people and goods, but also one that helps create the streets where people live, shop and spend time, where businesses develop and where communities come together.

■ Healthy Streets and healthy people

Our investment is centred on improving the experience of being in the places where people live, work, go to school, spend time and travel. We will reduce traffic dominance and encourage people to walk, cycle and use public transport. This will help Londoners lead active, healthy lives and create a city that works for all its residents.

Vision Zero:

Our Vision Zero commitment is that we will not tolerate anyone being killed or seriously injured while travelling in London. We are running various projects and programmes to support our work in eliminating deaths and serious injuries on the transport network. Creating Healthy Streets and achieving Vision Zero are critical to reaching this aim.

- Safe speeds – we have started work to introduce 20mph speed limits on all our roads in the Congestion Charging zone by early 2020
- Safe streets – we are on course to complete 41 of our 73 Safer Junctions by May 2020, recently completed schemes have led to a significant reduction in collisions

- Safe freight vehicles – the world’s first Direct Vision Standard and Safety Permit for HGVs launched in October 2019, reducing the danger posed by HGVs to vulnerable road users, such as people walking and cycling
- Safe trams – continue to make significant progress in implementing the recommendations for the Rail Accident Investigation Branch following the tragic overturning of a tram at Sandilands in 2016
- Safe buses – our Bus Safety Programme will continue to drive major safety improvements, helping us reach our target of no-one being killed on or by a bus by 2030
- Safe behaviours – our partners in the Metropolitan Police Service and City of London Police will continue to take a Vision Zero approach to roads policing, with a more intense focus on the riskiest locations and most dangerous drivers

Active travel:

We seek to make London a city where people choose to walk and cycle more often by improving street environments, making it easier for people to get around on foot and by cycle, and promoting the benefits of active travel. Physical activity is not just a health issue. It brings people together to enjoy shared activities and contributes to building strong communities whilst supporting the economy to grow and reducing the cost to the National Health Service. The Mayor’s aim is that, by 2041, all Londoners do at least 20 minutes of active travel to stay healthy each day and walking and cycling have a big part to play in delivering this ambition. Street environments that encourage walking and cycling not only release road space but also contribute to improvements in air quality. Our new Healthy Streets Activation programme brings together the most effective and proven measures, such as projects at schools, to help Londoners from all communities enjoy walking and cycling.

- Growing our cycle network – by May 2020 more than 150km of protected space for cycling will be delivered and specifically over the plan, work will continue to expand London’s network of quality cycle routes
- Cycle parking – working closely with boroughs and other partners to introduce new facilities for secure and convenient cycle parking
- Transforming places – continue to transform areas around some of London’s busiest junctions to make them safer, healthier and more pleasant places to travel, live, rest and work
- Improving our high streets – working with community groups and local representatives to improve these vital spaces through small impactful changes by removing bollards, adding greenery, cleaning and repainting assets or installing art

We will work with the boroughs to allocate funding through the Local Implementation Plan programme, which will deliver Healthy Street changes, including measures to encourage people to walk, cycle and use public transport. Funding is retained at the same level as agreed in the 2018 plan. The programme helps boroughs deliver more than 500 schemes and initiatives across London each year and is integral to delivering the Mayor’s Transport Strategy.

Improving air quality:

We are investing in initiatives to reduce emissions of air pollutants and greenhouse gases from transport in London. We are also undertaking actions to increase the resilience of transport in London to the impacts of climate change and deliver increased green infrastructure across the transport network.

- Greener buses – all London’s bus routes will be at least ultra-low Euro VI or zero emission by autumn 2020, continuing to make all the fleet zero-tailpipe emission by 2037
- Expanding ULEZ – in October 2021 ULEZ will be expanded up to the North and South Circular roads and October 2020 will see LEZ tightened on HGVs, buses and coaches to Euro VI, which we expect to lead to 28 per cent reduction in road transport nitrogen oxides
- Cleaner energy – working to reduce energy emissions from our entire operations including our buildings, stations and infrastructure following the Mayor declaring a climate emergency
- Rapid charging – on track to reach target of 300 rapid charging points by December 2020, and supporting the Mayor’s Electric Vehicle Infrastructure Taskforce assisting taxis, private hire vehicles and other commercial drivers to switch to electric vehicles
- Climate change – we are assessing the impact of current severe weather events on our transport system to help understand the scale and frequency of future impacts, informing our planning to make the network more resilient

■ A good public transport experience

We will ensure that public transport is an attractive alternative to using a car. Proper planning and investment in the whole journey will help integrate public transport with our on-street schemes. Making services available in the whole journey where people need them, reducing overcrowding and keeping fares affordable will help us achieve these goals.

First and foremost we must prioritise the safety and reliability of our existing network:

- Rolling stock
- Signalling
- Track
- Stations, civils and buildings
- Lifts and escalators
- Power, cooling and energy
- Major highway structures (bridges and gyratories)
- Highway assets (carriageway and footway, traffic signals, street lights)
- Surface public transport assets (bus shelters, stations, cycle hire points and bikes, piers)
- Technology (software applications and systems)

To keep our network safe and operable over the long term we need to get to a level of steady state asset condition. This is our baseline level of investment, which is what we need to do to keep our existing system safely operating and reliable on a like-for-like basis, is core of continuing to provide a good public transport experience.

New services:

We are investing to improve our services and extend the reach of the transport network. The Elizabeth line will transform travel in and around the Capital, bringing 1.5 million more people within 45mins of central London. Extending the Northern line will support new homes and jobs and work has begun on the London Overground extension from Barking to Barking Riverside.

- Northern line – the extension will bring Battersea and the surrounding areas to within 15 minutes of the City and West End, with 31 trains per hour on the Morden branch at peak from 2021, spurring economic growth by supporting around 25,000 new jobs and more than 20,000 new homes
- Piccadilly line trains – the new trains for the Piccadilly line are expected to enter service from 2024 and will replace the existing 1970s fleet, will boost reliability and frequency during peak times, from 24 to 27 trains per hour
- London Overground – Barking Riverside extension, which began in January 2019 will continue construction works to deliver the 4.5km extension service, with work on track points and signalling beginning this year
- 4G on the Underground – partnering with the telecoms industry to create a Connected London, meeting the Mayor’s pledge to eradicate areas of poor connectivity, reinvesting the revenue in the transport network

Network modernisation:

Progress to enhance and modernise the Tube network will continue, including a new signalling system on the Circle, District, Hammersmith & City and Metropolitan lines that will increase capacity by a third on over 40 per cent of the Tube network. We are also upgrading many of the busiest interchanges on the network, including Victoria and Bank. We will continue to make the case for local rail services from Victoria, London Bridge and Moorgate to be transferred to TfL so that the communities served by these rail links can fully benefit.

- Bank station – the project has now passed the halfway mark, improvements to this vital transport hub used by more than 400,000 people a day will be finished by 2022
- New DLR trains – we have ordered 43 new walk-through trains to increase capacity and support the delivery of new homes and jobs around the network and providing a better customer experience
- Rail devolution – working together with the Mayor and the DfT to consider how additional rail services could be transferred to us so that we can improve them and support new jobs, homes and economic growth

Convenient travel:

London's buses remain the most relied upon form of transport in the Capital, providing convenient, affordable and accessible travel.

- Demand responsive bus network – running two 12-month trials of demand-responsive bus services in Sutton and Ealing, complementing existing public transport and helping reduce car dependency in outer London
- Dial-a-ride vehicles – we continue to invest in renewing the fleet with 186 ultra-clean Euro VI diesel buses entering service in time for the ULEZ expansion in October 2021
- Santander cycles – the largest cycle hire scheme in Europe, covering 100 square kilometres of London, with more new areas planned when Cycleway 4 opens
- River services and piers – we published the Passenger Pier Strategy in November 2019 outlining the approach to support growth in passenger journeys on the Thames. We will also continue to focus on keeping the newly modernised, cleaner Woolwich Ferry service as reliable as possible
- Step-free stations – working towards the Mayoral commitment of creating 15 step-free tube stations by 2020, with eight more due to be delivered by end of 2023/24

■ **New homes and jobs**

Improvements to transport are vital for creating the new homes and jobs that London needs. Our Investment will help create communities where amenities are within walking and cycling distance and public transport is available for longer journeys. This will protect the environment, ensure growth supports healthy lifestyles and provide a good quality of life for all Londoners.

Supporting growth:

Enhancing the capacity and quality of walking, cycling and public transport not only benefits Londoners but also builds the foundations to support growth now and in the future. Reducing car use and ensuring active, efficient and sustainable travel needs to be at the heart of new development. The spatial framework for this is provided at a strategic level by the London Plan.

We continue to support the sustainable delivery of homes and jobs in Opportunity Areas by improving roads for walking, cycling and public transport. We have started improvements in Nine Elms area and are planning bus, walking and cycling improvements at Tolworth Roundabout to support the surrounding developments.

Better connections:

Our major projects will significantly increase connectivity and capacity. We will continue to work closely with government and Network Rail on Crossrail 2, a nationally significant infrastructure project. We will also continue to work on the proposals to extend and upgrade the Bakerloo line.

We are also extending the London Overground to Barking Riverside. This new site is the largest housing development in east London, with planning permission for up to 10,800 homes, as well as healthcare, shopping, community and leisure facilities. Without a new rail link, the full potential of the development cannot be achieved.

In the west, we continue to develop proposals for a new West London Orbital rail link, which will connect a number of major growth areas. In south London, we are working with the local authorities to develop the Sutton link which would support growth between Morden and Sutton town centres.

- Bakerloo line – continue to develop plans for an upgrade and extension on this Mayoral priority scheme which could relieve congestion, open up more opportunities to more people and improve air quality
- Crossrail 2 – subject to reaching a funding agreement with government and ministerial approval, we will progress preparation for a hybrid Bill in Parliament to seek powers to construct the railway, anticipated to begin in the mid-2020s
- Silvertown Tunnel – enabling a significant upgrade in cross-river bus services and supporting growth in jobs and housing

New developments:

We are working with our development partners to bring forward 10,000 new homes on our land by 2020/21. This will also include creating retail and commercial space and opportunities for small and independent businesses.

- Blackhorse Road – delivering 350 new homes in Waltham Forest, half of which will be affordable
- South Kensington – continuing to develop the area surrounding the station to improve the experience of our customers and local residents, including step-free access to the station
- Build to rent – a new partnership formed which is now one of the UK's biggest Build to Rent programmes; Connected Living London with 3,000 homes being built across seven sites

Long term Capital Strategy

The Mayor's Transport Strategy shows how we can support London's growth by making the most of our existing infrastructure and assets, and investing in new infrastructure.

This year's strategy is an evolution on prior years. It sets out the steady and sustained investment required to ensure London remains a competitive global city by unleashing capacity, connectivity and cleaner air quality. A significant focus for this year has been building a more granular understanding of our baseline level of investment, which is what we need to do to keep our existing system safely operating and reliable on a like-for-like basis. We now need to embark on the next phase of investment to modernise the Tube and create vital new capacity and connections and to commit to large-scale projects. We will need funding certainty in the long term as set out in the new Capital Strategy set out in Appendix C, alongside the Mayor's document.

GLA SECTION I

Introduction

The Greater London Authority (GLA) is the strategic authority for London and supports the Mayor and the London Assembly in delivering their respective responsibilities and functions. The GLA's five functional bodies are its principal delivery arms: the Mayor's Office for Policing and Crime (MOPAC); overseeing the work of the Metropolitan Police Service (MPS); the London Fire and Emergency Planning Authority (LFEPA); Transport for London (TfL); the London Legacy Development Corporation (LLDC) and the Old Common and Park Royal Development Corporation (OPC).

GLA SECTION 6 - TfL Main Budget Section

Introduction

6.0 Transport for London (TfL) is responsible for the planning, delivery and day-to-day operation of the Capital's public transport system, including London's buses, Underground and Overground including the Elizabeth line, the Docklands Light Railway (DLR), Tramlink and London River Services. It is also responsible for managing the Congestion Charge, maintaining London's main roads and traffic lights, regulating taxis, making London's transport more accessible and promoting walking and cycling initiatives.

