



# The Planning Inspectorate Yr Arolygiaeth Gynllunio

**The Planning Act 2008**

**Silvertown Tunnel Order 2017**

**Examining Authority's Report of Findings and Conclusions**

**and**

**Recommendation to the  
Secretary of State for Transport**

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**Examining Authority**

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**11 July 2017**

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**ERRATA SHEET – Silvertown Tunnel - Ref TR010021**

**Examining Authority’s Report of Findings and Conclusions and  
Recommendation to the Secretary of State for Transport, dated 11  
July 2017**

**Corrections agreed by the Examining Authority prior to a decision  
being made**

<b>Page No.</b>	<b>Paragraph</b>	<b>Error</b>	<b>Correction</b>
10	1.7.2	“Great”	“Greater”
102	5.1.104	“be”	“been”
107	5.3.21 (first bullet pt)	“complaint”	“compliant”
108	5.3.29	delete “does apply ”	Replace with “is considered in relation”
144	5.4.32	Delete “Silvertown Tunnels were constructed”	Replace with “Silvertown Tunnel was constructed”
223	5.13.83	“larger”	“large”
238	5.14.58	“LCA”	“LCY”
244	5.15.31	Delete “draft s106 agreement”	Replace with “draft legal agreement”
257	5.18.33	“GMWHS”	“MGWHS”
375	9.9.6	“15(11)”	“15(13)”
	Under list of Abbreviations		Add IZ – Reference “Inner Zone”

## **ExA's findings and conclusions and recommendation in respect of the Silvertown Tunnel application made by Transport for London**

### **File Ref TR010021**

The application for the Silvertown Tunnel Order 2017[], dated 29 April 2016, was made under section 37 of the Planning Act 2008 and was received in full by The Planning Inspectorate on 3 May 2016.

The Silvertown Tunnel had previously been designated as a nationally significant infrastructure project by a Direction given by the Secretary of State for Transport under section 35 of the Planning Act 2008 on 25 June 2012. This Direction in relation to the Silvertown Tunnel, as well as any associated matters, specified that the development to be treated as one for which development consent is required.

The Applicant is Transport for London (TfL).

The application was accepted for Examination on 31 May 2016.

The Examination of the application began on 11 October 2016 and was completed on 11 April 2017.

The development proposed in the Silvertown Tunnel scheme comprises the construction of a twin bore road tunnel providing a new connection between the A102 Blackwall Tunnel Southern Approach on the Greenwich Peninsula (in the Royal Borough of Greenwich) and the Tidal Basin roundabout junction on the A1020 Lower Lea Crossing/Silvertown Way (in the London Borough of Newham). The scheme includes the introduction of free-flow user charging on both the new Silvertown Tunnel and the existing Blackwall Tunnel (where the northern portal is in the London Borough of Tower Hamlets). The Silvertown Tunnel would be approximately 1.4 km long and would include a dedicated bus, coach and heavy goods vehicle lane in each 2-lane bore.

### **Summary of Recommendation:**

The Examining Authority recommends that the Secretary of State should make the Silvertown Tunnel Order 2017 in the form set out at Appendix D.

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**APPENDIX C: LIST OF ABBREVIATIONS**

**APPENDIX D: RECOMMENDED DCO**

# **1 INTRODUCTION**

## **1.1 BACKGROUND**

1.1.1 The Silvertown Tunnel Development Consent Order scheme ('DCO scheme') was brought forward to address a perceived need to provide additional river crossings in East London. While the Case for the Scheme [APP-093] refers to consideration of a range of options since 2008, the Planning Policy Compliance Statement [APP-094] highlights the long history of plans for an additional crossing of the River Thames in the vicinity of the existing Blackwall Tunnel, with Safeguarding Directions from the Secretary of State (SoS) in force since at least 1997 and with the safeguarding powers transferred to the Mayor in 2001.

1.1.2 On 26 June 2012 the Secretary of State for Transport made a direction under section (s)35 of the Planning Act 2008 (as amended) (PA2008), being satisfied that the Silvertown Tunnel development is nationally significant although currently falling outside the definition of a Nationally Significant Infrastructure Project (NSIP)<sup>1</sup>, that the development, together with any matters associated with it, is to be treated as development for which development consent is required. The reasons given for the Direction as outlined in the Planning Policy Compliance Statement [APP-094, Appendix 1] are because of:

- London being an engine for economic growth nationally;
- The projected growth of London;
- Current congestion at the Blackwall Tunnel having a direct impact on the strategic road network; and
- The size and nature of the Silvertown Tunnel and comparison to other NSIPs.

1.1.3 The Applicant's statutory consultation under s42 of PA2008 ran from 5 October 2015 to 29 November 2015. 58% of the responses received during statutory consultation supported the scheme as a means to address the issue at Blackwall Tunnel, while 31% did not. In the light of these responses a number of changes were made to the scheme prior to the submission of the application. The Applicant's pre-application consultation is reported within the Consultation Report [APP-018] and accompanying Appendices [APP-019 to APP-030].

1.1.4 The Silvertown Tunnel application [APP-001 to APP-108] was made by Transport for London (TfL) ('the Applicant') and received in full by the Planning Inspectorate on 3 May 2016 under s37 of the PA2008. It was accepted for Examination under s55 of the PA2008 on 31 May 2016 [PD-001].

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<sup>1</sup> Section 22 of the PA2008



- 1.1.5 As referred to in paragraph 1.1.2, the development does not fall within the current definition of a NSIP, but the SoS had made a Direction under s35 of the PA2008 on 26 June 2012 that the development, together with any matters associated with it, is to be treated as development for which development consent is required.
- 1.1.6 The Applicant had formally provided notification under Regulation 6(1)(b) of the Environmental Impact Assessment (EIA) Regulations on the 12 May 2014 that it proposed to provide an Environmental Statement (ES) in respect of the Proposed Development. Therefore, in accordance with Regulation 4(2)(a) of the EIA Regulations, the Proposed Development was determined to be EIA development.
- 1.1.7 On 26 June 2014, the SoS received a Scoping Report submitted by TfL under Regulation 8 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (SI 2263) (as amended) (the EIA Regulations) in order to request a Scoping Opinion for a proposed new road tunnel linking the areas north and south of the Thames between the Greenwich Peninsula and Silvertown to be known as the Silvertown Tunnel. The Scoping Opinion<sup>2</sup> from the Planning Inspectorate (PINS) was duly published on 30 July 2014 and when the application was submitted it was accompanied by an ES [APP-031 to APP-085] that had regard to this opinion. Both Scoping Report<sup>3</sup> and Scoping Opinion are published on the National Infrastructure website.
- 1.1.8 Some 383 Interested Parties (IPs) lodged Relevant Representations (RR) [RR-001 to RR-383] including Local Authorities (LAs) and statutory consultees and Affected Persons (APs) as well as individuals, businesses and interest groups.
- 1.1.9 On 5 September 2016 the Applicant provided PINS with certificates confirming that s56 and s59 of the PA2008 and Regulation 13 of the EIA Regulations had been complied with [AS-001].
- 1.1.10 Representations and oral submissions were made by a number of other persons and accepted into the Examination at the discretion of the Panel. Where these representations were made in writing, these are recorded amongst the Additional Submissions (AS) [AS-002 to AS-057] in the Examination Library. Where oral submissions were made at hearings during the Examination these are recorded on the audio recordings and in some instances in the post-hearings written submissions made after those hearings. Examples include residents from the Siebert and Invicta Road area of Greenwich [REP2-077, REP2-078, REP2-080 and REP2-081] and supporters of the case argued by the Motorcycle Action Group against user-charges being imposed on motorcyclists [REP6-011, REP6-014 and REP6-018].

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<sup>2</sup> [Silvertown Tunnel Scoping Opinion](#)

<sup>3</sup> [Silvertown Tunnel Applicants Scoping Report](#)

## **Terminology**

- 1.1.11 This report sets the Panel's findings, conclusions and recommendation to the SoS for Transport. As the draft Development Consent Order (dDCO) contains provisions relating to user-charges and also proposes to establish new byelaws and make other provisions relating to the existing Blackwall Tunnel, we refer to the overall content of the dDCO as the 'DCO scheme' throughout our report. This is because it contains provisions that extend significantly wider than works that constitute development under the Planning Acts or traffic management measures that are commonly included in DCOs. Nevertheless, where we are considering the physical impact of the works that would be authorised by the dDCO, for example in Chapter 5 of our report, we refer to the 'Proposed Development' as appropriate shorthand to describe those works.

## **1.2 STRUCTURE OF REPORT**

- 1.2.1 This report sets out the main features of the DCO scheme, the legal and policy context, the principal issues examined and sets out the findings of the Examination by topic. It concludes with the Panel's recommendations in respect of the DCO scheme, Compulsory Acquisition (CA) and related matters and finally on whether the DCO should be made.
- 1.2.2 Given that all the application and Examination material has been published online, this report does not contain extensive summaries of all the representations, although regard has been had to them in the Panel's conclusions. The Panel has considered all important and relevant matters and set out our recommendations to the SoS against the PA2008 tests.
- 1.2.3 Chapter 1 introduces the application and summaries the Examination and procedural decisions made. Chapter 2 describes the main elements of the DCO scheme including changes made during the Examination. The site and its surroundings are also described. Chapter 3 addresses the legal and policy context, before in Chapter 4 findings and conclusions are drawn in relation to policy and factual issues. To avoid repetition, consistency with wider government policy and the broader general principles of assessment that are referred to in the National Policy Statement for National Networks (NPSNN)<sup>4</sup> and conformity with the development plan and National Planning Policy Framework (NPPF) are considered in Chapter 4 with detailed consideration given in Chapter 5 to findings and conclusions on the potential impacts of the Proposed Development against the remainder of the assessment tests in the NPSNN<sup>5</sup>.

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<sup>4</sup> Sections 2 and 3 and Section 4 up to paragraph 4.27 of the NPSNN

<sup>5</sup> Section 5 of the NPSNN together with specific impacts that are referred to in Section 4 in paragraphs 4.28 onwards.

- 1.2.4 Chapter 6 addresses the particular issue of assessment in relation to the Habitat Regulations, before in Chapter 7 concluding on the case for Development Consent. Chapter 8 addresses the issue of the CA sought together with related matters of temporary possession. In Chapter 9 the evolution of the wording of the DCO is detailed together with the Panel's conclusions as to whether further amendments are warranted or might be necessary if any or all of the planning agreements referred to below are not entered into. Finally, in Chapter 10 we summarise the Panel's overall conclusions.
- 1.2.5 Document references presented in square brackets [...] in the text can be found in the Examination Library (Appendix B).
- 1.2.6 Should the SoS decide to make the Order, a recommended DCO is attached at Appendix D, as is the list of the Events in the Examination (Appendix A) and a list of Abbreviations (Appendix C).

### **1.3 APPOINTMENT OF EXAMINING AUTHORITY**

- 1.3.1 On 12 September 2016, a Panel of three Examining Inspectors was appointed on behalf of the SoS as the Examining Authority (ExA) [PD-003], having regard to the skill sets required and suitability for chairing the Panel.
- 1.3.2 Peter Robottom was appointed as Lead Member of the Panel and Dr Lillian Harrison and Dr Austin Smyth as the other Panel members. As we are a Panel, wherever relevant we refer to ourselves as 'the Panel' rather than as the ExA.

### **1.4 THE EXAMINATION AND PROCEDURAL DECISIONS**

- 1.4.1 On 13 September 2016 we issued our Rule 6 letter [PD-004] inviting all IPs to the Preliminary Meeting (PM) that was held on 11 October 2016 at the ExCeL London at Royal Victoria Dock in the London Borough of Newham (LBN). This invitation contained our Initial Assessment of Principal Issues and a draft timetable for the Examination as well as specific notification of an initial Issue Specific Hearing (ISH) on the wording of the DCO and Open Floor Hearings (OFHs) at the same venue on the opening two days of the Examination. The OFHs were scheduled as day time and evening sessions to provide maximum opportunity for participation. After consideration of points that were raised as responses to the Rule 6 letter [AS-009 to AS-016] and at the PM, we issued our Rule 8 letter [PD-005], which included the amended Examination timetable on 18 October 2016. This letter also gave notice of the Panel's first written questions (FWQ) [PD-006].
- 1.4.2 Further ISHs and Compulsory Acquisition Hearings (CAHs) were held in in December 2016 at The Crystal at Royal Victoria Dock and in January 2017 at the ExCeL before the issue of the Panel's second written questions (SWQ) [PD-012] on 10 February 2017. Prior to this the Panel made a procedural decision on 1 February 2017 to require the Applicant to give greater publicity to a number of proposed

changes to the application [PD-010]. Finally, further ISHs, an OFH and a CAH were held at the 'Intercontinental London - The O<sub>2</sub>' in the Royal Borough of Greenwich (RBG) shortly before the close of the Examination in late March 2017. The venue for these remaining hearings was selected to be on the south bank of the river Thames to ensure that no IPs or APs could have been prejudiced had all the hearings been held in LBN.

1.4.3 Full details of the events in the Examination are set out in Appendix A to this report.

1.4.4 Throughout our Examination we ensured that the relevant provisions of the PA2008, The Infrastructure Planning (Examination Procedure) Rules 2010, The Infrastructure Planning (Compulsory Acquisition) Regulations 2010 and the Department for Communities and Local Government (DCLG) March 2015 'Guidance for the examination of applications for development consent' were observed.

## **1.5 HABITATS REGULATION ASSESSMENT**

1.5.1 Under Regulation 5(2) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 ('the APFP Regulations'), where required, an application must be accompanied with sufficient information to enable the relevant SoS to meet their statutory duties as the competent authority under the Conservation of Habitats and Species Regulations 2010 (Habitats Regulations) relating to European sites. The Applicant provided a Habitats Regulations Assessment (HRA) report (dated April 2016) [APP-064].

1.5.2 In response to the Panel's FWQ HRA5 [PD-006], the Applicant provided an updated HRA at D1 [REP1-115] which contained updated screening matrices. These updated matrices are considered to provide sufficient information on the HRA process undertaken by the Applicant. The HRA is considered in Chapter 6.

1.5.3 Subsequently, in relation to potential effects on European sites, a Report on the Implications for European Sites (RIES) [PD-014] was produced to summarise the environmental information available to the Examination. This compiled, documented, and signposted information provided within the application and subsequent information submitted throughout the Examination by both the Applicant and IPs, up to D4 of the Examination (6 March 2017).

1.5.4 The RIES was issued on 20 March 2017 to all IPs. Comments on the RIES were requested by deadline (D)6 (05 April 2017). All matters recorded in it and responses to it are considered in Chapter 6 of this report.

## **1.6 SITE INSPECTIONS**

1.6.1 During the Examination the Panel undertook a number of unaccompanied site inspections (USIs) both to generally familiarise ourselves with the site and its surroundings and also to inspect

features in the wider area that IPs suggested ought to be viewed because they could be affected by changes in traffic flows or are the locations of other river crossings, existing or proposed. These inspections were to locations that could be viewed from the public highway or other publicly accessible places.

1.6.2 These USIs took place on 11 October 2016 [EV-009], 5 December 2016 [EV-010], 16 January 2017 [EV-045] and 27 March 2017 [EV-057].

1.6.3 An accompanied site inspection (ASI) was scheduled for 6 December 2016 to inspect locations that had been requested by IPs and APs where access was required or may have been required over private land and/or where health and safety requirements necessitated application of safety measures. An itinerary and map [EV-011] were published together with action points following that inspection [EV-012]. An itinerary was published for a further CA ASI, which was held on 20 January 2017 [EV-028]. While not directly arising from the CA ASI, action points [EV-032] were issued following the CAH.

## **1.7 LOCAL IMPACT REPORTS**

1.7.1 In the Panel's Rule 8 letter, we issued an invitation under s60 of the PA2008 to the LAs defined in s56A to submit a Local Impact Report (LIR). Section 60(3) of PA2008 defines a LIR as a '*report in writing giving details of the likely impact of the Proposed Development on the authority's area (or any part of that area)*'. The host boroughs, RBG and LBN submitted LIRs for D1 of the Examination on 15 November 2016 [REP1-002 and REP1-014].

1.7.2 LIRs were also received from the London Borough of Tower Hamlets (LBTH) [REP1-005], London Borough of Southwark (LBS) [REP1-009], London Borough of Bexley (LBB) [REP1-017], London Borough of Hackney (LBH) [REP1-020], London Borough of Lewisham (LBL) [REP1-024], London Borough of Redbridge (LBR) [REP1-028] and the Great London Authority (GLA) [REP1-029] for D1 of the Examination.

1.7.3 Matters raised in the LIRs are considered in subsequent chapters of this report, in particular in Chapter 4 where referring to planning policy and in Chapter 5 in relation to impacts. Where there are unresolved issues that are referred to in LIRs they are picked up in our subsequent conclusions.

## **1.8 STATEMENTS OF COMMON GROUND**

1.8.1 The Applicant submitted a Statement of Common Ground (SoCG) Report [REP1-127] for D1. This outlined the progress on agreed and/or disputed matters. SoCG updates were received at D1 [REP1-075 and REP1-128 to REP1-150], D2 [REP2-064 and REP2-065], D3 [REP3-009 to REP3-013], D4 [REP4-063], D5 [REP5-005 to REP5-006 and REP5-028], D6 [REP6-084] and D7 [REP7-017 and REP7-033].

1.8.2 During the Examination the Applicant submitted signed SoCGs with:

- London Borough of Barking and Dagenham (LBBD) [REP1-129];
- London Borough of Bexley (LBB) [REP1-133];
- London Borough of Hackney (LBH) [REP1-134];
- London Borough of Redbridge (LBR) [REP1-136];
- London Borough of Waltham Forest (LBWF) [REP1-138];
- Health and Safety Executive (HSE) [REP1-141];
- BL CW Holdings Limited [REP1-142];
- Greater London Authority (GLA) [REP1-144];
- Quintain [REP1-145];
- Knight Dragon [REP1-146];
- Essex County Council [REP2-065];
- Highways England (HE) [REP3-010];
- Historic England [REP3-012];
- ExCel London Ltd [REP5-028]; and
- Natural England (NE) [REP6-084].

## **1.9 OTHER CONSENTS REQUIRED**

1.9.1 As part of the application, the Applicant submitted their Consent and Agreements Position Statement [APP-106] which outlined other consents and agreements that would be required. While this is in very general terms, having stressed an objective of seeking as far as possible to contain all matters within the framework of the DCO and approvals that might be necessary within its Requirements and Protective Provisions, there is reference to environmental permits anticipated as being necessary from the Environment Agency (EA) and the possibility that Protected Species licences might be required from NE.

1.9.2 The Panel sought greater specificity and updates during the course of the Examination. An update and track change of the Consent and Agreements Position Statement was provided at D3 [REP3-007 and REP3-008], though this gave very little further information other than indicating that discussions were ongoing with EA as to whether the need for separate consents under water resources legislation could be dis-applied. At D4 a more specific update was provided through a response to SWQ GA2.6 [REP4-051]. This indicated that unless further surveys revealed presence of protected species, need for Protected Species licences was not anticipated but that environmental permits would be required from the EA for discharges, mobile plant, temporary stockpiling, treatment and disposal of waste; Consents from the LAs under s61 of the Control of Pollution Act 1974 (CoPA); construction consents under the Highways Act 1980 and under the London Permits Scheme and licenses for abnormal loads. Although requested, the Applicant did not consider that a further update was warranted at D6.

## **1.10 REQUESTS TO BECOME OR WITHDRAW FROM BEING AN INTERESTED PARTY (S102A, S102B AND S102ZA).**

1.10.1 No parties requested to become or withdraw from the status of being an IP under s102A, s102B or s102ZA.

## **1.11 UNDERTAKINGS/OBLIGATIONS GIVEN TO SUPPORT THE APPLICATION**

- 1.11.1 The initial view of the Applicant was that separate Development Consent undertakings/obligations would not be necessary. However, after the Applicant agreed that they would undertake to provide noise barriers in the Siebert Road/Invicta Road area prior to the bringing into use of the proposed Silvertown Tunnel, and in order to secure offsite habitat replacement to mitigate habitat loss (biodiversity offsetting contribution), they accepted that an agreement would be required with the RBG. A draft of the prospective agreement with the RBG was set out at Appendix A to the Applicant's response to SWQ DCO questions [REP4-052].
- 1.11.2 The draft contains other provisions to provide for employment and skills training, equality and diversity, and the London Living Wage, a road safety contribution, funding for discharge of requirements and a fund to provide transitional business support and to provide for a trial of a cycle shuttle bus service. The last two items mentioned are to address adverse distributional effects of the DCO scheme and ensure that the DCO scheme is part of a sustainable transport package.
- 1.11.3 At D6, the Applicant described the legal agreements also envisaged with LBN and LBTH [REP6-075]. This post-hearing submission indicates that the Applicant does not propose the agreements to be under s106 because TfL are not as yet a substantial land-owner and as the agreements are proposed between public authorities there should be no need to bind the Applicant in relation to land holdings. This appears agreed with RBG and LBTH, though not with LBN who point out that GLA Land and Properties Limited is the main land owner of the land required for the DCO in Newham. The provisions of the proposed agreements with LBN and LBTH are essentially the same as with RBG apart from not involving the noise barrier and biodiversity off-setting provisions which are geographically specific to the south bank.
- 1.11.4 At D7, the Applicant provided an updated Position Statement on the Proposed Legal Agreement with each of the Boroughs concerned, namely LBTH [REP7-042], LBN [REP7-043] and RBG [REP7-044]. LBN submitted an alternative s106 obligation approach at this point immediately prior to the close of the Examination [REP7-005]. Regardless of this particular difference of approach, none of these three proposed agreements had been signed or sealed before the close of the Examination. The Applicant states that signed and sealed copies will be forwarded to the SoS in due course.
- 1.11.5 The Panel are not in a position to know whether this will be achieved but we comment in Chapter 9 on our view as to the extent to which provisions in these agreements are necessary to enable the DCO to be made and on whether there might be alternative amendments to the

face of the DCO, particularly to the Requirements in Schedule 2, that could possibly achieve some of the same outcomes should agreements not be forthcoming with one or more of the Boroughs.



## **2 MAIN FEATURES OF THE PROPOSAL AND SITE**

### **2.1 THE APPLICATION AS MADE**

- 2.1.1 The Applicant, Transport for London (TfL), is a statutory body created by the Greater London Authority Act (GLAA) 1999. The Case for the Scheme [APP-093] states that the GLAA imposes a general duty on the Mayor of London to develop and apply policies to promote and encourage safe, integrated, efficient and economic transport facilities and services to, from and within London. TfL is responsible for delivering these services on the Mayor's behalf.
- 2.1.2 The application for the Silvertown Tunnel Development Consent Order (DCO) scheme was submitted to the Planning Inspectorate (PINS) on 3 May 2016 and accepted for Examination on 31 May 2016.
- 2.1.3 The application comprised a Covering Letter and Section (s)55 Checklist [APP-001], Application Form [APP-002] and Guide to the Application [APP-003] together with plans showing the location, including the operational boundaries which are relevant to the user charging proposals that are included in the DCO scheme, General Arrangement Plans [APP-005]; Land Plans [APP-006]; Special Category Land Plans [APP-007]; Works Plans [APP-008]; Rights of Way and Access Plans [APP-009]; Classification of Roads Plans [APP-010]; Engineering Section Drawings and Plans [APP-011]; and Traffic Regulation Measures Plans [APP-012]. A draft DCO (dDCO) [APP-013] and Explanatory Memorandum [APP-014] was submitted together with the Statement of Reasons (SoR) [APP-015], Funding Statement [APP-016] and Book of Reference (BoR) [APP-017] as required for the proposed Compulsory Acquisition (CA) of land or rights and areas for temporary possession. The Consultation Report is set out in a number of documents [APP-018 to APP-030], as is a comprehensive Environmental Statement (ES) with various technical appendices and reports [APP-031 to APP-084] and with a separate Non-Technical Summary [APP-085]. The application was also accompanied by a Transport Assessment [APP-086 to APP-087], a Statement in Respect of Statutory Nuisance [APP-088], an energy and carbon statement [APP-089], a Health and Equalities Impact Assessment [APP-090], a Sustainability Statement [APP-091] and a Code of Construction Practice (CoCP) [APP-092].
- 2.1.4 The final group of documents accompanying the application include the Case for the Scheme [APP-093], a Planning Policy Compliance Statement [APP-094], Design and Access Statement [APP-095] and a related document entitled Design Principles [APP-096]. Also included were initial documents intended to govern mitigation and monitoring and the setting of the user charges [APP-097 to APP-099, APP-107 and APP-108]. Further supporting documents were the Outline Business Case [APP-100 to APP-104] and a Traffic Forecasting Report [APP-105]. Lastly, there was a position statement on agreements and consents [APP-106].

- 2.1.5 The DCO scheme involves the construction of a twin bore road tunnel providing a new connection between the A102 Blackwall Tunnel Approach on the Greenwich Peninsula in the Royal Borough of Greenwich (RBG) and the Tidal Basin roundabout junction on the A1020 Lower Lea Crossing/Silvertown Way in the London Borough of Newham (LBN).
- 2.1.6 The DCO scheme also includes the introduction of free-flow user charging on both the Blackwall Tunnel (the northern portal of which is located in the London Borough of Tower Hamlets (LBTH)<sup>6</sup>) and on the new Silvertown Tunnel. This measure is intended to play a fundamental role in managing traffic demand to mitigate against adverse environmental impacts and to support the financing of the construction and operation of the Silvertown Tunnel.

### **Description of the site**

- 2.1.7 As illustrated in Figure 1.1 in the ES [APP-031], above ground parts of the site lie on both banks of the river Thames.
- 2.1.8 The northern tunnel portal of the proposed Silvertown Tunnel and associated highway tie-in is situated in Silvertown to the south of Canning Town in the LBN. Transport infrastructure is a dominant feature of the area with the elevated A1020 Silvertown Way/Lower Lea Crossing and the elevated Docklands Light Railway (DLR) Woolwich extension running north-west to south-east and the Jubilee Line and Emirates Air Line cable car running north-east to south-west and continuing across the River Thames.
- 2.1.9 To the north of Silvertown Way the area predominantly consists of mixed residential and recreational land uses around the perimeter of the Royal Victoria Dock including the ExCeL Exhibition Centre and a number of hotels. This contrasts with light industrial and commercial uses to the south of Silvertown Way, which is bounded by a 'safeguarded wharf' known as Thames Wharf and a further non safeguarded wharf, known as Royal Victoria Dock Entrance Wharf. In this area Dock Rd/North Woolwich Road provides local access to a number of businesses including steel and metal suppliers, scrap metal dealers, concrete batching plants, waste recycling and management businesses and an aggregates supplier.
- 2.1.10 The tie in to existing highways is proposed to be to the Tidal Basin roundabout junction on the A1020 Lower Lea Crossing-Silvertown Way to which Dock Road is also connected.
- 2.1.11 The southern portal of the proposed Silvertown Tunnel is, like that of the Blackwall Tunnel, together with associated highway tie-in on the

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<sup>6</sup> 6 This is the reason that the London Borough of Tower Hamlets (LBTH) is treated as a host borough in subsequent references in this report although all the Proposed Development is located within Newham and Greenwich.

