

Agenda

- **Meeting: Elizabeth Line Committee**
- Date: Thursday 18 May 2023
- Time: 2:30pm
- Place: Kings Cross/St Pancras Room, 10th Floor (10YC2), Palestra, 197 Blackfriars Road, London, SE1 8NJ

Members

Heidi Alexander (Chair) Anne McMeel (Vice-Chair) Seb Dance Dr Nelson Ogunshakin OBE Mark Phillips Sarah Atkins Matthew Lodge (Department for Transport Observer)

Copies of the papers and any attachments are available on <u>tfl.gov.uk How We Are</u> <u>Governed</u>.

This meeting will be open to the public and webcast live on <u>TfL's YouTube channel</u>.except for where exempt information is being discussed as noted on the agenda.

There is access for disabled people and induction loops are available. A guide for the press and public on attending and reporting meetings of local government bodies, including the use of film, photography, social media and other means is available on www.london.gov.uk/sites/default/files/Openness-in-Meetings.pdf.

Further Information

If you have questions, would like further information about the meeting or require special facilities please contact: Sue Riley, Secretariat Officer; Email: <u>sueriley@tfl.gov.uk</u>.

For media enquiries please contact the TfL Press Office; telephone: 0343 222 4141; email: <u>PressOffice@tfl.gov.uk</u>

Howard Carter, General Counsel Wednesday 10 May 2023 Agenda Elizabeth Line Committee Thursday 18 May 2023

1 Apologies for Absence and Chair's Announcements

2 Declarations of Interest

General Counsel

Members are reminded that any interests in a matter under discussion must be declared at the start of the meeting, or at the commencement of the item of business.

Members must not take any part in any discussion or decision on such a matter and, depending on the nature of the interest, may be asked to leave the room during the discussion.

3 Minutes of the Meeting of the Committee held on 24 January 2023 (Pages 1 - 4)

General Counsel

The Committee is asked to approve the minutes of the meeting of the Committee held on 24 January 2023 and authorise the Chair to sign them.

4 Matters Arising and Actions List (Pages 5 - 8)

General Counsel

The Committee is asked to note the updated actions list.

5 Safety Update (Pages 9 - 12)

Director, Elizabeth line

The Committee is asked to note the paper.

6 Elizabeth Line Operations and Programme Completion Update (Pages 13 - 18)

Director, Elizabeth line

The Committee is asked to note the paper.

7 Finance and Risk Update (Pages 19 - 20)

Chief Finance Officer

The Committee is asked to note the paper and the supplementary information on Part 2 of the agenda.

8 Elizabeth Line Programme Assurance Update (Pages 21 - 32)

Director of Risk and Assurance

The Committee is asked to note the paper and the supplementary information on Part 2 of the agenda.

9 Members' Suggestions for Future Discussion Items (Pages 33 - 36)

General Counsel

The Committee is asked to note the forward plan and is invited to raise any suggestions for future discussion items for the forward plan and for informal briefings.

10 Any Other Business the Chair Considers Urgent

The Chair will state the reason for urgency of any item taken.

11 Date of Next Meeting

Tuesday, 25 July 2023 at 3pm.

12 Exclusion of Press and Public

The Committee is recommended to agree to exclude the press and public from the meeting, in accordance with paragraph 3 of Schedule 12A to the Local Government Act 1972 (as amended), in order to consider the following items of business. Agenda Part 2

13 Finance and Risk Update (Pages 37 - 40)

Exempt supplementary information relating to the item on Part 1.

14 Elizabeth Line Programme Assurance Update (Pages 41 - 58) Exempt supplementary information relating to the item on Part 1.

Agenda Item 3

Transport for London

Minutes of the Elizabeth Line Committee

Conference Rooms 1 and 2, Ground Floor, Palestra, 197 Blackfriars Road, London SE1 8NJ 2.30pm, Tuesday 24 January 2023

Members

Heidi Alexander (Chair) Anne McMeel (Vice-Chair) Seb Dance Dr Nelson Ogunshakin OBE (via Teams)

Sarah Atkins Matthew Lodge (Government representative)

Executive Committee

Andy Lord	Interim Commissioner
Howard Carter	General Counsel
Rachel McLean	Chief Finance Officer

Staff

Lorraine Humphrey	Director of Risk and Assurance
Peter McNaught	Director of Operational Readiness
James Norris	Head of Project Assurance
Howard Smith	Director, Elizabeth line
Sue Riley	Secretariat Officer

Other Attendees

Tim Ball, Director	Director, Elizabeth line (Network Rail)
TC Chew	Chair of Elizabeth line Independent Investment Programme
	Advisory Group Sub-Group

01/01/23 Apologies for Absence and Chair's Announcements

Apologies for absence had been received from Mark Phillips. Dr Nelson Ogunshakin OBE was attending via Teams and was able to take part in the discussions but was not counted towards the quorum. The meeting was quorate.

The Chair welcomed everyone to the meeting, including those on Teams, and Peter McNaught, deputising for Glynn Barton and Tim Ball, representing Network Rail.

The meeting was being broadcast live on TfL's YouTube channel to ensure the public and press could observe the proceedings and decision-making.

TfL maintained a priority focus on safety. The Chair highlighted that there was a specific agenda item on safety, which would be the first item considered at the meeting. She invited Members to raise any safety issues either under the specific agenda item or with the appropriate member of the Executive Committee after the meeting.

02/01/23 Declarations of Interests

Members on the TfL Board confirmed that their declarations of interests, as published on tfl.gov.uk, were up to date and there were no interests to declare that related specifically to items on the agenda.

03/01/23 Minutes of the Meeting of the Committee Held on 24 November 2022

The minutes of the meeting of the Elizabeth Line Committee held on 24 November 2022 were approved as a correct record and the Chair was authorised to sign them.

04/01/23 Matters Arising and Actions List

Howard Carter introduced the paper. All actions from previous meetings had been completed or were scheduled on the forward plan.

The Committee noted the updated actions list.

05/01/23 Safety Update

Howard Smith introduced the paper, which provided an update on safety for Periods 8 and 9 of 2022/23.

Howard Smith highlighted the campaign to get 'close calls' reported so as to gain learning and take action before any actual incident occurred. In analysing the close call data there were no strong trends in terms of location or type of work but not surprisingly a large number related to maintenance activities as that was where the biggest group of colleagues and activity was to be found.

All overdue or undated actions were being closed out. Safety data in relation to MTR and passenger incidents were reported and reviewed internally.

The Committee noted the paper.