Key operating account deliverables

6.1 Full details of our priorities are set out in our 2019 Business Plan published in December 2019. The key deliverables over the next five years include:

- Investing significant amounts in improving the experience and safety of places where people live, work, go to school, spend time and travel through our Healthy Streets programme. New high-quality cycle routes will be constructed and expanded across London and we will work with London's local communities to improve high streets and make them accessible for everyone. We are on track to have delivered more than 150km of protected cycling space by May 2020 and will continue expanding the network of quality cycle routes over the course of this plan and beyond, using the quality criteria outlined in our Cycling Action Plan. Work is well under way on Cycleway 4 between Tower Bridge and Greenwich, with construction work soon to start on Cycleway 9 in west London.
- Continuing the electrification of London buses, already the largest electric fleet in Europe, so that all are zero-emission by 2037 at the latest. We will also work with bus operators to implement our world-leading Bus Safety Standard, including all new buses purchased from August 2019 requiring Intelligent Speed Assistance as standard.
- Continue to optimise the bus network in response to changing demand, and TfL and partner authorities' plans for other modes. In outer London, service volume will grow by five million kilometres over the period of this plan. In Inner London, where there are more sustainable alternatives and many instances of bus congestion, we will reduce the network in a targeted way by removing excess capacity on some routes.
- Driving forward the Vision Zero action plan to eliminate deaths and serious injuries on London's roads, through the delivery of more than half of the 73 Safer Junctions by May 2020, continued rollout of 20mph speed limits, enhanced policing and enforcement, and ensuring safety is at the heart of all our projects

- Helping to clean up London's toxic air quality by tightening the Low Emission Zone standards in October 2020 and, in October 2021, expanding the ULEZ - the toughest air quality standard of any city in the world - to cover all roads within the North and South Circular
- Delivering a world-leading road management system to control London's traffic signals expected to launch in 2021
- We are on track to reach our target of installing 300 rapid charge points by December 2020, having already installed 200 by August 2019
- The Local Implementation Plan programme will continue to allocate funding to boroughs to deliver Healthy Streets changes, including measures to encourage people to walk, cycle and use public transport. Funding is retained at the same level as agreed in last year's plan. While the Local Implementation Plan Major Schemes programme is now closed to new submissions, those currently under way at Camberwell town centre, Beam Parkway and the West End are due to complete in 2020/21.
- We continue to invest in our Liveable Neighbourhoods programme which gives boroughs the opportunity to bid for funding for long-term schemes that encourage walking, cycling and the use of public transport. Following the first two bidding rounds, authorities are submitting bids for the next round of funding. This will mean further investment, building on the £86m already awarded to 18 Liveable Neighbourhood projects across London. The third round of bids comes alongside significant milestones for projects already under way, including public consultations on the West Ealing, Romford Ring Road and Deptford Parks projects, and the start of construction on the Coppermill Village project in Waltham Forest.

Gross revenue expenditure

- 6.2 Gross revenue expenditure reduces by £149.8m, from £7,269.3m in the revised TfL budget for 2019/20 to £7,119.5m in 2020/21. This is driven by significant budgetary outperformance in 2019/20. Gross revenue expenditure in 2020/21 will increase by £229.8m compared to our latest forecast for 2019/20, predominantly due to the introduction of new services on TfL Rail and London Overground.

Net revenue expenditure and council tax requirement

- 6.3 After deducting passenger and commercial income, fees, charges, other income and its planned use of reserves, the Mayor proposes that TfL's net service expenditure for 2020/21 is £937.2m. An analysis of the revenue budget by service area is summarised overleaf.
- 6.4 The Mayor is proposing that TfL's council tax requirement for 2020/21 remains at £6.0m. The balance of its net revenue expenditure is financed by £968.2m of resources allocated by the Mayor through business rates retention. In 2020/21 TfL will receive £100.0m less from other specific grants:
- In 2019 we received an additional £60m (£83m in total over two years) to fund: a £48m combined scheme to help scrap older vans; £24m towards increasing the size of the enhanced taxi delicensing scheme; £5m for buses; £5m for London Overground and £1m for a car-free day in September 2019
 - We will stop receiving the £27m London Overground grant from DfT in 2020/21
- 6.5 TfL is increasingly covering its operating costs from fares and other income and has set the financial objective of breaking-even on the cost of day-to-day operations, which includes renewing and maintaining the network and covering the cost of financing, in 2022/23.
- 6.6 Lack of government funding makes TfL more exposed to macroeconomic factors affecting London. In 2019/20 passenger demand was stronger than expected owing to improved passenger journeys on the Underground and a lower than anticipated decline on Buses. We reflected these trends in our projections for 2020/21, which show passenger income 5.5 per cent higher than the revised 2019/20 budget. The delay in the opening of the Elizabeth line means the uplift in passenger income will begin later than previously modelled.
- 6.7 Less income is available to continue subsidies of public transport and road maintenance. Although TfL passenger income is forecast to grow over the plan years by 25 per cent from 2020/21 to 2023/24 these levels reflect cautious forecasts owing to an extremely uncertain economic environment. This plan assumes the Mayor's freeze on TfL fares is maintained during 2020. From January 2021, our plan assumes that fares rise by around the retail price index plus one per cent, to support vital investment in public transport. This is only a business planning assumption as our fares are set by the Mayor on an annual basis.

6.8 TfL's operating budget is summarised in the following table.

(Revised budget represents the TfL Budget published in March 2019)

TfL Objective Analysis	Revised Budget 2019/20 £m	Forecast 2019/20 £m	Budget 2020/21 £m	Plan 2021/22 £m	Plan 2022/23 £m	Plan 2023/24 £m
Income						
Passenger Income	-4855.5	(4,970.4)	(5,123.5)	(5,412.1)	(5,965.9)	(6,413.5)
Congestion Charge*	(221.1)	(261.0)	(255.0)	(311.5)	(371.6)	(362.3)
Other Income	(746.4)	(705.5)	(743.4)	(838.0)	(818.3)	(937.1)
Elizabeth line regulatory**	(29.8)	-	(26.7)	(190.1)	(391.4)	(404.0)
Interest Income	(15.8)	(19.2)	(14.1)	(7.1)	(7.4)	(7.0)
Sub total income	(5,868.6)	(5,956.1)	(6,162.7)	(6,758.7)	(7,554.6)	(8,123.9)
Operating costs						
London Underground	2,031.2	1,938.9	2,013.6	2,034.5	2,023.8	2,034.3
Buses	2,153.8	2,154.1	2,194.8	2,242.0	2,273.7	2,330.4
Streets	483.4	480.6	493.2	521.0	590.0	591.8
Rail	506.2	475.3	495.7	515.9	525.7	547.6
Elizabeth line	398.5	359.9	445.9	465.3	507.5	531.0
Elizabeth line regulatory**	29.8	-	26.7	190.1	391.4	404.0
Other Operations	1,140.2	973.2	904.9	1,050.8	890.9	1,005.4
Property	36.7	36.8	43.6	44.7	46.2	47.4
Sub total operating costs	6,779.8	6,418.8	6,618.3	7,064.3	7,249.3	7,491.9
Other						
Third-party contributions	(52.7)	(40.1)	(19.6)	(16.2)	(17.6)	(14.3)
Debt servicing	489.5	470.9	501.2	558.5	579.2	575.2
Sub total other	436.8	430.8	481.6	542.3	561.6	560.9
Net service expenditure	1,348.0	893.6	937.2	847.9	256.3	(71.2)
Revenue resources used to support capital	-	174.0	42.0	148.9	758.3	1,004.0
Financing requirement	1,348.0	1,067.6	979.3	996.7	1014.6	932.8
Other Specific grants	105.0	107.3	5.0	5.2	5.3	5.4
Retained business rates	1,237.0	954.3	968.2	985.6	1003.3	921.4
Council tax requirement	6.0	6.0	6.0	6.0	6.0	6.0

* Congestion charge includes congestion charge income and related compliance income

** The table reflects the Elizabeth line central operating section (COS) regulatory track charge, which is net nil at TfL Group level

Explanation of budget changes

- 6.9 An analysis of the year-on-year movement in the Mayor's proposed council tax requirement for TfL compared to the revised budget for 2019-20 is set out below. An explanation of each change is provided in the paragraphs that follow.

Changes in the TfL's council tax requirement	£m
2019/20 council tax requirement	6.0
<i>Changes due to:</i>	
Inflation*	158.0
Savings and Efficiencies	(133.4)
Passenger & commercial revenue and other income changes	(294.1)
Net change in service expenditure (excluding inflation and savings)	183.4
Government and other revenue grants	86.1
2020/21 council tax requirement	6.0

* TfL does not separately account for inflation and so the numbers in this table are an estimate of the changes were the effects of inflation to be isolated. The paragraphs below reference the figures in the table above. These figures are an estimate of the year-on-year change with the effect of inflation isolated. TfL figures in this budget document have inflation included and may differ from the figures quoted in the above table

Inflation

- 6.10 The Budget proposes that our net costs will increase by £158.0m as a result of inflation. This represents 2.4 per cent of operating costs, and is line with UK inflation rates. Our savings programme aims to offset the impact of inflation in as far as possible maintaining like-for-like operating costs at previous year's levels.

Savings and efficiencies

6.11 The total savings and efficiencies to 2023/24 which have been identified across the Group are summarised below. The figures are presented on an incremental basis and do not include any savings still to be identified.

Savings and efficiencies	2019/20	2020/21	2021/22	2022/23	2023/24
	£m	£m	£m	£m	£m
TfL	207.0	133.4	89.8	121.4	86.5

6.12 We are continuing with the comprehensive review of our organisation and improving the way we work to ensure we deliver the Mayor's vision for London and meet our strategic objective of breaking-even on the cost of day-to-day operations by 2022/23.

6.13 Our cost reduction programme continues across all areas of our business, as we drive the development of a modern, efficient, high-performing organisation. 2020/21 will be the fifth year of our cost reduction programme: by the end of 2018/19, we made annualised savings of £747.0m - mitigating inflationary pressures - while protecting safety, services and reliability. We estimate additional savings of £207m in 2019/20.

6.14 Savings have been delivered across all areas of the business:

- By the end of 2019/20, the new operating model would have delivered £142.0m of annual recurring operating cost savings
- Refocusing the bus network on areas of greatest demand, with more services in Outer London while reducing levels in Central London
- Commercial initiatives including improved contract negotiation, particularly on the bus network
- Improved maintenance regime within London Underground
- Reducing head office accommodation costs by working in larger hubs, and vacating older buildings, including 55 Broadway which was sold earlier in 2019/20

6.15 We plan to make new savings of £133.4m in 2020/21. These are incremental to the savings already achieved from 2015/16 to 2018/19 and forecast to be delivered in 2019/20. These savings, all of which deliver cashable benefits, are embedded in the business:

- London Underground will deliver additional savings of £86.8m in 2020/21 through their modernisation plan:
 - The focus for 2020/21 is on supply chain initiatives which will deliver £80.3m of additional savings. We have begun work here and have made savings of £61.2m in 2019/20. A centralised planning function with a forward-looking works programme will help enable supply chain savings. Savings are expected by reducing the number of suppliers, reducing procurement uncertainty, with commercial savings from bulk and steady procurement.
 - We are also making savings by reviewing and modernising our maintenance practices, with improved planning driving more efficient delivery
- Surface Transport – Buses, Streets, Rail and Other operations (the latter including ULEZ, Taxi & Private Hire, Emirates Air Line as well as other services) - will deliver £29.6m of new incremental savings in 2020/21:
 - Refocusing the bus network on areas of greatest demand, with more services in Outer London while reducing levels in Central London
 - Other commercial savings on the bus network through re-tendering and renegotiating operators' contracts
 - Commercial optimisation on smaller contracts: e.g. cycle hire
- Corporate and Commercial Development will deliver new savings of £17.0m in 2020/21:
 - Establishing a single Business Services function, which brings together operational activity from both Finance and Human Resources. By following an industry-standard approach, we can streamline common processes, identify other ways to deliver services at reduced cost and standardise reporting. These initiatives will save a further £12m in 2020/21
 - Consolidating our head office accommodation, vacating older buildings and co-locating staff, with savings of £5m in 2020/21

Passenger and commercial revenue and other income

6.19 Passenger, commercial and other income (including interest income) will increase by £294.1m (£26.7m relating to the Elizabeth line regulatory track charges), from £5,868.6m in 2019/20 revised TfL budget to £6,162.7m in 2020/21. So far in 2019/20 we have experienced better than expected demand performance on London Underground and Bus demand, whilst still in decline, reduced less than we anticipated. We reflected these improvements in our 2020/21 projections alongside increases from the new TfL Rail route from Paddington to Reading from December 2019. The economic outlook, however, presents significant downside risks, and we

are therefore maintaining a cautious approach basing the plan on the Her Majesty's Treasury (HMT) 'worst case' forecast for all our modes.