Greenwich Peninsula in the RBG. The main transport infrastructure on the peninsula includes the A102 Blackwall Tunnel Approach which leads to and from the existing north and southbound tunnels. The tie in for the new tunnels is proposed to be to this road. Millennium Way, which runs parallel to the A102 and provides access to the North Greenwich London Underground station serving the Jubilee Line linking to Canning Town and Canary Wharf, an adjoining bus station and the nearby Emirates Air Line south station and Clipper Pier. It is the main approach road to the O<sub>2</sub> Arena and related leisure and retail uses and for the eastern side of the Greenwich Peninsula.

- 2.1.12 The majority of the area to the north and east of the A102 is undergoing redevelopment as part of the consented Greenwich Peninsula Masterplan, which is a major high-density residential-led (approximately 12,000 homes) mixed-use development. Currently the masterplan is part implemented with offices, hotel and college buildings to the north set around the established O<sub>2</sub> Arena and with new residential blocks to the south. The central portion is predominantly laid out as surface car parks and access roads associated with the O<sub>2</sub> Arena and the station and transport facilities.
- 2.1.13 There is a redundant gas holder (approximately 75 metres (m) in diameter), lorry park, fire damaged nightclub (Studio 338) and office and commercial uses between Millennium Way and the A102 immediately south of the proposed southern tunnel portal. This area is bisected west to east by Boord Street which provides access to a footbridge crossing of the A102 that links to Tunnel Avenue on the west side. Tunnel Avenue provides access to a variety of existing and former light industrial and commercial uses on the west side of the peninsula including an aggregates supplier/wharf and a chemical distribution company.
- 2.1.14 Between the northern and southern areas, the application site includes an area of the river Thames. Permanent works in this area would only be underground in the twin bored tunnels beneath the Thames. However, temporary works or activities would be required within the river area during construction and possibly during maintenance periods.
- 2.1.15 The Examination Library references for the initial application plans have already been referred to above but to establish the location of the DCO scheme the clearest plans are the Tunnel location and operational boundaries plans [APP-004].
- 2.1.16 References to updated plans and documents current at the close of the Examination are given at the end of this Chapter of our report.

### **Description of the Principal works**

- 2.1.17 The DCO Scheme involves the construction of a twin bore road tunnel providing a new connection between the A102 Blackwall Tunnel Approach on Greenwich Peninsula (in the RBG) and the Tidal Basin

roundabout junction on the A1020 Lower Lea Crossing/Silvertown Way (in the LBN). The Silvertown Tunnel would be approximately 1.4 kilometres (km) long and would be able to accommodate large vehicles, including double deck buses. It would include a dedicated bus, coach and goods vehicle lane, which would enable TfL to provide additional cross-river bus routes.

- 2.1.18 On the north side, the Tunnel approach road connects to the Tidal Basin roundabout, which would be altered to create a new, signal controlled roundabout, linking Silvertown Way, Dock Road and the Lower Lea Crossing. Dock Road would be realigned to accommodate the new tunnel and approach road.
- 2.1.19 On the south side, the A102 would be widened to create new slip road links to the Silvertown Tunnel. A new flyover would be built to take southbound traffic exiting the Blackwall Tunnel over the northbound approach to the Silvertown Tunnel. The DCO scheme includes changes to Tunnel Avenue, including the removal of the bus-only gate, thereby allowing access for all vehicles between Blackwall Lane and Ordnance Crescent. The Boord Street footbridge over the A102 would be replaced with a new pedestrian and cycle bridge directly extending the line of Boord Street thereby improving active travel links to Tunnel Avenue and an improved link between the eastern and western sides of the Greenwich Peninsula.
- 2.1.20 New control buildings would be located close to each tunnel portal to house the plant and equipment necessary to operate the tunnels.
- 2.1.21 A Tunnel Boring Machine (TBM) would be used to bore the main tunnel sections under the river, with shorter sections of cut-and-cover tunnel at either end, linking the bored sections of the tunnel to the portals. The proposal is to assemble and launch the TBM from specially constructed chambers at Silvertown and on the Greenwich Peninsula where the bored sections and cut-and-cover sections of the Tunnel connect.
- 2.1.22 The main construction compound would be located at Silvertown, utilising the existing barge facilities at Thames Wharf together with a new temporary jetty for the removal of spoil and delivery of materials by river. A secondary site compound would be located adjacent to the alignment of the proposed cut-and-cover tunnel on the Greenwich Peninsula.

**Associated development and other measures included within the dDCO**

- 2.1.23 As submitted the DCO application did not include any separation of associated development from the works requiring development consent specified within Schedule 1 of the Order. At the Issue Specific Hearing (ISH) to examine the Applicant's dDCO [APP-013] held on 12 October 2016, the Panel raised this issue in light of the Department for Communities and Local Government (DCLG) Guidance on

associated development applications for major infrastructure projects (April 2013) This was followed up in the Panel's first written questions (FWQ) DC89 [PD-006].

- 2.1.24 For the Applicant it was pointed out that it was difficult to separate out works like that to replace the Boord Street footbridge (Work No.11 in Schedule 1 to the dDCO), the replacement Gas Pressure Reduction Station (Work 13) or those to re-align Tunnel Avenue or Dock Road from being integral works since they can be regarded as necessary accommodation works while the provision of the southern and northern tunnel services buildings are necessary for the operation of the tunnels. The Applicant accepted that the temporary jetty and river works covered in Work No 20 could have been separated out as associated development as these works are only required for the construction period and that within the unnumbered ancillary works at the end of Schedule 1, the construction compounds could have been specifically identified as Associated Development as has been the case in some other DCOs. However, since the DCO works are wholly located within England nothing turns on whether these works are treated as integral or associated.
- 2.1.25 This issue was not of concern to Interested Parties (IP). Consequently, we did not consider that the matter warranted further attention as the extent of development that could have been clearly distinguished as Associated Development is so limited. Having reached this view, the Panel notes that approach to the description of the Proposed Development taken in the Silvertown DCO rests on the very particular facts of this case. It does not consider that the approach in the recommended DCO would necessarily be applicable to applications for other DCOs, though it notes that there is precedent for the Applicant's approach in the recently made A14 Improvement DCO.
- 2.1.26 With regard to ancillary development more generally, we did have some concerns as to whether all potential works cited at the end of Schedule 1 to the Applicant's initial dDCO had been covered in the ES and whether the 'catch-all' at the end would authorise development that could be outside the assessed parameters. This was pursued throughout the Examination with a successful outcome in the ES updates, amended certified documents and by wording contained in the final dDCO submitted by the applicant at D7 [REP7-028]. This issue is addressed fully in Chapter 9.
- 2.1.27 While host boroughs<sup>7</sup>, the Port of London Authority (PLA) and other statutory consultees supported the Panel in clarifying and ensuring that safeguards were written into the DCO and supporting certified

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<sup>7</sup> It should be noted that although strictly only RBG and LBN are 'host boroughs' under the definition contained in the PA2008, because the northern portal of the Blackwall Tunnels is in LBTH, during the Examination and in the remainder of this report we use the term 'host boroughs' to include all three of these boroughs

documents, there was little controversy over ancillary development as might be defined in land use planning terms.

### ***User Charges***

- 2.1.28 What was of greater controversy were other measures that are included within the dDCO, in particular as referred to in paragraph 2.1.6, the DCO scheme also includes the introduction of free-flow user charging on both the existing Blackwall Tunnel (the northern portal of which is located in LBTH) as well as on the new Silvertown Tunnel. These powers are contained in Part 5 of the dDCO, with provision of new byelaws and vehicle removal provisions relating not only to the new Silvertown tunnel but also to the existing Blackwall tunnels to be authorised in Part 4 and contained in Schedules 9 and 10.
- 2.1.29 The byelaws and related provisions were only disputed to the extent of refining dates at which different provisions would come into force and in relation to matters of detailed drafting that were agreed by the close of the Examination. However, the issue of imposition of user-charging was at the heart of matters considered during the course of the Examination. 112 out of the 383 Relevant Representations (RR) contained an express comment on the proposed user-charges. A significant number of IPs making RRs objected to the imposition of user charges (or tolls as some described them) on the basis of fairness and parity as between east and west London residents and businesses. This is because of the large number of free road crossings in central and west London whereas east of Tower Bridge there would only be the limited capacity Rotherhithe Tunnel and the Woolwich Free Ferry available for crossing by road vehicles without charge if the existing Blackwall Tunnels and the new Silvertown Tunnel are made subject of user charges.
- 2.1.30 The objections included not only representations from those who opposed an additional road crossing in this locality (48) but also from some who supported the new tunnel proposal or made no adverse comment on the development itself but nevertheless opposed charging (49). Conversely, there were 15 express submissions of support for user-charging. Most of the objections to user-charging come from individuals but among those supportive of the DCO scheme but opposed to user charging were a number of representative bodies for business or haulage interests. This issue will be considered later in our report both in relation to the role of charging in managing traffic volumes and therefore environmental impacts (see section 5.2) but also in relation to the distributional effects of the imposition of charges on residents and businesses, a matter of concern to the host boroughs and other neighbouring Authorities. The latter issue is addressed in section 5.13.
- 2.1.31 Nevertheless, one particular representation needs to be specifically considered at this point, namely that from LBN. Although LBN implied that they would not pursue the issue if they were satisfied in relation to all other matters, their representations include querying whether

the Applicant has the power to include user-charging for the existing Blackwall Tunnels in a DCO under the Planning Act 2008 (as amended) (PA2008), even though this was not disputed in relation to the proposed user-charges for the new Silvertown Tunnel.

- 2.1.32 The argument was developed at the second ISH [EV-039 to EV-042] into the wording of the dDCO on 19 January 2017. For LBN, Thomas Hill QC pointed out that although Newham supported a package of improved river crossings to relieve congestion and develop the economy, this support was conditional upon understanding the implications and securing mitigation for their residents [REP3-035, Appendix 3]. The imposition of charges would place a burden on lower income groups and LBN consider that inadequate consideration had been given to the impact on these groups. There is no precedent for a DCO imposing charges on a currently un-tolled crossing, only harmonisation in relation to Severn and Dartford crossings and the PA2008 contains no express provision to impose such charges. Conversely s295 of the GLAA does give the Mayor of London such powers. LBN argued that the imposition of user charges on the Blackwall Tunnels is not an inevitable part of the package of proposals, noted that the Blackwall Tunnels are outside the Order limits and suggested that the powers of s144 of the PA2008 are not available to TfL. Thus, s120 would have to be relied upon. However, as 77% of the traffic of the combined tunnels is still forecast to pass through the Blackwall tunnels imposing charges cannot be regarded as subordinate or consequential.
- 2.1.33 For the Applicant Michael Humphries QC responded [REP3-017, pages 10 and 11] that s120(3) refers to matters 'relating to' or matters 'ancillary to' and as s120(4) includes any matters listed in Part 1 of Schedule 5, paragraph 18 would expressly authorise the imposition of 'other charges'. Moreover, s120(5) authorises the making of such amendments of local application as appear to the SoS to be necessary or expedient for giving full effect to any other provision of the order and to include incidental or supplementary provisions. It was not disputed that powers were available to impose charges on the proposed Silvertown Tunnel nor that the Applicant had other powers under the GLAA to impose such charges on the Blackwall Tunnels. The imposition of charges on both tunnels is intended to play a fundamental role in managing traffic demand to mitigate against adverse environmental impacts and to support the financing of the construction and operation of the Silvertown Tunnel. It would be very confusing if the charging proposals for the two tunnels that have to be considered together for traffic forecasting were promoted under two distinct legislative provisions. It would not aid public understanding and would be likely to greatly increase the complexity of the proposed monitoring, mitigation and charging procedures if not rendering them completely unworkable.
- 2.1.34 The respective arguments were set down in the post-hearing submissions [REP3-035 and REP3-017]. They were, moreover, carried through to the closing submissions to the Examination. LBN seek a

ruling on the application of s120 of the PA2008 to clarify the means by which a user charge can be introduced at the existing Blackwall Tunnel. If it is found that the proposals cannot be considered 'supplementary' or 'ancillary' pursuant to s120, the Council considers that the current application for the DCO should be refused. To assist, that Council provided at Deadline (D) 7 an updated legal position statement prepared by Thomas Hill QC and Christiaan Zwart of 39 Essex Chambers [REP7-004 and REP7-007].

- 2.1.35 The Applicant's response is set out in their Closing Statement [REP7-035] at section 4.7. This refers back to a full response made at D4 as Appendix A to their Document Explaining DCO Amendments [REP4-043].
- 2.1.36 As a Panel, we found the arguments advanced on behalf of the Applicant to be persuasive, and we are therefore satisfied that to include the totality of the charging provisions contained within the final version of the dDCO [REP7-026] would not only be appropriate and necessary to manage traffic flows and mitigate environmental impacts, but would be lawful and within the powers of the Secretary of State (SoS) for Transport under the PA2008. We recognise, however, that should the SoS take a contrary view on the legality of including the user charging provisions in respect of the existing Blackwall Tunnels, then we can but agree with LBN that there would seem to be no alternative but to reject the totality of the dDCO because a central element of the mitigation package on which the environmental assessment is predicated would not be guaranteed to be available.

## **2.2 THE APPLICATION AT THE CLOSE OF EXAMINATION**

- 2.2.1 During the Examination there were progressive amendments to the application in relation to the text of the dDCO itself, to supporting plans and to documents that would be certified under Schedule 14.
- 2.2.2 For the most part these amendments did not represent changes to the DCO scheme but rather clarifications, updates of matters like the detail in the BoR and a tightening up of limits to deviation and definitions of the river areas that might be used together with simplification and strengthening of the supporting documents to be certified as well as augmentation of Requirements and Protective Provisions to ensure that the monitoring and mitigation provisions, including the procedures for setting and reviewing user charges, would be effective.
- 2.2.3 However, at the outset of the Examination in October 2016, the Mayor provided an Update Report [AS-021]. This explained how the Silvertown Road Tunnel should be seen as part of a wider package of river crossings in East London that would provide for active travellers and sustainable public transport and not just for road vehicles. The package provides for provision of a new pedestrian and cycle bridge between Rotherhithe and Canary wharf; a further DLR tunnel crossing of the Thames at Gallions Reach to provide a link between LBN and



Thamesmead in RBG to facilitate provision of around 17,000 additional homes and to explore provision of a North Greenwich to Canary Wharf ferry. All of these schemes were stated to be achievable over the next 5 to 10 years, i.e. in parallel with the proposed implementation of the DCO scheme. However, it was subsequently clarified that a further possibility of extending the proposed Barking Riverside Extension Overground scheme beneath the Thames to Abbey Wood to link with the Elizabeth Line was a longer term possibility. Further information on these projects was provided during the Examination including the degree of financial commitment in the TfL Business Plan [REP3-026] with additional explanation provided by way of answer to second written question (SWQ) GA2.7 [REP4-051].

2.2.4 We accept that the references to these additional crossings do not represent additions to the DCO scheme and cannot be bound into its provisions. However, they do show the wider context for the DCO scheme against which to consider requests from host or neighbouring Boroughs for a more substantial package of river crossings to serve East London that are referred to in subsequent chapters of this report.

2.2.5 Specific changes to the DCO scheme were, however, put forward by the applicant on 12 January and 3 February 2017 [AS-045 to AS-048] in order to address concerns of Affected Persons (APs). The changes are as follows:

- **Non-material change (NMC)1** To extend the Development Consent Order Limits to include an additional 1540m<sup>2</sup> of land, over which the Applicant proposes to seek powers of temporary possession. This is to allow them to carry out various accommodation works in relation to the premises owned by Morden College and occupied by Brenntag Inorganic Chemicals Limited (Brenntag), specifically within the car park and storage areas occupied by Brenntag.
- **NMC2** On submission of the application in May 2016 the Applicant had proposed to utilise the void space beneath the road surface in the tunnel invert to create a services route for utilities. As a result of feedback received from utility stakeholders following the submission of the application, the Applicant is now proposing to remove the proposed use of the corridor from the application which means that the originally proposed head houses are able to be omitted.
- **NMC3** Provides for an alternative alignment for the temporary diversion of an existing highway (Edmund Halley Way). It is now proposed that this diversion would run parallel to the existing alignment and would relocate the highway slightly to the north of its current position, thereby enabling connections between the temporary diversion of Millennium Way, the existing access to North Greenwich bus station, and the remaining section of Edmund Halley Way.

- **NMC5**<sup>8</sup> An extension to the Order limits of the DCO to seek powers of temporary possession and development consent to create a temporary decked car park on the current site of the O<sub>2</sub> coach car park, as well as revised access and egress arrangements to this proposed facility along West Parkside together with consequential adjustments to other temporary parking arrangements.
- **NMC6** The construction of a direct vehicular access from Millennium Way onto land owned by Birch Sites Limited, involving site clearance, pavement construction, surfacing and fencing; to create a new access consisting of a kerbed bellmouth with bituminous surfacing from the northbound carriageway of the Millennium Way dual carriageway.

2.2.6 The Panel gave careful consideration to the case put forward by the Applicant that these five proposed changes should be considered as non-material. The Panel accepted the Applicant's view that the provisions of the Infrastructure Planning (Compulsory Acquisition) Regulations 2010 would not be triggered by these proposed changes, as the additional land taken within the Order Limits would only be subject to temporary possession powers as opposed to CA of land or rights. However, before making a decision as to whether the changes should be accepted into the Examination as non-material, we issued a Procedural Decision [PD-010] to direct the Applicant to undertake additional publicity. After consideration of the responses to this additional publicity as well as the views of the APs specifically affected, the Panel issued a Procedural Decision [PD-015] on the matter on 28 March 2017.

2.2.7 Having regard to the nature of the five proposed changes and the very limited response to the Applicant's own initial consultations, which demonstrated general support for the changes from those with interests in land affected by the changes and the absence of specific comment arising from the extensive additional publicity and consultations that we requested, the Panel accepts that each of the five proposed changes can be regarded individually as non-material and that cumulatively the changes can also be regarded as non-material because:

- (1) The application as changed would remain materially the same project as applied for and the application remains of sufficient standard for Examination;
- (2) Having regard to the principles of the Wheatcroft judgement<sup>9</sup>, we are satisfied that anyone who might be affected by the changes has had sufficient opportunity to have their views heard and taken into account; and
- (3) All procedural requirements have been met.

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<sup>8</sup> NMC4 was not used as a reference because this referred to landscaping measures that could be covered through the provisions of a Requirement.

<sup>9</sup> Bernard Wheatcroft Ltd v Secretary of state for the Environment (1982) 43 P & CR 233

2.2.8 The Panel therefore confirmed in our Procedural Decision [PD-015] that the five proposed changes were accepted into the Examination of the application which is therefore reported upon as changed by NMC1, NMC2, NMC3, NMC5 and NMC6.

2.2.9 In the light of the changes made during the Examination both those referred to as simply updating and tightening up the documentation and those involve in acceptance of the five proposed changes as non-material, the application at the close of the Examination is set out in the following Documents:

- (1) The updated dDCO (revision 6) [REP7-026] contained in document reference 3.1 (revision 6) [REP7-026].
- (2) The updated Explanatory Memorandum (EM revision 6) contained in document reference 3.2 (revision 6) [REP7-029].
- (3) The updated Book of Reference (BoR)(revision 3) contained in document reference 4.3 (revision 3) [REP7-031].
- (4) The updated Bus Strategy (revision 2) contained in document reference 8.82 (revision 2) [REP7-024].
- (5) The updated Charging Policies and Procedures (revision 3) contained in document reference 7.11 (revision 3) [REP6-060].
- (6) The updated Classification of Roads Plans contained in document reference 2.7 (revision 1) (revision P02 in respect of sheet 1 and revision P01 in respect of sheet 2) [REP6-035].
- (7) The updated Code of Construction Practice (CoCP) (revision 4) contained in document reference 6.10 (revision 4) [REP6-056].
- (8) The updated Design Principles (revision 3) contained in document reference 7.4 (revision 3) [REP6-058].
- (9) The updated Engineering Section Drawings and Plans contained in document reference 2.8 (revision 1) (revision P02 in respect of sheets 1, 6 to 10, 21 to 23 and revision P01 in respect of sheets 2 to 5 and 11 to 20) [REP6-086].
- (10) The updated General Arrangement Plans contained in document reference 2.2 (revision 1) (revision P04 in respect of all sheets) [REP6-085].
- (11) The updated Land Plans contained in document reference 2.3 (revision P01.1 in respect of all sheets) [REP4-023].
- (12) The updated Landscaping Plan contained in document reference 8.88 (revision P02) [REP6-070].
- (13) The updated Monitoring and Mitigation Strategy contained in document reference 8.84 (revision 2) [REP7-049].
- (14) The updated Rights of Way and Access Plans contained in document reference 2.6 (revision 1) (revision P02 in respect of sheet 1 and revision P01 in respect of sheets 2 and 3) [REP6-034].
- (15) The updated River Restrictions Plan contained in document reference 2.10 (revision 1/P02) [REP7-023].
- (16) The River Restrictions section contained in document reference 2.10 (revision 0/P01) [REP7-023].
- (17) The updated Special Category Land Plan contained in document reference 2.4 (revision P01.1) [REP4-024].

- (18) The updated Traffic Regulation Measures (Speed Limits and Restricted Roads) Plans contained in document reference 2.9 (revision 1) (revision P02 in respect of sheet 1 and revision P01 in respect of sheets 2 to 4) [REP6-036].
- (19) The updated Traffic Regulation Measures (Clearways and Prohibitions) Plans contained in document reference 2.9 (revision 1) (revision P02 in respect of sheet 1 and revision P01 in respect of sheets 2 to 4) [REP6-036].
- (20) The updated Tunnels Location and Operational Boundaries Plans contained in document reference 2.1 (revision 1) (revision P03 in respect of sheet 1 of the tunnels location and operational boundaries plans (location plan), revision P02 in respect of sheet 1 of the tunnels location and operational boundaries plans (tunnels operational boundaries plans) and revision P01 in respect of sheets 2 and 3 of the tunnels location and operational boundaries plans (tunnels operational boundaries plans)) [REP6-032].
- (21) The updated Works Plans contained in document reference 2.5 (revision 2) (revision P03 in respect of sheet 1 and revision P04 in respect of sheets 2 and 3) [REP6-033].

2.2.10 The application at the close of the Examination is accompanied by an ES, the details of which, as updated and augmented, are set out in Schedule 14 of the dDCO [REP7-026].

## **2.3 RELEVANT PLANNING HISTORY**

2.3.1 There is no directly relevant planning history of actual proposals being submitted and considered for a tunnel or other river crossing at this point between RBG and LBN. However, the principle of such a link essentially at this location is of long-standing origin. Safeguarding Directions have been in existence since at least 1997<sup>10</sup> and therefore the potential to realise the proposal has been secured in permissions granted for development of the area on and around the application site including in relation to the Greenwich Peninsula Masterplan.

2.3.2 A Silvertown crossing proposal is specifically enshrined in the Mayoral Transport Strategy 2010 [AS-007] and in the London Plan 2011 [AS-006] which is part of the statutory development plan for the locality. The safeguarding directions are also embodied in the core strategies/local plans for the relevant Host Boroughs. This planning background is addressed more fully in Chapters 3 and 4 of this report.

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<sup>10</sup> Some documents refer to Directions having been in place since 1995, but those provided in evidence date first from 1997.

### **3 LEGAL AND POLICY CONTEXT**

- 3.1.1 The Planning 2008 (as amended) (PA2008) prescribes the matters which have to be taken account of in examining and determining applications for Nationally Significant Infrastructure Projects (NSIPs). The Applicant recognises this and set out in the Planning Policy Compliance Statement [APP-094] their assessment in relation to the relevant tests.
- 3.1.2 As the Proposed Development is development that requires Environmental Impact Assessment (EIA) further consideration is also explicitly given in Appendix 1.A [APP-044] of the Environmental Statement (ES) to compliance with the National Policy Statement for National Networks (NPSNN).
- 3.1.3 The PA2008 gives a particular status to the content of Local Impact Reports (LIR) submitted by host Local Authorities (LAs) or neighbouring LAs. Those which were received are detailed later in this chapter.

#### **3.2 PLANNING ACT 2008**

- 3.2.1 Under section (s)104 of the PA2008 (when a National Policy Statement (NPS) has effect in relation to the development to which the application relates), the Secretary of State (SoS) must have regard to a number of matters. These are the relevant NPS, any appropriate marine policy documents produced in accordance with s59 of the Marine and Coastal Access Act 2009 (MCA), any LIRs submitted before the requisite deadline and any other matters that the SoS considers to be both important and relevant.
- 3.2.2 The SoS must decide the application in accordance with the relevant NPS except where to do so would result in the United Kingdom (UK) being in breach of any of its international obligations, or any breach of a duty imposed by or under any enactment, or to be unlawful by virtue of any enactment. The SoS may also decide an application other than in accordance with the relevant NPS if satisfied that the adverse impact of the Proposed Development would outweigh its benefits, or if any condition prescribed for deciding an application other than in accordance with the NPS is met.
- 3.2.3 If s104 does not apply, then under s105 the SoS must have regard to any LIRs submitted before the requisite deadline, to any matters prescribed in relation to development of the description to which the application relates and any other matters that the SoS considers to be both important and relevant.
- 3.2.4 The Proposed Development contained in the application for the Silvertown Tunnel Development Consent Order (DCO) does not fall within the definitions contained in s22 of the PA2008 for highway-related development to constitute a NSIP under s14 of the PA2008, primarily because the SoS is not the highway authority for the

highways proposed to be constructed or altered. However, as set out in paragraph 1.1.2 of this report, on 26 June 2012 the SoS for Transport made a Direction under s35 of the PA2008 that the Proposed Development, together with any matters associated with it, is to be treated as development for which development consent is required.

- 3.2.5 Given that the application only falls to be considered under the PA2008 by virtue of this Direction, the Panel gave careful consideration to the issue of whether it should be considered under s104 or s105. This issue is addressed in the following section of this report and the remainder of the report then sets out the Panel's findings, conclusions and recommendations taking the specified matters fully into account and applying the approach set out in the relevant section of the PA2008.

### **3.3 NATIONAL POLICY STATEMENT FOR NATIONAL NETWORKS (NPSNN)**

- 3.3.1 The NPSNN was presented to Parliament on 17 December 2014. It was formally designated and took effect on 14 January 2015. It sets out Government policies on the need for and delivery of NSIPs on the national road and rail networks in England.
- 3.3.2 The preliminary issue confronting the Panel is that the Strategic Road Network (SRN) illustrated on the plans in Annex A of the NPSNN does not include any roads within the area of inner London where the application site is located. Thus, although the majority of the roads to be altered or constructed under the application proposals are or would be designated as Greater London Authority (GLA) roads as part of the Transport for London (TfL) road network, and thus locally strategic in nature, the government policy contained in the NPSNN is not expressly directed to such roads.
- 3.3.3 In addition, the Appraisal of Sustainability (AoS), which incorporates a Strategic Environmental Assessment (SEA)<sup>11</sup> supporting the preparation of the NPSNN, was prepared at a time when the Department for the Environment, Food and Rural Affairs (Defra) forecasts and plans for securing compliance with Air Quality objectives and limit values were in forms that have been subsequently found to be defective or unlawful in the ClientEarth judgements<sup>12</sup>. A further issue is therefore whether the NPSNN should be regarded as out of date and in need of review.