06/01/23 Elizabeth Line Operations and Programme Completion Update

Howard Smith introduced the paper on operational performance of the Elizabeth line. Tim Ball spoke on behalf of Network Rail.

It was noted that the London Underground stations shown in the step-free access availability chart was incorrect and were in fact in service at the time of reporting. Despite the recent challenges within the rail sector due to ongoing industrial action and extreme weather conditions, staff had worked hard to mitigate the impact on customers. The Committee thanked all staff, including MTR, for their commitment and hard work and this was endorsed by the Commissioner.

The Chair recorded her thanks to Jim Crawford, Chief Programme Officer, Crossrail and Nigel Holness, MTR Director, Elizabeth Line, for their valuable contributions, as they were both moving on to other organisations.

The Committee noted the paper.

07/01/23 Finance and Risk Update

Rachel McLean presented the update on the financial performance at Period 9 of 2022/23 and on risk management progress.

Paragraph 3.1 incorrectly reported passenger journeys for the Elizabeth line exceeded budget by £32m when in fact it was referring to 32 million passenger journeys. The published report would be amended on the TfL website.

The Anticipated Final Crossrail Direct Cost was lower than anticipated due to the successful handover of Bond Street station. The reduction in operating costs was mainly due to timing and one-off financial events.

The Committee noted the paper and the exempt supplementary information on Part 2 of the agenda.

08/01/23 Elizabeth Line Programme Assurance Update

Lorraine Humphrey and James Norris introduced the paper, which provided an update on progress with Elizabeth line Programme Assurance activity since the previous report. TC Chew was also in attendance.

Howard Smith described progress towards full implementation of Auto-Reverse and that a cautious approach was being taken, meaning that implementation was now scheduled for 12 February 2023. It was agreed that a short update on progress would be provided to the Committee prior to operational implementation.

[Action: Howard Smith]

A continuous assurance approach was now being applied to the programme, with a re-configuration of support from members of the Independent Investment Programme Advisory Group, with a focus on reliability, performance and costs and funding.

Tim Ball confirmed that recent changes in senior staff and leadership at Network Rail was designed to drive up performance and reliability on the western section of the Elizabeth line, although the provision of adequate funding to modernise the infrastructure was critical to improvements.

The Committee noted the paper and the exempt supplementary information on Part 2 of the agenda.

09/01/23 Members' Suggestions for Future Discussion Items

Howard Carter introduced the item and the Committee's forward plan. Suggested future agenda items captured during the meeting would be included on the forward plan.

The Committee noted the forward plan.

10/01/23 Any Other Business the Chair Considers Urgent

There was no other urgent business to discuss.

11/01/23 Date of Next Meeting

It was agreed that the next scheduled meeting of the Committee on Thursday 23 March 2023 at 3pm would be held as an informal briefing only. The next formal meeting was scheduled for Thursday, 18 May 2023 at 2.30pm

12/01/23 Exclusion of the Press and Public

The Committee agreed to exclude the press and public from the meeting, in accordance with paragraph 3 of Schedule 12A to the Local Government Act 1972 (as amended), when it considered the exempt information in relation to the items on Finance and Risk Update and Elizabeth Line Programme Assurance Update.

The meeting closed at 3.50pm.

Chair: _____

Date: _____

Agenda Item 4

Elizabeth Line Committee

Date: 18 May 2023



Item: Matters Arising and Actions List

This paper will be considered in public

1 Summary

1.1 This paper informs the Committee of progress against actions agreed at previous meetings.

2 Recommendation

2.1 The Committee is asked to note the Actions List.

List of appendices to this report:

Appendix 1: Actions List

List of Background Papers:

Minutes of previous meetings of the Elizabeth Line Committee

Contact Officer:Howard Carter, General CounselEmail:HowardCarter@tfl.gov.uk

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Minute No.	Item/Description	Action By	Target Date	Status/Note
08/01/23	Elizabeth Line Programme Assurance Update An update note on the implementation of Auto-Reverse to be provided before the implementation date of 12 February 2023.	Howard Smith	Prior to implementation.	Completed . Information circulated.

Actions from the meeting held on 24 January 2023:

Actions from previous meetings:

Minute No.	Item/Description	Action By	Target Date	Status/Note
77/11/22	Matters Arising and Actions List A final note to be provided to the Committee once all Crossrail complaints had been resolved.	Rachel McLean	25 July 2023 meeting.	Scheduled on Forward Plan.
82/11/22	Crossrail Learning Legacy The final document to include lessons learnt from the start of the programme through to benefits realisation beyond 2022.	Rachel McLean	23 March 2023 briefing.	Completed. Discussed at informal briefing on 23 March 2023. Document circulated and conference held on 5 April 2023.
			9 May 2023 roundtable discussion.	Completed. Roundtable discussion held on 9 May 2023 on the joint sponsor report published by the Department for Transport.

Minute No.	Item/Description	Action By	Target Date	Status/Note
83/11/22	Members' Suggestions for Future Discussion Items An update on Elizabeth line usage to be provided to a future meeting.	Geoff Hobbs	25 July 2023 meeting.	Scheduled on Forward Plan.

Agenda Item 5

Elizabeth Line Committee

Date: 18 May 2023

Item: Safety Update

This paper will be considered in public

1 Summary

1.1 This paper provides an update on safety for Periods 12 and 13 of 2022/23.

2 Recommendation

2.1 The Committee is asked to note the paper.

3 Overall Safety Update

- 3.1 This paper includes a performance update for the Infrastructure Manager, Rail for London (Infrastructure) Limited (RfL(I)) and the Crossrail programme.
- 3.2 With respect to operational safety, all RfL(I) Safety Key Performance Indicators (SKPIs) remain better than target. As at Period 13, there have been no RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013) reportable incidents or workforce Lost Time Injuries (LTIs), and no fatalities or serious injuries to customers or workforce this financial year. There is an ongoing focus on proactive safety management including the reporting of Close Calls.
- 3.3 Since Period 11, safety performance on the Crossrail programme is recorded as part of RfL(I) safety data and no longer reported separately.

4 Safety Update

- 4.1 The RfL(I) SKPIs are all better than the annual target:
 - RfL(I) recorded no RIDDOR events or LTIs during Period 12 or Period 13. RfL(I)'s RIDDOR event rate for both periods was 0.00, and 0.00 for LTIs, both being at a level trend for Period 13;
 - (b) the Fatality and Weighted Injuries Index and All Accident Frequency Rate both decreased during Period 12 and are at a level trend for Period 13, the respective rates for those periods are 0.0019, and 0.39; and
 - (c) there were no major customer or workforce injuries recorded during Period 12 or Period 13.