- 6.20 The most significant internal factors affecting demand include service improvements, reliability and asset upgrades and customers swapping the Tube for the Elizabeth line, DLR and Overground services. The plan includes service improvements as part of our modernisation programme on the Circle, District, Hammersmith & City and Metropolitan lines, which have significant timetable improvements in every year of the plan. Further improvements include the Northern Line Extension, due to open two new stations in May 2021.
- 6.21 Operated kilometres and speeds are two of the main drivers of demand for buses. Following our review of bus services in central London, we continue to adjust the network in response to demand. Beyond 2019/20, operated kilometres will remain flat as we continue to reshape services. In outer London service volume will grow by five million kilometres over the plan period. We will operate more bus kilometres in the short term and bus speeds will be more stable than we predicted in the 2018 plan.
- 6.22 Rail demand is expected to be boosted by the continuing introduction of new trains and peak and off-peak service improvements on London Overground over the plan. In the near term DLR demand will be impacted by the abstraction of journeys to the Elizabeth line. However, towards the end of the plan, the DLR will benefit from new trains and service improvements supported by new housing and office development in the Docklands. Trams journeys are forecast to remain static until the opening of the Westfield shopping centre.
- 6.23 The Mayor announced an overall freeze on TfL fares during 2020. Single bus fares, single pay as you go fares on the Tube and DLR and Santander cycle hire charges will be held at prices set in 2016.
- 6.24 We have a comprehensive range of travel concessions, which are an important part of providing affordable travel. Alongside the Mayor's freeze on TfL fares and the introduction of the Hopper fare, these ensure people can move around London whoever they are, and whatever their circumstances. In early 2020, we propose to replace the £5 refundable Oyster card deposit with a £5 fee. This will only affect cards issued after this time and will help reduce the number of cards that are returned after a few days or weeks. Customers who still use the card after a year will receive £5 pay as you go credit, essentially making their card free.
- 6.25 Earlier this year, we introduced an annual renewal process for the 60+ Oyster card to reduce the risk of misuse. The £10 renewal fee, which is in addition to the £20 one-off application fee, applies to cardholders who register for the scheme from 1 August 2019. The fee will not apply to cardholders who benefited from the scheme before 1 August 2019. The fee contributes to the running costs of the scheme.

Net change in operating expenditure

- 6.26 The net change in operating expenditure, excluding inflation and savings, but including the movement in revenue resources used to support capital, is an increase of £171.7m. Our plan for 2020/21 fully covers the cost of debt servicing allowing for the transfer of revenue resources to support our capital plan. This improvement in our financial position is largely due to better than expected fare income in 2019/20 as well as operating cost excluding inflation and savings reducing by £153.0m owing to lower project cost and revised assumptions on the timing of organisational changes compared to the revised 2019/20 budget.

Debt servicing

- 6.27 Net debt servicing increases by £11.7m in 2020/21 compared to the 2019/20 budget owing to £17.2m interest costs for additional borrowing of £602m in 2020/21. In 2020/21 Private Finance Initiative (PFI) related interest payments reduce by £5.5m compared to 2019/20 as contracts come to an end, such as the Connect and DLR Lewisham extension PFIs.

Other revenue grants

- 6.28 Our overall income from other grants will decrease by £100.0m in 2020/21 compared to the revised 2019/20 budget. This is due to a one-off allocation received from the GLA in 2019/20 to fund Mayoral air quality priorities of £60.0m, £13.0m of other specific air quality grants and the London Overground grant of £27.0m ceasing.

Retained business rates

- 6.29 Subject to consultation, the Mayor will allocate a total of £1,884.2m to TfL in 2020/21, which comprises of funding from the Mayor's council tax precept of £6m and business rates funding of £1,878.2m. Of the £1,878.2m business rates funding we have allocated £968.2m to the operating account and £910.0m to capital. Funding received under the business rate devolution proposals are not restricted to support capital investment and can be used to cover operating and financing costs. The business rate allocation in this plan is fully indexed from 2020/21. This is different from previous plans where TfL received indexation for the notional share earmarked for capital projects for future years not for share of business rates notionally allocated to revenue.

Producing the TfL Business Plan to inform the Mayor's budget

- 6.30 The TfL Business Planning process began in June 2019 and followed a strict governance timetable that included engagement between the Mayor, the Deputy Mayor for Transport, TfL Finance Committee and TfL Board. Following the delegated authority from the Board, this will be presented for approval by TfL Finance Committee on 18 December.
- 6.31 The 2019 Business Plan sets out how we will deliver a safe, efficient, affordable and modern transport network for London. It is a development of our previous Business Plan reflecting our current financial position and latest information that has emerged over the past year. Its objectives are unchanged from last year, and we continue to set out a path for how we will deliver the outcomes of the Mayor's Transport Strategy (MTS).
- 6.32 Financially the plan shows how TfL will break even on day-to-day operations by 2022/23. This year's plan has validated the progress we are making towards this, including updating the Plan for latest forecasts of passenger demand, operating costs, financing costs and expected efficiencies. This has included addressing the revenue impact of revisions to the expected opening date of the Elizabeth line. Targets were set for every part of our business, and cost forecasts have been rigorously challenged to ensure they are deliverable.
- 6.33 The capital investment programme is aligned to the outcomes of the MTS and our need to maintain the condition of London's transport infrastructure. Projects were classified as either Critical, Central, Desirable or Deprioritise on the basis of their intended outcomes and ability to accomplish them. Where funding constraints existed within portfolios, projects were then prioritised as needed to meet the overall funding envelope. This included assessing the availability of third-party funding to contribute towards specific projects and the overall deliverability of activity across the plan.
- 6.34 As well as the detailed five-year Business Plan, TfL has updated its 20-year Capital Strategy. This sets out the investment required over this longer period to maintain infrastructure performance and progress towards the outcomes of the MTS. This year's Capital Strategy is an evolution of the document published last year, updating again for latest information and for a more detailed understanding of the required investments in our assets to maintain current levels of safety, reliability and asset condition.
- 6.35 The TfL Executive Committee has had overall responsibility for setting out the priorities of the Business Planning process and managing it at a central level. The Board, the Deputy Mayor for Transport and the Mayor have been kept regularly updated throughout the process, and the finalised plan reflects their priorities for London.
- 6.36 Regular engagement took place on an informal basis with the TfL Finance Committee and TfL Board to explain the assumptions underpinning the 2019 Business Plan. This included modelling to set out the impact of possible external scenarios affecting the plan to ensure proactive mitigations can be identified.
- 6.37 TfL Board formally delegated authority to approve the draft Business Plan 2019 to Finance Committee on 20 November 2019, required to facilitate the compliance with the statutory

time frames for the GLA Budget process. The Business Plan document will be finalised and approved for publication in December 2019.

- 6.38 The plan is balanced given that income from passengers and charges, together with government grant, secondary income, available reserves and borrowing fully meet the costs of operations and the capital programme.
- 6.39 Capital receipts from the sale of property are inherently volatile in their value and timing. We have therefore planned on the basis of a portfolio of capital receipts and maintained headroom between the budgeted level of receipts and the value of transactions being progressed, in order to reduce this risk and increase confidence that at least the budgeted value of receipts will be delivered.
- 6.40 We have assessed the Group's overall exposure to inflation and interest rates which affect the commercial market (fare revenue and costs) and our financial activities (financial costs and investment returns on cash balances). We seek to manage our borrowings in a manner that combines flexibility, security of access to funds, diversity of funding sources and value for money while maintaining a conservative investment strategy. This ensures liquidity and protection from specific risks in market fluctuations.

Reporting against TfL's Budget

6.41 We monitor our Budget through regular public reporting which includes:

- A Quarterly Performance Report (QPR) that monitors financial and operational performance against the targets set out in the annual Budget, as well as against prior year. The report also includes key financial and operating performance over the last five quarters and the last five years to assess medium-term trends. This is reported to the TfL Board along with slides to accompany the Chief Finance Officer's presentation
- We produce periodic finance reporting which monitor financial progress against the annual budget. These are monitored each period by the TfL Executive Committee along with progress on our balanced scorecard. Performance is additionally reported to the TfL Finance Committee at each meeting.
- Project delivery is reported through the quarterly Investment Programme Report (IPR). This will monitor both project costs and milestone delivery against Budget. This report is provided to the Programmes & Investment Committee and the TfL Board.
- Quarterly performance review of financial, operational and capital results with City Hall, examining year-to-date and year-on-year variance analysis. These reports are available to the public within 35 working days (or 55 calendar days) after the end of the quarter.
- We set an annual TfL Balanced Scorecard. The progress against the measures on the TfL scorecard is reported every period or quarter, depending on the measure. It tracks business performance against the in-year objectives derived from the MTS, the Business Plan and the Budget. The results are reported to the Executive Committee each period. The scorecard is presented in the Commissioner's report at Board meetings.

6.42 Project slippage is highlighted in the IPR; any slippage in project costs or schedule which are expected to roll over into future years will be assessed as part of our annual Budget setting process and will be incorporated into future Budgets subject to approval by the TfL Board.

Equalities, Diversity, Inclusion and Social Integration

- 6.43 The Mayor has set out a bold and ambitious vision for maximising the opportunities available to Londoners through the MTS and Inclusive London, whilst also building stronger, thriving and connected communities by making London more accessible and inclusive.
- 6.44 Our 2019 Business Plan supports our commitment to maturing our diversity, accessibility and inclusion vision to deliver a fully integrated transport network that provides safe, affordable, accessible and seamless end-to-end journeys for everyone.
- 6.45 This business plan will be underpinned by our new Action on Inclusion strategy (to be published in 2020) - which will build on our existing customer facing work on:
- Accessibility to focus more on creating spaces and places that work better for everyone through inclusive design
 - Step free to more fully consider the other barriers experienced by disabled people eg signage, lighting, consistency, predictability and legibility
 - Modal accessibility to focus more on end-to-end journeys
 - Accessibility to adopt an inclusive approach that helps overcome the barriers we know deter many other minority groups like crime, fear of crime, anti-social behaviour, overcrowding, safety, and affordability
 - Accessible journeys to thinking more about connectivity and inclusive city planning - tackling one of the biggest barriers for many Londoners of poverty and inequality
- 6.46 The new strategic approach underpinning this business plan will not be about commissioning a new pipeline of customer facing work, but rather embedding Diversity and Inclusion more fully in our existing MTS commitments. This will require the following:
- Better evidence and research including use of Understanding Diverse Communities (UDC) Report – closing the research gaps and moving towards a regional data observatory approach with geospatial D&I tools
 - Better embedding of inclusion considerations into the design and delivery of our work
 - Better evaluation of actual impact – through a new measurement framework that goes beyond step-free / journey times
- 6.47 Better collaboration – harnessing the knowledge of those working on similar issues outside of TfL and a move to co-creation with stakeholders as well as the creation of allies who can help us to lobby for a more inclusive city This business plan will also be delivered in a way that aligns with our new approach to our workforce diversity and inclusion issues – i.e. one that is evidence based and learns from the latest developments in the sector including the use of behavioural science to more confidently establish ‘what works.’ Maturing our approach in this area will also include focusing on diversity of thought, background and experience as well as continuing to address issues of under representation, inequality, discrimination. Our prioritisation of actions to create more inclusive cultures will benefit everyone for example by honing more inclusive leadership behaviours through the new leadership foundation.