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<sup>11</sup> Pursuant to Directive 2001/42/EC as transposed by SI 2004/1633 'The Environmental Assessment of Plans and Programmes Regulations 2004'

<sup>12</sup> Supreme Court judgment in the case of R(ClientEarth) v Secretary of State for the Environment, Food and Rural Affairs Client 29 April 2015 [2015] UKSC 28 on appeal from [2012] EWCA Civ 897 and R(ClientEarth (No 2)) v Secretary of State for Environment, Food and Rural affairs 2 November 2016 [2016] EWHC 2740 (Admin).

- 3.3.4 Given these considerations, we raised these matters at the Preliminary Meeting (PM) and then again at the outset of the Examination and sought formal responses from the Applicant and Interested Parties (IP) in our first written questions (FWQ) GA2 [PD-006]. We also specifically asked in our second written questions (SWQ) GA2.5 [PD-012] about the regard that the Applicant had to the AoS. The Applicant's response to the former was set out in their FWQ General GA Report [REP1-180]. This takes paragraphs 1.1 and 1.3 of the NPSNN as the key passages that indicate that the DCO application should be determined under s104. Paragraph 1.1 states that the NPSNN *'provides planning guidance for promoters of nationally significant infrastructure projects on the road and rail networks, and the basis for the Examination by the Examining Authority and decisions by the Secretary of State'*. The Applicant refers to the statement in the s35 Direction that the SoS was *'satisfied that the proposed Silvertown Tunnel development is nationally significant'*, which in their view brought the application within the terms of paragraph 1.1. Paragraph 1.3 refers to s35 Directions where a project does not meet current requirements for a NSIP but is considered to be nationally significant. It states that *'In these circumstances any application for development consent would need to be considered in accordance with this NPS.'* The paragraph adds that the *'relevant development plan is also likely to be an important and relevant matter especially in respect of establishing the need for the development.'*
- 3.3.5 The Applicant also noted in their FWQ General GA Report [REP1-180] the nature and scope of the SEA that was carried out alongside the preparation of the NPSNN, but did not see any basis on which this alters the statutory requirement in s104 for the application to be decided in accordance with the NPSNN. In the Applicant's SWQ General GA Report [REP4-051] in response to the Panel's SWQ GA2.5 [PD-012], the Applicant noted that in the AoS, although the focus of the assessment of alternatives was on the strategic road network, the footnote to paragraph 7.1.3 of the AoS expressly acknowledges that the NPSNN would also have effect in relation to any nationally significant schemes on local roads. That the Applicant had taken account of the AoS was also noted.
- 3.3.6 The Applicant argued that their approach is supported by the precedent in the SoS's decision on the only s35 highway scheme to have been determined under the PA2008 to date, namely the Norfolk County Council (Norwich Northern Distributor Road (A1067 to A47(T))) Order 2015 made in June 2015 ('the NDR scheme'). A s35 Direction was made in relation to the NDR scheme in August 2013. In the decision letter dated 2 June 2015 for the scheme, the SoS, in paragraphs 9 and 11, stated that since the Examination had closed, the SoS had designated the NPSNN under s5 of the 2008 Act on 14 January 2015, and that *'He is accordingly required now to decide this application in accordance with s104 of the 2008 Act (decisions in cases where a national policy statement has effect).'*

- 3.3.7 A number of IPs also chose to answer FWQ GA2 [PD-006] and comment on this issue. These included one of the Host Boroughs, the London Borough of Newham (LBN), who suggested that the latest ClientEarth judgment renders the NPSNN out of date [REP1-015]. The Campaign for Better Transport (CfBT) considered that the application should be considered in the context of the London Plan and the National Planning Policy Framework (NPPF) and that it would be inappropriate to consider a scheme wholly within London in relation to the NPSNN [REP1-050]. The Port of London Authority (PLA) provided specific legal argument in their Response to the Panel's FWQ [REP1-054] as to why the application should be decided under s105 rather than s104. This is essentially because s35 gives a power to require development to be treated as development for which development consent is required, rather than as stated in paragraph 1.3 of the NPSNN that it should be treated as a NSIP. However, the PLA accepted that this would make very little practical difference to the examination and determination of the application. Whether it was in accordance with the NPS would be a balanced judgment based on the outcome of all the assessment tests in the NPSNN. This would also be the requirement in relation to the development plan which would be both important and relevant under s104, whereas under s105 the NPSNN would no doubt be both important and relevant.
- 3.3.8 For our part we were convinced by the arguments advanced by the Applicant based primarily on the wording of the introductory paragraphs of the NPSNN. We accept that the wording of the NPSNN does not strictly follow s35 of the PA2008, but in the SoS's Direction there is reference to the application being for development considered to be of national significance as well as the express requirement for the application to be an application for development consent. We also accept the argument put forward by the Applicant that the made DCO for the Norwich Northern Distributor Road provides the closest practice reference for the considerations relevant to this application.
- 3.3.9 Moreover, in addition to assessing the application against the NSPNN, we do consider the application against the relevant policies from the London Plan, as advocated by CfBT and indeed as required by paragraph 1.3 of the NPSNN because they are important and relevant matters in establishing the need for the development.
- 3.3.10 Finally, with regard to the ClientEarth judgments, we note that the AoS for the NPSNN provides a very high level environmental appraisal so that while its context may date from that of air quality plans which have been quashed and had, at the time the Examination closed, yet to be replaced, the wording of the NPSNN under the heading of 'Emissions' on page 25 does not refer to the quashed plans or the forecasts that were found to be unrealistic and over-optimistic but only to trends in more general terms. More particularly, the assessment tests in relation to air quality on pages 47-49 of the NPSNN appear to us correctly to address the requirements of the Air Quality Directive and put forward an approach to consideration of applications that is compliant with the Directive.



3.3.11 As a consequence of our conclusions, we make this report on the basis that the application falls to be considered under s104. However, we recognise, as the PLA points out [REP1-054], that the same matters will need to be addressed whether the application is considered under s104 or s105.

### **3.4 MARINE AND COASTAL ACCESS ACT 2009 (MCA)**

3.4.1 The MCA authorised the production of marine plans and designation of Marine Conservation Zones (MCZs) in UK waters as well as establishing the Marine Management Organisation (MMO).

#### **UK Marine Policy Statement**

3.4.2 The UK Marine Policy Statement (MPS) was prepared and adopted for the purposes of s44 of the MCA and was published on 18 March 2011 by all the UK administrations as part of a new system of marine planning being introduced across UK seas.

3.4.3 The MPS is the framework for marine planning systems within the UK. It provides the high level policy context, within which national and sub-national Marine Plans will be developed, implemented, monitored, amended and will ensure appropriate consistency in marine planning across the UK marine area. The MPS also sets the direction for marine licensing and other relevant authorisation systems. The UK marine area includes any area submerged by seawater at mean high water spring tide, as well as the tidal extent (at mean high water spring tide) of rivers, estuaries and creeks<sup>13</sup>, a definition of relevance to this case. However, no Marine Plan has yet been prepared for the Thames Estuary.

3.4.4 The MPS has provided the overarching policy context for the Panel's consideration of the application offshore works and the Deemed Marine Licence (DML) that forms Schedule 12 to the draft DCO (dDCO) as required by s104(2)(aa).

3.4.5 Under the MCA the SoS for Environment, Food and Rural Affairs designated, on 21 November 2013, 27 MCZs around the English coast to form part of a network of Marine Protected Areas (MPAs). Further designations are proposed. The consultation on the third tranche of recommended Marine Conservation Zones (including the Thames Estuary) is due to occur in 2017 with designations being made, where appropriate, in 2018. The MMO within their Written Representation and Response to ExA's FWQ [REP1-046] point out that in their opinion until a rMCZ is formally designated, there is no statutory obligation to consider the proposed features of the rMCZ that are to be afforded protection. However, the evidence base which has informed the rMCZ should be considered.

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<sup>13</sup> see Marine and Coastal Access Act 2009 s42(3) and (4)

3.4.6 The Applicant submitted a specific Marine Policy Compliance Statement at Deadline 6 (D6) [REP6-078]. Earlier in the Examination a Statement of Common Ground (SoCG) between the Applicant and the MMO had been submitted [REP2-064]. This was updated at D5 [REP5-006]. In this latter document, although unsigned, almost all matters were noted as agreed though a few items were noted as awaiting comments from the Centre for Environment, Fisheries and Aquaculture Science (Cefas). The MMO provided an update on further work being undertaken to resolve the outstanding matters at D6 [REP6-004], but indicating that, if not wholly resolved by the close of the Examination, approval of such matters would be covered by conditions proposed within the DML. At D7 the MMO indicated that in the light of further information provided by the Applicant no issues remained in respect of coastal processes and that in relation to the potential effect of dredging on water quality, in respect of which Cefas still had concerns, the MMO were prepared to defer to the Environment Agency (EA) in view of their statutory responsibilities for water quality in UK inshore and estuarine waters [REP7-016]. No matters relevant to the MMO therefore remained to be agreed with the Applicant.

### **3.5 EUROPEAN REQUIREMENTS AND RELATED UK REGULATIONS**

#### **Air Quality Directive (Council Directive 2008/50/EC)**

- 3.5.1 Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe (EU Air Quality Directive) entered into force on 11 June 2008. It sets limit values for compliance and establishes control actions where the limit values are exceeded for ambient air quality with respect to sulphur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>) and Mono-nitrogen oxides and nitrogen oxide (NO<sub>x</sub>), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), lead, benzene and carbon monoxide.
- 3.5.2 The Air Quality Standards Regulations 2010 give effect, in England, to the EU Air Quality Directive.
- 3.5.3 Part IV of the Environment Act 1995 (EA1995) requires all local authorities in the UK to review and assess air quality in their area. If any standards are being exceeded or are unlikely to be met by the required date, then that area should be designated an Air Quality Management Area (AQMA) and the local authority must draw up and implement an Air Quality Action Plan (AQAP) aimed at reducing levels of the pollutant.
- 3.5.4 AQMAs have been designated within the host boroughs and the Proposed Development is therefore relevant to the implementation of these plans.
- 3.5.5 Our report section 5.3 considers air quality legislation, infraction proceedings and related litigation in detail.

### **Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive)**

- 3.5.6 The Habitats Directive (together with Council Directive 2009/147/EC on the conservation of wild birds) underpins the Europe-wide Natura 2000 network of protected sites and a European system of species protection. The Directive protects over 1000 animals and plant species and over 200 habitat types (for example, special types of forests, meadows and wetlands) which are of European importance.

### **Council Directive 2009/147/EC on the conservation of wild birds (the Birds Directive)**

- 3.5.7 The Birds Directive is a comprehensive scheme of protection for all wild bird species naturally occurring in the European Union (EU). The Directive controls habitat loss and degradation that threatens the conservation of wild birds. It protects habitats for endangered as well as migratory species. It requires classification of areas as Special Protection Areas (SPAs) comprising all the most suitable territories for these species. Since 1994 all SPAs form an integral part of the Natura 2000 ecological network.

- 3.5.8 The Birds Directive bans activities that directly threaten birds, such as the deliberate killing or capture of birds, the destruction of their nests and taking of their eggs, and associated activities such as trading in live or dead birds. It requires Member States to take the requisite measures to maintain the population of species of wild birds at a level which corresponds, in particular, to ecological, scientific, and cultural requirements while taking account of economic and recreational requirements.

### **The Convention on Wetlands of International Importance, especially as Waterfowl Habitat) (1971) (the Ramsar Convention)**

- 3.5.9 The UK is bound by the terms of the Ramsar Convention, resulting in the designation of Ramsar sites in the UK, which are wetlands of international importance.
- 3.5.10 The Ramsar Convention is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. Under the 'three pillars' of the Convention, the Contracting Parties commit to:
- work towards the wise use of all their wetlands;
  - designate suitable wetlands for the list of Wetlands of International Importance (the 'Ramsar List') and ensure their effective management; and
  - co-operate internationally on transboundary wetlands, shared wetland systems and shared species.

### **The Conservation of Habitats and Species Regulations 2010 (as**

### **amended) (the Habitats Regulations)**

- 3.5.11 The Habitats Regulations replaced The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) in England and Wales. The Habitats Regulations (which are the principal means by which the Habitats Directive is transposed in England and Wales) update the legislation and consolidated all the many amendments which have been made to the regulations since they were first made in 1994.
- 3.5.12 The Habitats Regulations apply in the terrestrial environment and in territorial waters out to 12 nautical miles. The Conservation of Habitats and Species (Amendment) Regulations 2012 came into force on 16 August 2012. These Regulations amend the Habitats Regulations. They place new duties on public bodies to take measures to preserve, maintain and re-establish habitat for wild birds. They also make a number of further amendments to the Habitats Regulations to ensure certain provisions of the Habitats Directive and the Birds Directive are transposed clearly.
- 3.5.13 No part of the application site involves any sites designated or proposed as part of the Natura 2000 network nor any others required to be considered under the Habitats and Species Regulations as a matter of policy, such as the sites designated under the Ramsar Convention<sup>14</sup>. However, the Applicant considered possible impacts on any such sites which could be affected by the proposed development, which could be some distance away. Their assessment is set out in the accompanying ES and in particular in a Habitats Regulations Assessment (HRA) that formed Appendix 9.G to that document [APP-064]. This was updated at D1 [REP1-115]. The assessment considered 9 designated sites<sup>15</sup> up to 30 kilometres (km) distant from the site. The conclusions in relation to HRA are set out fully in Chapter 6 of this report.

### **The EU Environmental Assessment Directive (Council Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment) (as amended) (the EIA Directive) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended) (the EIA Regulations)**

- 3.5.14 This Directive requires projects likely to give rise to significant environmental effects to have an assessment of those effects undertaken and for an ES setting out those effects to accompany applications for permission. The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended)

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<sup>14</sup> The sites defined as 'European sites and European marine sites' under the Habitats Regulations (Regulation 8) and sites treated as European sites as a matter of Government policy (NPPF, paragraph 118) include: Special Areas of Conservation (SACs), candidate SACs and possible SACs; Special Protection Areas (SPAs), potential SPAs; Sites of Community Importance (SCIs); listed or proposed Ramsar sites; and any sites identified as compensatory measures for adverse effects on any of the above.

<sup>15</sup> In some instances SPA and Ramsar sites cover similar areas in the Lee Valley and Thames Estuary.

(the EIA Regulations) apply the Directive to the procedure for submission and consideration of Development Consent Orders under the PA2008. As noted in Chapter 1 of this report, the application was accompanied by an ES and the updated content of the ES at the close of the Examination is referred to in schedule 14 to the final dDCO [REP7-026]. In Chapter 4 of this report we refer to the process by which the ES was updated and its content is, where relevant, set out in relation to the consideration of the impacts of the Proposed Development in Chapter 5 of this report.

### **The EU Water Framework Directive (Council Directive 2000/60/EC) (the WFD)**

- 3.5.15 On 23 October 2000, Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy or, in short, the EU Water Framework Directive, was adopted. Some amendments have been introduced into the Directive since 2000<sup>16</sup>.
- 3.5.16 In addition to works within the River Thames, the tunnelling and other works in the DCO scheme could affect various water-related issues that fall within the scope of the WFD. In addition to various chapters in the ES addressing relevant matters, a Water Framework Directive Compliance Assessment was submitted with the application as Appendix 10.A to the ES [APP-066]. This was updated at D1 [REP1-117] and the issues are considered in detail in Chapter 5.

## **3.6 OTHER LEGAL AND POLICY PROVISIONS**

### **United Nations Environment Programme Convention on Biological Diversity 1992**

- 3.6.1 The UK Government ratified the Convention in June 1994. Responsibility for the UK contribution to the Convention lies with the Department for Environment, Food and Rural Affairs (Defra) who promote the integration of biodiversity into policies, projects and programmes within Government and beyond.
- 3.6.2 This is of relevance to biodiversity, biological environment and ecology and landscape matters which are discussed in Chapter 5 of this report, where the findings of the ES and comments by statutory consultees and other IPs are considered in detail, and also in relation to HRA in Chapter 6.
- 3.6.3 As required by Regulation 7 of the Infrastructure Planning (Decisions) Regulations 2010, the Panel has had regard to this Convention in its consideration of the likely impacts of the proposed development and appropriate objectives and mechanisms for mitigation and compensation. In particular, the Panel finds that compliance with the

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<sup>16</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:02000L0060-20090625:EN:NOT>

UK provisions on EIA, HRA and transboundary matters, referred to below, satisfies, with regard to impacts on biodiversity, the requirements of Article 14.

### **THE WILDLIFE AND COUNTRYSIDE ACT 1981 (AS AMENDED)**

- 3.6.4 The Wildlife and Countryside Act 1981 is the primary legislation which protects animals, plants, and certain habitats in the UK. The Act provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs). These sites are identified for their flora, fauna, geological or physiographical features by the countryside conservation bodies (in England Natural England). The Act also contains measures for the protection and management of SSSIs.
- 3.6.5 The Act is divided into four parts: Part I relating to the protection of wildlife, Part II relating to designation of SSSIs and other designations, Part III on public rights of way and Part IV on miscellaneous provisions. If a species protected under Part I is likely to be affected by development, a protected species licence will be required from Natural England.
- 3.6.6 While there are no SSSIs directly affected by the DCO scheme, the ES has considered potential impacts on notified and other habitats of interest to and on protected species and other rare flora and fauna. While at the close of the Examination no need for a protected species licence had been identified, biodiversity in general and issues in respect of protected or rare species are detailed in Chapter 5 of this report.

### **NATURAL ENVIRONMENT AND RURAL COMMUNITIES ACT 2006**

- 3.6.7 The Natural Environment and Rural Communities Act made provision for bodies concerned with the natural environment and rural communities, in connection with wildlife sites, SSSIs, National Parks and the Broads. It includes a duty that every public body must, in exercising its functions, have regard so far as is consistent with the proper exercising of those functions, to the purpose of biodiversity. In complying with this, regard must be given to the United Nations Environment Programme Convention on Biological Diversity of 1992.
- 3.6.8 This is of relevance to biodiversity, biological environment and ecology and landscape matters in relation to the proposed development. These matters are addressed in detail in Chapter 5 of this report.

## **3.7 MADE DEVELOPMENT CONSENT ORDERS**

- 3.7.1 As already mentioned, the closest practice reference for the considerations relevant to this application by way of a made DCO is the Order for the NDR scheme which was made in June 2015. The Applicant provided precedent for the drafting of a number of articles and requirements in the dDCO from a wide range of made DCOs including, though not exclusively, those relating to transport schemes. Many of these precedents are cited in the Explanatory Memorandum

accompanying the dDCO [APP-014] as submitted. This document was updated throughout the Examination [REP1-097, REP1-098, REP2-023, REP2-024, REP3-005, REP3-006, REP4-027, REP4-028, REP6-040, REP6-041, REP7-029 and REP7-030].

### **3.8 TRANSBOUNDARY EFFECTS**

- 3.8.1 Transboundary screening was undertaken by the SoS at the time that the Applicant made a scoping request to the Planning Inspectorate (PINS) and again following submission of the application. The screening undertaken and the decisions dated 17 July 2014 and 10 October 2016 are set out in the Transboundary Screening Matrix [OD-001]. Under Regulation 24 of the EIA Regulations and on the basis of the information available from the Applicant, the SoS was of the view that the proposed development is not likely to have significant effects on the environment in another European Economic Area (EEA) State.
- 3.8.2 In reaching this view the SoS has applied the precautionary approach (as explained in PINS Advice Note 12 Transboundary Impacts Consultation). Transboundary issues consultation under Regulation 24 of the EIA Regulations was therefore not considered necessary.
- 3.8.3 The Panel has had regard to the ongoing duty to have regard to transboundary matters throughout the Examination and is satisfied that with regard to Regulation 7 of the Infrastructure Planning (Decisions) Regulations 2010, all transboundary biodiversity matters have been addressed and there are no matters outstanding that would argue against the Order being confirmed.

### **3.9 NATIONAL PLANNING POLICY FRAMEWORK (NPPF)**

- 3.9.1 Paragraph 3 of the NPPF states that this Framework does not contain specific policies for nationally significant infrastructure projects for which particular considerations apply. These are determined in accordance with the decision-making framework set out in the PA2008 and relevant NPS for major infrastructure, as well as any other matters that are considered both important and relevant (which may include the NPPF). The NPSNN indicates that the development plan will be important and relevant in establishing the need for the development where development consent is required for a project because it has been subject, as in this case, to a s35 Direction.
- 3.9.2 As there is clear development plan policy relevant to the DCO scheme in the London Plan 2011 (as consolidated with amendments March 2016) and the core strategies/local plans of the Host Boroughs, the NPPF is less important than these documents because at paragraph 12 of the Framework it is stated that it does not change the statutory status of the development plan as the starting point for decision making and that proposed development that accords with an up to

date development plan should be approved and vice versa unless material considerations indicate otherwise<sup>17</sup>. Paragraph 14 explains that the presumption in favour of sustainable development is a golden thread running through plan-making and decision-taking and means approving development proposals that accord with the development plan.

- 3.9.3 Nevertheless, in respect of certain issues that have been flagged up in the course of the Examination, there are no assessment tests in the NPSNN. Neither have relevant policies in the development plan been drawn to our attention in relation to all such issues. In these circumstances the NPPF and related Planning Policy Guidance (PPG) are treated as both important and relevant in reaching our conclusions. An example is in relation to hazardous substances (see section 5.12 of this report).

### **3.10 LOCAL IMPACT REPORTS**

- 3.10.1 Ss104 and 105 state that in deciding the application the SoS must have regard to any LIR within the meaning of s60(3).
- 3.10.2 There is a requirement under s60(2) of PA2008 to give notice in writing to each LA falling under s56A inviting them to submit LIRs. This notice was given as part of the Rule 8 letter dated 18 October 2016 following the PM [PD-005].
- 3.10.3 LIRs have been submitted by the three Host Boroughs: Royal Borough of Greenwich (RBG) [REP1-002], LBN [REP1-014] and London Borough of Tower Hamlets (LBTH) [REP1-005]. Neighbouring boroughs also submitted LIRs: London Borough of Southwark (LBS) [REP1-009], London Borough of Bexley (LBB) [REP1-017], London Borough of Hackney (LBH) [REP1-020], London Borough of Lewisham (LBL) [REP1-024] and London Borough of Redbridge (LBR) [REP1-028]. The GLA in its role as a planning authority also submitted a LIR [REP1-029].
- 3.10.4 A number of the LIRs expressed support in principle to a greater or lesser extent for the DCO scheme as part of a package of river crossings to provide greater resilience, reduce congestion and support economic development. However, greater commitment was sought to a wider package of East London river crossings and there was general concern over the validity of the forecast 'Assessed Case' of traffic flows following the implementation of the DCO scheme. This concern arose from the extent of local modelling undertaken and the value of time used and therefore a lack of confidence in the degree of elasticity that there may be in responses to user-charging. In turn this means that Boroughs were not convinced that the forecast effects on air quality, noise or other environmental parameters will necessarily be achieved.

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<sup>17</sup>S38(6) of the planning and Compulsory Purchase Act 2004 and s70(2) of the Town and Country planning Act 1990



- 3.10.5 There was a general concern over the effectiveness of the mechanisms for monitoring and mitigation and the way in these would result in sufficiently rapid adjustments in the user charges through the operation of the Silvertown Tunnel Implementation Group (STIG) as proposed in the application dDCO. Host Boroughs and some neighbouring Boroughs were particularly concerned over the distributional effects of the user charges on local residents (and business). Thus, they were concerned over a lack of clear commitment to proposed new cross-river bus services that were assumed in the Assessed Case. These were seen as vital to secure the claimed socio-economic benefits.
- 3.10.6 More widely there were concerns that the effect on neighbouring river crossings were not sufficiently considered (Rotherhithe Tunnel and the Woolwich Free Ferry). Thus, host and neighbouring boroughs wished to see a wider extent of monitoring on the highway network and commitment to any local mitigation perceived to be necessary. Host boroughs also wished to see a greater commitment to provision for active travel (cyclists and pedestrians) across the river in the vicinity of the DCO scheme as it only makes provision for motorised vehicles. As a detailed point, RBG raised concerns over the prospective routing of construction traffic and in particular over the location of the river wharf that might be used for construction materials and waste disposal in relation to works south of the river.
- 3.10.7 These issues are considered further in Chapter 4 and particularly in Chapter 5 of this report.

### **3.11 THE DEVELOPMENT PLAN**

- 3.11.1 The Applicant provided a Planning Policy Compliance Statement [APP-094], which states that the development plan for the area in which the proposed development would be constructed includes the London Plan. The document refers to that being the London Plan March 2015, though the most up to date version of the London Plan is the London Plan March 2016 consolidated with alterations since 2011<sup>18</sup>. This latter Plan was submitted to the Examination for the Preliminary Meeting [AS-006].
- 3.11.2 The development plan also includes the core strategies and other adopted development plan documents for RBG, LBN and LBTH. These are the Newham Core Strategy 2012, the Royal Greenwich Local Plan July 2014 and the Tower Hamlets Core Strategy September 2010. These local planning documents contain policies applying the safeguarding directions that have been in force since at least 1997 under the Town and Country Planning (General Development Procedure) Order 1995 that ensure that development cannot prejudice

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<sup>18</sup> The year in which the current Replacement London Plan was adopted by the Mayor.

the achievement of a new river crossing broadly as proposed in the dDCO.

- 3.11.3 There are a number of emerging local plan documents or Supplementary Planning Documents (SPD) that were referred to in [APP-094] (in some cases appended) and in the LIRs of the host boroughs. The Applicant pointed out that the Masterplan for the Greenwich Peninsula that was granted planning permission in 2015 has regard to the relevant direction. The mixed use development is laid out to take account of and relate to the Proposed Development contained in the dDCO.
- 3.11.4 Paragraph 1.3 of the NPSNN notes that the relevant development plan is likely to be an important and relevant matter especially in respect of establishing the need for the development where an application is made for a DCO as a consequence of a Direction made under s35 of the PA2008. Paragraph 3.27 also states that where tolls or road user charges are proposed as part of a highway project that is subject of a Direction given under s35 of the PA2008, the Government will expect the applicant to demonstrate that the proposals are consistent with NPSNN, the relevant development plan and relevant statutory transport strategies and plans.
- 3.11.5 Assessment of the DCO scheme against the policies of the development plan and is set out in Chapter 4 of this report.

### **3.12 OTHER POLICY DOCUMENTS**

- 3.12.1 The Case for the Scheme [APP-093] refers to a number of transport strategies and plans that are relevant in providing support for the DCO scheme and also for setting it in a wider context. The Mayor's Transport Strategy May 2010 [AS-007] is a statutory plan while 'Connecting the Capital - our plan for new river crossings for London' TfL 2015 [AS-008] is the latest in a series of non-statutory documents that refer to the strategy for future river crossings in London.
- 3.12.2 Again assessment of the DCO scheme against these plans and strategies is set out in Chapter 4 of this report.