- 4.2 A Close Call is defined as anything that has the potential to cause harm or damage for example, the potential to cause major or minor harm to a person, damage to railway infrastructure or environmental damage. Close Call reporting is recognised as a leading indicator of a strong safety culture and is encouraged as an opportunity to correct things before any harm occurs.
- 4.3 Eleven Close Calls were reported in Period 12 with a further eight recorded during Period 13. This means that there was a total of 109 Close Calls reported since the start of the Close Call Engagement Programme (Period 6). This compares to 57 for the previous eight periods before the Close Call Engagement Programme.
- 4.4 The growth in Close Call reporting has meant that there has been an increase in the number open. The Safety Health and Environment (SHE) Business Partners are actively working with the business with appropriate processes put in place to ensure all Close Calls are investigated and closed within the expected timeframe.
- 4.5 The number of incidents (unplanned, uncontrolled events that have occurred that may or may not have resulted in harm to the environment, infrastructure or equipment) shows an increase from the previous two periods with four reported during Period 12 and one reported during Period 13. In total 42 incidents have been recorded during the financial year.
- 4.6 The number of accidents (unplanned, uncontrolled events that have occurred that have resulted in injuries) total four during the Financial Year 2022/23 with one recorded during Period 12 and zero during Period 13.
- 4.7 The contracted safety managers departed in Period 13 with the safety function moving to TfL SHE under the Business Partnering model of coaching and mentoring teams and assuring SHE practices.
- 4.8 An updated Main Line Safety Authorisation was completed. The update also reflects the new operational SHE structure with the final clarifications submitted to the Office of Road and Rail in Period 13.

List of Appendices:

Appendix 1: RfL(I) Health, Safety and Environmental dashboards Period 12 and Period 13

List of Background Papers:

None

Contact Officer:Howard Smith, Director, Elizabeth lineEmail:howardsmith@tfl.gov.uk

Accidents/Incidents/Close Calls

RfLI Safety KPIs

Annual RfLI

Safety

RfLI

P12 22/23

Performance

YTD as at P12

TfL Benchmarking

RfLI Safety Performance Period 12 22/23 – Appendix 1

Safety Key Performance Indicators (SKPI)

RfLI SKPI's are all within tolerance levels with zero RIDDORs and LTIs reported this financial year.

Incidents / Accidents

Four Incidents and one Accident was reported during the period this includes;

 28/02 Victoria Dock Portal – an operative tripped on the track injuring their knee.

Gose Calls (CCs)

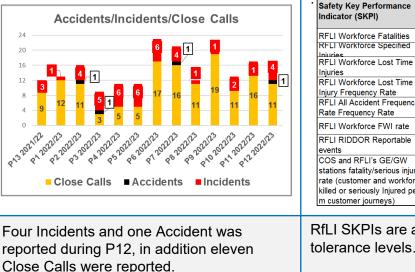
Eleven Close Calls were recorded during P12, this is a decrease of five from the previous period.

Engagement (Close Calls)

The rate is calculated using the number of CCs and hours worked then normalised to 100k hours and has increased to 14.1 for P12.

Investigation Actions

Seven overdue actions have been closed since the last report, the number of overdue actions has reduced from ten to three.



Target 22/23 \Leftrightarrow RFLI Workforce Fatalities 0 0 RFLI Workforce Specified 0.3 0.0 0.0 Injuries IRFLI Workforce Lost Time 3 0 RFLI Workforce Lost Time 0.00 0.239 0.00 Injury Frequency Rate RFLI All Accident Frequency 0.39 0.39 tbc Rate Frequency Rate 0.0019 RFLI Workforce FWI rate 0.0560 0.0019 RFLI RIDDOR Reportable 0 0 COS and RFLI's GE/GW stations fatality/serious injury >0.14 rate (customer and workforce 0 killed or seriously Injured per m customer journeys) RfLI SKPIs are all remain within the

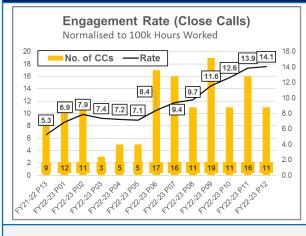
. TfL Scorecard Measures

I	EL TIL Scorecard measures			
	Customer Injuries Per Million Passenger Journeys	2.58	2.28 🕇	2.03 肯
	Workforce Injuries	tbc	5	57

P12 Customer Injur	ies per m pax	Journey
Elizabeth Line	2.28	
Ali Lu	2.51	
PTI	0.32	1
Stairs	0.33	
Escalators	1.07	
Other location	0.81	
Alcohol	0.38	

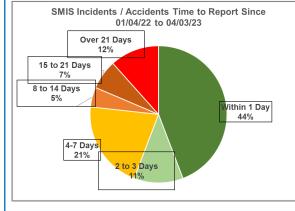
Workforce Injuries	P12	YTD
Buses	30	272
CPOS	5	66
Elizabeth Line	5	57
LU APCD	26	280
LU Customer Operatio	41	563
Network Management	0	8
RSS	14	167

Engagement (Close Calls)



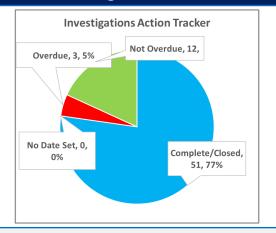
Engagement (Close Calls) leading metric shows an increasing trend with 14.1 recorded every 100k hrs worked.





Forty-four percent of all Accidents/incidents are reported within a day, this is a three percentage point improvement from the previous period.

Investigation Actions



A further seven overdue actions have been closed since last periods report.

TfL RESTRICTED

RfLI Safety Performance Period 13 22/23

Safety Key Performance Indicators (SKPI)

RfLI Safety Key Performance Indicators are all within tolerance levels with zero RIDDORs and ITI's reported this financial year.

Incidents / Accidents

One Incident and zero Accidents was reported during the period;

 25/03 North Woolwich Portal - two RfLI Operatives accessed the COS Westbound line at approx. 00:40 -while the line was open to traffic ^Nand without a Possession or Line Blockage in place.

Close Calls (CCs)

Nine Close Calls were recorded during P13, this is a decrease of two from the previous period.

Investigation Actions

Five additional actions were added during the period of which three have been closed



RfLI Accidents/Incidents/Close Calls

P1202123 P6202212

One Incident and zero Accidents were

reported during P13, in addition nine Close

Close Calls Accidents Incidents

P520212

Calls were reported.