- 6.48 Through working with communities as well as our partners and suppliers, we are also improving housing, social and employment outcomes for Londoners. This includes placing diversity and inclusion requirements in contracts; hosting joint recruitment events for underrepresented groups in science, technology, engineering, maths careers, and co-producing joint initiatives to increase the recruitment of people from underrepresented groups.
- 6.49 Through working with our partners and suppliers we will also help to meet the Mayor's ambition to create an Age and Dementia Friendly city, improve awareness about improving mental health and wellbeing, and improving the environment for disabled people to fully access London.
- 6.50 Our Scorecard continues to provide measures through which we can track our progress against this vision. We also continue to report against our work through our Annual Diversity and Inclusion Impact Report, our Gender and Ethnicity Pay Gap Reports, the GLA HR D&I Benchmark and through the Mayor's Annual Equality Report.
- 6.51 The Business Plan sets out planned expenditure for the whole of TfL from 2019 to 2024 and includes a number of projects and programmes, which aim to achieve the goals set out in Action on Equality and the MTS. Each of the individual projects and programmes will be subject to their own equality impact assessment.
- 6.52 The implementation of the Business Plan will help to reduce the number of barriers that can be experienced by Londoners when planning or making a journey.
- 6.53 Investment to improve reliability and reduce crowding is one of the biggest barriers to using public transport for all demographic group of Londoners. Improved journey times that will be delivered through the business plan period will make it a more accessible, attractive and realistic a travel option. This will also be complimented by improved connectivity of the tube network, with the opening of the NLE, providing additional step-free journey options in an area that is currently reliant on rail and bus services, and the opening of the Elizabeth Line.
- 6.54 Improvements at Bank station will provide further step-free connectivity, reduced crowding and congestion in the station, more direct routes, including the installation of further walkways, and improved station design, such as better lighting. Providing a link on the Northern Line, this will also feed into the new connectivity provided due to the NLE.
- 6.55 These improvements will have benefits for users who may have impairments. Examples include creating more space by reducing crowding and benefitting wheelchair users, other forms of impairment that limit or reduce mobility, and someone navigating with a visual impairment. Improved lighting, clearer wayfinding and the utilisation of inclusive design will also help people with a visual and hearing impairment to navigate and use a station, while also making the environment easier to understand for people with a learning disability.

- 6.56 Improvements that will be seen to the DLR, tram and Overground network, including ongoing renewals work, will provide similar benefits, ensuring that the network is easier to access, safe to travel on, reliable, reduced levels of crowding.
- 6.57 While addressing existing crowding and delay on the network, these improvements and enhancements are critical to support the delivery of new housing by providing the additional level of capacity required, providing improved or new access or connectivity into a site, or both. This creates a benefit through enabling the Mayor's commitment for an increased level of accessible and affordable housing to be delivered, providing a larger housing stock of dwellings that will be suitable for disabled Londoners with a variety of impairments
- 6.58 Holding fares throughout the rest of this Mayoral term will be of benefit to those who are ineligible for a Freedom pass, while further discounts, such as from a Disabled Persons Railcard, will reduce the upfront cost of fares further on eligible services within London.
- 6.59 The continued delivery of the Mayor's commitment to 2020 to increase the number of step-free stations will provide easier access to these stations alongside wider improvements to their environments at the same time. For example, this could make them easier to navigate, see improved signage, and make station environments more inclusive.
- 6.60 Investment to improve stations, including renewals work on lifts and escalators, will help to improve their reliability in being available for users, reducing the likelihood of disruption to journeys and/or making them impractical to make. Improved data and technology linked to this will also enable staff to provide real-time information to advise customers where there are faults on the network and support how they can complete the rest of their journey.
- 6.61 Buses in outer London will be changed to provide greater accessibility and connectivity, providing a greater level of choice in areas where there may currently be little available to take people from where they are to where they want to go. With buses providing the largest extent of accessible and inclusive public transport network, expanding this coverage to better address gaps will enhance the role of the bus in helping disabled people access more of London and reduce reliance on the car for the times where it presents the only realistic choice for making a journey. Changes to services in inner and central London will create a simplified network, ensuring that resources are being invested in the right locations.
- 6.62 Continued renewal of assets on the TLRN will provide positive impacts through maintaining operation of the bus network, including elements such as Dial-a-Ride, maintaining pavements and crossing points in good order, keeping streets lit and bus shelters and supporting infrastructure in good and safe order. Improvements to the TLRN will also see the development of safer junctions being rolled out, making roads on this part of the network safer, while funding to Boroughs will enable other roads and streets to be made safer on the 95% of the network that is not managed by TfL.

- 6.63 Greater and more accessible connectivity will be provided for pedestrians by addressing barriers on the road network, making access easier by shortening distances that need to be travelled.
- 6.64 Continued funding of cycling infrastructure and improved routes will provide a wide and safer network available to all to use. Cycleways this includes the provision of dedicated space, removing conflict that may otherwise deter disabled people from cycling and supporting the safer use of a wide variety of adapted cycles. Other improvements linked to this will see increased modal filtering, removing through traffic from residential areas and reducing road danger. These improvements will help address one of the primary concerns fed back to the MTS consultation by providing a greater level of provision for cyclists and reducing the extent to which they would share an environment with pedestrians.
- 6.65 Further positive impacts include reducing the impact of poor air quality for all people through the introduction of the Ultra Low Emission Zone (ULEZ) (2019), enhanced Low Emission Zone (LEZ) (2020) and expanded ULEX (2021), retrofitting of buses to reduce emissions, and other air quality measures including the Mayor's Air Quality fund, with people falling within these age groups being at particular risk of suffering from adverse affects of poor air quality.
- 6.66 A range of benefits will also be delivered through investment in technology and data and the renewal or upgrading of systems. An element within this includes maintaining the iBus system, which provides real-time bus information and a reassurance that services are operating.

Environmental Impact

- 6.67 TfL is investing in initiatives to reduce emissions of air pollutants and greenhouse gases from transport in London. We are also undertaking actions to increase the resilience of transport in London to the impacts of climate change and deliver increased green infrastructure across the transport network.
- 6.68 The Ultra-Low Emission Zone (ULEZ) came into effect in central London in April 2019 and has had a significant impact in air quality in its initial months of operation. The ULEZ will be expanded to an area bounded by the North and South Circular roads, in 2021. We will implement the infrastructure to support the expansion of the ULEZ, which will require all vehicles to meet minimum emissions standards to travel in the zone or pay a daily charge.
- 6.69 We will strengthen the Low Emission Zone (LEZ) standards for heavy vehicles in October 2020. This will require all eligible vehicles to meet stricter standards to travel in the zone or pay a daily charge.
- 6.70 We are committed to reducing air pollution from the bus fleet. By 2020, the entire fleet will meet the ultra-clean Euro VI engine emissions standard. We now have the largest electric bus fleet in Europe, and will introduce more zero-emission buses over the budget period as part of the Mayor's commitment to a fully zero emission bus fleet. We will also ensure that the vehicles in its support fleet are converted to Ultra Low Emission Vehicles, in line with commitments in the London Environment Strategy (LES) for vehicles in the GLA group fleet.
- 6.71 We will continue to assist taxi drivers in making the transition to cleaner vehicles, through de-licensing payments, new vehicle grants and providing the electric charging infrastructure to enable mass uptake, helping to reduce harmful NOx emissions from taxis. These taxis will support the introduction of Zero Emission Zones.
- 6.72 To support the growing number of Zero Emission Capable (ZEC) taxis, and the take-up of electric vehicles, we are continuing to invest in a network of Rapid Charge Points across London. Three hundred Rapid Charge Points will be installed by December 2020.
- 6.73 We will reduce our operational carbon emissions to meet the carbon budgets set out in the LES, through measures to improve energy efficiency and install new renewable generation on our estate. To meet the ambition of TfL rail services being zero carbon by 2030, we are reviewing our energy procurement strategy with a view to purchasing energy from new, renewable sources.
- 6.74 We will continue to support achievement of the Mayor's target for London to be at least 50% green cover by 2050, by incorporating green infrastructure into Healthy Streets schemes, and as part of the Liveable Neighbourhoods programme. We will seek to meet the MTS

requirement of a one per cent annual increase in street tree numbers on the Transport for London Road Network as part of maintenance activities on the network.

- 6.75 TfL supports the LES commitment to reduce single use plastic. Targets in this area have been added to our Head Office Catering and Operational Catering contracts. Wording to reduce single use plastic packaging has been included in our base environmental contract schedules. Reusable water bottles are part of the kit available to London Underground frontline station employees, and are set to replace all plastic cups in our stations. TfL is installing drinking water fountains at a number of its stations and will ensure water fountains will be included in future station upgrade projects.
- 6.76 TfL is currently in the later stages of arranging a new waste management contract for the Central London Zone. LES targets have been included in the contract requirements and the evaluation of bids.

Reserves

6.77 At 31 March 2020, our general reserves are expected to total £150.0m and are forecast to rise in 2020/21 to £500m and then remain constant at this level in each of the following financial years.

6.78 It is forecast that we will hold £1,131.2m of earmarked reserves at the close of 2020/21; these reserves will rise to £1,653.5m by the end of 2023/24. The expected movements in reserves over the planning period are set out in the following table.

6.79 Earmarked reserves have been established to finance future projects, consistent with TfL's approved Business Plan. We maintain a general fund to ensure liquidity and protect from short-term fluctuations in cash requirements.

6.80 The expected movements in reserves over the planning period are set out in the table below.

Movement in reserves during financial year	Outturn 2018/19 £m	Forecast 2019/20 £m	Budget 2020/21 £m	Plan 2021/22 £m	Plan 2022/23 £m	Plan 2023/24 £m
Opening balances	1,098.6	1,606.5	1,768.2	1,631.2	1,417.7	1,983.8
<i>Transfers to/from:</i>						
Earmarked reserves	507.9	161.7	(487.0)	(213.5)	566.1	169.7
General reserves	-	-	350.0	-	-	-
TfL closing balances	1,606.5	1,768.2	1,631.2	1,417.7	1,983.8	2,153.5

6.81 The expected total reserves at the end of each financial year are summarised in the following table. The unused earmarked reserves as at the end of 2023/24 include funding that was put aside for our Investment Programme.

Balance of reserves at end of financial year*	Outturn 2018/19 £m	Forecast 2019/20 £m	Budget 2020/21 £m	Plan 2021/22 £m	Plan 2022/23 £m	Plan 2023/24 £m
Earmarked reserves	1,456.5	1,618.2	1,131.2	917.7	1,483.8	1,653.5
General reserves	150.0	150.0	500.0	500.0	500.0	500.0
TfL closing balances	1,606.5	1,768.2	1,631.2	1,417.7	1,983.8	2,153.5

*The table is subject to change following the review of our reserve policy

Draft Capital Spending Plan and Borrowing Limits

Introduction

- 9.0 The Mayor is required to prepare a Capital Spending Plan every year for each of the GLA's functional bodies. Before issuing his final plan he is required to consult on a draft plan with the Assembly and each functional body under section 123 of the GLA Act. This section sets out the draft capital spending plan for consultation. Even though the statutory timetable for the submission of the Capital Spending Plan is different from the requirements for the revenue budget, the same timeframe is adopted to ease consultation. The Mayor is also required to set the borrowing limits for the GLA Group.
- 9.1 The Mayor's Budget Guidance for 2020/21 requires the submission of a 20-year Capital Strategy incorporating a 20-year Capital Investment Plan and 20-year Capital Funding Plan. The funding and expenditures in first five years of the plan are presented annually below and are balanced. Thereafter from 2023/24 onwards, the expenditures and funding is grouped into five-year 'buckets', showing a shortfall. The Capital Strategy is set out in Appendix C.
- 9.2 TfL is responsible for the planning, delivery and day-to-day operation of the Capital's public transport system, including London's buses, Underground and Overground, the Docklands Light Railway (DLR), Tramlink and London River Services. It is also responsible for managing the Congestion Charge, maintaining London's main roads and traffic lights, regulating taxis, making London's transport more accessible and promoting walking and cycling initiatives.
- 9.3 We have scrutinised all capital projects to see where costs can be reduced through value engineering, while continuing to deliver the outcomes required in full. We have also reviewed project timing to ensure the programme can be delivered.
- 9.4 The investment in this plan, aligned to the draft Mayor's Transport Strategy will increase the quality and capacity of public transport. Our work on upgrading the existing network will serve important Opportunity Areas and lead to more homes and jobs.

Draft Capital Spending Plan

Under Section 122 of the GLA Act (for consultation)

- 9.5 Set out below is a summary of the Mayor's Draft Capital Spending Plan for 2020/21 which sets out the capital funding sources for the Capital Spending Plan in line with the format required under section 122 of the GLA Act. Further details on the GLA and each functional body's draft plan are set out below. More details of the key deliverables are set out in this section under each member of the Group and in the relevant Appendices.