### **3.13 THE SECRETARY OF STATE'S POWERS TO MAKE A DCO**

- 3.13.1 The Panel is aware of the need to consider whether changes to the application meant that the application had changed to the point where it was a different application and whether the SoS would have power therefore under s114 of PA2008 to make a DCO having regard to the development consent applied for.
- 3.13.2 The Panel has had regard to paragraphs 109 to 115 of the current guidance on the examination of applications for development

consent<sup>19</sup>. We also note that s114(1) places the responsibility for making a DCO on the decision-maker, and does not limit the terms in which it can be made.

3.13.3 The changes made to the DCO after the application was submitted are set out in section 2.2 of this report and specifically we provide detail of five proposed changes in paragraph 2.2.5. Our conclusions follow in paragraphs 2.2.6 to 2.2.8.

3.13.4 In summary, the Panel is satisfied that that DCO can be made within the power provided by s114. The Panel accepts that each of the five proposed changes can be regarded individually as non-material and that cumulatively the changes can also be regarded as non-material because:

- (1) The application as changed would remain materially the same project as applied for;
- (2) Having regard to the principles of the Wheatcroft judgement<sup>20</sup>, we are satisfied that anyone who might be affected by the changes has had sufficient opportunity to have their views heard and taken into account during the Examination; and
- (3) All procedural relevant requirements have been met.

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<sup>19</sup> Planning Act 2008: Guidance for the examination of applications for development consent, March 2015 (DCLG)

<sup>20</sup> Bernard Wheatcroft Ltd v Secretary of state for the Environment (1982) 43 P & CR 233

## **4 FINDINGS AND CONCLUSIONS IN RELATION TO POLICY AND FACTUAL ISSUES**

### **4.1 MAIN ISSUES IN THE EXAMINATION**

#### **Initial Assessment of Principal Issues**

4.1.1 The Panel's Initial Assessment of Principal Issues (IAPI) was appended to our Rule 6 letter [PD-004]. The issues specified in alphabetical order were:

#### **(1) Air quality, noise and other constructional or operational environmental impacts**

- Whether the proposed works would worsen air quality to a material degree and or result in breaches of statutory requirements concerning Air Quality Management Areas or under European Directives;
- Whether there would be adverse noise impacts to sensitive receptors in conflict with Department of Environment, Food and Rural Affairs (Defra ) guidance; and
- Whether there would be any other significant effects on human health.

#### **(2) Biodiversity, ecology and natural environment**

- The adequacy of baseline assessments and proposed monitoring; and
- Whether there would be any likely significant adverse effects on protected sites or species.

#### **(3) Compulsory Acquisition**

- Whether there is a compelling case in the public interest for all plots of land proposed to be subject to Compulsory Acquisition (CA); and
- Whether the proposed temporary possession of land is justified for the periods sought.

#### **(4) Contaminated land, dredging and waste disposal**

- Whether there would be any issues arising from the excavation and dredging that cannot be adequately mitigated through a Construction Environmental Management Plan (CEMP), marine licensing or waste permitting regimes.

#### **(5) Cultural heritage and archaeology**

- Whether risks to the World Heritage Site at Greenwich would arise from traffic congestion; and

- Whether the archaeological mitigation proposed in the draft Development Consent Order (dDCO) is sufficient to ensure that any finds are identified and recorded.

#### **(6) Flood risk and surface water**

- The adequacy of the Flood Risk Assessment and the Water Framework Directive (WFD) Assessment; and
- Impacts that would arise from the scheme in relation to flood risk, potential release of contaminants and climate change issues.

#### **(7) Policy and objectives**

- Whether the scheme as set out in the dDCO would meet the objectives set in terms of relieving congestion, improving resilience of the road network and effectiveness of cross-river public transport and benefitting the local economy; and
- Whether the scheme as set out in the dDCO is consistent with the policy set out in the London Plan and local plan documents, the National Planning Policy Framework (the NPPF), the National Policy Statement for National Networks (NPSNN) and other policy documents to the extent that they are relevant.

#### **(8) Redevelopment, urban renewal and other socio-economic issues**

- The effect of the proposed works on redevelopment proposed both south and north of the River Thames;
- The extent to which the proposed development would impact existing commercial and industrial businesses during construction and operation;
- Whether any benefits to the local communities would arise; and
- The visual impact of the scheme.

#### **(9) Transportation and traffic**

- Whether the baseline data and modelling is sound and the forecasting techniques to factor in the proposed user charging are appropriate so that there can be confidence that the objectives sought would be achieved;
- Whether there are likely to be consequential issues that cannot be mitigated through traffic management measures at critical junctions or links in the network that would be affected by the scheme;
- The effects on public transport, including effects on individual services as well as on bus and rail networks and systems;
- Whether there has been an adequate assessment of alternatives including those that might be characterised as more sustainable; and
- The means and effects of transporting construction materials and personnel to the site including whether sufficient use is proposed to be made of river transport and the effect of such transport on other river users and the local road network.

### **(10) User charging**

- Whether the proposed user charging of the new Silvertown tunnels and the existing Blackwall tunnels will result in the vehicle flows sought;
- Whether there should be any concessionary charges or other benefits for local residents and whether any such concessions could be compatible with transport and environmental objectives and be lawful; and
- The economic impact on different classes of users; whether different structures for charges could mitigate any economic dis-benefits or enhance planned benefits while avoiding adverse transport and environmental effects.

### **(11) Wording of the draft Development Consent Order (dDCO)**

- Whether the wording of the dDCO would achieve the objectives sought including providing necessary mitigation through requirements, Protective Provisions (PP) and user charging that is referred to in application documentation; and
- Whether all of the works proposed are adequately covered within the dDCO and the limits of deviation adequately justified.

4.1.2 While this list was not formally augmented, following representations from the Health & Safety Executive (HSE) [AS-009] in response to our Rule 6 letter and in submissions at the Preliminary Meeting (PM), the Panel accepted that an additional important issue to be addressed is **(12) Public Safety** in relation to sites benefitting from hazardous substances consents that are in close proximity to the Proposed Development.

4.1.3 Some of these issues assumed greater or lesser importance during the Examination but we ensured that all were explored through the two rounds of written questions that we published [PD-006 and PD-012] and through the agendas of the hearings that we scheduled [EV-004 and EV-005, EV-013 and EV-014, EV-024 to EV027, and EV-047 to EV-049]. In addition to open floor hearings (OFH), we scheduled two issue specific hearings (ISHs) to address traffic and transport modelling and forecasting and related economic issues, with these matters also included in the second of two ISHs that were focussed on environmental issues. Two Compulsory Acquisition hearings (CAH) were also scheduled together with three ISHs to consider the detailed wording of the dDCO including its schedules of requirements and PPs and the apparent need for separate agreements or obligations under s106 of the Town and County Planning Act 1990 as amended by the Planning Act 2008 (as amended) (PA2008) or otherwise. Our site inspections were also directed to exploring these issues, with itineraries published in advance for those undertaken on an accompanied basis [EV-011 and EV-028].

4.1.4 As a consequence of what we learned in the responses to our questions, in the dialogue at hearings and in the written submissions

throughout the Examination, it became apparent that we needed to give in depth consideration to the safety of the river walls, an issue covered in the general matters referred to in issue (6) and to the effect on the proposed user charges on lower income residents and small businesses in the locality of the DCO scheme, aspects of initial issues (8) and (10). In addition, the future of 'safeguarded' river wharves and the issue of relocation of existing river users from land affected by the DCO scheme became an aspect of (8) that required particular attention.

- 4.1.5 In all cases, apart from the policy issues addressed in this chapter, these issues, whether general or specific, are addressed in the relevant sections of Chapter 5 of our report. Those sections are structured around particular assessment requirements that are referred to in the NPSNN because we are required to reach conclusions in relation to those assessment criteria.

## **4.2 ISSUES ARISING FROM WRITTEN SUBMISSIONS**

- 4.2.1 As our IAPI was derived from a study of the application documents and the Relevant Representations (RR) made in response to the application, the subsequent amplification of these RRs in Written Representations (WR) at Deadline (D)<sup>1</sup> did not expand the range of issues already identified including the additional issue of public safety in relation to the existence of hazardous substance consents. However, the WRs and related answers to the Panel's first written questions (FWQ) highlighted that some of the issues were of particular or widespread concern and warranted analysis in greater detail and with reference to more subtopics than those identified in the IAPI.
- 4.2.2 These included issues the validity of the 'Assessed Case' as the basis for charging and mitigation measures, the proposed charging periods and exemptions proposed. The case for exempting motorcycles from the user-charging was particularly pressed by the Motorcycle Action Group [REP1-068], and the operator of the O<sub>2</sub> Arena flagged up the potential impact of evening charges on their business [REP1-076].
- 4.2.3 Other commercial impacts were highlighted, particularly in relation to safeguarded and other river wharves by the Port of London Authority (PLA) [REP1-053] and users of those wharves, as referred to above.
- 4.2.4 The Campaign for Better Transport (CfBT) [REP1-050] and the Hackney and Tower Hamlets Friends of the Earth (FoE) [REP1-087] both argued that alternative non-road solutions ought to have been given greater consideration.
- 4.2.5 Groups such as the Westcombe Society [REP1-047] and individuals like Rebecca Moore [REP1-071] highlighted existing noise and pollution concerns in the Siebert and Invicta Road areas adjoining the A102 southern approach to the tunnels while BL CW Holdings Limited [REP1-066] were amongst the Interested Parties (IP) pressing for

consideration of consequential traffic re-assignment over a wider area, as did neighbouring Boroughs.

- 4.2.6 The Environment Agency (EA) [REP1-060] detailed their concerns over potential flood risk issues particularly in respect of the maintenance and enhancement of the rivers walls, which for the River Thames is the responsibility of riparian owners. Conversely, Natural England (NE) [REP1-062] indicated that almost all matters had been agreed with the Applicant.
- 4.2.7 As with issues initially identified, the Panel had regard to these representations in framing our written questions and in the agendas we set for the hearings and the itineraries for site inspections, both accompanied and unaccompanied. While the widely held concerns and specific points highlighted resulted in the probing of these matters throughout the Examination, the Panel also sought to ensure that any details still to be resolved with statutory consultees or others that were close to agreement were concluded during the Examination.
- 4.2.8 While the issue of alternatives and the place of the DCO scheme within a package of river crossings in East London is assessed later in this Chapter, for the most part the detailed assessment of specific impacts of the Proposed Development is set out in Chapter 5 of our report. These include: air quality (section 5.3), noise (section 5.4), flood risk (section 5.8) and commercial impacts (section 5.14). That Chapter addresses our findings and conclusions on all the environmental, socio-economic and commercial impacts of the Proposed Development.

### **4.3 ISSUES ARISING IN LOCAL IMPACT REPORTS (LIR)**

- 4.3.1 The generality of the issues raised in LIRs were detailed in paragraphs 3.10.4 - 3.10.6 of this report. The London Borough of Redbridge (LBR) LIR was supportive [REP1-028]. That borough saw positive benefit and wished to be involved in monitoring and participating in the Silvertown Tunnel Implementation Group (STIG). The Greater London Authority (GLA) LIR [REP1-029] was also supportive of the principle of the Proposed Development seeing it a catalyst for continued regeneration and referring to the commitments made by the Mayor to enhanced bus services and improved river crossings for pedestrians and cyclists which it described as adding to the benefits of the DCO scheme. This LIR specifically noted agreement that there would be no significant impact on air quality, but it did note that there would have to be consideration of the interaction with proposals for Ultra Low Emission Zones (ULEZ). The London Borough of Bexley (LBB) LIR [REP1-017] recorded that the effect on Bexley would be slight with a balance of positive and negative factors. This LIR did specifically note that any future surplus revenue from the user charges ought to be put to taking forward other river crossings such as that proposed at Belvedere.



4.3.2 The remaining six LIRs had more critical comment, though some of those from the three host boroughs expressly indicated qualified support provided that particular concerns could be allayed. There is a commonality in the issues of concern that were raised but differing emphases. Dealing first with the host boroughs, the main issues raised were as follows:

- Royal Borough of Greenwich (RBG) [REP1-002]: Greenwich support was qualified because of issues with the modelling of the Assessed Case. They also wished to secure the proposed provision of cross river bus services and improved cycle and pedestrian crossings. As part of their general consideration of the need to secure mitigation, they sought improvements to the proposed monitoring and mitigation strategy. Community impact was also noted. A package of crossings including one at Gallions Reach was also supported.
- London Borough of Newham (LBN) [REP1-014]: Again concerns centred on modelling of the Assessed Case and the need for robust monitoring and mitigation, in Newham's case with a particular focus on potential air and noise impacts on the Hoola and Pump House developments. Like Greenwich they wished to secure the bus services and improved cross-river cycle and pedestrian facilities, suggesting that the latter might be addressed through a changed charging policy for the Emirates Air Line. They placed particular emphasis on addressing perceived adverse distributive effects on low income residents and local small businesses and seeking discounts or other means of mitigating such disbenefits. A package of crossings including Gallions Reach was supported.
- London Borough of Tower Hamlets (LBTH) [REP1-005]: Tower Hamlets raised very similar concerns over the modelling underpinning the Assessed Case, the need to secure mitigation through effective monitoring and securing the proposed enhanced bus services across the river. They expressed particular concern over the impact on low income residents and small businesses and sought appropriate mitigation.

4.3.3 The LIRs of the neighbouring boroughs had additional critical comments, as follows:

- London Borough of Southwark (LBS) [REP1-009]: In addition to the concerns expressed by the Host Boroughs over securing bus, pedestrian and cycle enhancements, in respect of the latter placing emphasis on a Rotherhithe-Tower Hamlets link, and the impact on low income residents, Southwark expressed concern that the Applicant's modelling had not extended widely enough to enable monitoring and mitigation in their area to be properly assessed. They flagged-up major developments proposed within their area.
- London Borough of Hackney (LBH) [REP1-020]: Hackney also wished to see more attention to monitoring and mitigation over a wider area and the securing of a greater level of commitment to

these procedures. Again they advocated the need to secure provision for active sustainable travel and wished to see a package of crossings promoted. They also argued that their own development plan ought to be seen as important and relevant and not just those applicable to the Host Boroughs.

- London Borough of Lewisham (LBL) [REP1-024]: Like Southwark, Lewisham did not consider that the Applicant's modelling had covered a wider enough area, bearing in mind that the nearest point of the Borough was only 400 metres (m) from the boundary of the DCO scheme. Thus they sought a greater commitment to monitoring and mitigation within their area to ensure that traffic and air quality issues are addressed. They also sought a package of crossing measures and, like the Host Boroughs, sought to secure greater commitment to the proposed bus enhancements and to improving pedestrian and cycle crossing measures.

4.3.4 The Applicant sought to demonstrate that the modelling met all Design Manual for Roads and Bridges (DMRB) and web-based transport analysis guidance (WebTAG) and that the values of time assumed in these exercises could be justified. Nevertheless, they were willing to improve the arrangements for monitoring and mitigation as the Examination progressed, to ensure that the boroughs had a greater involvement in the STIG that would advise on monitoring and mitigation (including the setting of user charges), and to offer certain guarantees concerning bus operations. They also suggested that through agreements with the host boroughs there could be other compensatory measures. The consequence is that many of the questions posed by the Panel and much of the time at hearings was given over to exploring the matters raised in the LIRs.

4.3.5 The submissions in the final rounds of deadlines concentrated on these matters with revised documents submitted by the Applicant for certification under Schedule 14 to the dDCO in addition to amendments to the text of articles and schedules within the dDCO. Particularly relevant, apart from the Applicant's final dDCO [REP7-026], are the final versions of the Bus Strategy [REP7-024] and the Charging Policies and Procedures [REP6-060].

4.3.6 We address the majority of the issues raised in the LIRs in relevant sections of Chapter 5, notably traffic modelling in section 5.2, air quality in section 5.3 and socio-economic impacts in section 5.13, while the means to secure the bus service provision and enhanced pedestrian and cycle crossing facilities are addressed in detail in Chapter 9. The issue of a package of crossing measures is considered further later in this chapter.

## **4.4 CONFORMITY WITH THE DEVELOPMENT PLAN**

4.4.1 The section addresses conformity with the development plan ahead of our overall consideration of conformity with need and wider government policy considerations in the NPSNN, because in paragraph 1.3 of the NPSNN, it states that the relevant development plan is likely

to be an important and relevant matter, especially in establishing the need for the development. Need has to be established as part of the overall assessment against the NPSNN. The Applicant set out their view of how the DCO scheme is in conformity with the development plan in their Planning Policy Compliance Statement [APP-094].

4.4.2 The London Plan March 2016 - The spatial development strategy for London consolidated with alterations since 2011 [AS-006] highlights the extent of growth that is anticipated in London in the period up to 2036 with some 19,145 additional homes proposed in the LBN and 26,850 in the RBG, primarily utilising brown field land in the vicinity of the northern and southern portals of the proposed new tunnels identified in Opportunity Area Planning Frameworks (London Plan Policy 2.13). The Greenwich Peninsula alone has a capacity of 13,500 homes and 7,000 jobs whereas the Lower Lea Valley of which Silvertown is part has a capacity of 32,000 homes and 50,000 jobs.

4.4.3 Policy 6.1 provides direct support for the Silvertown Tunnel. This states that the Mayor will work with all relevant partners to encourage the closer integration of transport and development through the schemes and proposals contained in Table 6.1. This includes the following:

*'New and enhanced road vehicle river crossings(s) in East London (package of measures).*

*Programme of works under development to improve cross-Thames road links in East London, including Silvertown Tunnel.'*

4.4.4 The supporting text for this policy is also very clear. Paragraph 6.20 states:

*'The Mayor is developing proposals for further new and enhanced river crossings in East London to improve accessibility and the resilience of local transport networks, support economic growth in the area and link local communities. These will complement the Jubilee Line crossings, DLR Lewisham and Woolwich extensions, the re-opened crossing of the extended East London line, the Emirates cable car crossing between the Greenwich Peninsula and Royal Docks and the further cross-river public transport capacity provided by Crossrail and will include:*

*A new road-based tunnel crossing between the Greenwich Peninsula and Silvertown (see paragraph 6.41).'*

4.4.5 Paragraph 6.41 is the supporting text for Policy 6.12 Road and Network Capacity. This policy states that the *'Mayor supports the need for limited improvements to the London road networks, whether improving or extending existing capacity or providing new links, to address clearly identified significant strategic or local needs. In assessing proposals for increasing road capacity, including new roads, the following criteria should be taken into account:*

- (a) *The contribution to London's sustainable development and regeneration including connectivity;*
- (b) *The extent of any additional traffic and any effects it may have on the locality and the extent to which congestion is reduced;*
- (c) *How net benefit to London's environment can be provided;*
- (d) *How conditions for pedestrians, cyclists, public transport users, freight and local residents can be improved;*
- (e) *How safety for all is improved.'*

The policy also requires net benefit to be shown across all the criteria and how any dis-benefits will be mitigated. This policy requirement is set out in the Environmental Statement (ES) [APP-031] and the Transport Assessment [APP-086] submitted with the application. The supporting text in paragraph 6.41 of the London Plan indicates that whilst committed to improving cross-river pedestrian, cycle and public transport links, the Mayor is investigating the possibility of additional road-based river crossings in East London. It refers to the need for some journeys to be undertaken by vehicle, particularly commercial traffic, the movement of goods and the provision of services to support a growing economy in East London. It refers also to the fact of there being little resilience at existing crossings with their restrictions on the size of vehicles which can use them, in the event of an incident and that the consequent unreliability causes businesses to suffer.

4.4.6 The Case for the Scheme [APP-093] contains references on page 90 to the report of the Examining Panel into what became the London Plan 2011. These references demonstrate that a Tunnel at Silvertown was not a subject of controversy during that Examination in 2010, but that there was controversy over the possibility of road crossings further East at Gallions Reach and Belvedere (as canvassed by host and neighbouring boroughs such as LBN, RBG and the LBB at the Examination into this dDCO). The Applicant's Case for the Scheme states that a road tunnel proposal between the Greenwich Peninsula and Silvertown had been established planning policy at least since the imposition of the safeguarding directions by the Secretary of State (SoS) for Transport in the mid-1990s that we referred to in paragraph 3.11.2 of this report.

4.4.7 The London Plan does contain a reference to road-user charging under Policy 6.11 Smoothing Traffic Flow and Tackling Congestion. The supporting text in paragraph 6.39 refers to the approach to smoothing traffic being based on the core aims of transforming conditions for walking, cycling and public transport; delivering better, active and inclusive places and new city destinations; and maintaining an efficient road network for movement and access. The need to deliver all of these is stressed in paragraph 6.39A to tackle impacts on health, climate change and the economy. Various measures are referred to before it states that *'If these measures prove unsuccessful the principle of road-user charging as a demand management tool may need to be examined, but the Mayor has made clear his view that he does not envisage doing so during his term of office.'* This term of office came to an end in May 2016.

- 4.4.8 The clear support from the London Plan for the principle of the DCO scheme is reflected in the development plans of the Host Boroughs. The Newham Core Strategy was adopted in 2012. Policy INF1 Strategic Transport states that support will be given to transport proposals that will contribute to Newham's regeneration and economic and physical development, including any safeguarded river crossing route at West Silvertown. This is shown on the Core Strategy's Key Diagram as proposal T5<sup>21</sup>. Objective 6.186 introducing Policy INF1 states: *'Secure investment in strategic transport links that will lever investment and regeneration into Newham, further integrating the Borough with the rest of London and overcoming major physical barriers to movement without having an unacceptable impact on residents.'*
- 4.4.9 The LBN LIR [REP1-014] points out that the application site for the north portal is subject to a safeguarding direction from 2001<sup>22</sup> for a potential river crossing; and that Thames Wharf is also the subject of a safeguarding direction and is afforded protection by Policy 7.26 of the London Plan. Similarly, the site is designated as a Strategic Industrial Location and benefits from protection by Policy 2.17 of the London Plan. However, notwithstanding its current Strategic Industrial Location designation, the north portal site is located within the Thames Wharf Strategic Site (S08) which is proposed through Policy S3 of the Core Strategy (2012) for Strategic Industrial Location release, incorporating new employment, leisure/tourism and residential uses around a potential new docklands light railway (DLR) station.
- 4.4.10 The LIR goes on to refer to a variety of environmental policies but concludes that the Council considers that while the local development plan supports the principle of a river crossing in Silvertown, it does so on the balance of acceptability of material considerations. These considerations include the socio-economic, health and environmental implications of the proposals, mindful of the Council's overriding priority to build and grow communities to achieve convergence.
- 4.4.11 The Royal Greenwich Local Plan, which was adopted in July 2014, has a Proposals Map that identifies an area as the 'River Crossings Safeguarded Area' replicating the area subject of the safeguarding direction. Policy IM3 Critical Physical Infrastructure states that the Royal Borough will support those schemes that are critical to Royal Greenwich's development. The Royal Borough will *'advocate and work in partnership with relevant agencies to deliver a new package of Thames river crossings in East London including continued safeguarding of the Silvertown Link Tunnel and the Gallions Reach Crossing (see Proposals Map)'*.

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<sup>21</sup> On page 33 of the Core Strategy.

<sup>22</sup> The date of the most recent safeguarding direction transferring the safeguarding power from the SoS to the Mayor.

- 4.4.12 The supporting text recognises that national policy requires a road based tunnel to be safeguarded and identifies that the Silvertown link could provide a local crossing to reduce congestion at the Blackwall Tunnel. The RBG LIR [REP1-002] provides further development plan detail. It confirms that the Greenwich Peninsula is an Opportunity Area under Policy 2.13 of the London Plan with provision made for the DCO scheme. Cycling, pedestrian and public transport accessibility is to be maintained and/or enhanced wherever possible during both construction and operational phases. And one of the predicted benefits of the scheme is the introduction of additional cross-river bus services to improve public transport links between south-east and east London, notably with the growing employment areas in the Royal Docks and Canary Wharf and with the significant development expected on the Greenwich Peninsula.
- 4.4.13 The Royal Greenwich Infrastructure Delivery Plan is also referred to in the RBG LIR. It identifies the future infrastructure and service needs for the Borough for the plan period. In paragraph 2.1.30 of the plan, RBG supports in principle a new fixed tunnel link at Silvertown to provide congestion relief to the Blackwall Tunnel and improve cross-river connectivity for vehicle traffic. Its delivery is supported in conjunction in with a second crossing at Gallions Reach as a preferred location for this crossing where currently land is also safeguarded for this purpose.
- 4.4.14 Finally, the Tower Hamlets Core Strategy was adopted in September 2010. Further details of its policies are contained in the LBTH LIR [REP1-005]. The Core Strategy sets out policies to enhance connectivity to support growth and enhance public transport. The Silvertown Tunnel is identified on the Key Diagram in support of Policy S019 which seeks to deliver an efficient, high quality, sustainable and integrated transport network to reach destinations within and outside the Borough through a number of strategic transport projects. Policy SP08.2 supports 'TfL Crossing Projects Across the River Thames' and Policy SP09.2 supports 'Improving connectivity to Greenwich, Lewisham and Southwark through new and enhanced crossings'.
- 4.4.15 The Applicant's Planning Policy Compliance Statement [APP-094] gives further detail of London Plan policies to take forward Opportunity Areas, while also safeguarding designated 'safeguarded wharves' and emphasising the importance of the River Thames as a transport corridor and for recreation and to protect and enhance biodiversity. Supplementary Planning Documents (SPD) relating both to LBN and RBG<sup>23</sup> are also referred to. South of the river, these indicate how proposals may be taken forward for the western side of the Greenwich Peninsula outside the area of the approved Peninsula Masterplan while retaining the safeguarded Victoria Deep Water Terminal. To the north of the river, with some support from Policy S08 of the Newham Core

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<sup>23</sup> Pages 35 and following in the Planning Policy Compliance Statement [APP-094].

Strategy, there is reference to consideration being given to the release of the safeguarding of Thames Wharf both as a safeguarded wharf and a strategic industrial site provided that safeguarded wharves can be consolidated elsewhere nearby. There is reference to an emerging new draft Opportunity Area Planning Framework that would see the safeguarded wharf consolidated on the Carlsberg/Tetley site<sup>24</sup>, but also a comment that this had not yet been agreed.

- 4.4.16 These proposals do not have a direct bearing on the proposed development embodied in the DCO scheme but they do set the context for approaches taken by Affected Persons (APs) in CA negotiations and representations.
- 4.4.17 In summary, we are satisfied that the DCO scheme benefits from longstanding and comprehensive policy support at national<sup>25</sup>, strategic and local level. We have noted the concern of LBH that their development plan policies should also be given particular attention, but we cannot see how those could outweigh the strategic support clearly expressed in the London Plan and the specific support that is contained in the adopted plans of LBN and RBG in whose areas the Proposed Development is located. Environmental and socio-economic impacts are specifically addressed in Chapter 5 of our report.

#### ***The National Planning Policy Framework (NPPF)***

- 4.4.18 As there is clear support from policies in up to date development plans, there is little need for separate consideration against the NPPF and related Planning Policy Guidance (PPG) given the clear statement in paragraph 12 of the NPPF that it does not change the statutory status of the development plan as the starting point for decision making and that proposed development that accords with an up to date development plan should be approved unless material considerations indicate otherwise. Paragraph 14 explains that the presumption in favour of sustainable development that is a golden thread running through the plan-making and decision-making means approving development proposals that accord with the development plan.
- 4.4.19 However, where there are issues identified in relation to the impact of the DCO scheme that are not subject to generic assessment tests in the NPSNN or those tests suggest reference to the NPPF, the Panel has taken account of the policy contained in the NPPF and related PPG in reaching our conclusions in Chapter 5 of this report.