P8202212

RfLI Safety KPIs

Annual RfLl Safety Target	P13 22/23	RfLI Performa YTD as a 22/23	
0	0	0	Ŧ
0.3	0.0	0.0	-
3	0	0	+
0.239	0.00	0.00	-
tbc	0.39	0.39	+
0.0560	0.0019	0.0019	-
0	0	0	
>0.14	0	0	-
	Safety Target 0 0.3 3 0.239 tbc 0.0560 0	Safety Target P13 22/23 0 0 0.3 0.0 3 0 0.239 0.00 tbc 0.39 0.0560 0.0019 0 0	Annual Rich P13 22/23 Performa YTD as a 22/23 0 0 0 0.3 0.0 0.0 3 0 0 0.239 0.00 0.00 tbc 0.39 0.39 0.0560 0.0019 0.0019 0 0 0

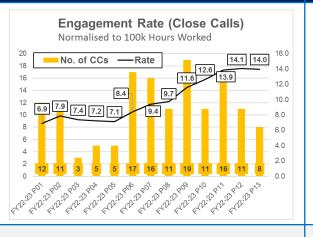
TfL Benchmarking

EL TfL Scorecard Measures			
Customer Injuries Per Million Passenger Journeys	2.58	2.29 🕇	2.06 1
Workforce Injuries	tbc	8	65

Workforce Injuries	P13	YTD
Buses	18	291
CPOS	6	72
Elizabeth Line	8	65
LU APCD	20	301
LU Customer Operations	54	619
Network Management	0	8
RSS	13	180
TfL Operations	112	1542

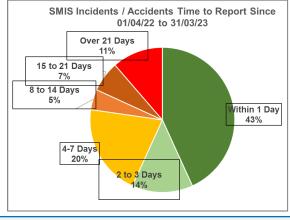
P13 Customer Injuries per m pax Journeys			
Elizabeth Line	2.29		
All LU	2.85		
PTI	0.35		
Stairs	0.46		
Escalators	1.17		
Other Location	0.89		
Alcohol	0.40		

Engagement (Close Calls)



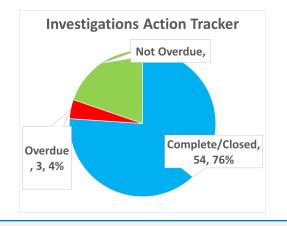
Engagement (Close Calls) leading metric shows a level trend with 14.0 CCs recorded every 100k hrs worked.

Time To and How Reported



Forty-three percent of all Accidents/incidents are reported within a day, this is a one percentage point decrease from the previous Period.

Investigation Actions



Five actions added of which three have been closed.

TfL RESTRICTED

levels.

Agenda Item 6

Elizabeth Line Committee



Date: 18 May 2023

Item: Elizabeth line Operations and Programme Completion Update

This paper will be considered in public

1 Summary

- 1.1 This paper provides an update on Elizabeth line performance and the status of the Crossrail project.
- 1.2 Following the initial phase of transition, the Elizabeth Line Delivery Group (ELDG) was formed to ensure appropriate oversight of the delivery of the Elizabeth line by Crossrail and the Transport for London (TfL) Executive. The ELDG is chaired by the Commissioner. In line with the commitments made by the Mayor for greater transparency of the Crossrail project, the minutes and actions from ELDG are available on our website¹. Available reports are uploaded to correspond to the meeting of this Committee.

2 Recommendation

2.1 The Committee is asked to note the paper.

3 Operations and Programme Update

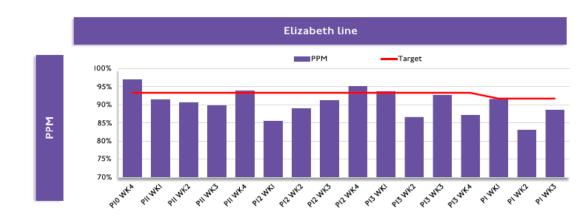
- 3.1 The Crossrail project is now in the final phase with the stage known as Stage 5c on track to be delivered by the end of May 2023.
- 3.2 At this point, the line will move to a peak service frequency of 24 trains per hour (tph) in the central section up from the current 22 tph and, for the first time, direct services will run between Shenfield and Heathrow airport. This uplift will take place in line with the National Rail timetable change scheduled for 21 May 2023.
- 3.3 The Elizabeth line was closed between Paddington and Abbey Wood between 7 April and 10 April 2023, allowing for the commissioning of the ELR400 signalling software update as well as an upgrade to the Central Management System.
- 3.4 This upgrade contained the functionality to allow Auto Transition to be brought into use at Stratford from 11 April 2023, removing the temporary speed restriction which had been in place. A small number of performance affecting regressions ("bugs") were found following the release of ELR400 and are being addressed by a series of "patch" releases due from Siemens over the coming weeks.

¹ https://tfl.gov.uk/corporate/publications-and-reports/elizabeth-line-delivery-group

- 3.5 The 'auto reverse' function was brought into use on 16 April 2023. The function enables trains taken into sidings at Westbourne Park to reverse themselves back onto the track while the driver walks through to the other end of the train and is a key element towards a 24 tph service.
- 3.6 The Employer's Completion Process was signed off for Bond Street station on 16 March 2023, this allowed the closure of the station's portfolio on 30 March 2023.
- 3.7 Crossrail is nearing the end of its programme lifecycle with the team closing out or transitioning activities to TfL by 26 May 2023 and declaring final completion for endorsement by Sponsors.
- 3.8 After final completion is endorsed by July 2023, it is anticipated that bespoke Crossrail Programme governance will no longer be required, with Elizabeth line reporting integrating into TfL operational governance.
- 3.9 Customer Scores and operational performance will be included in the Customer Service and Operational Performance report. Safety will be included in the quarterly Safety, Health and Environment report and the Commissioner's report to the Board will contain updates on issues of note.

4 Performance and Reliability

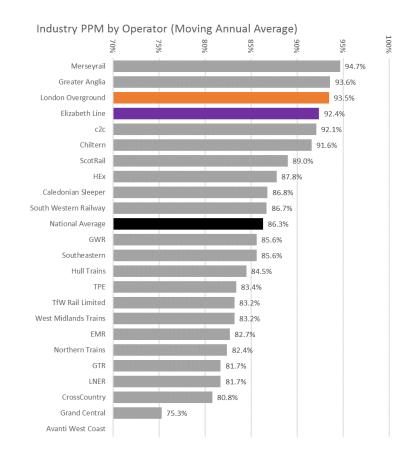
- 4.1 Although initial performance has been slightly below target in the six months since the launch of the new timetable in November 2022. The Elizabeth line continues to be one of the most reliable railways in the country. Good collaborative working with the operator, MTR Elizabeth Line and Network Rail teams on preparing for the line's launch has followed through into timetable delivery and management of incidents and we have a good process to capture learnings.
- 4.2 The overall Public Performance Measure (PPM) scores on the Elizabeth line for Periods 12 and 13 (5 February 4 March 2023 and 5 March 31 March 2023) were 90.2 per cent and 89.9 per cent respectively.