Section		2020/21 £m
A	Total external capital grants	1,165.5
	Opening balance of capital receipts	-
	Total capital receipts during the year	201.2
	Total capital grants/ receipts	1,366.7
B	Minimum s.120(1) grant	-
	Total borrowings during the year	1,351.8
	Total borrowings	-
	Total borrowings and credit arrangements	1,351.8
C	Total capital expenditure anticipated during the year	2,706.7
	Total credit arrangements	-
	Total capital spending for the year	2,706.7
D	Funding: capital grants	1,165.5
	Funding: capital receipts/reserves	189.4
	Funding: borrowings and credit arrangements	1,351.8
	Funding: revenue contributions incl. BRS	
	Total funding	2,706.7

- 9.6 TfL's Capital Spending Plan is fully funded and no new capital PFI/PPP schemes are reflected, other than those already committed.
- 9.7 Set out below is a summary of the TfL's draft Capital Plan to 2023/24 and how this is financed. This shows that our capital plan for 2020/21 remains broadly in line with our forecasted outturn for 2019/20.

Summary of the Capital Plan	Forecast 2019/20 £m	Budget 2020/21 £m	Plan 2021/22 £m	Plan 2022/23 £m	Plan 2023/24 £m
TfL	2,733.6	2,706.7	1,952.5	1,905.5	1,905.8

Table 3: TfL's Draft Capital plan

TfL's Capital plan	Forecast 2019/20 £m	Budget 2020/21 £m	Plan 2021/22 £m	Plan 2022/23 £m	Plan 2023/24 £m
Crossrail construction programme	1,054.8	625.6	-	-	-
Elizabeth line trains and enabling work	25.5	41.8	-	-	-
Line extensions *	214.0	163.3	95.7	14.9	20.0
Line upgrades **	353.8	405.7	489.4	587.8	700.9
London Underground enhancements	157.2	153.0	103.9	53.2	70.5
Buses enhancements	12.5	3.4	-	-	-
Streets enhancements	138.4	290.5	224.3	302.6	184.7
Rail enhancements	51.2	39.9	15.8	19.8	25.2
Other Surface operations enhancements	35.5	68.5	22.2	0.3	4.0
Corporate Projects enhancements	210.2	379.7	336.5	227.2	193.2
Renewals ***	479.9	535.3	664.7	699.6	707.2
Total capital expenditure	2,732.9	2,706.7	1,952.6	1,905.5	1,905.8
Funding:					
Capital Receipts	181.6	171.8	134.8	201.6	220.9
Retained Business Rates	893.0	910.0	930.2	950.8	1,071.8
Capital Grants	208.1	172.5	5.3	7.4	12.6
Borrowing	545.1	1,351.8	445.9	433.6	(108.8)
Crossrail Funding Sources	944.5	83.0	5.0	4.0	-
Crossrail Funding Sources - OSD	85.3	29.4	65.1	34.6	-
Revenue Contributions	174.0	42.0	148.9	758.3	1,004.0
Working Capital and Reserve Movements	(298.7)	(53.9)	217.3	(484.8)	(294.7)
Total funding	2,732.9	2,706.7	1,952.6	1,905.5	1,905.8

* Line extensions includes Northern Line Extension and Barking Riverside Extension

** Line upgrades includes Four Lines Modernisation, Piccadilly line rolling stock, Railway systems enhancements and Docklands Light Railway rolling stock

*** Renewals expenditure is necessary to ensure the continued safe operation of transport services

Key Deliverables

10.0 In line with the Mayor's transport strategy the investment outlined in this plan will enhance the capacity and quality of the public transport network to improve connectivity, boost economic productivity, make travel more accessible and inclusive and facilitate growth in jobs and homes. We will reduce the environmental impact of the transport network by cutting emissions and using less carbon, while becoming more resilient to climate change.

10.1 Total capital expenditure for 2020/21 will be £2,706.7m including the Crossrail construction programme. The key investment areas in 2020/21 include:

- Modernisation of Circle, District, Hammersmith and City and Metropolitan lines - £191m
- Elizabeth line (trains and enabling works) - £42m
- Major Station Upgrades including Bank - £91m
- Northern Line Extension - £129m
- Healthy Streets and Air Quality - £240m
- Barking Riverside extension - £33m
- Piccadilly line rolling stock - £127m
- Docklands Light Railway Fleet replacement - £82m

10.2 Key deliverables in our plan include:

- Completing the signalling upgrade and delivering improved timetabling on the Circle, Hammersmith & City, Metropolitan and District lines, as well as refurbished trains on the Central line and new, spacious state-of-the-art trains on the Piccadilly line. TfL will also continue to make the case for investment to replace the life-expired signalling system on the Piccadilly line, which it had to reconsider last year owing to funding constraints. It remains TfL's intention to press ahead with this essential renewal as soon as the finances are available.
- Begin station fit-out on the Northern line extension programme, and complete the upgrade of Bank station
- Progressing the highly skilled and technical work required to allow for the Elizabeth line to open. From Sunday 15 December TfL Rail will begin running services to Reading from Paddington, with direct services between Heathrow from Paddington beginning in Spring 2020. The central section of the Elizabeth line will undergo extensive trial running and testing to ensure it is safe and reliable from early 2020 and will open as soon as practically possible in 2021.
- Developing and leading on initiatives to reduce TfL's environmental impact, such as installing new solar panels, which will deliver up to 1.1 megawatts of power, and continue retrofitting lighting across the TfL network to energy-efficient LEDs. TfL will also be

increasing the amount of low-carbon energy supplied to its infrastructure so that more comes from renewable energy sources.

- Helping to clean up London's toxic air quality by tightening the Low Emission Zone standards in October 2020 and, in October 2021, expanding the ULEZ - the toughest air quality standard of any city in the world - to cover all roads within the North and South Circular.
- Introducing new trains on the London Overground and progressing plans for new trains on the DLR, which will increase capacity and support jobs and homes
- Continuing construction on the Barking Riverside extension, a 4.5km extension to the Gospel Oak to Barking line that will serve one of East London's largest new housing developments. Services on the new line will commence in 2021
- Developing plans to introduce new trams to keep the network safe and reliable
- Work with the City of London and London boroughs on roads and assets and support Vision Zero
- Complete construction at Old Street Roundabout in 2020 and start work at Waterloo Roundabout to improve safety for people who walk and cycle, and create more space to enable easy interchange on to public
- Continue to progress plans to improve Wandsworth town centre and remove traffic-dominated one-way systems at Vauxhall Cross and Stoke Newington
- Continue to expand the network of quality cycle routes and are on track to deliver more than 150km of protected cycling space by May 2020
- Restart our proactive road renewals from 2021, including works to carriageways, footways, traffic signals, lighting, bridges, tunnels and drainage. In 2020, we plan to resurface more than 30km of road, replace more than 2,000 streetlights with energy efficient LEDs, modernise around 300 traffic signal sites and replace the expansion joints and waterproofing on Vauxhall Bridge. We are also starting a multi-year programme of renewal works on the Westway (A40) and developing plans to refurbish Rotherhithe Tunnel.
- Increased focus on keeping the London Underground network safe and reliable. This plan establishes a critical level of spend for our renewals plus asset replacement as part of our modernisation work. Continue our investment in renewals to maintain safety and reliability on the London Underground network.

- Progress step-free access schemes across the London Underground network towards delivering 15 new step-free stations by 2020
- Delivering 10,000 homes, as well as two million sq ft of commercial floor space, across London. By the end of this business plan, work on all these sites will have begun and, working with its partners, TfL will continue to achieve its target of 50 per cent of the homes being affordable.
- Continuing to make the case for future transport infrastructure across London to help support the future growth of the city, such as Crossrail 2 and the Bakerloo Line Extension. Delivering these vital schemes would unlock hundreds of thousands of new homes and lead to lower congestion, cleaner air, better health outcomes, a more prosperous economy and real progress towards carbon neutrality.

10.3 Our capital spending is financed from six main sources:

- Fares and ticket income;
- Charges under the Congestion Charging Scheme;
- Secondary revenue (such as advertising and property rentals);
- Third party funding for specific projects, such as the Home Office's contributions towards the Emergency Services Network project;
- Surplus revenue resource from the capital grant funding through the business rates devolution
- Prudential borrowing and related financing (including bond issuances)

Our long term Capital Strategy is presented in detail in Appendix C.

Appendix A

Table 1: TfL - Subjective analysis

TfL Subjective analysis	Revised Budget 2019/20 £m	Forecast 2019/20 £m	Budget 2020/21 £m	Plan 2021/22 £m	Plan 2022/23 £m	Plan 2023/24 £m
Income						
Passenger Revenue	(4,855.5)	(4,970.4)	(5,123.5)	(5,412.1)	(5,965.9)	(6,413.5)
Congestion Charging	(221.1)	(261.0)	(255.0)	(311.5)	(371.6)	(362.3)
Media Income	(153.7)	(153.5)	(159.8)	(161.4)	(170.0)	(181.3)
Rental Income	(96.2)	(96.2)	(115.0)	(133.5)	(146.7)	(159.8)
Elizabeth line regulatory	(29.8)	-	(26.7)	(190.1)	(391.4)	(404.0)
Other Income	(549.2)	(495.9)	(488.3)	(559.4)	(519.3)	(610.3)
Total Income	(5,905.5)	(5,976.9)	(6,168.2)	(6,767.8)	(7,564.8)	(8,131.3)
Operating Expenditure						
Employee Expenses	2,184.4	1,974.4	2,156.0	2,172.9	2,254.4	2,241.0
Premises	305.1	288.7	297.3	327.5	347.2	356.0
Bus Contract Payments	2,020.3	2,022.8	2,063.5	2,112.3	2,153.8	2,212.0
CCS Income and other road contracted services	377.9	301.8	349.1	330.6	333.3	318.3
Asset Maintenance and Local Authority Payments	556.1	479.9	577.1	538.1	553.9	553.5
Professional and consultancy fees	145.9	139.8	121.6	121.4	121.7	119.7
Franchise Payments	511.5	499.9	512.7	544.8	585.2	613.7
Elizabeth line regulatory	29.8	-	26.7	190.1	391.4	404.0
Information and Communication Technology	242.8	229.8	202.9	187.2	187.8	193.9
Traction Current	136.3	133.3	151.2	171.9	188.2	209.9
Other operating expenses	486.2	544.6	405.2	620.0	409.8	566.4

Subjective analysis	Revised Budget 2019/20 £m	Forecast 2019/20 £m	Budget 2020/21 £m	Plan 2021/22 £m	Plan 2022/23 £m	Plan 2023/24 £m
Capital resources and other recharges	(317.6)	(295.7)	(335.5)	(390.2)	(402.8)	(409.3)
Bad debt provision	101.1	99.0	90.3	137.4	125.5	112.7
Total Operating Expenditure	6,779.8	6,418.8	6,618.3	7,064.3	7,249.3	7,491.9
Net Operating Expenditure	874.3	441.9	450.1	296.4	(315.6)	(639.4)
Net financing costs	473.7	451.7	487.1	551.4	571.8	568.2
Revenue resources used to support capital investment	-	174.0	42.0	148.9	758.3	1,004.0
Financing Requirement	1,348.0	1,067.6	979.3	996.7	1,014.6	932.8
Specific grants	105.0	107.3	5.0	5.2	5.3	5.4
Retained Business Rates	1,237.0	954.3	968.2	985.6	1,003.3	921.4
Council tax requirement	6.0	6.0	6.0	6.0	6.0	6.0

Table 2: TfL - Capital financing costs

Capital financing costs	Budget 2020/21 £m	Plan 2021/22 £m	Plan 2022/23 £m	Plan 2023/24 £m
Provision for repayment of debt	26.3	26.3	26.3	26.3
External interest	495.4	556.1	575.4	568.2
Total	521.7	582.4	601.7	594.5

Prudential borrowing

The TfL Board approves prudent treasury strategies and policies that have regard to the principles of the Code of Practice and Cross-Sectoral Guidance Notes for Treasury Management in the Public Services (the “Treasury Management Code”) and the Prudential Code for Capital Finance in Local Authorities (the “Prudential Code”) both issued by the Chartered Institute of Public Finance and Accountancy (CIPFA) and last updated in 2017. The strategies and policies also have regard to the Statutory Guidance on Local Authority Investments (the “Investments Guidance issued by the Department for Communities and Local Government (MHCLG) and last updated in March 2018.

Borrowing is undertaken within prudent limits set out in our funding agreement with central Government and approved by our Board and the Mayor. The maximum amounts of borrowing in each financial year are set out in the tables below. We constantly assess our financial position and will only borrow where it is prudent and affordable to do so.