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<sup>24</sup> The evidence to the Examination was that the identified site for consolidation downstream of Thames Wharf is what is known as Peruvian Wharf.

<sup>25</sup> The original safeguarding directions from the Secretary of State.

## Conformity with the statutory transport plan

4.4.20 Before leaving the issue of local policy support for the DCO scheme reference needs to be made to the Mayor's Transport Strategy May 2010 (MTS) [AS-007] as this is a statutory transport strategy prepared under the Greater London Authority Act 1999 as amended by the GLA Act 2007<sup>26</sup>. The Act sets out general transport duties of the Mayor. It specifies that the transport strategy must contain policies for the promotion of and encouragement of safe, integrated, efficient and economic transport facilities and services to, from and within Greater London and proposals for securing the transport facilities and services needed to implement the Mayor's policies with regard to the movement of people and goods. Transport for London (TfL) ('the Applicant') and the 33 London Boroughs are required to implement or formulate plans to implement the strategy.

4.4.21 Proposal 39 of the MTS states that that *'The Mayor, through TfL, and working with the London Boroughs and other stakeholders, will take forward a package of river crossings in east London, including:*

(f) *'A new fixed link at Silvertown to provide congestion relief to the Blackwall Tunnel and provide local links for vehicle traffic'*

Supporting text for Proposal 39 is set out in section 5.8 of the MTS. Proposal 130 is also of relevance to the DCO scheme as this explicitly addresses the issue of road-user charging that is included in the dDCO and is central to the mitigation strategy embodied within it to seek to avoid adverse environmental consequences. The proposal states that: *'The Mayor, through TfL, and working with the London boroughs and other stakeholders, if other measures are deemed insufficient to meet the strategy's goals, may consider managing the demand for travel through pricing incentives (such as parking charges or road user charging schemes). This would depend upon there being a reasonable balance between the objectives of any scheme and its costs and other impact. Any scheme would need to take account of local conditions, as well as the impact on surrounding regions, and be fair and flexible relating charges to the external costs of travel with sensitivity to the time of day, and the scope for discounts or exemptions for specific user groups. The Mayor will also consider imposing charges or tolls to support specific infrastructure improvements, such as river crossings.'* The supporting text to the proposal is set out in section 5.27.6 of the MTS. There was argument during the Examination as to whether the proposed charges that would ultimately be set under the Charging Policies and Procedures certified document are correct in terms of time periods, exemptions and discounts. The final iteration of this document was submitted at D6 [REP6-060]. Irrespective of the detail of the charges currently illustrated, in our view the general approach to the proposed imposition of user charges clearly has regard to

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<sup>26</sup> GLAA1999 and 2007 s154(3)(c).



Proposal 130. The specific impact of the charges on different user groups is assessed in detail in section 5.13 of this report.

### ***A package of river crossings***

- 4.4.22 While not a statutory transport plan, the Applicant also drew attention to an updated summary of the package of new river crossings that will be needed across London and particularly in East London in the Case for the Scheme [APP-093]. The summary is set out in 'Connecting the Capital - Our plan for new river crossings for London' TfL 2015 [AS-008]. This sets the DCO scheme in the context of the whole package of crossing proposals that is under consideration in both short and longer timescales. The Applicant's Update report of October 2016 [AS-021] which was submitted at the outset of the Examination highlights which of those proposals the current Mayor intends to take forward in parallel with the DCO scheme. This position was subject to a clarification at D1 [REP1-182] and in the Applicant's response [REP1-178] to FWQ on the Principle and nature of the development including alternatives. This clarified that the current package comprises a pedestrian cycle bridge between Rotherhithe and Canary Wharf, a DLR crossing at Gallions Reach and consideration of a new ferry crossing between the west side of the Greenwich Peninsula and Canary wharf and that necessary financial provision has made for these other crossings, albeit that the last is only approval of a study, in the TfL Business Plan.
- 4.4.23 We are satisfied that therefore that DCO scheme is part of a Mayoral strategy for additional crossings in East London, though we cannot see how the other short terms elements of that strategy can be bound into this DCO because they have to be taken through their own statutory procedures.

## **4.5 THE NEED FOR THE DCO SCHEME**

- 4.5.1 The Applicant's Case for the Scheme [APP-093] sets out the background as to why the DCO is sought. This document refers to the limited number of road crossings in East London as compared to west London and the improvements in public transport and in particular rail-based crossings that have been achieved in recent years or in the case of the Crossrail Elizabeth line are nearing completion. It highlights that the Blackwall Tunnel is East London's strategic highway crossing. It has higher traffic flows than those of any other crossing in London despite the limitations on the physical size of vehicles that can use the northbound tunnel, though the nearest alternative to the west in the Rotherhithe Tunnel cannot accommodate heavy goods vehicles (HGVs) at all because of its historic constraints. Notwithstanding the link that the Blackwall Tunnel has to the principal strategic roads north and south of the river in the A2 and A12 and A13, three-quarters of traffic using the tunnel has origins and/or destinations in the local area. The local area in this document is defined as the RBG and the LBN and LBTH, London Borough of Barking and Dagenham (LBBD), LBH, LBB and LBL.

- 4.5.2 Despite the key role that the Blackwall Tunnel has in the TfL road network, three key problems were identified by the Applicant. These are set out in the paragraphs 4.5.3 to 4.5.12 below.

### **Congestion**

- 4.5.3 The strategic importance of the Blackwall Tunnel on the road network means it attracts far more traffic than it can accommodate. This is particularly the case for northbound travel in the AM peak and southbound travel in the PM peak, reflecting the fact that it connects predominantly residential areas to the south and south-east of the river with employment and commercial centres to the north, which gives rise to commuting, servicing and deliveries and other business trips. The delay which results from the level of congestion in both the AM and PM peak periods is severe. In the AM peak, the northbound approach to the Blackwall Tunnel is the most heavily congested major traffic route in London, with delays on average between two and ten minutes per kilometre (km). Although less marked, this pattern is also characteristic of the PM peak.
- 4.5.4 The traffic problems of the Blackwall Tunnel are also manifested in the extended duration of the peak period at this location compared to most other links on the highway network. While most roads become busy from around 6:00 or 7:00, here, traffic builds up from 5:00 in the morning as motorists seek to avoid the extremes in congestion which affect the northbound bore from around 6:00 to around 10:00. Flow remains close to peak levels for much of the day. Even outside the busiest times, demand is close to or exceeds capacity through much of the rest of the day.
- 4.5.5 The result is that traffic on one of London's key strategic road links is routinely subject to significant delay. Journey times for trips along the A102 are very slow during peak periods. In the northbound direction in the AM peak, queues routinely stretch back from the tunnel around 3.2 km to a point just north of the Sun-in-the-Sands Roundabout. In the PM peak southbound, queues regularly extend almost 2.7km to a point north of the Bow Interchange. On the worst-affected links in the approach roads, speeds fall to an average of less than 8 kilometres per hour (kph) (5 miles per hour (mph)), compared to an average 18.7kph speed in Inner London. Despite users changing times of journeys to avoid congestion, another problem arising from this routine (but nonetheless unpredictable) delay is journey time unreliability. This makes it difficult for users to know what time to set off in order to arrive on time and is likely to be a particular problem for businesses concerned with deliveries and servicing and needing to schedule a series of trips throughout the day.
- 4.5.6 Congestion at the Blackwall Tunnel has a far-reaching effect on the wider road network as well as on the local road network. This means that it is not only people trying to cross the river who are adversely affected; road users including bus passengers in the surrounding area also feel the effects of the problems of the Blackwall Tunnel. With

around a quarter of all journeys originating outside Greater London, many of the vehicles using the crossing on their way to destinations within London also use the M11 or the A2. Owing to congestion, traffic will sometimes divert to other crossings which has a detrimental effect at the Dartford Crossing and the M25, both part of the Strategic Road Network (SRN). This effect is recognised in the third of the four reasons for the Nationally Significant Infrastructure Project (NSIP) designation: 'Current congestion at the Blackwall Tunnel is having a direct impact on the strategic road network'.

### **Closures and incidents**

- 4.5.7 The design of the northbound bore of the Blackwall Tunnel, while suitable for the Victorian age in which it was built, acts as a serious constraint today. It does not meet modern tunnel design standards for size, safety or curvature. Its narrowness means that vehicles over 4 metres (m) high (in the right-hand lane) and 2.8m (in the left) cannot be accommodated, which rules out larger lorries and double-decker buses. A 2m width restriction also applies.
- 4.5.8 Unsuitable vehicles nevertheless continue to attempt to use the Blackwall Tunnel, and even those vehicles which are suitable for the Tunnel still experience an outdated and far from optimal link. As a consequence, the northbound bore of the crossing suffers an abnormally high rate of incidents, including collisions, shedding of debris, and, most frequently, the attempted use of the Tunnel by vehicles which are too tall to use it. In the period 2013-15 there was a total of 6,299 incidents (both north and southbound tunnels), an average of almost six per day. For just over half of all incidents, the nature of the problem meant that TfL had to close the Tunnel in order to fully resolve it, which given the very high number of incidents, means frequent closures. On average there were 1,194 closures of the Blackwall Tunnel per year (three per day) in the years 2013-2015, with almost three-quarters of these in the northbound tunnel. TfL has taken steps to reduce these incidents, but the fundamental design issues cannot readily be addressed. Because the volume of traffic is so high and exceeds the capacity of the tunnel for long periods of the day, even short closures can have significant and extended impacts, adding thousands of vehicle-hours of delays over the course of a year.
- 4.5.9 TfL has compared the closure rate of the Blackwall Tunnel with similar tunnels in the United Kingdom (UK), both in terms of absolute number of closures and using a calculation which produces the number of vehicle km travelled per year in each tunnel. On both measures, the Blackwall Tunnel is clearly prone to a much higher number of closures. There were almost four times as many closures compared to other tunnels with around 25 unplanned closures occurring for every million km travelled.

### **Lack of network resilience**

- 4.5.10 The Applicant states that in a transport context the term 'resilience' describes the ability of transport networks to provide and maintain an acceptable level of service in the face of both planned and unplanned incidents.
- 4.5.11 The lack of resilience becomes most apparent in the event of closures of the Tunnel which encourage significant numbers of vehicles to seek alternative routes. Suitable alternative routes close to the Blackwall Tunnel in east London do not exist, because of the capacity constraints at the nearest alternative crossings of the Rotherhithe Tunnel and the Woolwich Free Ferry.
- 4.5.12 As the length of any closure increases, queue lengths increase leading to widespread disruption over a large area. As a result of longer closures, many users of the Blackwall Tunnel have no viable options but to travel to the Dartford Crossing, which forms part of the M25 London Orbital Motorway. Since the Dartford Crossing does not have the capacity to accommodate these additional volumes of traffic, this can result in serious congestion on the M25, one of the UK's key strategic roads, and on roads crossing the M25 in north Kent and south Essex (including the principal freight corridor between the Channel ports and the North of England). This highlights the strategic significance of the Blackwall Tunnel.

### **Secondary effects - economic effects**

- 4.5.13 The Applicant's Case for the Scheme [APP-093] notes that the three transport problems of congestion, closures and a lack of resilience described above translate into secondary effects on the economy. Taken together, high levels of congestion and poor reliability and resilience at the Blackwall Tunnel impose significant costs on the large number of businesses that rely on being able to cross the River Thames, with costs much higher than would be the case if the road network was functioning efficiently. These increased costs effectively result in a 'barrier effect' where the movement across the River Thames is seen as a constraint to the ability to access customers, suppliers, staff and jobs on the other side of the river.
- 4.5.14 This 'barrier effect' is clearly apparent in terms of the distribution of the labour market in East London. This can be seen by comparing the labour catchment areas for locations south and north of the River Thames. In east London the river acts as a major barrier both to people seeking work and employers trying to recruit. The business survey identified that 60 per cent of those taking on staff had recruited more than 75 per cent of them from the same side of the river and over 40 per cent had recruited no-one from the other side of the river.
- 4.5.15 Given the amount of potential employment growth that can be accommodated in East London, this is a major barrier to facilitating

access to job opportunities for residents south of the river. This 'barrier effect' is also evident in terms of access to customers. Twenty-six per cent of all businesses surveyed believe that the problems at the Blackwall Tunnel have reduced the size of their potential customer base.

- 4.5.16 The net result of high levels of congestion, poor journey time reliability, poor resilience and a 'barrier effect' of the River Thames is an economy in East London that is not operating optimally and is not fulfilling its true potential.
- 4.5.17 Given these economic consequences that have been reported by the Applicant it is not surprising that many business interests have expressed strong support for the Proposed Development. Examples are the Freight Transport Association [RR-243], Lime Logistics Ltd [RR-244], the Road Haulage Association [RR-263], The London Chamber of Commerce [RR-303] and the Licensed Taxi Drivers Association [RR-160]. Some others, while supportive of the Proposed Development, oppose the user charges that are included in the DCO scheme or have reservations about the current charging proposals that are embodied in the Assessed Case. These include the South East London Chamber of Commerce [RR-033] and the John Lewis Partnership [RR-264]. The distributional impact of the scheme including the user charges is assessed in detail in section 5.13 of this report and commercial impacts in section 5.14.

### **Public transport effects**

- 4.5.18 The Applicant's Case for the Scheme [APP-093] also indicates that the problems of the Blackwall Tunnel do not affect only private cars and commercial traffic. Public transport users (and potential users) are also adversely affected by delays, congestion and journey time unreliability. There is one bus route through the Tunnel, running 24 hours per day at a frequency of 7-10 minutes in the daytime. Additionally, some 90 commuter coaches from Kent also use the northbound route in the morning peak. There is an extreme disparity in cross-river bus services operating between east and west London. There are 47 bus routes which cross the river west of Vauxhall Bridge but only this single route crossing the river east of Tower Bridge – the 108 between Stratford and Lewisham via the Blackwall Tunnel that has of necessity to use single-decker buses.
- 4.5.19 Users of the 108 bus route routinely experience delay caused by congestion, and disruption owing to tunnel closures which cause delays to passenger journeys and increase the cost of operating the service. The northbound end-to-end journey takes an additional 20 minutes in the AM peak compared to the late evening and the southbound PM peak journey an additional 15 minutes. TfL's ongoing customer satisfaction surveys consistently demonstrate that journey time is the most significant driver of customer satisfaction for bus users.

4.5.20 Under present conditions, a journey across the river by bus is not a realistic proposition for many prospective passengers. It may also act as a deterrent to bus usage even for routes which do not actually cross the river. The DCO scheme seeks to overcome these deterrents through provision of a bus (and HGV) lane suitable for double-decker buses in each direction through the new tunnel.

### **Environmental effects**

4.5.21 The Case for the Scheme [APP-093] notes that all motorised traffic produces emissions: on a per-vehicle basis, slow-moving and congested stop-start conditions lead to more pollutant emissions than free-flowing conditions and uncongested speeds. Exhaust emissions contribute to poor air quality locally and higher carbon dioxide (CO<sub>2</sub>) emissions from transport. The DCO scheme aims to improve environmental conditions by producing free-flowing conditions for greater periods.

### **Objectives for the scheme**

4.5.22 In the light of the foregoing, the Applicant, as part of its evaluation of alternative options to address the identified problems, defined a series of objectives in 2014. These are set out in The Case for the Scheme [APP-093]:

- PO1: to improve the resilience of the river crossings in the highway network in east and southeast London to cope with planned and unplanned events and incidents;
- PO2: to improve the road network performance of the Blackwall Tunnel and its approach roads;
- PO3: to support growth in east and south-east London by providing improved cross-river transport links for business and services (including public transport);
- PO4: to integrate with local and strategic land use policies;
- PO5: to minimise any adverse impacts of any proposals on health, safety and the environment;
- PO6: to ensure where possible that any proposals are acceptable in principle to key stakeholders, including affected boroughs; and
- PO7: to achieve value for money.

4.5.23 While a number of IPs including host boroughs raised issues as to the extent to which the DCO scheme meets these defined objectives, primarily as indicated in paragraphs 4.3.2 and 4.3.3 over the need to secure intended bus provision and facilities for active travel and the need to secure effective monitoring and mitigation of potential environmental impacts, we are satisfied that there are real transport, economic and environmental problems that need to be addressed and we can see no reason to disagree with the objectives set by the Applicant for identifying a solution.

## **4.6 CONSIDERATION OF THE DCO IN RELATION TO THE NEED FOR DEVELOPMENT (CHAPTER 2 OF THE NPSNN), WIDER**

## **GOVERNMENT POLICY (CHAPTER 3 OF THE NPSNN) AND GENERAL ASSESSMENT PRINCIPLES (PARAGRAPHS 4.1 TO 4.27 OF THE NPSNN)**

- 4.6.1 The Silvertown Tunnel was designated as a NSIP by a Direction given by the SoS under s35 of the PA2008 on 25 June 2012. This Direction in relation to the Silvertown Tunnel, as well as any associated matters, specified that the development be treated as one for which development consent is required.
- 4.6.2 As detailed in Chapter 3 of this report, paragraph 1.3 of the NPSNN refers to s35 Directions where a project does not meet current requirements for a NSIP but is considered to be nationally significant. It states that *'In these circumstances any application for development consent would need to be considered in accordance with this NPS.'*
- 4.6.3 While there were arguments that the application should rather fall to be considered under s105 of the PA2008, as detailed in section 3.3 of our report, we set out in paragraph 3.3.11 our conclusion that the application should be assessed in relation to conformity with the NPSNN under s104 of the PA2008. Paragraph 1.5 of the NPSNN states that the phrase *'national road network'* within it applies to the SRN and other roads that are designated as nationally significant under s35 of the PA2008, which is the case in relation to the highways to be altered or constructed under this application.

### **Conformity with the National Policy Statement for National Networks (NPSNN)**

- 4.6.4 The Applicant provided an assessment of conformity in relation to the NPSNN in the Planning Compliance Statement [APP-094]. The ES [APP-044, Appendix 1.A] also contains a schedule of compliance with the NPSNN. An update was subsequently provided in the National Policy Statement (NPS) Tracker having regard to issues arising during the Examination [REP6-080] and with further comment in the Applicant's Closing Statement [REP7-035].

### ***NPSNN Chapter 2 - The need for the development of the national networks and Government Policy***

- 4.6.5 The Applicant states that Chapter 2 of the NPSNN explains the need for development of the national networks. It sets out a number of matters of relevance to the scheme including that:
- well-connected and high-performing networks with sufficient capacity are vital to meeting the country's long-term needs and support a prosperous economy (paragraph 2.1);
  - there is a critical need to improve the national networks to address road congestion ...and to provide safe, expeditious and resilient networks that better support social and economic activity (paragraph 2.2);

- it is important to provide a transport network that is capable of stimulating and supporting economic growth (paragraph 2.2); and
- in their current state, without development, the national networks will act as a constraint to sustainable economic growth, quality of life and wider environmental objectives (paragraph 2.9).

4.6.6 Although we have noted that there are IPs who oppose the Applicant's solution to the perceived problems and that others oppose user-charges or consider that the potential impacts of the DCO scheme would outweigh its benefits, there was no challenge to the fact that there are existing problems in relation to the Blackwall Tunnel and its approaches that demonstrate that there is a need to be addressed. Neither were there suggestions that the Applicant was incorrect in highlighting the paragraphs in the NPSNN that were perceived as providing policy justification for the DCO Scheme. We accept that paragraphs 2.1, 2.2 and 2.9 do provide national policy support for the DCO scheme. We also agree that the reference in paragraphs 2.10 and 2.22 of the NPSNN to there being a compelling need for development of the network should be applied to the highway network in and related to the application site.

### ***Congestion***

4.6.7 The NPSNN places particular weight on the need to address congestion<sup>27</sup>. The Case for the Scheme [APP-093] and the Transport Assessment [APP-086] detail the current level of congestion, the objective to relieve this congestion and the extent to which this should be relieved by the application proposals. To this extent we are satisfied that the DCO scheme is in conformity with the NPSNN.

### ***Supporting Growth***

4.6.8 Supporting economic growth is another theme running through the NPSNN<sup>28</sup>. The Applicant's Case for the Scheme [APP-093], the Distributional Impacts Assessment [APP-104] and the Regeneration and Development Impact Assessment [APP-102] make clear both the need for action in the locality and how the DCO scheme should assist in meeting this objective. Again, we accept that the DCO scheme is in conformity with the NPSNN in this respect.

### ***Resilience and connectivity***

4.6.9 At paragraph 2.2 of the NPSNN there is a reference to the critical need to provide safe, expeditious and resilient networks. The Case for the Scheme highlights the current problems with incidents in the Blackwall Tunnel and the current lack of resilience in local networks and the

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<sup>27</sup> Paragraphs 2.3, 2.16, 2.18 and 3.14

<sup>28</sup> Paragraphs 2.6, 2.9 and 2.13



knock on effect that this has on the SRN. A key objective is to provide resilience. Consequently, again we recognise that the DCO scheme is in conformity with the NPSNN in this respect

***The development plan and transport plans***

- 4.6.10 The NPSNN refers to the development plan as being important and relevant in establishing the need for the development where it is subject to a s35 Direction and also that consistency with the development plan and relevant statutory transport strategies and plans should be demonstrated where road user charges are proposed<sup>29</sup>.
- 4.6.11 We have set out the relevant details of the development plan and the MTS in section 4.4 of this report. We accept that they provide specific support for the need for the DCO scheme and that the principle of proposing user charges is consistent with those documents. In these matters the DCO Scheme can therefore draw support from paragraphs 1.3 (and 3.37) of the NPSNN.

***NPSNN Chapter 3 - Wider government Policy on National Networks and NPSNN Chapter 4 - General principles of Assessment***

**Options Appraisal**

- 4.6.12 Under the general principles of assessment at paragraph 4.27 of the NPSNN, all projects are required to be subject to an options appraisal to consider viable modal alternatives and other options. In Chapters 3-5 of the Case for the Scheme [APP-093], the Applicant sets out the consideration that has been given to the assessment of options over a number of years. This provides a summary of the various options considered for road-based crossings, walking and cycling, and public transport.
- 4.6.13 The Case for the Scheme [APP-093] makes clear that prior to 2009 feasibility assessments for an additional river crossing in the vicinity of the Blackwall Tunnel were carried out from the early 1990s. In many instances, these assessments were linked to the development of the Thames Gateway Bridge scheme at Gallions Reach and also included options such as a Blackwall Tunnel third bore and a fixed link crossing at Charlton. In 1995 and 1997 land for a cross-river link at Silvertown was safeguarded under Directions from the SoS. Following the establishment of the GLA and TfL in 2000 the safeguarding was transferred to the Mayor of London/TfL in 2001 to bring it within the scope of the Mayor's planning functions under the Town and Country Planning (Mayor of London) Order 2000.

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<sup>29</sup> Paragraphs 1.3 and 3.27

4.6.14 The Case for the Scheme [APP-093] indicates that an early objective of the newly-formed TfL was to prepare a transport strategy on behalf of the Mayor, which was published in 2001. Informing the development of this first MTS was a TfL position paper on Thames Gateway River Crossings which referenced the need for three new crossings including:

- a rail crossing at Woolwich (implemented in form of the DLR);
- the Thames Gateway Bridge (progressed until discontinued by the Mayor in 2008); and
- a Silvertown Link in the form of a bridge or tunnel crossing.<sup>30</sup>

4.6.15 Following the decision in 2008 not to proceed with the Thames Gateway Bridge, a Panel was set up to review objectives and options. The Panel grouped options for addressing the defined objectives into three categories:

- (i) options for improving local access for pedestrians and cyclists at North Greenwich/Isle of Dogs;
- (ii) options for providing congestion relief around the Blackwall Tunnel and road network resilience; and
- (iii) options to improve accessibility and route choice where no fixed highway links exist.

4.6.16 The second category relates most directly to the DCO scheme and included options for a highway bridge or tunnel at Silvertown (which was recommended for further investigation), together with a third bore of the Blackwall Tunnel, and a possible highway tunnel under the Thames at Charlton. It was subsequently concluded that there would be significant technical challenges in constructing a third bore of the Blackwall Tunnel as there is insufficient space to allow tie-in to the road network while meeting current standards for tunnel gradient and visibility. It was therefore not recommended as an option for further work, neither was a tunnel at Charlton because of proximity to the Thames Barrier.

4.6.17 A decision was therefore made to continue developing the option of a bridge or tunnel at Silvertown as a long-term solution to provide relief to the Blackwall Tunnel and support business and regeneration. The potential benefits of managing demand for the Blackwall Tunnel and a new crossing at Silvertown through user charges and maximisation of public transport use was highlighted with the potential role of user charges in helping fund the crossings also noted. This led on to the 2010 MTS and the London Plan 2011, the details of which have already been set out in section 4.4 of this report.

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<sup>30</sup> The first MTS identified (in section 4Q.28) the need for 'a road bridge or tunnel between Silvertown and North Greenwich' as part of the above referenced package of three river crossings. The first London Plan published in 2004 supported new river crossings in Policy 3C.15.

- 4.6.18 In connection with the Examination of the London Plan in 2010, Mott MacDonald carried out a sustainability appraisal of a range of river crossings options, including tunnel and bridge options at Silvertown. The study concluded that a tunnel would be a more favourable option compared to a bridge in terms of sustainability impacts. The greatest issue with the bridge was seen to be the generated noise from traffic crossing the river as the ramp and bridge would pass existing residential housing in close proximity. The negative effect created by the traffic noise was also likely to have an impact on the planned future residential development proposed as part of the Greenwich Peninsula Masterplan. Following implementation of the new Emirates Air Line cable car system in June 2012 in accordance with the MTS and the London Plan, the construction of a high level fixed bridge using the safeguarded land at Silvertown was rendered unfeasible.
- 4.6.19 A non-statutory consultation on east London river crossings which began in October 2012 was undertaken supported by two documents:
- East London River Crossings: Assessment of Need; and
  - East London River Crossings: Assessment of Options.
- 4.6.20 The 2012 Assessment of Need provided a refined interpretation of the transport problems at the Blackwall Tunnel, highlighting two specific issues:
- the imbalance between highway network capacity and demand around the Blackwall Tunnel, which results in significant congestion; and
  - the unreliability of the Blackwall Tunnel, and the limited ability of the surrounding road network to cope with incidents when they occur.
- 4.6.21 The 2012 Assessment of Options considered the following options:
- do nothing;
  - congestion charging at the Blackwall Tunnel;
  - public transport;
  - Silvertown vehicle ferry;
  - Woolwich vehicle ferry;
  - Gallions Reach vehicle ferry;
  - third bore at Blackwall Tunnel;
  - Silvertown lifting bridge;
  - Silvertown bored tunnel;
  - Silvertown immersed tube tunnel;
  - Woolwich bridge;
  - Woolwich tunnel;
  - Gallions Reach local bridge; and
  - Gallions Reach local tunnel.
- 4.6.22 The Case for the Scheme [APP-093] referred to TfL's Strategic Assessment Framework, a standard assessment, which produced a qualitative assessment of how the options performed against the

challenges and outcomes set out in the MTS. This assessment concluded that addressing the various problems of a long section of the Thames in east and south-east London would require a package of measures rather than a single solution. It recommended that TfL should take forward a number of options in the River Crossings programme:

- bored tunnel at Silvertown;
- user charging at the Blackwall Tunnel;
- a new vehicle Ferry at Woolwich;
- new vehicle ferry at Gallions Reach; and
- a new local road bridge or tunnel at Gallions Reach (in conjunction with Silvertown).