4.3 Charts showing Elizabeth line PPM, trips run and delays over 15 minutes (data date 1 January – 22 April 2023):



- 4.4 The Moving Annual Average (MAA) performance in Period 13 was 92.4 per cent with the Elizabeth line the fourth best in the sector.
- 4.5 Chart showing industry PPM by operator long-term performance indicator up to 31 March 2023:



- 4.6 The key issues in terms or reliability have been:
 - (a) Network Rail infrastructure in the West, where there have been a significant number of points failures, which are disrupting and take time to recover the service;
 - (b) the reliability of the class 345 trains. A further train software upgrade to support this is being rolled out and will be fully loaded onto the fleet ahead of the 21 May 2023 timetable change; and
 - (c) the performance affecting regressions in ELR400 will impact reliability until resolved in future patch releases.

5 Customer Experience

- 5.1 Passenger journeys continue to average 3.5 million per week throughout Periods 12 and 13.
- 5.2 Chart showing weekly passenger journeys in millions vs budget: (data date 1 January 22 April 2023):



- 5.3 Step-Free Access was better than target for Period 12 with 99.3 per cent performance.
- 5.4 In Period 13, step-free access was close to target at 99.15 per cent. Availability in the central London Underground stations area has been impacted by the outage of an incline lift at Liverpool Street where its energy chain and multi flex cable have been damaged. However, step-free access is maintained at the station due to the availability of alternative lifts.

- Step Free Access West COS – MTR Stations East Actua Target 100% 100% 98% 98% 98% 96% 96% 96% 94% 94% 92% 92% 92% 90% Contract and and and by and and and and water and COS - LU Stations Target 100% 98% 96% 94% 923 90% PIONEPII (Data date 1 January to 22 April 2023)
- 5.5 Chart showing weekly step-free access availability by section / operator:

5.6 Customer satisfaction for the line has to date been extremely high, with the Customer Satisfaction Survey score for the Elizabeth line in both Quarters 3 and 4 was at 82 – the highest score across all TfL modes.

List of appendices to this report:

None

List of Background Papers:

None

Contact Officer:Howard Smith, Director, Elizabeth lineEmail:howardsmith@tfl.gov.uk

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Elizabeth Line Committee



Date: 18 May 2023

Item: Finance and Risk Update

This paper will be considered in public

1 Summary

- 1.1 This paper provides an update on the financial performance at Period 13 2022/23 and on risk management progress.
- 1.2 A paper is included on the Part 2 agenda which contains supplementary information that is exempt from publication by virtue of paragraph 3 of Schedule 12A of the Local Government Act 1972 in that it contains information relating to the business affairs of TfL and other parties. Any discussion of that exempt information must take place after the press and public have been excluded from the meeting.

2 Recommendation

2.1 The Committee is asked to note the paper and the supplementary information on Part 2 of the agenda.

3 Elizabeth Line Operational Finance

- 3.1 In the year to date (YTD) to Period 13, passenger journeys for the Elizabeth line exceeded Revised Budget by two million. This was due to higher than expected passenger numbers across the whole line following the start of through running. Fares income was £29m above Revised Budget as a consequence of the higher passenger numbers, plus a growth in yield (average fare per journey), which has increased as a result of through running.
- 3.2 YTD, direct operating costs were £9m lower than Revised Budget, and the Net Operating Deficit for the Elizabeth line was £38m favourable to Revised Budget. Elizabeth line capital expenditure was £4m lower than Revised Budget for the YTD.
- 3.3 The Elizabeth line is forecast to achieve operational break even in the year 2023/24.

4 Crossrail Programme Financial Performance

- 4.1 Spend in Period 13 was £6m, and £191m for the financial YTD. The period spend was £3m below the Delivery Control Schedule 1.2 (DCS1.2) Budget and the Programme is £63m below the DCS1.2 Budget for the year to date.
- 4.2 On average the Programme has seen an underspend of £5m a period in this financial year mainly driven by rephasing of contingencies and reduction in programme Anticipated Final Crossrail Direct Cost (AFCDC).
- 4.3 The number of Crossrail full time equivalent staff is 170 (note this excludes any consultancy resource and vacancies). This was 89 higher than had been forecast in the DCS1.2 Workforce Plan, driven by role extensions based on agreed Crossrail close out strategy.

5 Anticipated Final Crossrail Direct Cost (AFCDC)

5.1 In Period 13 the P50 (50th percentile) AFCDC was £15,903m, £28m lower than the reported value in Period 9, reflecting a reduction in risk exposure and the removal of the "Above Target Reserve" that had been held.

6 Funding

- 6.1 The total funding package for the programme remained unchanged at £15,887.5m. The last approved funding increase was granted in Period 7 for a total increase of £98.5m.
- 6.2 The total funding package is £15.5m below the P50 AFCDC. This remains well below the "up to £1.1bn" requirement.

7 Risk

- 7.1 There are nine Level 1 Risks at Period 13.
- 7.2 These risks summarise the significant risks that face the Elizabeth line and residual Crossrail Programme. Review and update of Level 1 and working-level risks is a well-established part of senior management activity.

List of appendices to this report:

Exempt supplementary information is contained in a paper on Part 2 of the agenda.

List of Background Papers:

None

Contact Officer:Rachel McLean, Chief Finance OfficerEmail:rachelmclean@crossrail.tfl.gov.uk

Agenda Item 8

Elizabeth Line Committee



Date: 18 May 2023

Item: Elizabeth Line Programme Assurance Update

This paper will be considered in public

1 Summary

- 1.1 This paper reports on progress with programme assurance activity across the Elizabeth line since the last report.
- 1.2 A paper is included on the Part 2 agenda which contains supplementary information that is exempt from publication by virtue of paragraph 3 of Schedule 12A of the Local Government Act 1972 in that it contains information relating to the business affairs of TfL. Any discussion of that exempt information must take place after the press and public have been excluded from this meeting.