We borrow from a variety of sources, with consideration given to the cost of borrowing, market conditions and the level of flexibility offered. These sources include:

- The Public Works Loan Board
- A £5bn Medium Term Note programme
- A £2bn Commercial Paper programme
- The European Investment Bank and Export Development Canada, with loans linked to specific infrastructure projects
- Finance leasing arrangements, used for specific assets such as rolling stock
- Bank loans, including a £200m bank overdraft facility that is in place to provide contingency liquidity

We also have a £750m loan facility from the Department for Transport to support the completion of the Crossrail project. We are currently assuming that we will draw the full amount in 2020/21.

Access to new loan facilities from the European Investment Bank will be considered in the context of the UK leaving the European Union. We believe our proposed levels of borrowing remain affordable and consistent with prudent financial management.

Annual Minimum Revenue Provision (MRP)

As we have a legal requirement to produce a balanced budget (and this approach had been extended to the full Business Plan), the cost of debt service is taken account of in determining whether the budget and business plans are in balance.

The significant majority of our borrowings are passed down to its subsidiaries, where they are used to fund capital expenditure in the year they are drawn down. As the assets funded by these borrowings come into use and are depreciated, revenue grant is passed down by the Corporation

to fund that element of the annual depreciation expense that is not already covered by other sources of revenue within the respective subsidiary. The revenue grant passed down is charged against the Corporation's General Fund Reserve and hence acts as a proxy for MRP.

For the debt used to finance capital expenditure within the Corporation, an Annual MRP is made. This has been calculated to build up a provision over the average expected useful economic life of the assets funded. This has been calculated at 35 years.

Borrowing Limits

The tables below set out the proposed borrowing limits over the period having regard to proposed capital spending plan, and have been prepared with reference to the requirement of the Prudential Code, including providing calculations of the prudential indicators.

Table 3: TfL - Authorised limit for external debt

Authorised limit for external debt	Current Approval 2019/20 £m	Revised Approval 2019/20 £m	Proposed 2020/21 £m	Proposed 2021/22 £m	Proposed 2022/23 £m	Proposed 2023/24 £m
Borrowing	13,494.0	13,449.3	14,029.3	14,529.3	15,029.3	15,026.6
Long term liabilities	409.4	408.7	415.8	389.3	363.1	313.9
TfL closing balances	13,903.4	13,858.0	14,445.1	14,918.6	15,392.4	15,340.5

Table 4: TfL - Operational limit for external debt

Operational limit for external debt	Current Approval 2019/20 £m	Revised Approval 2019/20 £m	Proposed 2020/21 £m	Proposed 2021/22 £m	Proposed 2022/23 £m	Proposed 2023/24 £m
Borrowing	12,113.0	11,812.3	13,164.3	13,608.3	14,039.3	13,926.6
Long term liabilities	640.4	639.7	600.9	510.8	510.8	461.6
TfL closing balances	12,753.4	12,452.0	13,765.2	14,119.1	14,550.1	14,388.2

Appendix B

GLA Group Four-Year Efficiency Plan

Savings and efficiencies across the GLA Group

The total savings and efficiencies to 2023/24 which have been identified across the Group are summarised below. The figures are presented on an incremental basis and do not include any savings still to be identified.

Savings and efficiencies	2019/20	2020/21	2021/22	2022/23	2023/24
	£m	£m	£m	£m	£m
TfL	207.0	133.4	89.8	121.4	86.5

Appendix C: TfL Capital Strategy

Intention

- 1.0 The Prudential Code 2017 requires all local authorities including TfL to prepare and publish a Capital Strategy. This 2019 Capital Strategy updates TfL's first Capital Strategy produced last year.
- 1.1 The Capital Strategy is produced in the financial context described in TfL's draft 2019 Business Plan. It remains important that, while we address our immediate priorities to generate an operating surplus and complete Crossrail, we continue to look ahead and identify what investment is needed to renew and improve the transport network to support the growth of London and the UK – and how that investment can be funded.
- 1.2 Our Capital Strategy sets out the steady and sustained investment required to ensure London remains a competitive global city by unleashing capacity, connectivity and cleaner air quality, as set out in the Mayor's Transport Strategy (MTS). The MTS, published in 2018, aims to reduce Londoners' dependency on cars in favour of active, efficient and sustainable modes of travel, with the central aim for 80 per cent of all trips in London to be made on foot, by cycle or using public transport by 2041. This Capital Strategy covers the majority of this period.
- 1.3 We continue to make the case to Government for confirmed capital funding to support the level of investment described here. We are unable to commit to long term projects without long term certainty of funding, which we do not currently have. This has meant we have had to discontinue procurement for large-scale investment programmes such as replacing the Piccadilly line's life-expired signalling system.
- 1.4 The Capital Strategy forms part of TfL's business planning process and is based on a number of assumptions including the likely cost of the future capital programme and expectations in terms of funding. As estimates continue to evolve these assumptions will be refined and the Capital Strategy will be reviewed and developed year on year.

Benefits

- 2.0 Our Capital Strategy enables clearer and more transparent long-term decisions to be made on the investment needs of London. Many transport schemes take a long time to develop and deliver: for example Crossrail was first proposed in the 1970s, but is only now nearing its final delivery. A long term view is critical to ensure enhancements to London's transport network are delivered when they are needed.
- 2.1 Our Capital Strategy sets out a pipeline of investment for 20 years. Giving clear sight of our investment aspirations over this period, subject to funding, is useful for a variety of audiences,

including customers, London's businesses and our supply chain, who will be able to resource accordingly to meet the demand for construction in London.

- 2.2 Investment in transport infrastructure benefits many different groups, and it is appropriate that the funding packages for these investments reflect these various beneficiaries. These beneficiaries range from central government, through increased taxation on economic activity and property, all the way to local businesses and residents, who most directly benefit from improved transport links. Formulating full funding packages for large schemes is complex and takes time, as was the case with Crossrail, the Northern line extension and the Barking Riverside extension. This Capital Strategy identifies schemes that require such funding packages and discusses some options for funding them. Developing this work further will help to ensure such schemes are funded in a fair and sustainable way.
- 2.3 It is not possible to commit to long-term projects unless and until there is long-term funding available to ensure they can be completed. Therefore a lack of certainty of funding can delay the commencement of essential improvements. A key benefit of the Capital Strategy is that it enables these funding requirements to be identified in sufficient time for them to be addressed.

Approach and Updates in 2019

- 3.0 Our Capital Strategy reflects the MTS and the Mayor's policy priorities including the need to run services safely and reliably.
- 3.1 This strategy builds on the 2018 Capital Strategy, which was approved by the TfL Board in March 2019. That strategy was based on work for the development of the MTS and the National Infrastructure Commission's National Infrastructure Assessment, and set out our view of the capital costs necessary to deliver the current MTS through the 2020s and 2030s.
- 3.2 This year's strategy is an evolution of last year's. It continues with the same objectives to progress the Mayor's vision for a growing and healthier city. A significant focus for this year has been building a more granular understanding of our 'baseline' level of investment. This is defined as the investment required to maintain our current level of performance in terms of safety, reliability, capacity and asset condition.
- 3.3 It is vital that we have a thorough understanding of our baseline so we can evaluate our ongoing financial requirements, and therefore assess the affordability of enhancements and additions to our network that support growth beyond maintaining today's performance.
- 3.4 In last year's Capital Strategy, baseline costs were split between categories for renewals and line upgrades. This year we have separated line upgrades into their baseline element – replacing life-expired rolling stock and signalling assets – and true upgrade elements that improve on existing levels of capacity. We have assessed our baseline requirements across all elements of

our business, and estimate that it will require an average of around £2.2bn per year in outturn prices of investment beyond our business plan (£1.4bn in constant 2019/20 prices).

- 3.5 TfL remains committed to covering the cost of renewals through operating revenue from 2022/23 onwards, and over the 15 years beyond our business plan of this strategy we estimate that baseline renewals will average £1.3bn per year in outturn prices (£0.6bn in constant 2019/20 prices).
- 3.6 The remaining baseline on top of this (for replacement of rolling stock and signalling) will average £0.9bn per year in outturn prices (£0.6bn in constant 2019/20 prices) and requires separate funding to maintain today's level of performance, before any investment to improve and grow the network is possible.
- 3.7 As well as our articulation of our baseline this year, other significant updates since the 2018 Strategy include updating costs and timelines to reflect current project and programme estimates, including the latest cost forecast for Crossrail 2 and recent decisions on the scope of the Rotherhithe to Canary Wharf crossing. Forecasts of future inflation as well as risk allowances have been updated. Funding assumptions have been validated and have changed relatively little in the past year. However, these funding assumptions are subject to outcomes of future Spending Reviews following the one-year funding settlement announced in September 2019, and remain an area of particular uncertainty.

Influences

- 4.0 Our Capital Strategy is directly influenced by:
- our near-term delivery plans and financial position, as set out in our Business Plan
 - the condition and lifecycle of our asset base
 - underlying travel trends in London, as analysed in documents such as our annual Travel in London report
 - the Mayor's statutory policies for London, including the MTS, the draft London Plan and the London Environment Strategy
 - the UK's infrastructure requirements, as set out in the National Infrastructure Assessment
- 4.1 Our Capital Strategy will be directly or indirectly influenced over time by:
- central government policy, in areas such as direct infrastructure funding and devolution
 - external events with the potential to impact on the national economy, London's growth and/or our financial position, such as the UK's exit from the European Union
 - the Mayor's future decisions on allocation of devolved business rates to functional bodies of the Greater London Authority

Policies

- 5.0 Our Capital Strategy is fully aligned to the Mayor's policies, as are the MTS and Business Plan on which the Capital Strategy is based.
- 5.1 We acknowledge that any activity in delivering the Capital Strategy will be executed within the parameters of statutory frameworks and Board approved policies. The most important of these policies and frameworks are outlined here.
- 5.2 In adherence with the Prudential Code for Capital Finance in Local Authorities (the 'Prudential Code') issued by CIPFA and last updated in 2017, the Capital Strategy references key principles underpinning our approval and governance processes for capital expenditure, commercial activity (including long term liabilities) and treasury management. For detailed aspects, the documents referenced below and TfL Standing Orders are published on our website.
- 5.3 Capital spend on transport infrastructure and commercial/investment activity is budgeted for and included in the TfL Group Budget and TfL Business Plan, both of which are produced annually and approved by the Board (or, under delegation, the Finance Committee). The TfL Business Plan outlines the medium-term plan that aligns to delivery of the overall MTS, whereas the TfL Group Budget sets out the more detailed, near-term target.
- 5.4 TfL's Business Plan is a balanced plan, integrating capital spend inclusive of commercial activity and investment strategies with the financing strategy for planned expenditure. The approved TfL Business Plan encompasses a complete forecasted balance sheet including reserve positions, demonstrating that the capital and financing strategy is prudent and affordable – principles advocated within the Prudential Code.
- 5.5 TfL's Group Budget and TfL's Business Plan are produced reflecting the Treasury Management Strategy (TMS), which is updated at least annually and considered by the Finance Committee prior to submission to the Board for final approval.
- 5.6 TfL's treasury management is directed and governed by the TMS comprising the Investment Strategy, Borrowing Strategy, Liquidity Strategy, Risk Management Strategy and Counterparty Exposure Limits. The TMS is implemented, operated and administered in accordance with the Board approved Treasury Management Policies and the TfL Group Policy Relating to the Use of Derivative Investments.
- 5.7 Within year, unbudgeted activity is monitored by various means and is explicitly captured through monitoring of the Prudential Indicators which are aligned to the TfL Group Budget and TfL Business Plan, and define an operational boundary and authorisation limit of external borrowings including long-term liabilities for the following year. The Prudential Indicators set an expected estimate of capital financing costs and capital expenditure for the following year. The Prudential Indicators are considered by the Finance Committee prior to submission to the Board for final approval annually.

- 5.8 Financial guarantees granted by TfL are subject to approval by the Chief Finance Officer or higher authority according to the approvals matrix set out in TfL Standing Orders. Under section 161 of the Greater London Authority Act 1999, details of all financial guarantees so granted are disclosed annually in TfL's Annual Report and Financial Statements.
- 5.9 Outturn performance against the Board approved Prudential Indicators is presented to the Finance Committee who also monitor treasury management, by verifying the TMS has been implemented and administered appropriately, and are responsible for regular in-year monitoring of outturn performance against the TfL Budget and Business Plan.