4.6.23 The package of measures which most closely met the Mayor's policies and the Strategic Assessment Framework investment criteria comprised a tunnel at Silvertown, a ferry at Gallions Reach and user charging at the Blackwall Tunnel (in combination with the new infrastructure). The October 2012 consultation therefore put forward a preferred package of a new highway tunnel at Silvertown, together with user charges at both the Blackwall Tunnel and the proposed Silvertown Tunnel, alongside the options for Gallions Reach. Publishing the options assessment as part of the consultation gave stakeholders and the public an opportunity to comment on TfL's refreshed assessment of the needs and options for new river crossings, including a tunnel at Silvertown.

4.6.24 Following the response to that consultation and the support shown for a Silvertown link, this was taken forward as a standalone scheme while work has continued on the wider programme of river crossings most recently summarised in 'Connecting the Capital, Our plan for new river crossings for London' [AS-008].

4.6.25 It was concluded that ferries at Silvertown, Woolwich or Gallions Reach would do little to address the problems at the Blackwall Tunnel due to their low capacities and that bridges and tunnels at alternative locations (Gallions Reach, Woolwich) could offer only slight to moderate benefits for the problems at the Blackwall Tunnel. In light of this modest performance, the options of a bridge or tunnel at Woolwich were not recommended for further work on the basis of severe local impacts (for a bridge) and very significant costs (for a tunnel). The option of a bridge or tunnel at Gallions Reach was recommended for further work on the basis of its general connectivity benefits – though the greater potential of a crossing at Silvertown was identified to address the acute issues at the Blackwall Tunnel. The option of a third bore at the Blackwall Tunnel was not recommended on engineering feasibility grounds as before.

4.6.26 As part of continuing consultation on a Silvertown Link there followed in 2014 publication of the Silvertown Needs and Options report. This report restated TfL's assessment of the need for the intervention, and summarised TfL's assessment of the following specific options

specifically against newly refined objectives that we set out at paragraph 4.5.22 of this report, the first three objectives being the key to assessing the strategic performance of the options:

- do nothing;
- congestion charging at the Blackwall Tunnel;
- DLR extension;
- Silvertown vehicle ferry;
- third bore at Blackwall Tunnel;
- Silvertown lifting bridge;
- Silvertown bored tunnel; and
- Silvertown immersed tube tunnel.

4.6.27 The report stated that the existing river crossings in east London are inadequate to cater for current and forecast future demand for cross-river road traffic movement; they are operating at or over capacity and there are severe resilience problems, particularly at the Blackwall Tunnel. In addition, while public transport, walking and cycling enhancements were seen as important schemes in their own right, they would not address the congestion and resilience problems at the Blackwall Tunnel.

4.6.28 The 2014 report again discounted previously rejected options and did not recommend the option of a lifting bridge on the basis that, while it could partially address congestion and resilience problems, it would introduce its own resilience issues with regular closures for passing shipping, thus undermining its effectiveness. The report also noted that any lifting bridge would have a considerable physical and visual impact on surrounding urban areas, would not be compatible with the London Plan's vision for the Peninsula, and would be contrary to local planning policy. With a high-level bridge already confirmed as being unsuitable in this location, this confirmed that no bridge option would offer an appropriate solution.

4.6.29 In relation to tunnel options, the 2014 report assessed both an immersed tube tunnel at Silvertown and the option of a bored tunnel. It found that both would be capable of effectively addressing the objectives of the project. The consultation found considerable support for a tunnel at Silvertown. Overall support for a new river crossing at Silvertown was high, with 83% of respondents (3,608) individuals agreeing that a new crossing is needed and could address the issues of congestion and future population growth.

4.6.30 A full back-check of all the options considered was then undertaken<sup>31</sup>. This confirmed that a 'Do nothing' option would not be feasible because of the congestion that would ensue. Options further east such as Gallions Reach and Belvedere would not by virtue of their location be able fully to satisfy the objectives of reducing congestion and

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<sup>31</sup> This is set out in full at Appendix A to APP-093

providing resilience to mitigate closures of Blackwall Tunnel. Vehicle ferries would provide inadequate capacity. Walking and cycling options were also considered, such as provision of bridges or ferries for non-motorised traffic. While regarded as very important, they were not seen as capable of reducing demand sufficiently to overcome the problems in relation to the Blackwall Tunnel. Various public transport options were evaluated including both DLR and Overground possibilities, but while an additional DLR crossing may provide an alternative for some trips, there would still be a substantial number of trips continuing to require the Blackwall Tunnel. Furthermore, it would not contribute to reducing the susceptibility of the Blackwall Tunnel to closures especially those related to over-height incidents. Crossings further east whether multi-modal or rail-based form part of the overall crossings programme, as do improved pedestrian and cycle crossing facilities.

4.6.31 User charging on the existing Blackwall Tunnel was also considered as an alternative option, but while this was seen as a possible means of reducing congestion it was not regarded as capable of solving capacity or resilience problems. Nevertheless, it was proposed to charge for the use of the Silvertown and Blackwall Tunnels for two reasons:

- to help manage the demand for both crossings; and
- to help pay for the new tunnel.

The reasoning in selecting the option to be taken forward reflected the need to deliver all the identified project objectives and not just PO1, PO2 and PO3.

4.6.32 Thus, by late 2014, following detailed studies of alternative tunnel solutions consultation was undertaken specifically on what has been submitted as the DCO scheme. The consultation was accompanied by the Outline Business Case (OBC) [APP-100] and introductory environmental and transport assessments. The bored tunnel option as is proposed in the dDCO was preferred because although potentially more expensive than an immersed tunnel, the environmental impact would be lower and more able to be mitigated. This consultation led to a re-evaluation of whether cyclist and pedestrian facilities could be incorporated in the new tunnel construction. However, having regard to safety requirements this was ruled out on the grounds of cost and the quality of the experience for users with the expectation that separate crossing facilities would be provided and/or the utility of existing facilities improved.

4.6.33 Statutory pre-application consultation followed in 2015 with refinements to the scheme put forward in the light of consultation responses.

#### ***Alternatives canvassed***

4.6.34 The CfBT [RR-201] and FoE [RR-343] as well as a number of other IPs such as Sian Berry [RR-379] argued that a comprehensive package of

alternative measures had not been given proper consideration that would avoid the need for the Silvertown Tunnel. This point was pursued at hearings by Jenny Bates on behalf of FoE [REP3-044]. The Applicant refuted this suggestion by drawing attention in their Closing Statement [REP7-035] to page 109 onwards in the Case for the Scheme [APP-093]. The Case for the Scheme describes a 'PT max' option which did combine all the possibilities for additional cross-river public transport links with user charging of the existing Blackwall Tunnel. This option had been evaluated. The assessment undertaken showed that the relief of congestion came primarily from the user-charging and that this option could not provide the desired resilience.

- 4.6.35 As a Panel we also explored by way of our second written questions (SWQ), probing at hearings and in follow-up action points whether the Applicant had properly undertaken the economic appraisal of alternatives as specified in the Treasury 'Five case model'. The Applicant's answer was initially set out in their response to Action Point 14 following the 17 January 2017 ISH [REP3-030]. This made clear that the Applicant had only undertaken a full economic appraisal of the final two tunnel options because none of the other options met the defined key scheme objectives. A more comprehensive response was provided in the final post-hearing submission on outstanding issues [REP6-073] and in the specific response on Option Appraisal (Five Case) [REP6-083]. While re-iterating the point that only the two tunnel options met all the objectives, these documents indicate that limited economic appraisals were undertaken in the elimination process of some other options. The latter document also provides the tabulations of the economic appraisals for the two tunnel options.

### ***Panel conclusions***

- 4.6.36 Paragraph 4.27 of the NPSNN indicates that all projects should be subject to an options appraisal. Earlier, in paragraph 4.11 of the NPSNN, the policy statement accepts that linear infrastructure constraints place limits on the opportunity for alternatives. The appraisal requirement specifies that all viable modal alternatives should be considered as should other options including for example user-charging<sup>32</sup>. Where projects have been subject to full options appraisal in achieving their status within appropriate policies or investment plans, option testing need not be considered by the Examining Authority (ExA) or the decision maker.
- 4.6.37 Although this scheme is not a national road or rail scheme for which proportionate consideration of alternatives is referred to, given the long history of this project that has been detailed earlier in this part of

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<sup>32</sup> Paragraphs 3.23 to 3.27

our report, we are satisfied that there has been sufficient assessment of alternatives to satisfy paragraph 4.27 of the NPSNN<sup>33</sup>.

### **Sustainable Transport including Public transport**

- 4.6.38 The previous section of this report on the assessment of alternatives (paragraphs 4.6.12 to 4.6.37) indicates how there has been a consideration of sustainable transport options in defining the DCO scheme. Aspects of sustainable transport are built into the Assessed Case for the scheme, being secured by requirements and related certified documents supplemented by undertakings in agreements with the host boroughs. These measures are detailed more fully in sections within Chapter 5 and within Chapter 9 of this report.
- 4.6.39 A key element of the proposal is to run high frequency bus services through the new tunnels to link the communities and business north and south of the river. And there are also less developed intentions to improve crossing facilities for pedestrians and cyclists from the Greenwich peninsula. While in the Examination it proved necessary to seek improved mechanisms by which these objectives and the benefits that should result would be secured, in both these aspects we again find that the dDCO as drafted at the close of the Examination is in principle in conformity with paragraphs 3.15 to 3.17 of the NPSNN.

### **The Economic Case for the DCO scheme**

- 4.6.40 Paragraphs 4.5 of the NPSNN states that applications should be supported by a business case prepared in accordance with Treasury Green Book Principles.
- 4.6.41 The OBC [APP-100] and Economic Assessment Report [APP-101] indicate that by following the current WebTAG guidance a Net Present Value (NPV) for the DCO scheme is established of £967m which rises to £1225m with the inclusion of reliability benefits. This shows that the scheme would represent 'very high' value for money (VFM). Sensitivity tests are also referred to that show that the scheme would still represent 'very high' VFM under any realistic scenarios. A further £90m of wider economic benefits were also identified.
- 4.6.42 While these figures were not disputed by IPs, as a Panel and along with host and other boroughs we noted that a significant proportion of the benefits derive from the bus benefits of being able to run new services through the proposed tunnel together with an expectation of greater reliability being achieved for the existing route 108 through the Blackwall Tunnel. The Applicant drew attention to the figures provided for NPV without bus benefits. These are £540m without reliability benefits and £797m with such benefits. At these levels the VFM would be reduced to 'high', though the Applicant pointed out that

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<sup>33</sup> Paragraph 4.26 is also regarded as being satisfied. We address the EIA requirement for consideration of alternatives section 4.8 of this report.



discounting the bus benefits is an artificial construct that would not arise because the new bus services are part of the Assessed Case. Through the strengthening of requirements and related certified documents with the support of the Host Boroughs, we sought to ensure that the bus benefits would indeed be secured if the scheme goes ahead. This issue is considered at greater length in section 5.13 of this report and in the recommendations that we make in the wording of the dDCO in Chapter 9.

- 4.6.43 We also noted that a Benefit Cost Ratio (BCR) figure is not quoted in these documents. The Applicant pointed out at D3 [REP3-029] that this is because there is no capital cost to set against the £967m NPV. The Proposed Development is intended to be funded through a Public Private Partnership with a contractor meeting all the construction and related costs and being repaid through revenue from the user charges over a 25 year period. The Applicant pointed out that it was not the nature of the procurement that resulted in this situation, but rather because there would be revenue to cover all costs.
- 4.6.44 The Applicant referred to WebTAG unit A 1.1 in relation to a situation where the calculations can lead to a negative cost estimate where substantial revenues are involved. This would produce a negative BCR which could be difficult to interpret and makes comparisons of schemes or options problematic. The Applicant offered an alternative measure from WebTAG for schemes that require initial capital expenditure but generate significant revenues that accrue to the broad transport budget. The NPV/k metric where k represents the discounted capital costs was tabled as an alternative. As the NPV is a measure of the net benefit of the DCO scheme a positive value means that benefits outweigh costs under this measure. According to the Applicant the NPV/k metric represents the total benefit per pound of capital expenditure and so provides more information than an NPV on the merits of different options. For the Assessed Case the NPV/k is assessed as a value of 1.3 (or 1.7 taking into account reliability benefits) assuming implementation of the bus enhancements.
- 4.6.45 The Applicant asserted however that this NPV/k indicator is not equivalent and cannot be compared to a BCR of an equivalent numerical value. They re-iterated, as made clear in the OBC [APP-100], that the DCO scheme offers very high value for money. The Applicant moreover stressed that the Treasury Green Book currently states that the NPV *'is the primary criteria for deciding whether government action can be justified'*.
- 4.6.46 At D6 the Applicant expanded on why an attempt to undertake such a calculation would be inappropriate under current WebTAG guidance [REP6-073]. Under pre-2004 WebTAG guidance revenue would be treated as a benefit, so a £2076m NPV would be derived to compare with costs of £1109m. On this basis there would be a BCR of 1.9 rising to 2.1 with reliability benefits. Excluding bus benefits, the BCR figures would be 1.6 rising to 1.8. On this basis there would only be 'moderate' VFM. However, the Applicant stressed that this would not

be the proper way to assess VFM under current guidance and that looking to the NPV figures as now directed under WebTAG guidance does give in their view, 'very high' VFM.

- 4.6.47 We comment further on the distributional effects highlighted in the economic appraisal in section 5.13 of this report and the certainty of funding availability in Chapter 8. However, we are satisfied that the Applicant has complied with paragraph 4.5 of the NPSNN.
- 4.6.48 We have no reason to question the conclusion that the scheme would represent acceptable value for money, no matter what method of calculation is used, including the bus benefits which would be secured through the Requirement 13 of the dDCO/ recommended (r) DCO and the 'Bus Strategy' certified document.

### **Safety, functionality and fitness for purpose**

- 4.6.49 Paragraph 4.4 of the NPSNN refers to safety being a potential impact and in paragraph 4.33 of the NPSNN there is also a reference to the Applicant needing to take account of functionality in and fitness for purpose in design.
- 4.6.50 Very little comment was made on the technical merits of the proposed development during the Examination. There was general support for tying down the development more precisely both on land and where works are proposed within or beneath the river from the Host Boroughs, the PLA and others. This was achieved by introducing greater definition of the limits to deviation and on where activities might be undertaken within the river area. None of the limitations inserted within the text of the dDCO and its supporting plans directly affect the nature of the Proposed Development, but rather simply define it more precisely.
- 4.6.51 One of the IPs, Dominic Leggett, argued in his RR [RR-148] and in subsequent submissions, including those made orally at the hearing on 17 January [REP3-041, REP4-005] that the proposal was wasteful. He argued that a single bore tunnel with two-way traffic would suffice for the predicted normal daily traffic flows of around 25,000 vehicles per day. He suggested that this could save £300m-£400m<sup>34</sup> and that a separate bus lane would not be necessary because the expectation would be for free-flowing traffic.
- 4.6.52 Mr Leggett's final submission [REP6-089] details his email exchanges with the Applicant since the January hearing. The key reason why the Applicant had not considered a single bore tunnel as an option is because they consider that EU Directive 2004/54/EC should be applied to a tunnel such as is proposed given its acknowledged strategic significance even if it would not actually be part of the Trans European Network. The Directive was applied in the UK by the Road Tunnel

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<sup>34</sup> But only £200m-£300m if pedestrian and cycle facilities were added.

Safety Regulations 2007. It is specified that where flows of 10,000 or more vehicles per day per lane are anticipated, a twin bore tunnel must be provided. They also point out that Highway Agency standard BD/78/99, which Mr Leggett draws attention to as it accepts bi-directional tunnels with flows of 1,800 vehicles per lane per hour, is being reviewed by Highways England (HE). It will be updated to follow current practice in the design and operation of tunnels including that arising from lessons learned from the 1999 Mont Blanc tunnel fire.

- 4.6.53 Although Mr Leggett refers to the possibility of tidal flow operation of the new tunnel, we find the arguments of the Applicant to be convincing. This is not merely as result of application of particular Regulations, but because a key objective of the DCO scheme is to provide resilience. This means that on occasions the proposed Silvertown Tunnel may be called upon to handle the equivalent of over 100,000 vehicles per day when incidents require the closure of the Blackwall Tunnel. A two-lane single bore tunnel could not provide for this degree of resilience and flexibility.
- 4.6.54 The other challenge to the highway detail of the DCO scheme came from the U&I Group Plc. While their representations throughout the Examination centred very much on the issue of how to resolve the hazardous substances issue in relation to the Brenntag Chemicals site, they also raised the detail of the layout of the re-aligned Tunnel Avenue which is intended to facilitate two-way traffic between the eastern and western sides of the Greenwich Peninsula after completion of the tunnel works. U&I seek to ensure that the re-aligned Tunnel Avenue will include appropriate provision for pedestrians, cyclists and two-way bus movements to support their aspirations for development on adjoining wharf land. The way in which their concerns were intended to be met shortly before the close of the Examination was set out at D6 [REP6-016], though at this stage matters had still to be finalised. The Applicant had acknowledged the validity of the highway issues raised and submitted a revised Landscaping Plan [REP6-070], a revised Design Principles document [REP6-058] and a sketch plan showing how a south-bound bus stop could be added if and when required [REP6-081].
- 4.6.55 The Statement of Common Ground (SoCG) with Morden College submitted by the Applicant [REP7-033] shows that the freeholder of wharf land in this vicinity is less certain that the revisions and additional documentation put forward by the Applicant would meet their similar concerns. However, we are satisfied that the revised and additional drawings do indicate that the re-aligned Tunnel Avenue would be provided to an appropriate standard to serve pedestrians, cyclists and public transport users of adjoining wharf areas whether in current use or after parts may have been redeveloped. We give consideration in Chapter 9 as to whether any further amendment to the text of the dDCO is warranted to ensure that the improved facilities for sustainable transport would be secured.

4.6.56 Given these conclusions we are satisfied that the Proposed Development would be consistent with paragraph 4.4 (and 4.33) of the NPSNN.

**Appropriateness and necessity of any planning obligations with Local Planning Authorities**

4.6.57 Paragraph 4.10 of the NPSN states that planning obligations should only be sought where they are necessary to make the development acceptable in planning terms, directly related the Proposed Development and fairly and reasonably related in scale and kind to the development.

4.6.58 In section 1.11 of our report we refer to the proposed obligations under s106 or other enabling powers that the Applicant put forward shortly before the close of the Examination for agreement with the RBG, LBTH and LBN. At the close of the Examination none of these intended agreements had been signed, though the position statements submitted by the Applicant at D7 indicate that agreement may be close with RBG and LBTH [REP7-042 and REP7-044]. It is less clear that negotiations are as far advanced with LBN [REP7-043] as that borough has submitted its own alternative approach for an obligation under s106 linked to the DCO [REP7-003/REP7-006].

4.6.59 In Chapter 9 of this report on the wording of the DCO we assess appropriateness and necessity for each of these obligations in relation to the final text of the dDCO submitted by the Applicant. We set out the extent to which certain provisions of these obligations might alternatively be addressed by further amendment of the dDCO if any or all of the obligations are not signed. And we conclude on whether any remaining matters in the obligations that could not be addressed in this way might need to be determinative of the SoS's decision on whether or not the DCO should be made.

4.6.60 Subject to that consideration we are satisfied that the agreements under consideration would meet the spirit of paragraph 4.10 of the NPSNN, although the nature of the agreements being proposed by the Applicant would not technically be obligations under s106 of the 1990 Act as amended by the PA2008.

**Overall conclusions in respect of Chapter 1 to Chapter 4.27 of the NPSNN**

4.6.61 The general principles of assessment relating the generality of good design<sup>35</sup>, climate change adaptation, relationship with other control regimes, health, road safety<sup>36</sup> and security as well as the generic impacts of development that are referred to in the latter part of the NPSNN are considered in detail in Chapter 5 of this report. That

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<sup>35</sup> Paragraphs 4.28 to 4.36 of the NPSNN

<sup>36</sup> Paragraphs 4.60 to 4.66 of the NPSNN

chapter gives our findings and conclusions in relation to the environmental, socio-economic and commercial impacts of the Proposed Development.

4.6.62 Subject to our detailed consideration and in relation to weighing the balance of any adverse impacts against benefits, we are satisfied that the Proposed Development is consistent with the policy set out in Chapters 1 to 3 and the first part of Chapter 4 of the NPSNN. We have not seen any reason to question the Schedule of Compliance with the NPSNN that has been provided by the Applicant [REP6-080].

#### **4.7 CONFORMITY WITH THE MARINE POLICY STATEMENT (MPS)**

4.7.1 As noted in Chapter 3 of this report, the MPS is relevant to the consideration of this DCO because the application site includes tidal water within the River Thames. Consequently, the MPS has to be addressed under s104(2) of the PA2008.

4.7.2 The Applicant provided a Marine Policy Compliance Statement at D6 [REP6-078]. This points out that the UK MPS contains high level marine objectives, namely:

- (12) Achieving a sustainable marine economy;
- (13) Ensuring a strong, healthy and just society;
- (14) Living within environmental limits;
- (15) Promoting good governance; and
- (16) Using sound science responsibly.

4.7.3 The MPS aims to enable an appropriate and consistent approach to marine planning across UK waters, and to ensure the sustainable use of marine resources and strategic management of marine activities from renewable energy to nature conservation, fishing, recreation and tourism. The MPS recognises that the primary environmental considerations of marine dredging and disposal activities include morphological changes, hydrological effects, increases in turbidity and changes to natural sedimentary systems. No marine plan has yet been prepared for the Thames Estuary area.

4.7.4 The Applicant maintained that the Sustainability Statement [APP-091] accompanying the application addresses the objectives of the MPS. The particular activities that could impact on the marine environment are identified as including:

- the recommissioning of the existing Not Always Afloat but Safely Aground (NAABSA) berth facility at the Thames Wharf; and
- the construction, operation, and decommissioning of a new temporary jetty within the River Thames, along with an associated dredge and the disposal of the dredge arisings.

4.7.5 The Applicant also points out that assessment of these works, which would be undertaken in a highly developed part of the Thames Estuary, was included within the ES [APP-031]. The assessment specifically considered the potential impacts associated with marine

dredging in a format that is consistent with the policy objectives associated with this activity (section 3.6 of MPS). This has included determining the types and volumes of sediment to be dredged. In addition sediment contamination sampling has been undertaken. The management and disposal of dredge arisings would be managed in accordance with the Site Waste Management Plan, as secured by the Code of Construction Practice (CoCP). The Proposed Development has been considered in the context of all relevant legislation, plans and policies as outlined within the respective chapters of the ES (objective (3)). This has included the consideration of linkages to the terrestrial environment and impacts that could affect socio-economic receptors (objective (2)). A full Flood Risk Assessment has also been undertaken [APP-077] and updated [AS-019].

- 4.7.6 Marine receptors that have specifically been considered included the water environment (hydrodynamics, sediment and water quality), marine ecology (benthic habitats and species, fish and marine mammals), heritage and other legitimate sea users (eg commercial and recreational navigation) (objectives (1) and (3)). The protected status of all features has been factored in to understanding the potential significance of environmental effects (objective (3)). Similarly, the potential for cumulative and in-combination effects has been fully evaluated (objectives 2 and 3). This recognises the importance of the Thames Estuary as an important resource for both wildlife and a wide range of human activities. The scientific context and level of confidence in each of the marine ecology assessments has also been detailed within the relevant chapters of the ES (objective (5)).
- 4.7.7 Environmental mitigation and monitoring was proposed where required to reduce the significance of any potential effects to marine receptors to slight adverse at worst, and are controlled through the CoCP and the dDCO itself, including within the Deemed Marine Licence (DML) that is set out at Schedule 12 to the dDCO (objective (3)). Moreover, the Applicant pointed out that these measures are set in the context of the temporary nature of the proposed marine works. As part of promoting good governance TfL has undertaken consultation with relevant marine stakeholders throughout the assessment process (objective (4)).
- 4.7.8 At the conclusion of the Examination, the Marine Management Organisation (MMO), the relevant statutory consultee in relation to the generality of the MPS, confirmed that they had no outstanding issues in respect of the dDCO, the environmental assessment work that had been undertaken and the mitigation secured [REP7-016]. In deferring certain matters to the EA, the body responsible for water quality in the River Thames, we have noted that the only issue not agreed between the Applicant and the EA concerns the means to ensure that the river walls are maintained and enhanced to an appropriate standard during the period of the construction and maintenance of the proposed tunnel in order to avoid any flood risk. We make our recommendation on this particular issue in Chapters 5 and 9 of this report. The PLA has also

expressed concern over the displacement of certain users of river wharves. We give our conclusions on this issue in section 5.14 of this report.

4.7.9 Overall, we are satisfied that the Proposed Development would be in general conformity with the MPS.

#### **4.8 ENVIRONMENTAL STATEMENT (ES), ENVIRONMENTAL IMPACT ASSESSMENT (EIA) AND HABITATS REGULATIONS ASSESSMENT (HRA)**

##### **ES and EIA**

4.8.1 As already noted in paragraphs 1.1.7 and 2.1.3 of this report, the application was accompanied by a comprehensive ES that had regard to a previous scoping opinion. PINS s55 Acceptance Checklist indicates that on receipt the ES was regarded as meeting the requirements of the relevant Regulations<sup>37</sup> [PD-002]. Chapter 3 of the main ES [APP-031] describes the alternatives considered. The ES consideration summarises the options appraisal noted in section 4.6 of this report. It was followed by further detail of the assessment given to the possibility of variants of the selected tunnel solution.

4.8.2 There was very little by way of comment on the adequacy of the ES. Representations from statutory consultees did flag up some points for consideration, but these were primarily concerned with ensuring that proposed mitigation would be secured or to pursue particular fine detail. For our part we asked a number of questions during both FWQ [PD-006] and SWQ [PD-012]. We do not regard any of the points raised as demonstrating any material deficiency of the ES documentation provided to support the application but rather matters for consideration as part of the Examination, including the mechanisms by which to secure safeguards and mitigation measures.

4.8.3 During the course of the Examination, the Applicant sought to provide updates required or to correct any inconsistencies they themselves identified in the ES, such as in relation to the Flood Risk Assessment [AS-019], noise [AS-020] and the forecasting of air quality implications [AS-018 and AS-022 to AS-025]. The Applicant also responded very fully to our questions and other queries raised by statutory or other consultees. For example, environmental appraisals were provided in relation to the Precast Concrete Segment Manufacturing Plant [REP3-020] and the Slurry Tunnel Boring Machine (TBM) and Treatment Plant [REP3-021] to demonstrate that temporary construction activities would fall within the parameters assessed in the main ES, thereby meeting the 'Rochdale' envelope test.