2 Recommendation

2.1 The Committee is asked to note the paper and the exempt supplementary information on Part 2 of the agenda.

3 Background

- 3.1 The Elizabeth line Integrated Assurance Framework is based on a Three Lines of Defence model comprising:
 - (a) Line 1 Management functions of Crossrail Limited (CRL), Rail for London (Infrastructure) Limited (RfL(I)) and key interfaces;
 - (b) Line 2 Project and Programme Assurance Elizabeth line (PPA-EL); and
 - (c) Line 3 TfL Internal Audit and a sub-group of the Independent Investment Programme Advisory Group (IIPAG-EL).
- 3.2 This paper reports specifically on Line 2 (PPA-EL), Line 3 (Internal Audit) and Line 3 (IIPAG-EL) assurance progress.
- 3.3 The teams meet periodically with a panel of advisers to ensure that assurance is carried out by the right team, at the right time and to avoid duplication and minimise overlap of effort.

4 Line of Defence 2 (LoD2) Assurance

4.1 The Elizabeth line has demonstrated a consistent level of good performance (as measured by the public performance measure (PPM)) in the central operating section (COS) since opening on 24 May 2022. The successful introduction on 6 November 2022 of train services running directly from Reading and Heathrow to Abbey Wood, and from Shenfield to Paddington, using Network Rail (NR)

infrastructure on the Great Western lines and Great Eastern lines has added a further degree of infrastructure complexity which has resulted in occasional days of reduced PPM below that required to maintain a resilient 24 trains per hour (tph) service in May 2023. The continuing operating challenge going forward is to improve the reliability and resilience of the end-to-end railway to achieve the required tph.

- 4.2 The resilience of the Great Western infrastructure and the impacts on performance on the overall end-to-end train service continue to be a concern. There have been significant improvements in the visibility of the NR data on infrastructure failures, and the improvement plans being implemented to mitigate the issues.
- 4.3 Work has continued on a continuous assurance basis with formal reporting via the LoD2 Periodic Assurance Review (PAR) Reports. Of particular focus has been the overall system and fleet reliability and availability, and the quality of the service response to issues arising during service operation.
- 4.4 Since the last meeting of the Committee, LoD2 PAR Reports have provided input to the periodic Integrated Assurance Report to the Elizabeth Line Delivery Group (ELDG) and to the Audit and Assurance Committee.
- 4.5 Regarding cost to complete, although any potential new cost pressures are being prudently recognised in the Anticipated Final Crossrail Direct Cost (AFCDC) as they arise, the programme continues to maintain provision and contingency budgets. Actions are ongoing across all areas to identify opportunities to reduce the AFCDC and minimise funding requirements.
- 4.6 The baseline programme for the remaining works to deliver the whole end-toend railway continues to be used to monitor progress.
- 4.7 Deterministic dates are being held and are as follows:
 - (a) Stage 5c is 21 May 2023 (24tph full end-to-end service), dictated by the national railway timetable changes. The key drivers continue to be confidence in achieving the required fleet availability and whole systems reliability to support the enhanced intensity of service. The maintenance of the programme is being led by the Elizabeth line Operations team, with support from CRL for those elements of work it is responsible for.
- 4.8 The programme has continued to make significant progress since the last report, key highlights include:
 - (a) commissioning of Siemens software ELR400 over Easter 2023;
 - (b) the Employers Completion Process (ECP) completed at Bond Street station. All station ECPs are now complete with defects responsibilities transferred to London Underground and RfL(I);
 - (c) continued engagement, planning and the implementation of improvement initiatives with NR on the Great Western Main Line to support the continued reliability performance improvements since merging the three railways at Stage 5b minus and with the run up to full 24tph service in May 2023; and

- (d) further software development, testing and upgrades to signalling, fleet and infrastructure software, improving performance resilience further.
- 4.9 The maintenance programme continues to implement improvements to support the enhanced utilisation of resources and the introduction of automation, thereby delivering a more efficient maintenance service. Experience during operational service in the COS is helping to shape the improvements required in terms of response and fix times and root cause analysis to support a 24tph service.
- 4.10 Fleet availability consistently achieves 65 train units per day, which is the requirement for Stage 5c. Alstom are actively working on train hardware failures, particularly door units and brakes which have been the largest areas of service affecting failures, with improvements to reliability being realised. This is a prime focus as improved reliability and performance are key to the successful implementation of the 24tph timetable in Stage 5c.
- 4.11 Following our risk based continuous assurance approach, concerns and recommendations are identified throughout each reporting period. Management responses for those items are provided in the following table and have been provided during Periods 9 to 13 of 2022/23 (13 November 2022 to 31 March 2023) (P9 to P13).

Periods 9 to 13	LoD2 Concerns	Management Response
P9/1	Great Western (GW) – Continued heightened focus and support recommended for GW and Great Eastern (GE) infrastructure and improvement plans due to their criticality to the success of Stage 5c running. Regular attendance of Rail for London (RfL) and Mass Transit Railway (MTR) at the weekly NR visualisation meetings will help to understand and influence decision priorities that will affect the end-to- end resilience and reliability e.g. Right Time at COS.	The focus and support for GW and GE remains an ongoing process. We have our Concession MTR in regular attendance of Western Route's performance meetings along with the Network Performance and Strategy Manager. It remains a concern, but recent performance has been very encouraging.
P9/2	Auto-Reverse at Westbourne Park (WBP) – The current programme for the delivery and commissioning of the interim Auto-Reverse solution at WBP should be held, allowing time for the Operation to test and bring into use Auto-Reverse at the earliest possible opportunity, simplifying and enhancing operational efficiency and flexibility.	Delivery progress is on-time against the new target baseline. Availability of Auto- Reverse at WBP will enable improved service recovery and increase timetable capability.