Financial Investment Strategy

- 6.0 TfL maintains a low risk appetite consistent with the good stewardship of public funds, the overriding principle being the prioritisation of security before liquidity and liquidity before yield.
- 6.1 TfL considers the risk of its overall portfolio as well as individual investments, seeking to diversify its investments and has regard to the exposure to any one counterparty, country, industry, investment type, and credit. TfL targets allocating a portion of the portfolio across sovereign exposures, government agencies, financial institutions, and corporate instruments, subject to investments available at the time.
- 6.2 TfL has regard to expected cash flow requirements and maintains an investment portfolio with a range of maturities (an investment can have a maximum tenor of one year).
- 6.3 TfL seeks to achieve year-to-date returns greater than the year-to-date average benchmark of the seven day London Interbank Bid Rate (LIBID), which is widely regarded as the appropriate benchmark for short-term cash investments and is used by professional investors such as Money Market Funds.

Borrowing Strategy

- 7.0 TfL's objective is to manage its borrowing in a manner that is affordable, sustainable and prudent, combining flexibility, security of access to funds, diversity of funding sources and value for money.
- 7.1 TfL's annual borrowing requirement is driven by the financing requirement of its capital investment programme, the refinancing of its maturing debt and its overall financial position. TfL plans to raise incremental borrowing in each year to 2022/23, supported by increases in the operating surplus. In future years, additional borrowing is only an option where the capital spend results in an increase in future operating surplus that can service the operating and financing costs, as discussed in the Ambition Gap section below.
- 7.2 In addition to the Public Works Loan Board (or any future body replacing it) being a readily available source to raise funds, TfL seeks to achieve its borrowing objectives by maintaining access to capital markets and complementing this with loans and other facilities from financial institutions where appropriate.
- 7.3 The annual increase in total outstanding borrowing is within incremental borrowing limits agreed with central government up to 2020/21. Borrowing beyond this is yet to be agreed. The total value of outstanding borrowing and other long-term liabilities is maintained within an Authorised Limit agreed by the Mayor and approved annually by the Board (as required by the Local Government Act 2003) through a separate Prudential Indicators document.
- 7.4 The TMS sets a limit on the level of variable debt exposure acceptable to TfL. As debt service represents a relatively significant part of TfL's annual expenditure, a high level of certainty over the interest payment amounts is desirable to meet the balanced budget requirement.
- 7.5 Recent revisions to accounting rules may impact on the Capital Strategy by changing how leases are accounted for. The implementation of IFRS 16 will require recognition of a "right-of-use asset" and a related liability in respect of assets leased under operating leases. This is expected to result in the recognition of additional assets and financing liabilities as at 31 March 2020 of c.£2-£2.5bn. It is possible that TfL may take responsibility for additional National Rail services in the future, and it is likely that rolling stock on these lines would also be leased. We have not made allowance here for any balance sheet impact of potential future leases such as these, and any such change would be subject to negotiations relating to the devolution of rail services.

20-Year Capital Ambition

- 8.0 Our Capital Ambition is to meet our baseline requirement – maintaining our current level of performance – while also investing to improve London’s transport and meet the ambitious goals of the MTS.
- 8.1 We estimate that to meet our baseline would require an average spend of £2.2bn per year in outturn prices (£1.4bn in constant 2019/20 prices), which is nearly half of the total capital requirement, excluding Crossrail 2, of on average £4.5bn per year in outturn prices (£2.8bn in constant 2019/20 prices) to support London’s growth and achieve the outcomes in the MTS. This £4.5bn per year in outturn prices (£2.8bn in constant 2019/20 prices), of new capital investment is more than double our current level of expenditure, although part of this difference is attributable to inflation.
- 8.2 This assessment of the investment need of London’s transport infrastructure is based on the same logic as our 2018 submission to the National Infrastructure Commission’s (NIC’s) National Infrastructure Assessment (NIA). The NIC supported our vision for the future of London’s transport and re-emphasised the need for steady and sustained investment in the capital. The investment activity and financial requirement in the 2020s outlined here is comparable to that proposed for TfL in the published NIA, updated for latest assumptions.

Our forecast of required capital investment is made up of the following sections:

Baseline Renewals: £1.3bn per year in outturn prices (£0.8bn in constant 2019/20 prices)

- 9.0 Capital renewals cover our ongoing investment in our existing asset base to maintain its condition and performance. This covers assets ranging from London Underground track to highways structures and technology systems. Importantly, it does not include replacement of our rolling stock and signalling systems, as these are more discrete, long-term investments that we categorise separately.
- 9.1 We continually assess asset condition to ensure we can maintain safe and reliable services. The level of renewals planned over the period of the Capital Strategy is higher than the average of our five-year draft Business Plan, reflecting a growing asset base, a return to proactive road renewals and the inclusion of spend to maintain our desired higher levels of asset condition and reliability.
- 9.2 Investing in maintaining the condition of our assets is crucial to the long-term sustainability of London’s transport network. It supports the high standards of safety and reliability that we must deliver, as well as enabling the best whole-life cost for maintaining assets to be achieved. Failing to renew assets in an efficient way leads to more maintenance and higher costs in the long-term for emergency works and sub-optimal repairs.

Line Upgrades: £1.2bn per year in outturn prices (£0.7bn in constant 2019/20 prices)

- 9.3 This year we have separated line upgrades into their baseline element – replacing life-expired rolling stock and signalling assets – and true upgrade elements that improve on existing levels of capacity.

Baseline - Replacement of Rolling Stock and Signalling: £0.9bn per year in outturn prices (£0.6bn in constant 2019/20 prices)

- 9.4 Across our rail services, TfL owns more than 800 trains, as well as signalling systems across each service and line. Trains have a design life of between 30 and 40 years after which replacement is needed, although in some cases it is possible to extend this life depending on asset condition. Like trains, signalling systems also degrade over time and require replacing when the costs of maintaining them are no longer efficient compared to the costs and benefits of replacing them.
- 9.5 Investment in replacing rolling stock and signalling is a necessity for TfL to maintain today's level of performance. We have therefore separated out this new baseline category this year to make clear what our ongoing investment need is to maintain the service that we operate today, before the investments required to improve the service that are outlined in the MTS.
- 9.6 When TfL replaces life-expired assets, the new rolling stock and signalling typically provide much greater functionality than the older assets being replaced. This category assumes that we replace our assets with modern equivalents – which would be expected to perform at a higher level than the assets they are replacing, some of which date back to the 1970s or earlier.
- 9.7 Included in this category are costs for replacement of all current rolling stock on the Piccadilly, Bakerloo, Central and Waterloo & City lines. We also include costs for the beginning of fleet replacements on the Jubilee and Northern lines, although we expect these programmes to continue beyond the 20-year period covered here. Costs are also included for replacement of all current rolling stock on the DLR and London Trams. Rolling stock for London Overground and the Elizabeth line is leased and not owned by TfL, and is not expected to require replacing within the next 20 years, so is not included here.
- 9.8 Enabling costs that will be necessary to accommodate new trains on our network, for example work on depots, track, power supply, cooling networks and stations, are also included in this category, as without such interventions it will not be possible to replace ageing fleets with modern equivalent rolling stock.
- 9.9 For signalling, costs are included for replacement systems on the Piccadilly and Central lines. The Piccadilly line signalling is life-expired and is our next priority in our upgrade programme. However, the lack of long-term certainty of funding means we are currently unable to commit to long-term and large-scale investment programmes such as these. Costs for a new

signalling system on the Bakerloo line, which would be required to support the proposed extension of that line, are included in the Bakerloo line extension project (see Line extensions).

Line Upgrades – Capacity Improvements: £0.2bn per year in outturn prices (£0.1bn in constant 2019/20 prices)

- 9.10 This section includes the costs of line upgrades over and above the costs for direct replacements captured above. This includes the incremental cost of increasing fleet size when an old fleet is replaced.
- 9.11 Line upgrades included in this section relate to most of the fleet replacements described in the previous section, including on the Piccadilly, Central, Jubilee and Northern lines. In addition, costs are included to increase the frequency of Elizabeth line services as demand increases over time.

Enhancements: £0.9bn per year in outturn prices (£0.6bn in constant 2019/20 prices)

- 9.12 As well as maintaining the service performance we provide today, we need to improve London's transport network to support future housing and jobs growth, and ensure its continued competitiveness as a world-leading city for living, working and visiting. The Enhancements category includes hundreds of investment priorities that are required to deliver the range of improvements set out in the MTS. This includes progressing towards London's ambitious goal of mode shift to walking, cycling and public transport; our Vision Zero ambition to eliminate death and serious injury from London's roads and our aim to make London's transport network zero-carbon by 2050.
- 9.13 Progressing towards these goals over the next 20 years will require extensive enhancements to our network. This includes increasing capacity and providing step-free access at London Underground stations; upgrades that would provide a modern, metro-style service across London's suburban rail network; continuing high levels of capital investment on London's streets to enable more walking and cycling and deliver new bus priority schemes; and a comprehensive programme of environmental and air quality initiatives to build on the Ultra Low Emission Zone to support the transition to cleaner vehicles across London. Improving the transport network will also require investment in our technology to increase productivity and meet customer expectations.
- 9.14 As well as the capital investment included in this section, it is expected that TfL will continue to contribute to improvements on London's street network through its operating account, which funds work on borough roads through the Local Implementation Plans. As TfL cannot capitalise such costs due to them occurring on non-TfL assets, these sums are not included here. It is important that a fair funding model for such streets improvements is identified to enable TfL to continue to support such improvements.

Line Extensions: £1.1bn per year in outturn prices (£0.8bn in constant 2019/20 prices)

- 9.15 This category covers new-build rail schemes to extend existing lines or build completely new routes. We are developing several such schemes that will relieve crowding on the existing network and stimulate development in opportunity areas.
- 9.16 The schemes included here are the Northern line extension to Battersea Power Station, the Bakerloo line extension to Lewisham and potentially beyond, a DLR extension to Thamesmead, a new Tram route in Sutton and Overground extensions to Barking Riverside and as a West London Orbital.
- 9.17 Many of these schemes would be likely to be delivered in cooperation with other organisations such as the London boroughs, but we have included the full estimated capital cost of each scheme at this stage. The capital strategy contains our best estimate of TfL's capital contribution to such schemes but figures may vary when these schemes proceed to delivery.

Crossrail 2: £2.7bn per year in outturn prices (£1.6bn in constant 2019/20 prices)

- 9.18 Crossrail 2 is a new railway that would link national services in Surrey and Hertfordshire with the Underground network via a tunnel under central London. It would transform capacity and connectivity across London and the South East, thereby relieving overcrowded lines and stations and opening up more opportunities to people. It would support hundreds of thousands of new jobs and homes and boost the national economy.
- 9.19 We include in this Capital Strategy the costs of the scheme as identified in its most recent Strategic Outline Business Case.

20-Year Capital Investment Plan

All projects included in the Capital Ambition are included within the Capital Investment Plan.

- 9.20 While the MTS deliverables are clear, it is not always possible to be precise about the exact schemes being undertaken, particularly towards the later years of the Capital Strategy. Where specific projects and cost estimates are not available, costs have been included based on appropriate comparator projects. This means the costs outlined in this Capital Investment Plan are not precise and will be expected to change over time.
- 9.21 Work is underway to identify funding packages for the line extension schemes included here. If and when funding is identified, it may be possible to spend more on these schemes in the next five years than is currently identified in our draft Business Plan. The figures in this Capital Strategy beyond the first five years assume that projects proceed to their current aspirational dates – but this will in some cases require these funding packages to be agreed and additional

enabling money spend within the Business Plan period. If this is not the case, project timelines may have to change.

20-Year Capital Funding Plan

Funding Baseline Renewals:

- 10.0 From 2022/23 we will break even on our operating account, including capital renewals, subject to continuing levels of retained business rates or equivalent funding. Operating revenue will therefore fund our renewals. We plan to continue this every year following the end of our current five-year Business Plan.

Funding Baseline Replacement of Rolling Stock and Signalling, Line Upgrades and Enhancements:

- 10.1 This tranche of our investment programme contains the largest number of schemes, including all Healthy Streets investment and much of our London Underground and Rail investment. It includes the replacement of life-expired rolling stock and signalling assets – part of our baseline requirement to maintain our current performance levels.
- 10.2 The main funding source for these enhancements is the capital element of retained business rates (formerly paid as an Investment Grant direct from central government). This is insufficient to cover all investment included here, particularly given the need to replace rolling stock on the Bakerloo, Central, Waterloo & City, Jubilee and Northern lines rolling stock dating back to the 1970s and signalling in some cases even older. Delivering all of the investments London needs to replace and upgrade its existing infrastructure will require further funding beyond that currently identified.