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<sup>37</sup> The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 as amended by the Infrastructure Planning (Environmental Impact assessment) (Amendment) Regulations 2012

- 4.8.4 With regard to the additional environmental information provided by the Applicant during the course of the Examination, we regard this as other environmental information. It was not sought as further environmental information by the Panel within the terms of Regulation 17 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009. Consequently, we are satisfied that the requirements of the 2009 Regulations have been fully met. The final list of the documentation comprising the ES at the close of the Examination is set out in Schedule 14 to the dDCO that is at Appendix D to this report.
- 4.8.5 The various environmental issues covered in the ES documentation are considered in the Chapter 5 of this report against the assessment principles contained in the NPSNN, the MPS and the identified principal issues in relation to the prospective impact of the Proposed Development and the DCO scheme as a whole. Mitigation measures, both those inbuilt and those secured through Requirements in Schedule 2 to the dDCO, related certified documents and the Protective Provisions in Schedule 13 to the dDCO are highlighted in that chapter as necessary to address perceived impacts. In Chapter 9 we consider whether further strengthening of these safeguards should be included in the rDCO.

#### **Habitats Regulations Assessment**

- 4.8.6 The application was also accompanied by a HRA as part of the ES [APP-064]. Clarification was provided in relation to certain details during the Examination.
- 4.8.7 We consider the Applicant's HRA in Chapter 6 of this report. We are satisfied that sufficient information has been provided by the Applicant to allow the SoS to conclude that the project would have no likely significant effects, either alone or in-combination with other plans or projects, on any European sites or their features.



## 5 FINDINGS AND CONCLUSIONS IN RELATION TO THE POTENTIAL IMPACTS OF THE DEVELOPMENT

### 5.1 INTRODUCTION

5.1.1 This Chapter addresses potential impacts of the Proposed Development which are raised in the Panel's identification of issues and in submissions to the Examination. Each section of this chapter generally consists of the following parts:

- introduction including policy background;
- Applicant's approach in the Environmental Statement (ES) and later submissions, including baseline conditions, impacts (as assessed in the ES) and mitigation where relevant;
- issues arising; and
- the Panel's reasoning and conclusions including any further mitigation it is proposing in its recommended Development Consent Order (rDCO), attached as Appendix D.

5.1.2 Where the report section necessarily contains details on multiple issues (for example air quality and biodiversity), the introductory section identifies how the remainder of that section is arranged.

5.1.3 Matters relating to the overarching legal and policy context and the Panel's findings in relation to these matters are considered in Chapters 3 and 4 respectively and will not be repeated in this Chapter.

5.1.4 The term '*impact*' is used throughout this Chapter. However, to clarify, environmental '*impacts*' and '*effects*' are both considered in this report to be '*environmental effects*'.

5.1.5 The term '*host authorities*' refers to London Borough of Newham (LBN), Royal Borough of Greenwich (RBG) and London Borough of Tower Hamlets (LBTH).

5.1.6 The following terms are used throughout Chapter 5 and so the Panel's definitions of these terms are given here:-

- Base Year (2012) - For the purpose of this report, where information from the Applicant's ES is considered, the Applicant's observed conditions on the transport network for 2012 were used to characterise and describe the base year. The base year is descriptive of the 2012 conditions that formed the foundation of the Applicant's modelling of the future year Reference Case.
- Reference Case (2021) - This is an assumed 'future baseline' scenario, which represents the circumstances and conditions that The Applicant considers would be the case in the future year without the implementation of the scheme, taking account of trends (for example in population and employment growth) and relevant anticipated developments. The Reference Case is used in the ES as a comparator for the Assessed Case, to show the effect

of the Proposed Development against the appropriate reference point.

- Assessed Case (2021) - This is the scenario adopted by the Applicant for the assessment of likely effects of the Proposed Development, in the context of forecasts of transport conditions and with user charges set in order to achieve the Proposed Development's traffic, environmental, socio-economic and financial objectives.
- Proposed Development - The total extent of the works, buildings and structures that the Applicant is proposing in the draft DCO [REP7-026] Schedule 1.
- DCO scheme - The Proposed Development together with the Applicant's proposed wider traffic management measures, including the user charging proposals for both the Silvertown Tunnel and the Blackwall Tunnel.

## **5.2 TRAFFIC AND TRANSPORT**

### **INTRODUCTION AND POLICY BACKGROUND**

#### **Introduction**

5.2.1 This report section addresses impacts of the Proposed Development upon traffic and transport. In particular it considers impacts upon traffic and transport in relation to:-

- the transport modelling used by the Applicant;
- road and junction locations that could experience significant impacts from the Proposed Development;
- the Monitoring and Mitigation Strategy (MMS) and mitigation that would be controlled through the Development Consent Order (DCO) in relation to controlling traffic levels and improving public transport provision;
- whether the Proposed Development would relieve congestion and improve resilience on the road network; and
- road safety matters.

5.2.2 Traffic and transport matters were identified by the Panel in its Initial Assessment of Principal Issues [PD-004]. We particularly identified the matters of whether the scheme would relieve congestion and improve resilience on the road network and whether the baseline data and modelling is sound and the forecasting techniques used to factor in the proposed user charging are appropriate. The Panel also identified whether there would be any consequential issues that could not be mitigated through traffic management measures at critical junctions or links in the network that would be affected by the DCO scheme.

5.2.3 Over 150 Interested Parties (IP) identified concerns regarding impacts upon traffic and transport in their Relevant Representations (RR). These are considered in report paragraphs 5.2.39 to 5.2.56 and 5.2.71 to 5.2.88.

- 5.2.4 Impacts upon traffic and transport, including the uncertainties in the modelling and the links between traffic modelling and the environmental assessments for air quality, continued to be an issue that the host and neighbouring boroughs, as well as a range of interest groups and other IPs maintained throughout the Examination in their representations and contributions provided at relevant Open Floor Hearings (OFHs) and Issue Specific Hearings (ISHs).
- 5.2.5 Three ISHs which included matters related to traffic and transport were held during the Examination. They were the Traffic and Transport Modelling ISH held on 7 December 2016 [EV-013 and EV-017 to EV-020], the Traffic and Transport Modelling, Forecasting and User Charging and Economic Issues ISH on 17 January 2017 [EV024 and EV-033 to EV-034], and the ISH on any outstanding issues including environmental matters held on 28 March 2017 [EV-050 and EV-052 to EV-053].
- 5.2.6 In addition the Panel asked questions to the Applicant and various IPs about traffic and transportation matters in their first written questions (FWQ) [PD-006] and second written questions (SWQ) [PD-012]. The Panel explored the links between the traffic and transport modelling and air quality and noise assessments during the ISH on 17 January 2017.
- 5.2.7 Matters relating to construction traffic are addressed in our report section 5.5 and air quality in report section 5.3. Impacts and mitigation in relation to sustainable transport (buses, cycling and walking) and motorcycles and other powered two wheelers are considered in our report section 5.13.

### **Policy Background**

- 5.2.8 In the National Policy Statement for National Networks (NPSNN), Government policy and the need for the development are summarised in Section 2. The Government's vision for national networks is summarised at the beginning of Section 2 and states that, '*The Government will deliver national networks that meet the country's long term needs; supporting a prosperous and competitive economy and improving overall quality of life, as part of a wider transport system...*'
- 5.2.9 NPSNN, in paragraph 2.1 explains that, '*There is a critical need to improve the national networks to address road congestion...*' In paragraph 2.20, the NPSNN explains that traffic forecasts are not a policy goal and do not in themselves generate a need for the development - the need arises from the pressures created by increases in traffic. It explains that increased traffic without sufficient capacity will result in more congestion, greater delays and more unpredictable journeys.
- 5.2.10 In paragraph 2.21-2.22, it goes on to explain, '*A well maintained and managed national road network makes for safer roads with less*

*congestion and ensures value for money on whole life costs.'* and *'Without improving the road network, including its performance, it will be difficult to support further economic development, employment and housing and this will impede economic growth and reduce people's quality of life'.*

- 5.2.11 On the issue of tolling or user charging, NPSNN, paragraphs 3.26 and 3.27 explain that for non-Strategic Road Network (SRN) roads, user charging to fund new capacity and/or manage demand are devolved to local and other traffic authorities. Moreover, where tolls or road user charges are proposed as part of a scheme that is the subject of a direction given under section 35 of the Planning Act 2008, the Applicant is required to demonstrate that the proposals are consistent with this NPS, development plans and relevant statutory transport strategies and plans.
- 5.2.12 The NPSNN, in paragraph 5.206 and 5.207 explains that for road and rail developments that are subject to environmental impact assessment (EIA) and would be likely to have significant environmental impacts arising from impacts upon transport networks, the applicant's environmental statement (ES) should describe those impacts and mitigating commitments.
- 5.2.13 In relation to decision making, the NPSNN, paragraphs 5.211 and 5.212 explain that the Examining Authority (ExA) and the Secretary of State (SoS) should give due consideration to impacts on local transport networks and policies set out in local plans, for example policies on demand management being undertaken on a local level. However the scheme must be decided in accordance with the NPS except to the extent that one or more of sub-sections 104(4) to 104(8) of the Planning Act 2008 (PA2008) applies.
- 5.2.14 The Mayor's Transport Strategy (MTS) 2010 set out the transport strategy for London up to 2031, including the strategy for delivering the transport infrastructure needed to accommodate growth in the east and south-east sub-region (ESR), which is a key part of the London Plan's strategic vision. The strategic need and case for improving river crossings in East London is set out in section 5.8 of the MTS. MTS proposal 39 referred to a new fixed link crossing at Silvertown to relieve Blackwall Tunnel congestion and to provide local links for vehicle traffic.

## **THE APPLICANT'S APPROACH**

### **Overview**

- 5.2.15 The Applicant's Environmental Statement (ES) [APP-031], chapter 11 provided its assessment of the effects of the Proposed Development on pedestrians, cyclists and vehicle travellers and drew upon the results of its transport assessment document [APP-086] and its appendices [APP-087]. In addition the Applicant submitted the

following documents, which are relevant to this report section, with the ES:-

- Environmental traffic data source, Appendix 6.D [APP-052];
- Model parameters, Appendix 6.E [APP-053];
- Rights of Way and Access Plans [APP-009];
- Classification of roads plans [APP-010];
- Traffic Regulation measures plans [APP-012];
- ES Figures relating to traffic and transport [APP-037, Figures 11.1 and 11.2];
- Traffic Impacts Mitigation Strategy (TIMS) [APP-099];
- Traffic Forecasting Report - Sensitivity Testing [APP-105];
- Charging policies and procedures [APP-107]; and
- Mitigation Route Map [APP-108]

5.2.16 During the Examination many of these documents were updated. The TIMS [APP-099] was merged with the Monitoring Strategy [APP-098] and updated to address concerns raised by IPs and the Panel in the ISH on 17 January 2017 [EV-024] and the Panel's action points following the ISH [EV-029]. The revised updated, combined MMS [REP4-046] was further refined and updated during the Examination, with the last revision submitted to the Examination at deadline (D)7 [REP7-049]. This matter is discussed in paragraphs 5.2.79 to 5.2.82. The rights of way and access plans, classification of roads plans and ES figures were updated at D6, [REP6-034], [REP6-035] and [REP6-047] respectively. The charging policies and procedures document as well as the mitigation route map were updated three times during the Examination, the final version submitted was revision 3 for both documents [REP6-060] and [REP6-062].

### **Baseline Situation**

5.2.17 The ES explained that in East London there are three river crossings, the Rotherhithe Tunnel, the Blackwall Tunnel and the Woolwich Ferry [APP-031, paragraph 11.4.7]. Their locations are shown on Figure 11.2 of the ES (APP-031, following paragraph 11.4.7). The Blackwall Tunnel forms a primary route link (the A102) between the A2 to the south and the A12/A13 to the north. The Blackwall Tunnel is reported to be one of the most heavily congested traffic routes in London [APP-031, paragraph 11.4.7].

5.2.18 There are 47 bus routes which cross the river west of Vauxhall Bridge but only one bus route (108) crosses the river through the Blackwall Tunnel. This is a single deck bus service (due to height restrictions). Bus routes in the vicinity of the two work sites are shown in the ES [APP-031, Figures 11.4 and 11.5].

### **Traffic forecasting and modelling**

5.2.19 The Applicant's ES [APP-031, paragraphs 11.3.1 and 11.3.2] explained that its traffic and transport assessments had been undertaken in accordance with Design Manual for Roads and Bridges (DMRB),

volume 11, section 3, part 8, (pedestrians, cyclists, equestrians and community impacts) and DMRB volume 11, section 3, part 9 (vehicle travellers). The assessments were also carried out in accordance with DMRB volume 11, section 2, part 5 HA 205/08 (Assessment and management of environmental effects). The ES [APP-031, paragraph 11.3.17] explained that in assessing the Assessed Case<sup>38</sup> situation DMRB guidance was used, together with professional judgement.

- 5.2.20 The Applicant used baseline information on existing highway, road conditions, traffic flows, land use and pedestrian and cycle facilities gathered through desk studies, site visits and stakeholder consultation [APP-031, paragraph 11.3.8].
- 5.2.21 The assessments forecast the future baseline without the Proposed Development - the Reference Case, using a suite of models for assessing future year scenarios. Estimates of trip generation and distribution for future year assessments were derived from the Applicant's London Transportation Studies (LTS) model and the London Regional Demand Model (LoRDM).
- 5.2.22 A strategic model, the River Crossings Highway Assignment Model (RXHAM) was used to assess the impact of the new river crossings on highway network performance in the east and south east sub-region (ESR) and beyond [APP-086, paragraph 1.5.11]. The RXHAM model was used to assess the future baseline traffic flows (the Reference Case) [APP-031, paragraphs 11.3.10 and 11.3.11]. The model was based on the Applicant's existing sub-regional East London Highway Assignment Model (ELHAM).
- 5.2.23 In order to forecast the impacts of the Proposed Development upon traffic and transportation receptors (the Assessed Case), the Applicant used the LoRDM and RXHAM to assess the future baseline traffic flows with the scheme in 2021 (the forecast opening year) and 2036 (15 years after the forecast opening year). It further explained [APP-086, paragraph 1.5.14] that RXHAM was the primary tool used in the assessment of the Proposed Development's road network impacts. It included an extensive area of the road network intended to reproduce the dynamic effects of the DCO scheme on a range of different highway journeys. However, the Applicant, while claiming aggregate impacts were modelled robustly, acknowledged that a strategic model would be less effective at replicating more localised highway impacts, including responses of individual drivers at uncontrolled junctions and traffic merge/diverge points. To assess such impacts, TRANSYT<sup>39</sup> and LINSIG<sup>40</sup> models were used to assess individual junctions, and a

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<sup>38</sup> Assessed Case and Reference Case are defined in report section 5.1

<sup>39</sup> A traffic simulation and signal timing optimisation programme

<sup>40</sup> A design and modelling package for traffic signal junctions

VISSIM<sup>41</sup> micro-simulation model was developed covering the road network in the vicinity of the DCO scheme.

- 5.2.24 Railplan was used to assess the impact of potential enhancements to the cross-river bus network made possible by the scheme. Railplan is a public transport (PT) model that predicts the PT mode (rail, underground, bus) and route that a person would choose to get to their destination, as well as the associated crowding impacts. A Public Transport Accessibility Level (PTAL) assessment was also undertaken to measure the impact on accessibility of potential enhancements to the bus network as a result of the scheme.
- 5.2.25 The ES explained that the assessment of effects in terms of operational traffic flows in the Assessed Case, it was assumed that 'tolling' would be in place on the Blackwall and Silvertown Tunnels. The Assessed Case traffic flows were generated using predicted changes in adjacent developments, improvements to the transport network and forecast growth in employment and population [APP-031, paragraph 11.3.39].
- 5.2.26 The transport assessment further explained [APP-086, paragraph 1.5.3] that the Proposed Development is anticipated to open in 2022/2023. However, the use of 2021 for the Assessed Case conformed with Department for Transport (DfT) guidance on Transport User Benefit Appraisal.
- 5.2.27 The Applicant explained that the base year model and forecasts were subject to rigorous assessment to build confidence in model performance. Furthermore, in 2015, the Applicant supported the host boroughs requests in undertaking a further audit of the modelling suite. This audit concluded that the models were suitable for the purpose of assessing the traffic and transport impacts of the scheme [APP-086, paragraphs 1.5.9 and 1.5.10].

### **Impacts from the Operational Phase of the Proposed Development**

- 5.2.28 The ES [APP-031, paragraph 11.6.29] explained that the predicted changes in traffic flows (all vehicles) were mostly below 10% with the exception of Victoria Dock Road, West Parkside and the Lower Lea Crossing. Predicted increases in heavy good vehicles (HGVs) were higher than the increase in traffic flows, with values above 30% on Albert Road, Victoria Dock Road, Connaught Bridge, North Woolwich Road and Silvertown Way. There would also be decreases in traffic flows for all vehicles and HGVs in some locations, the highest being on Leamouth Road and the A13.

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<sup>41</sup> A microscopic multi-model traffic flow simulation model based on car following and lane change logic that is capable of modelling complex road network geometry and permits different traffic controls to be used in the model

- 5.2.29 The ES concluded [APP-031, paragraph 11.6.40] that as a result of the Proposed Development, vehicle travellers and bus travellers using the Blackwall or Silvertown Tunnel would benefit from reduced journey times (between 1 and 23 minutes reduction) and greater journey reliability, with the traffic modelling predicting a major beneficial (and therefore significant) improvement for post meridiem (after mid-day) (PM) peak southbound journeys and a moderate beneficial improvement for anti-meridiem (before mid-day) AM and PM peak northbound journeys. A minor beneficial significance was forecast for AM peak southbound journeys, reflecting a modest (5 minute) predicted reductions in journey times.
- 5.2.30 Increases in HGV movements forecast at Connaught Bridge, the Lower Lea Crossing/Leamouth junction, Victoria Dock Road west of Prince Regent Lane, Prince of Wales Road, Prince Regent Lane, Millenium Way and Woolwich Road resulted in a predicted minor adverse significance of effect upon amenity at these locations. However, the ES [APP-031, Table 11.26] also predicted major beneficial improvements in amenity at Dock Road and the Tidal Basin Roundabout, due to road realignment at Dock Road and improved amenity for pedestrians and cyclists as a result of the provision of shared use routes around the roundabout. Major beneficial improvements in amenity were also predicted for the new Boord Street pedestrian and cycle bridge.

### **Mitigation**

- 5.2.31 The ES [APP-031, paragraph 11.5.24-27] explained that free-flow user charging would be introduced on both the Blackwall and Silvertown Tunnels to control any induced traffic and to '*help to keep traffic within acceptable limits.*' The Applicant also explained that they were keen to promote the use of low emission vehicles and had included a discount for low emission vehicles in the Assessed Case.
- 5.2.32 A proposed bus only link on Tunnel Avenue would provide access for buses to join the A102 Blackwall Tunnel Approach northbound into the Blackwall Tunnel. For buses heading southbound along the A102 from the Blackwall Tunnel and Silvertown Tunnel a dedicated bus-only exit slip is proposed to allow buses to access North Greenwich bus station via Millenium Way, replacing an existing facility. Other mitigation for the operational phase including reviewing and monitoring existing crossings was described in the ES [APP-031, Table 11-18].
- 5.2.33 The Applicant argued that traffic demand in London would evolve between now and the scheduled implementation date. It considered that committing to junction-specific mitigations would not be appropriate at this stage and may conflict with the objectives of subsequent projects and programmes. The Applicant proposed to monitor junctions across an extensive area of the road network around the tunnels, and mitigation measures would be taken under existing powers where appropriate based on assessments of actual traffic impacts closer to the opening date. The proposed approach was



initially set out in detail in the Monitoring Strategy [APP-098] and the TIMS [APP-099], these being replaced during the Examination by a combined Monitoring and Mitigation Strategy [REP4-046], which was updated twice during the Examination, with the final revision submitted at deadline (D)7 [REP7-049].

### **Relieving Congestion and Improving Resilience**

- 5.2.34 The transport assessment [APP-086, paragraphs 7.7.1 to 7.7.4] explained that the cross river highway network in the ESR suffers from poor reliability and resilience to incidents causing traffic disruption. This is in part due to the lack of river crossings, their high level of demand and their susceptibility to traffic incidents and closures.
- 5.2.35 It explained that when operational, the proposed development would significantly improve the day to day reliability of the network, particularly for users of the Blackwall and Silvertown Tunnels. The network resilience would be improved two ways:-
- the number of over-height vehicle incidents at the Blackwall Tunnel would be reduced; these currently account for a significant proportion of all incidents and closures; and
  - the Silvertown Tunnels would provide the ability to quickly divert traffic to an adjacent, high capacity crossing in the event of an incident and a closure at the Blackwall Tunnel.
- 5.2.36 It goes on to explain that the proposed development would significantly enhance the resilience of the adjacent road network, for example in the event of a long term closure of the Blackwall Tunnel, caused by a major incident.

### **Road Safety Matters**

- 5.2.37 The transport assessment [APP-086, paragraph 7.8.1 to 7.8.2] explained that as traffic demand for the crossing in the Assessed Case is forecast to reduce overall in the models used, the proposed development would have a marginally positive impact upon accident levels, equating to a reduction in 233 accidents over a 60 year period, or a reduction of 0.15% compared to the Reference Case. It further explained that the design for the Proposed Development has been subject to a full Stage 1 Road Safety Audit. As part of that process, a number of safety issues were identified and recommendations made for maximising road safety for users of the Proposed Development.
- 5.2.38 The Code of Construction Practice (CoCP) [[REP6-056, Table 14.1] provided details of a range of mitigation measures that the Applicant is proposing at various road and junctions including improved lighting and increased width of footways at named junctions, provision of temporary pedestrian and cycle crossing facilities and routes and the review of signal timings and repair of tactile paving.

## ISSUES ARISING

### Traffic forecasting and modelling

- 5.2.39 The Applicant's transport forecasting and modelling and reliance on the user charging mechanism to manage traffic levels at the levels assessed in the ES remained a key issue for many IPs with some matters remaining unresolved at the close of the Examination. It was acknowledged by the Applicant that the user charge was not modelled directly but modelled through a penalty based on values of time (VoT). As a consequence, the assumed VoT was central to concerns expressed by the host boroughs and neighbouring Boroughs as detailed more fully below.
- 5.2.40 Daniel Wilson [RR-080] asked whether the impact on cyclists, pedestrians, local businesses and schools had been modelled. Ralph Hardwick [RR-186] considered that the scheme would not reduce congestion and the modelling had not included consideration of other nearby developments including traffic generated by a new Ikea store nearby.
- 5.2.41 Nicholas Marks's [RR-229] concerns were that the traffic forecast had failed to adequately address the likely increase in traffic flows due to both latent and induced demand, let alone population growth. He considered that the forecast reduction in motor vehicle trips following the opening of the Proposed Development was not credible. Other IPs also considered that the Applicant's traffic surveys and data were inadequate or under-estimated traffic flows, including Andrew Riley [RR-232], Joel Kosminsky [RR-234] and Stuart Christie [RR-302].
- 5.2.42 No to Silvertown Tunnel [RR-193] did not believe that the level of traffic using the Blackwall and Silvertown Tunnels could be controlled in the way that the Applicant was proposing. The Westcombe Society [RR-348] objected on a number of grounds, including increased traffic levels through their area, and by making the Silvertown Tunnel large enough to remove the height restriction on north-bound HGVs would draw more of them to their area with impacts upon noise, air quality and congestion. Issues related to north-bound overweight vehicles are addressed in our report section 5.3 on air quality and 5.4 on noise.
- 5.2.43 Friends of the Earth (FoE) [RR-343] challenged assumptions made and modelling carried out, including regarding journey lengths, impacts on other crossings and worst-case scenarios. FoE Hackney and Tower Hamlets [RR-245] and FoE Greenwich [RR-363] also stated that the Applicant's modelling had not accurately reflected the likely induced demand. In their view, no assessment of the increased traffic at Blackwall and Silvertown caused by increased use by those who currently avoid Blackwall Tunnel due to congestion was made. They considered that any errors in traffic modelling would *'send a signal to potential road users that will lead to increased traffic, congestion and commensurate additional air pollution.'*

- 5.2.44 However, Public Health England (PHE) [RR-289] provided their comments on the basis that the traffic modelling that was undertaken was both robust and validated. In the unsigned draft Statement of Common Ground (SoCG) with the Applicant, PHE stated [REP2-005], '*PHE can confirm that following extensive discussions with TfL we are satisfied with the methodologies undertaken for determining the health impact as a result of modelled air quality changes.*'
- 5.2.45 The Royal Borough of Greenwich (RBG) Local Impact Report (LIR) [REP1-002] and London Borough of Tower Hamlets (LBTH) LIR [REP1-005] both raised concerns about the appropriateness of the methodology used by the Applicant as they considered that there is no guidance in the Department for Transport's (DfT) WebTAG regarding the setting of a charge for a road scheme. They were therefore unable to determine the appropriateness of the methodology used for the proposed charging levels. They both also raised concerns about the appropriateness of the value of time (VoT) used in the Assessed Case. Whilst RBG agreed with the conclusions of the independent audit of the Assessed Case, the Assessed Case modelling outputs were not agreed by RBG (or the London Borough of Newham (LBN) or the London Borough of Tower Hamlets (LBTH)).
- 5.2.46 The LBN LIR [REP1-014] explained that its concerns were in relation to the traffic model which underpins the highway and air quality impacts was considered to be '*fundamentally flawed in its assumed value of time and also its assumed behavioural response of drivers*'. In addition, LBN lacked any confidence that the 'elasticity of demand' across various user groups had been correctly evaluated, or that the predicted number of vehicles at different charging points were accurate.
- 5.2.47 However, LBN's position evolved during the Examination [REP7-004]. At that point the Assessed Case modelling outputs were still not agreed by the host boroughs. Concerns remained over validation of the values of time (VoT) employed, and thus the accuracy of the model in predicting the effects of the user charge on a range of user groups (elasticity relationships). The Council reported this meant no agreement could be reached, while the information provided by the Applicant had failed to convince the host boroughs that the data and assumptions used for assessing the VoT was representative. It was also concerned that this would not lead to robust projections of behavioural change across the range of user groups affected by the DCO scheme.
- 5.2.48 Instead, LBN and the other host boroughs focused their attention on refining the Monitoring and Mitigation Strategy (M&MS) to ensure that any impacts which are worse than those predicted in the Assessed Case would be identified promptly through an effective and comprehensive monitoring strategy and addressed in a timely manner with a targeted mitigation programme. In relation to validation of values of time, LBN called for local validation of VoT's in the pre-scheme modelling in advance of opening to ascertain the refreshed

case' and to set the initial level of user charge across a range of user groups [REP7-004].