Periods 9 to 13	LoD2 Concerns	Management Response
P9/3	Fleet Reliability – The successful implementation of Stage 5c is dependent upon achieving significantly higher levels of fleet reliability than currently available. The planned software interventions and continued integrated "one team" approach to reporting, problem sharing and resolution are critical to delivering improved fleet reliability.	As noted at Period 8, the Project Manager has not had it confirmed what the minimum required miles per technical incident (MTIN) is from the Stage 5c modelling work. Current fleet MTIN performance is 9.9k and is forecast to rise to circa 14.5k after the next Train Control and Management System software upgrade (March 2023) and delivery of modified components and maintenance regimes for the brake and door systems by May 2023. Both the subject of collaborative technical workshops between the Original Equipment Manufacturer (KRBS) and Alstom to determine root causes and improvements.
P9/4	Transition of Siemens Scope of Works to RfL(I) – We recommend that an urgent handover / transition plan should be developed showing the transfer of responsibility from CRL to TfL / RfL for the works to be delivered by Siemens beyond ELR400. There is a risk that key resources and knowledge in both CRL and Siemens may be lost. A transition plan to be developed by RfL(I) and agreed with all parties.	 As part of the Siemens transition and critical resource handover / knowledge transfer the following actions are ongoing: Agreeing delivery approach post May 2023, likely to be via TfL Capital delivery. Confirming scope for post Easter 2023 works by end January 2023. Siemens to be instructed to secure resource (planned for late January 2023). Once the resources are agreed,
		 shadowing shall commence (expected by early February 2023). A weekly steering group has been established to work through the detailed planning for the transition. Conversations within TfL Capital delivery also underway to ensure smooth transition.
P10/1	GW Performance – While improvement plans, support and monitoring are now in place on GW, risks remain for late eastbound Right Time handovers at WBP, which could become critical to performance and reputation in the May 2023 timetable. It is recommended that focus is placed on minimising these risks and the development of a detailed Train Regulation plan to	MTR Elizabeth Line (MTREL) engage with NR Western at various levels. A joint, industry weekly Tactical Operations Group takes place at Thames Valley Signalling Centre, discussing the previous week's performance challenges, including regulation and incident management. The Western, Anglia and MTREL Performance teams are meeting on a weekly basis to discuss the cause of performance loss on the Anglia route and

Periods 9 to 13	LoD2 Concerns	Management Response	
	minimise knock-on delays in the COS from May 2023.	the NR National Team are undertaking analysis into the causation of PPM loss. A weekly Western Route visualisation session is chaired by the Western Route Director and attended by the industry, including MTREL's Head of Performance & Operations Delivery and RfL(I) representatives, where medium term action plans, such as the recommendations from September's dewirement, works to resolve issues with the critical points works and trespass mitigations are discussed. A regular forum is now in place, attended by MTREL, MTR United Kingdom and NR Western Executive teams, where Western challenges are discussed.	
P10/2	Turn backs outside the COS – Arrangements should be put in place with the GW and Anglia NR route to ensure that spare platforms can be made available at short notice at both Paddington and Liverpool Street mainline stations from the May 2023 timetable change if trains have to be diverted from the COS.	The CRL Operations team have reviewed the workforce plan and ensured where critical resources are needed to complete the CRL programme that funding, and extensions are obtained for these roles. More general resilience of the roles confirmed in the plan particularly in the context of a fairly rapid demobilisation of CRL resources is being reviewed with further resilience actions to be identified in January 2023.	
P8/2	Fleet Resilience and Reliability – While Auto-Reverse commissioning is well advanced, a detailed Contingency Plan is recommended for any unforeseen delay or periods of unavailability. Options could include reducing the 24tph in the high peak to 22tph or less in the May 2023 timetable (i.e. temporarily suspending 2tph) or making more drivers available to achieve the 24tph turnback times.	anticipating any issues, we have contingency arrangements in place if the infrastructure and or modelling of current Stage 5c is not achieved. This is updated weekly as part of the T minus process.	
P11/1	Key Resources During Transition – Key resources required to manage the Siemens contracts should be in place during a "shadowing period" to ensure effective transfer of knowledge from CRL.	The delivery approach post May 2023 was agreed by TfL Chief Capital Officer (CCO) and confirmed at ELDG on 12 January. Scope options for C620 complete and quotes progressing, scope options for C660 finalised by Siemens.	

Periods 9 to 13	LoD2 Concerns	Management Response
		The current plan is for Siemens to be instructed to secure resource by early March 2023 after ELDG agreement. Once resources agreed, shadowing between CRL and TfL CCO shall commence at a date to be agreed.
P11/2	Service Recovery – Important to ensure there are agile responses to service impacting incidents with involvement of all stakeholders working together to minimise period of perturbation.	There are several business-as-usual processes in place as well as a number of workstreams underway to learn, mitigate and improve service recovery for now and as we move towards May 2023. Examples include cross organisational Serious Performance Incident Reviews, Train Service Model Strategy meetings / desktop exercises, the updating of the Concept of Operations (includes service recovery, delivery principles, contingency plans etc.). We also have an increased focus on our emergency service response, particularly London Ambulance Service and how we improve our reaction to and recovery from a protracted incident.
P11/3	Transition to Business as Usual – A clear plan is required for the proposed RfL(I) Operating Model (at strategic and tactical levels) to be agreed and implemented prior to the completion of the CRL obligations.	The Elizabeth Line Operations Team, RfL(I) has a transition roadmap and plan to ensure that CRL closes down in a controlled way. There is the use of handshake agreements to ensure any changes are agreed between the giver and receiver of the change between CRL and TfL / RfL(I). The CRL agreements, undertakings and Project Delivery Agreement are part of the transition plan.
P11/4	Auto-Reverse – A priority focus by all key stakeholders is required to ensure robust plans are in place for 24tph running in May 2023 including contingency options and resolution of issues.	Auto-Reverse plans and implementation reviews for both WBP and tunnels at crossovers and unplanned are in place and discussed as part of the Stage 5 Mobilisation and Blockers meeting. This includes any issues resolution with key stakeholders from the developmental and implementation reviews.
P12/1	Fleet Performance – Recent fleet software performance has raised concerns on the methods and approach by Alstom in their software upgrade testing and assurance process prior to fleet introduction. It is recommended that RfL(I) provide	 Revised approach supported by RfL. Review by Alstom of each change to the Train Control Management System (TCMS) software made since configuration H5.9 to identify risk of 'collateral damage' from the change to other areas of the TCMS code.

Periods 9 to 13	LoD2 Concerns	Management Response
	verification of the revised approach proposed by Alstom on software version H5.26, and mitigation options in the event of regression impacts.	 The output used to generate a deeper rig test specification. That deeper test run on the baseline H5.21 config to identify any more undetected defects before running the revised test scripts on the new H5.26 config with the fixes included. Earlier static testing on a train, in parallel with completion of rig tests. Confidence tests with a train on the infrastructure at an earlier stage in the assurance cycle.
P12/2	Plumstead Sidings – It is recommended that a study is undertaken into the impacts and consequences on the resilience of the Stage 5c timetable without the alternative power supply at Plumstead sidings for up to three years, and to develop appropriate mitigations. This should include impacts on any trains stabled overnight, particularly the delocalisation of the communications-based train control (CBTC) system on each train and the need to localise trains prior to the commencement of passenger service the following morning.	A study / benefits case review is underway. In light of the delay, a further review is being undertaken of previously considered, but discounted, mitigation measures for keeping CBTC on the trains energised during Plumstead siding isolations.
P13/1	Fleet Performance – RfL to be satisfied that the plans from Alstom to improve rolling stock reliability (as measured by the four week mean distance between failure, from 10,000 to 17,000 miles) following upload of software H5.26, are robust in order to provide resilience for the Stage 5c timetable.	Alstom have a reliability programme that uses feedback from in-service performance to derive prioritised modifications to resolve failure modes. The planned interventions are reviewed by Alstom and client technical teams on a weekly basis. The planned intervention implementation dates and assumed success factors are used to construct a reliability growth curve, refreshed each period for updated current fleet performance data and the latest intervention plan. Actual fleet performance is tracked weekly against this forecast curve. A reliability growth programme, and management of it remains in place until the required reliability has been achieved.