Possible funding sources to meet this requirement are considered in the next section.

Funding Line Extensions and New Routes:

- 10.3 New routes and line extensions not only improve transport but also stimulate a step change in development in the areas they run through, and they are of particular strategic importance to the future of London and the wider South East. Due to their size, complexity and expense, they require bespoke funding and delivery plans, as was the case for Crossrail 1 and the Northern line extension.
- 10.4 Sources of funding for these projects could range from central government investment grant through to devolved income streams, contributions from developers and other forms of land value capture. Elements of some projects would be expected to be delivered by bodies other than TfL, including Network Rail.

- 10.5 Given the early stages of development of these schemes, it is natural that their funding packages have not yet been fully agreed. This Capital Strategy includes funding where sources have already been identified and are reasonably certain. Possible funding sources for additional funding requirements are considered in the next section.
- 10.6 We are not including any provision for borrowing in this Capital Funding Plan beyond the first five years. Our assumption at this stage is that all existing borrowing will be able to be refinanced, but no further incremental borrowing is included. This issue is discussed further in the next section.

The combined Capital Investment Plan and Capital Funding Plan are presented in Table I.

Table 1: Capital Investment and Funding (in outturn prices)

TfL Capital Strategy	Budget	Plan	Plan	Plan	Total
	2019/20 to 2023/24 £bn	2024/25 to 2028/29 £bn	2029/30 to 2033/34 £bn	2034/35 to 2038/39 £bn	Yrs 6-20 £bn
Capital investment					
Extensions to Network:	(2.3)	(7.3)	(8.4)	(1.1)	(16.7)
Crossrail 1	(1.7)	-	-	-	-
Line extensions	(0.5)	(7.3)	(8.4)	(1.1)	(16.7)
Enhancements	(3.4)	(4.3)	(4.4)	(5.2)	(13.8)
Line Upgrades	(2.5)	(5.6)	(4.7)	(7.3)	(17.6)
Renewals	(3.0)	(5.0)	(6.7)	(7.6)	(19.4)
Total capital expenditure	(11.2)	(22.2)	(24.2)	(21.2)	(67.5)
Funding					
Capital Receipts	0.9	0.2	-	-	0.2
Retained Business Rates	4.8	5.7	6.3	6.9	18.9
Revenue Contributions	2.1	5.0	6.8	7.8	19.7
Borrowing	2.2	0.0	-	-	0.0
Working Capital and Reserve movements	(0.9)	-	-	-	-
Capital Grants	0.4	0.0	-	-	0.0
Crossrail 1 Loan	0.5	(0.4)	(0.2)	-	(0.6)
Crossrail 1 Funding Sources	1.3	0.1	-	-	0.1
Total funding	11.2	10.6	12.9	14.7	38.3
Overall additional funding required	-	(11.6)	(11.2)	(6.5)	(29.3)
Total Crossrail 2 Capital Expenditure	-	(2.9)	(18.1)	(20.3)	(41.2)
<i>Grant - CR2 (50% DfT contribution)</i>	-	1.4	10.1	9.4	20.9
<i>Potential devolved and third party funding sources</i>	-	-	0.8	1.1	1.9
Total CR funding	-	1.4	10.9	10.5	22.8
Overall additional CR2 funding required	-	(1.4)	(7.2)	(9.8)	(18.4)

Ambition Gap

- 11.0 Our draft Business Plan is fully balanced in the first five years, reflecting the greater certainty of funding over this period and the difficult decisions we have taken to defer important investments.
- 11.1 Our total estimated capital spend requirement for the fifteen years from 2024/25 is £108.7bn, of which Crossrail 2 costs are £41.2bn. This represents an average spending need of £7.2bn every year from 2024/25 onwards, of which £2.7bn for Crossrail 2.
- 11.2 The total shortfall between the spending need and the likely level of resources is £47.7bn, an average of £3.2bn per annum from 2024/25 onwards, of which £1.2bn per annum relates to Crossrail 2.
- 11.3 TfL's main funding source for investment is the capital element of retained business rates (formerly paid as an Investment Grant direct from central government). This is insufficient to cover all investment included here, particularly given the need to meet our baseline investment need on the investment in new rolling stock and signaling while also investing to improve and expand our network. Delivering all of the investments London needs (except for Crossrail 2) to replace and upgrade its infrastructure will require on average a further £2bn per annum.
- 11.4 Various mechanisms exist for raising this additional funding, including:
- **Further government support beyond the current business rates arrangements:** This could include a larger allocation to London, reflecting its contribution to the national economy, and/or a longer-term settlement enabling us to plan with more certainty for investments that will take many years to deliver. We continue to make the case to Government for confirmed capital funding to support the investment described in this strategy.
 - **Devolution of financial powers to London (and other cities):** London controls relatively little of the tax raised within it. Devolving powers over taxes such as stamp duty and vehicle excise duty could allow the cities of the UK to better manage their own growth.
 - **Generating a larger than expected operating surplus and devoting this to investment:** We are making extensive savings as part of our draft Business Plan to enable a small operating surplus to be delivered by 2022/23. The operating account beyond the end of the Business Plan period is not modelled here.
 - **Generating new commercial income:** Our draft Business Plan includes growth in the income we raise from property development, management of our media and advertising estate, and leveraging our expertise and intellectual property in markets in the UK and overseas. Any new commercial income (beyond that already planned) could be reinvested in capital investment.

- **Funding from new income sources:** This could include addressing the unsophisticated way in which road use is paid for in London, and developing new methods of land value capture where specific projects can generate benefits for local landowners.
- **Bidding for targeted support from central government:** This could come from existing sources such as the Housing Infrastructure Fund and Major Road Network funding, or from new sources.
- **Private financing on a case-by-case basis where it delivers value for money:** Such financing would generally have to be paid back over time through the operating account, so this option should only be considered as a short-term financing solution where circumstances justify it.
- **Borrowing:** We have not included any provision for incremental borrowing beyond the first five years of this strategy. If our operating revenues increase sufficiently, it may be possible in future to use borrowing to close short-term financing gaps, but this would only be appropriate to fund projects that will in the long run generate sufficient operating surpluses to service the interest on this borrowing. Borrowing could take place against revenues/funding sources that continue or begin beyond the 20-year period covered by this Capital Strategy.
- **Funding contributions from developers and other third parties including boroughs:** We seek such funding for all appropriate projects.

11.3 Renewals are funded out of our operating revenue, which is not modelled here but is expected to cover the cost of renewals from 2022/23 onwards, subject to continuing allocation of business rates (or equivalent funding) to our operating account. Commercial Development activities will be self-financing, with investment funded by commercial income, which may rise over time.

Risks to the Capital Investment Plan

12.0 TfL manages an identified set of strategic risks through a defined framework. Some particular risks relevant to the capital account over a 20-year horizon are noted here.

12.1 Lack of long-term certainty of funding: It is not possible to enter into long-term contracts for major projects until funding is determined, so delay in agreement of long-term funding can result in a delay in projects commencing. This risk can be best managed by early identification and sharing of funding requirements with stakeholders.

12.2 Approvals and consents risk: Most projects require cooperation including approvals from other parties which may or may not be forthcoming. This includes devolution of rail services as well as Transport and Works Act 1992 powers / hybrid bills for many projects.

12.3 Delivery Risk: Delivery of a significant capital programme is not without risks, particularly where cost estimates are being made many years in advance of when projects would

commence and in some cases with little detail available on which to base an estimate. Developments in the construction industry could lead to increases or decreases in the ease of delivering projects included here.

- 12.4 Risk of estimating future costs: It is very difficult to predict cost inflation over 20 years, and TfL faces both general inflation and differential construction cost inflation. As an illustration, if the rate of inflation is one per cent higher every year than we forecast here, it would increase our total costs over the 20 years by £10bn in outturn prices, or around 10 per cent of the overall costs in outturn prices projected here.
- 12.5 Risk that pressures on TfL's operating account require funding to be diverted away from capital expenditure. This could include for issues such as funding investment on non-TfL assets (including borough roads) or higher operating costs for necessary staffing and maintenance levels.
- 12.6 Risk related to asset condition: We have estimated the baseline costs to maintain the condition of our assets at their current performance levels. This is based on current assessment of condition and likely asset life expiry, but these could change over time leading to revised levels of investment being required.
- 12.7 Commercial risk: the value of TfL's commercial properties is exposed to market volatility as are property purchase costs within large projects. Over time, market conditions could make such transactions better or worse than expected, creating a source of uncertainty. A property-specific governance arrangement is being established to manage our property programme. This includes recruiting property specialist skills, sector experienced staff and non-executives providing independent challenge and oversight of management, backed up by a dedicated property risk management function.
- 12.8 Different future scenarios: The MTS sets out a programme of investment to support a growing London. It is possible that changes in society and the economy could set the city on a different path, which would require different investment from the schemes set out in this Capital Strategy. We use scenario planning to address this risk and consider our strategies and investments in a range of future scenarios to ensure there are still beneficial even if our core expectation of the future changes
- 12.9 A PESTLE analysis of the Capital Strategy identifies a number of risks listed below. Many of these could impact on TfL either positively or negatively:
- Political Risk: Over 20 years, politics at every level can impact on the availability of funding and support for TfL capital projects
 - Economic Risk: Over 20 years many economic conditions and factors could change demand for TfL services, and hence indirectly funding available and the need to invest
 - TfL's revenues are particularly closely linked to the size of the London economy

- Social Risks: Known risks include reductions in the requirement for travel such as increases in home working, internet shopping and alternatives to conventional public transport such as private hire apps, ride sharing, car clubs and dockless cycle hire. Such trends if accelerated could require a reprioritisation of the strategy
- Technology Risks: Known risks include cyber security, the impacts of Artificial Intelligence and autonomous vehicle technology – but there may be others yet to be invented. These could have favourable or unfavourable impacts on TfL and might conceivably challenge today’s public transport model
- Legal Risk: TfL may be compelled to undertake new activity as a result of changes in law, which may increase costs of projects or require additional ones. Legal challenges may delay TfL activity
- Environmental Risk: Climate change, including rising sea levels, could have a significant impact on our infrastructure, much of which is low lying. Changes in temperature could impact our requirement to invest in cooling our infrastructure. Attempts to reduce the impact of climate change will require us to invest in decarbonising our services, which we are already including in this Capital Strategy, but the specific requirements of this could change

Appraisal

- 13.0 The standard business planning process involves input from TfL’s Executive Committee, the Finance Committee and TfL Board at numerous points from the initial plan conception in July. The process includes the production of an Equality Impact Assessment, and projects included in the draft Business Plan have been appraised against safety, maintenance and operations requirements; “fit” with the MTS and other Mayoral strategies; and affordability.
- 13.1 Similarly the MTS underwent a thorough review and approval process. This included substantial stakeholder engagement during its development followed by a fifteen-week public consultation in the summer of 2017. An Integrated Impact Assessment and substantial evidence base were also developed and published alongside the strategy. Following incorporation of many comments received during this consultation, the final MTS was approved by the Mayor in February 2018, then reviewed and noted by the London Assembly in March 2018.
- 13.2 The Capital Strategy has been developed from the 2018 Capital Strategy that was published for consultation as part of the Mayor’s Consolidated 2019-20 Budget, and approved by the TfL Board in March 2019. Its development has been undertaken in consultation with the TfL Executive Committee and the TfL Board.
- 13.3 The TfL project and programme management methodology “Pathway” allows for key governance intervention points to ensure effective governance oversight and control throughout the project lifecycle. This includes our three-line assurance system, part of which involves monitoring and advice from the Independent Investment Programme Advisory

Group. At a strategic level, monitoring and evaluation are in place across the MTS to ensure that the desired outcomes are delivered.

Statutory Chief Finance Officer sign off

- 14.0 The affordability of the Capital Strategy beyond the 5-year draft Business Plan is dependent on TfL obtaining significant additional funding which cannot be considered certain at this point in time. The characteristics of the funding source(s) could influence the timing, cost and capitalisation of projects within the Capital Strategy. The nature of these large projects is such that they require a certainty of funding over a number of years prior to commencement. The risks noted above are a comprehensive but not exhaustive list. Significant known risks have been listed, however, it is possible that unpredictable future events and opportunities would result in an amendment to the TfL Capital Strategy. Readers of the Capital Strategy should note the considerable risk in estimating costs up to 20 years into the future, especially for novel projects.