5 Line of Defence 3 (LoD3 - TfL Internal Audit) Assurance

- 5.1 This section covers the Internal Audit activities that were agreed in the Integrated Audit and Assurance schedule.
- 5.2 There were two audit reports issued in Quarter 4 of 2022/23 (11 December 2022 to 31 March 2023) (Q4).

Audit Delivery

- 5.3 Summary information of the reports issued in Q4 is set out below, all actions have been accepted and are being actioned on both audits.
- 5.4 The 'Obsolescence of Critical Operational Systems on the Elizabeth line' audit was rated as 'Requires Improvement'. Three high priority issues and one medium priority issue were raised. The high priority issues related to no end-toend view of obsolescence risk across the Elizabeth line, the need to implement the obsolescence standard for all critical assets and ensure obsolescence plans are in place for all critical systems.
- 5.5 The audit on 'Information Management and Transfer Hardcopy Documents' was rated as 'Requires Improvement' with two high priority issues raised. The two issues relate to the lack of an agreed transfer plan for hardcopy documents and the monitoring arrangements in place to track progress.
- 5.6 There were no audits in progress at the end of Period 13 but there was one audit in planning. This audit will start in Quarter 1 of 2023/24 (1 April to 24 June 2023) and details are provided in Appendix 1.

Management Actions

5.7 The team monitors the implementation of all Internal Audit management actions and confirms whether they have been adequately addressed before closing them. There are no overdue actions at the end of Period 13.

Changes to the Audit Plan

5.8 TfL Internal Audit regularly review and update the audit elements of the Integrated Audit and Assurance Audit Plan throughout the year, in liaison with management, to reflect changing business priorities. No changes to the plan have been made to date.

6 Line of Defence 3 (LoD3 - IIPAG-EL) Assurance

6.1 The terms of reference of the IIPAG-EL sub-group continue to provide "look ahead" overview and areas of interest highlighted as part of the revised Integrated Audit and Assurance Schedule in February 2022. We also support the assessment conducted by LoD2 to ensure adequacy and consistency. This schedule is maintained and reviewed regularly with the Elizabeth Line Programme Assurance Group which is co-ordinated by LoD2.

- 6.2 The focus by LoD3 over the reporting period has been on the performance of the enhanced service level of Stage 5b minus in terms of service and fleet reliability as well as software upgrade implementation. At the same time, also ensuring the process in place for transition to Stage 5c 24tph service is adequately managed and progressed.
- 6.3 In general, the overall assurance framework for the Elizabeth line has continued to operate effectively.

List of Appendices

Appendix 1: Line 3 (TfL Internal Audit) Work due to start in Quarter 1 2023/24.

Exempt supplementary information.

List of Background Papers:

None

Contact Officer:Lorraine Humphrey, Director of Risk and AssuranceEmail:Iorraine.humphrey@tube.tfl.gov.uk

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Work planned to start in Quarter 1 of 2023/24

• There is one audit planned to start in Quarter 1

Enterprise risk	Directorate	Ref	Audit title	Objective
ER6 Deterioration of Operational Performance	RfL(I)	22 044	Elizabeth Line Transition from Capital Programme to Business As Usual	To provide assurance on the effectiveness of the Elizabeth line's transition from a capital programme to a Business As Usual operation.

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Agenda Item 9

Elizabeth Line Committee



Date: 18 May 2023

Item: Members' Suggestions for Future Discussion Items

This paper will be considered in public

1 Summary

1.1 This paper presents the current forward plan for the Committee and explains how this is put together. Members are invited to suggest additional future discussion items.

2 Recommendation

2.1 The Committee is asked to note the forward plan and is invited to raise any suggestions for future discussion items.

3 Forward Plan Development

- 3.1 The Board and its Committees and Panels have forward plans. The content of the plans arises from a number of sources:
 - (a) standing items for each meeting: minutes; matters arising and actions list; and any regular reports, including the Safety Update, Elizabeth Line Programme Assurance Update, Elizabeth Line Operations and Programme Completion Update and Finance and Risk reports;
 - (b) regular items which are for review and approval or noting;
 - (c) matters reserved for approval or review; and
 - (d) items requested by Members: The Deputy Chair of TfL and the Chair of this Committee will regularly review the forward plan and may suggest items. Other items will arise out of actions from previous meetings (including meetings of the Board or other Committees and Panels) and any issues suggested under this agenda item.

4 Current Plan

4.1 The current list of standing items is attached at Appendix 1. Like all plans, it is a snapshot in time and items may be added, removed or deferred to a later date.

List of appendices to this report:

Appendix 1: Elizabeth Line Committee Forward Plan 2023

List of Background Papers:

None

Contact Officer:Howard Carter, General CounselEmail:HowardCarter@tfl.gov.uk

Elizabeth Line Committee Forward Plan 2023

Appendix 1

Membership: Heidi Alexander (Chair), Anne McMeel (Vice-Chair), Seb Dance, Dr Nelson Ogunshakin OBE, Mark Phillips, Sarah Atkins, Matthew Lodge (Department for Transport Representative)

Standing Items		
Safety Update	Director, Elizabeth line	
Elizabeth Line Operations and Programme Completion Update	Director, Elizabeth line	
Elizabeth Line Programme Assurance Update	Director of Risk and Assurance	
Finance and Risk Update	Chief Finance Officer	

25 July 2023		
Crossrail Complaints	Chief Finance Officer	
Benefits Evaluation and Elizabeth line Usage	Chief Finance Officer	
Project Closure	Chief Finance Officer	

Agenda Item 13

By virtue of paragraph(s) 3 of Part 1 of Schedule 12A of the Local Government Act 1972.

Agenda Item 14

By virtue of paragraph(s) 3 of Part 1 of Schedule 12A of the Local Government Act 1972.