- 5.2.49 LBTH highlighted limitations in the strategic highway assignment model in predicting the number of HGV's heading northbound and modelling particularly in respect to the impact upon the A12 [REP2-010]. Its concerns about the impact of the scheme were also due to a lack of confidence in the outputs from Assessed Case model and in particular the uncertainty surrounding drivers' behavioural response to user charging, and therefore whether, as a result of higher traffic flows in the borough being greater than forecast, additional delays and congestion would arise on the network [REP5-012]. Its concerns over modelling were not repeated at D7 but issues linked to related impacts appeared to have been addressed in its position with regards to mitigation measures and the bus strategy [REP7-001].
- 5.2.50 The neighbouring London Borough of Lewisham (LBL) [REP1-024] and London Borough of Southwark (LBS) [REP1-009] also raised concerns about the modelling. LBL maintained their objection to the Proposed Development throughout the Examination [REP7-014]. At D6 [REP6-025] they explained that those grounds included '*the traffic and air quality assessment are not robust as they have relied upon uncertain data*' and '*inadequate monitoring has been proposed and mitigation measures in key locations might be untenable*'. LBL considered that the highway network including junctions in the borough had not been subject to detailed modelling to inform the strategic model. They continued to express concern about aspects of modelling throughout the Examination [REP7-014].
- 5.2.51 LBS highlighted that the Applicant's modelling had failed to consider impacts on Rotherhithe and they had '*serious misgivings about the suitability of the modelling to accurately reflect the effects upon key routes within its borough*'. It also stated, '*The modelling has been subjected to independent review by Steer Davis Gleave (SDB) but there is doubt as to the suitability of the model...*'. Their concerns [REP1-009, paragraph 6.28] concurred with the host boroughs in that WebTAG<sup>42</sup> provided no guidance on realism tests to assess the behaviour of models with respect to changes to user charges. LBS expressed similar views to LBL regarding key junctions in their borough which had not been considered in the modelling [REP2-013].
- 5.2.52 In response to the Panel's FWQ [PD-006], the Applicant noted its own long established strategic modelling capability and its collaboration with industry leading experts and advisors in developing its suite of tools, whilst incorporating best practice from around the world [REP1-174]. The Applicant also referred to the strategic modelling suite in underpinning the assessment of all major transport schemes in London. It claimed this offered an assurance that a consistent and

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<sup>42</sup> WebTAG is the Department for Transport's web-based transport analysis guidance.

reliable starting point had been used for the assessment of this scheme. It referred to use of such models in assessing Crossrail and Crossrail 2, as well as by the Airports Commission to assess the highway impacts associated with Heathrow Airport expansion.

- 5.2.53 From the outset it was the Applicant's contention that the modelling assumptions, including model structure reflect the effects that would be most likely to occur when the scheme is implemented. It considered that the modelling approach is in accordance with industry wide guidance and good practice. [REP1-176, response to TT1].
- 5.2.54 The Applicant, in the traffic assessment appendices had stated that the overall number of trips regardless of their mode of transport, location, and route taken as a result of the DCO scheme would not change and was assumed to be fixed for a given level of population and employment [APP-087, paragraph B4.2]. The Panel sought further views on, and grounds for an assessment of the incidence of true induced demand<sup>43</sup> linked to the Proposed Development. The Applicant [REP1-176, paragraph TT5.16] stated that, *'the trip frequency demand response to the Silvertown tunnel scheme would be very small'*.
- 5.2.55 In response to the Panel's FWQ TT6, [REP1-176], the Applicant confirmed that changes in route choice had been addressed by the model specification, geographical coverage and data inputs. It also asserted [REP1-176, paragraph TT6.9] that the model provided a good representation of routeing in the wider study area and demonstrates that the area is large enough to capture the expected impacts of the scheme. They Applicant further considered that this provided confidence that the model is a robust and reliable tool for assessing the rerouting impacts of the proposed development.
- 5.2.56 In response to the neighbouring borough's concerns about impacts upon key junctions or roads in their boroughs which not have been considered in the modelling work, the Applicant [REP6-084, item 5.2] explained that in the Assessed Case, the DCO scheme would give rise to very small changes in traffic flows on the roads of concern to the neighbouring authorities, LBL and LBS (as well as London Borough of Hackney's (LBHs) concerns about the A12). In all cases the changes would be 1% or less, apart from the A12 and Tower Bridge (2%). The Applicant confirmed that monitoring of traffic was proposed on some of the locations of concern to the neighbouring authorities.

### ***Extent and nature of uncertainties in forecasting***

- 5.2.57 The fact that there are uncertainties in the traffic forecasting process was acknowledged by the Applicant, the Panel and IPs. In response to the Panel's action points arising from the ISH on 17 January 2017, the Applicant provided a document *'Managing Uncertainties in Forecasting'*

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<sup>43</sup> Induced demand is the additional traffic beyond the level of traffic that would use the network, without the intervention

[REP3-027]. This confirmed the potential for uncertainties in the DCO scheme's assessment to flow onwards into other aspects of the assessment. It also explained that WebTAG guidance recognised that all forecasts have uncertainty associated with them and that it is essential to acknowledge and consider its impact upon the performance of the DCO scheme [REP3-027, paragraph 2.2.2]. The Applicant confirmed that it had followed the approach required in the WebTAG guidance and that best practice had been followed, as confirmed in the independent audit [REP3-027, paragraph 3.2.1]. DfT's Transport Advisory Guidance (TAG) unit M4 document '*Forecasting and Uncertainty*' (November 2014) provides guidance on this matter.

5.2.58 The uncertainties associated with the traffic modelling for the DCO scheme are summarised under the following headings:

- Overall confidence levels in the traffic forecasting;
- Base year input uncertainty;
- Forecast years input sources of uncertainty;
- Specification errors;
- Errors in model parameters;
- Propagation of uncertainty between model stages; and
- Propagation between the transport models and other assessments

5.2.59 Paragraphs 5.2.60 to 5.2.70 of this report provide summaries of the Applicant's considerations in relation to these matters. The Applicant used the red, amber and green (RAG) system for considering these issues. Where matters were considered to be amber, in the Applicant's documents, they are marked with an (A) below. They were considered to be impacts which had not been modelled but estimated to be of a magnitude that could be mitigated by TIMS or a charging policy revision. All other matters were considered to be green, marked with a (G), meaning that no mitigation would be required or charging could mitigate the impact. In all of the amber cases, the Applicant considered that these matters could be mitigated by the transport impact mitigation strategy and the charging strategy [REP3-027, paragraph 4.1.2].

#### ***Overall confidence levels in the traffic forecasting***

5.2.60 The Applicant explained [REP3-027, paragraph 3.4.1-4.3.2] that remaining uncertainty that either could not be quantified or reasonably assessed by sensitivity testing through adjusting model assumptions were addressed through the design of the scheme. It considered that the ability to adjust the user charge would provide a '*very powerful means of altering the Scheme's effects, should circumstances differ from those it has forecast*'.

### **Base year input uncertainty**

5.2.61 The overall model base year inputs were subject to varying uncertainties:

- Traffic count data (A): WebTAG advises that count error may be up to +/- 5% for individual automatic traffic counts (ATCs) and +/- 10% for individual manual traffic counts (MCCs), although the distribution of these is anticipated to be broadly equal suggesting overall count data uncertainty is likely to be limited.
- Journey time data (A): The Applicant reported that journey time data derived from Trafficmaster GPS could be an under or over estimate of true journey time by up to 8 seconds per km. Errors on individual route times are assumed to balance out. However, it must also be acknowledged a Trafficmaster data set represents only a sample of the overall population (i.e. only those drivers whose vehicles had the Trafficmaster technology on board).
- Base year trip patterns (A): Trip patterns were derived from roadside interview (RSI) data combined with development uplifts and a synthetic trip distribution model (as described in the Applicant's response to FWQ TT1 [REP1-174, Appendix A]). Validation of modelled trip patterns against mobile phone data (presented in '*RSI Data and Matrix Development*', [REP2-057]) show that current patterns are well represented. However, the Applicant acknowledged uncertainty still existed in trip patterns, especially at a more disaggregate level. The Applicant claimed this uncertainty was mitigated through the consideration of sensitivity tests and independent auditing of the model. Remaining uncertainty, was not expected to lead to a systematic under or over-estimation of trip patterns.
- Value of time (VoT) (G): The Assessed Case used WebTAG values of time. The Applicant accepted that inevitably some uncertainty exists [REP3-027, paragraph 4.2.4], however they considered that the use of various tests assuming higher and lower VoTs to reflect varying levels of growth and development showed that revised user charges could bring traffic flows back broadly to Assessed Case levels on all crossings. They also pointed out during the Examination that the VoT used had to reflect local characteristics of existing and potential users of the tunnels. Given the range of income levels in the host boroughs, including deprived communities in the immediate locality, in the Applicant's view the WebTag VoT is more representative of the likely average than the higher London VoT.

### **Forecast years input sources of uncertainty**

5.2.62 Areas of uncertainty in future year modelling inputs included:

- Population and Employment Growth (G): The core scenario was based on the Greater London Authority Further Alterations to the London Plan (GLA FALP), March 2015. The assumptions had been

agreed with the host boroughs and additional sensitivity tests undertaken.

- Network Assumptions (A): All committed and funded infrastructure with available plans was included and the Applicant explained that the list of schemes was agreed with the Boroughs on multiple occasions (e.g. Nov 2014 and Feb 2015). No schemes judged to materially change the scheme impacts had come forward since that time.
- GDP growth/ VoT (G): Gross domestic product (GDP) growth uncertainty impacts assumptions on the growth in Values of Time which increase in line with estimates of GDP/Capita as per WebTAG. The Applicant argued that tests with adjusted charges illustrated how charging policy can mitigate this uncertainty.
- Car Ownership (G): The Assessed Case assumed a reduction in the rate of car ownership per head of the population over time. Sensitivity tests were carried out with higher and lower car ownership rates (respectively) assumed into the future.
- Parking Costs (G): The Assessed Case assumed parking cost increases at around 30% above GDP growth.
- Vehicle Operating Cost (G): Assumptions into the future carried uncertainty due to fuel price assumptions and vehicle efficiency. Low and high values were tested as well as tests with adjusted charges that showed the charging policy could mitigate this uncertainty.

### ***Specification errors***

5.2.63 Areas of uncertainty encompassed:

- Vehicle charge exemptions (A): Some vehicle charge exemptions were not represented in the modelling. These were estimated by the Applicant to account for between 7% and 9% of traffic, although data is limited. The impact of this in terms of uncertainty in traffic impacts was claimed to be small.
- Time of day and trip frequency (G): The Applicant acknowledged time of day choice and trip frequency responses were not modelled. This was discussed in the response to FWQ TT9 [REP1-174] and it was claimed by the Applicant that it was not expected to have a significant impact.

### ***Errors in model parameters***

5.2.64 Areas of uncertainty encompassed:

- Convergence (G): According to the Applicant the demand and supply models converged to a standard above that suggested by WebTAG. Any uncertainty in results caused by this was claimed to be very small and not in need of mitigation.
- Variable Demand Model Parameters (G): The Applicant reported that parameters for the demand model were calibrated based on local data from the London Travel Demand Survey. The Applicant noted WebTAG suggested sensitivity tests with scaling



parameters controlling part of the demand model response set at +25% be carried out. However, such a test is designed for simpler incremental models, not absolute models as in this case. The Applicant claimed, as the demand response to the DCO scheme in most cases would not exceed 20%, changes to the parameters would not lead to uncertainty in river crossing flows greater than +/- 5% and the outturn impact above that considered in the tests carried out would be likely to be less than 5%.

- Charge Response (A): The Applicant accepted uncertainty exists in respect of the true impact of the charge. The Applicant argued flows can be controlled back to Assessed Case levels through changes in the charge level and behavioural studies carried out also support the conclusion that the charge can be used to manage traffic levels on the crossing.

### ***Propagation of uncertainty between model stages***

- 5.2.65 In response to the action points from the ISH on 17 January 2017, the Applicant also acknowledged propagation of modelling uncertainty could take place between model stages and also between the transport models and air quality, noise and economic assessments [REP3-027, paragraph 4.6.1].
- 5.2.66 The Applicant stressed that the Silvertown models operate as a single integrated and iterative suite of models [REP1-174, response to FWQ TT1] and [REP3-027, paragraph 4.6.2-4.6.3]. It claimed the model system meets the WebTAG criteria on demand model convergence. As a result, any imbalances between the various elements of the modelling suite which can lead to uncertainty were minimised in the final assignment. It should also be noted that many of the potential sources of uncertainty referred to above would on average have the effect of cancelling themselves out and it would be highly unlikely that all uncertainties would work in the same direction.
- 5.2.67 It further explained [REP3-027, paragraph 4.6.4] that the model errors and therefore any propagation of the errors had been minimised through use of London's long established, widely used and widely accepted strategic modelling framework, by incorporating extensive and high quality data, by ensuring that the Silvertown modelling suite has been developed in line with WebTAG best practice and has been subjected to independent audit and by undertaking a range of sensitivity tests to examine the sensitivity of the model to key inputs.
- 5.2.68 In its post hearing submissions [REP6-073], the Applicant explained that due to limitations in data availability or practical considerations, some sensitivities could not be modelled. A quantitative assessment of the compounded effect of these on the Blackwall and Silvertown Tunnel flow estimated a further range of uncertainty around crossing flow of between -2.5% and +7.5% could be expected. It concluded that these could be brought back to the Assessed Case impact levels through adjustment of charges of between -10% and +25%. A

combined estimate of uncertainty was provided, after adjustment for user charges, these were -3% to +1%.

### ***Links between Traffic and Transport Models and Air Quality Modelling***

5.2.69 The Applicant explained [REP3-027, paragraph 5.1.1 to 5.1.3] that whilst the transport models represented conditions in three periods - the AM peak hour, the inter-peak average hour and the PM peak hour, the environmental assessments were concerned with the total effect of the scheme over longer periods, reflecting the cumulative impact of emissions of environmental pollutants on air quality and the effect of noise when it has the most impact on receptors. Therefore a process was required to convert the outputs of transport models to suitable inputs to the environmental models. That process was described in [REP3-027, section 5.3].

5.2.70 The Applicant considered [REP3-027, paragraph 5.4.1 to 5.5.1] that there would have been some uncertainties arising from each data source. These uncertainties were due to:

- variations at each manual traffic count site;
- variations at automatic traffic count (ATC) sites; and
- variation between flow profiles on different links.

There was no detailed quantitative assessment of these uncertainties, as the Applicant stated that they were not aware of any such requirement in current guidance. The Applicant considered that the method and process used had minimised those uncertainties, through following WebTAG guidance; using a more extensive set of count data than recommended in the guidance; and use of multiple counts, which would further reduce the uncertainty.

### **Traffic and Transportation Impacts during the Operational Phase**

5.2.71 A large number of IPs submitted relevant and Written Representations concerning traffic and transportation impacts at specific locations. Only a representative number of representations can be identified here, but the Panel has read and considered them all.

5.2.72 Lyn Juniper-Solley [RR-094] thought that increased weight of traffic avoiding the Blackwall Tunnel and routing towards the A13/A406 past her community, could trap residents in her estate (accessed via Ferndale St and East Ham Manor Way), many of whom are key workers with job roles at Newham General Hospital, for example. Arnold Ridout [RR-174] considered that the Proposed Development would bring more traffic onto Newham's roads, increasing congestion. Jean Cole [RR-108] considered that the charges would push more traffic into Newham to use the Woolwich Ferry.

5.2.73 Mark Barnes [RR-099] was concerned that in the PM peak the extra tunnel capacity would *'pour the southbound traffic more quickly into a*

*road network that is already overwhelmed*'. Peter Richie [RR-102], Richard Dinkeldein [RR-110], Woolwich and District Antiquarian Society [RR-142], Katy Delahay [RR-159], Paul Mitcheson [RR-191], Susan Jenkins [RR-205], Richard Sylvester [RR-208], and Tristan Alexander [RR-214] considered that the A102 south of the river could not cope with the extra traffic and congestion would get worse in surrounding areas. Margaret Jones [RR-151] was particularly concerned that this would lead to a need for road widening southwards for example at Falconwood. Mrs M White [RR-169] stated that local people already suffer delays and traffic jams on the A2 and M25 junctions (Sun in the Sands, Danson interchange and Darenth interchange) which lead to traffic jams on smaller side roads. Iris Dove [RR-223] considered that congestion would increase in Charlton and beyond, while Joel Kosminsky [RR-234] thought that the Applicant had under-estimated new traffic and the East Cross Route at Hackney Wick is congested now; this would not be alleviated by the Proposed Development. Dermot McLaughlin [RR-252] was concerned about increased traffic in Deptford.

- 5.2.74 The Gasworks Dock Partnership [RR-047] wished to better understand the impacts upon their local community, in particular the vehicle movements on Manor and Cody Road, Bidder and Stephenson Street, Bow Ecology Park and new Leaway footpaths. No to Silvertown Tunnel claimed the tunnel would displace traffic onto already congested roads in areas including Greenwich and Canning Town [RR-193]. The group reiterated this in [REP7-002]. Britannia Village (One) Resident Management Company reported current traffic problems at Silvertown Way and Lower Lea crossing, which, in his view, are currently unable to cope with demands of a minor roadworks or an event at Excel, with traffic backing up to Limehouse Link.
- 5.2.75 RBG [REP1-001] and other IPs including Alan Bradley [RR-202] and Ann Robbins [RR-274] were concerned about traffic diverting through Greenwich town centre and the impacts that this could have upon the Greenwich Maritime World Heritage Site. This matter is addressed in the Panel's report section 5.18.
- 5.2.76 The London Borough of Tower Hamlets expressed concerns about the impact of car commuter trips with a destination in their borough. In the Assessed Case, 65% of journeys to the Borough would terminate in the Canary Wharf area. They said that at a number of junctions in the borough that, in accordance with the Applicant's transport assessment would experience an increase in passenger car units (PCU) in the AM peak hour [REP2-010]. However, by the end of the Examination [REP7-001] they expressed their agreement with Requirement 7 of the draft DCO, supporting the amendments related to the extended consultation requirements with boroughs in which the mitigation is proposed to take place prior to the submission to the SoS.
- 5.2.77 LBL expressed concerns about localised impacts at various locations, by the end of the Examination, they welcomed the inclusion by the

Applicant of some of their proposed monitoring locations but considered that all of their requested sites should be monitored as the predicted outputs were based on the contested modelling outputs. [REP7-014]. At that time there were six locations in LBL remaining that the Applicant had not agreed to monitor.

- 5.2.78 LBS [RR-190] expressed significant concerns on the impact of Silvertown Tunnel on Southwark's two free river crossings at Tower Bridge and Rotherhithe Tunnel. It maintained its concerns throughout the Examination in respect of locations of concern to it that were not included in the list of sites to be monitored in the MMS.

### **Monitoring and Mitigation**

- 5.2.79 LBN and RBG changed the focus of their concerns from traffic modelling to securing suitable sufficient monitoring and mitigation through the combined MMS during the Examination. The Applicant addressed concerns raised by the Panel and IPs in respect of the TIMS traffic monitoring triggers that had been raised at the ISH on the 17 January 2017, as these were originally only for both Silvertown and Blackwall Tunnel combined. In order to ensure that traffic levels using the Silvertown Tunnel remained at the level of impacts considered in the Assessed Case, these were changed in the MMS (the final version of which was [REP7-049]), so that Silvertown Tunnel traffic levels could be monitored separately.
- 5.2.80 LBTH [REP5-012] recognised the enhancements to the MMS published at Deadline 4 and welcomed the proposals to consult both STIG and the relevant highway authority in developing the detail of mitigation schemes.
- 5.2.81 At D6, the Applicant also made some changes to the criteria for including roads/locations in its long list of monitoring sites that would be put forward for review by the Silvertown Tunnel Implementation Group (STIG), in its MMS [REP6-068]. These changes included reducing the threshold of the increase in flow from 30% to 15% and the increase in vehicle numbers was reduced from 120 per hour to 60 per hour. In addition, any locations flagged up as being of concern in the initial traffic monitoring plan and /or were within the area of influence or the wider buffer zone could be considered on the long list of monitoring sites.
- 5.2.82 LBS welcomed these changes to the criteria but considered that they were not sufficiently clear and sought amendments to Paragraph 2.3.4 that had been revised to, '*As part of this process a detailed review of the outputs from the strategic transport modelling will be undertaken for each location*'. LB Southwark objected to this as it continued to have concerns with the model and was not happy with it being used to determine the locations for monitoring [REP7-018].

## **Relieving Congestion and Improving Resilience**

- 5.2.83 Sally Hughes [RR-087] considered that the initial consultation did not define the objectives other than to improve resilience of the Blackwall Tunnel. She stated that no information had been presented on other methods of improving resilience (such as shifting freight to a more appropriate crossing point).
- 5.2.84 The Panel, in the ISH on 17 January 2017, at agenda item 3.7 [EV-024] asked the Applicant to provide information in relation to major extended closures of the Blackwall Tunnel, due to maintenance or refurbishment, or a major incident. The Applicant [REP3-015, item 3.7] explained that if this occurred, it would probably only affect one bore, on the basis that the two tunnel bores are separate structures. In the absence of the Silvertown Tunnel, circa 50,000 Annual Average Daily Traffic (AADT) would need to not travel, use different destinations or re-route. But with the Silvertown Tunnel in place, the alternative route would be available. In a long closure adjustment to the user charge may be a possibility to manage flows. Silvertown Tunnel would, in the Applicant's view, deliver significant benefits in this kind of emergency situation. The proportion of traffic that would be expected to divert to Silvertown would vary by time of day and would be dependent upon the tunnel bore affected.
- 5.2.85 The Panel probed further on this matter, asking the Applicant what would be the impact of an extended closure of the Blackwall Tunnel upon receptors near to the Silvertown Tunnel portals. The Applicant [REP3-015, last two bullet points] explained that this was not considered in the ES as it was not considered to be a likely scenario. No extended closures were forecast and they did not form part of the Reference Case. This was because a substantial northbound bore refurbishment was undertaken in 2011, with work carried out at night-time and at weekends, without the need for a full closure. The Applicant further explained that it did not expect any work on that scale for a further 25 years.

## **Road Safety**

- 5.2.86 Shawm Kreitzman [RR-070] made the point that an accident or breakdown inside a tunnel could be very dangerous, it could cause huge congestion and chaos and access for emergency services could be difficult. Dr Valerie Wilson [RR-084] also considered that vehicular access for emergency vehicles would be limited from the south side as the Greenwich peninsula is an isthmus.
- 5.2.87 PHE had requested that the Applicant modelled a 20mph speed limit, to assess any possible benefits in terms of air quality [REP2-004]. PHE explained, in their post-hearing submission [REP3-046] that its request related to the modelling of 20mph speed limits to assess any potential benefits in terms of air quality. However, the Applicant had explained that a 20mph speed limit would be inappropriate on Transport for London (TfL) road network roads, although the London

Boroughs do have a rolling programme for 20mph zones which take into consideration accident rates and local uses, such as schools. At that stage PHE welcomed the request from the Panel for the Applicant to provide further consideration of differences in traffic flow at 20mph versus 30mph.

- 5.2.88 The Applicant explained [REP3-016, item 4.9] that it noted that PHE was satisfied that a 20mph speed limit would be inappropriate on these primary traffic routes. In their view, the imposition of 20mph speed zones would only be appropriate if the Proposed Development identified and was required to mitigate any significant environmental impacts, for example, increased traffic flows, accidents, congestion and air pollution. As there were no further representations received from PHE, the Panel is satisfied that PHE had no further concerns in relation to this matter.

## **THE PANEL'S REASONING AND CONCLUSIONS**

### **Modelling**

- 5.2.89 Since the traffic forecasts provided the base for the assessment of noise and air quality impacts of the proposed development, the Panel has undertaken a detailed critique of the Applicant's traffic forecasting work in order to assess the reliability of the results.
- 5.2.90 The Panel has found that the approach and techniques used by the Applicant in the modelling work are in line with the appropriate DfT guidance for the Proposed Development. Although the Applicant has demonstrated to the satisfaction of the Panel that it has broadly followed WebTAG guidance, it is clear that there are inevitably significant uncertainties in the traffic forecasting and modelling. Of particular importance are assumptions about the VoT particularly in connection with assumed behavioural responses to user charging, population and growth assumptions, model assumptions about behavioural responses to user charging in particular time of day and modal shift as reflected in parameter values and the hierarchical structure of the demand model system.
- 5.2.91 The approach taken by the Applicant to modelling relied heavily on a trip table synthesis based on existing condition information. Starting with an assumed reliable developed trip distribution, the Applicant expended effort first to fill in missing cells and expand entries to their base year, and, second, perform re-estimation using count data inputs using a form of adaptive assignment. This was performed at a number of levels including screen lines and major links. This advanced the process toward a more reliable set of base tables. The advantages of the approach used are that reasonable validation is almost a given, with good correspondences with vehicle class and period flows<sup>44</sup>. The

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<sup>44</sup> We have been informed by <https://tfl.gov.uk/cdn/static/cms/documents/st-base-year-development-and-validation.pdf>.

question that arises, however, is whether we can reliably expect existing travel patterns to be sustained given the changes in relative connectivity in future networks? And as we forecast further into the future, how far out can we reasonably extrapolate existing travel patterns? There is also a problem in relation to how well the matrix estimation models performed in conforming to existing travel patterns. The estimation process was based on a high likelihood of route choice (largely trying to match a matrix and assignment in multiple dimensions). Models however, by definition, represent simplified representations of the real world and the underlying processes shaping the observed patterns of behaviour. Models which therefore can never be totally correct should be viewed as a compromise between the knowledge and expectations of competent professionals and a logically reasonable representation of expected conditions.

- 5.2.92 The degree of uncertainty attributable to model projections reflects the extent to which we can anticipate this area of London represents an area of mature travel patterns, with no major distorting impacts anticipated. An implicit assumption that this is reasonable appears to have led the Applicant to rely on extrapolating and validating the existing conditions rather than employing techniques that incorporate measures of model network accessibility to estimate trip patterns. The Applicant's efforts have focused on adjusting and validating the input matrices to match counts directly rather than reapplying calibrated parameters from an existing distribution model to forecast future conditions from scratch. In the context of the rapid population and employment growth projected for this part of London and the very substantial changes to relative as well as absolute accessibility brought about by major enhancements to the rail system, there may be greater uncertainty as to whether this implied assumption about maturity in travel patterns is a reasonable position to take beyond the short to medium term in particular.
- 5.2.93 Moreover, there are concerns about specific elements of the model system, including the robustness of the VoT employed particularly when disaggregated by socio economic group. The Panel therefore cautions on over reliance on the projected behavioural responses to aspects of the scheme among certain population groups.
- 5.2.94 The Panel acknowledges the host borough's concerns (and those of other IPs) regarding the potential for an undefined level of errors in the Assessed Case, which could potentially lead to actual traffic levels exceeding those projected, thus impacting not only on the performance of the transport system but also on the environment including air quality to a greater extent than that predicted. These concerns are attributable in part to uncertainties in the traffic modelling work being compounded as the modelling chain proceeds

and is propagated from traffic assessment and forecasting, through the emissions calculations for the Assessed Case.

- 5.2.95 The Panel accepts that the availability of a user charging mechanism as an element of the MMS [REP7-049], secured through Articles and Requirements in the dDCO [REP7-026] would enable any uncertainty and unexpected outcomes that might present themselves to be monitored and mitigated against. The availability of such a mechanism would allow the Applicant to adjust user charges to maintain equilibrium between demand and supply in relation to traffic flow through the Tunnel. This could mean that user charges might need to be increased or reduced expeditiously. The Panel is satisfied that Requirement 7 of the Applicant's final dDCO [REP7-026] combined with Article 54 which enables the review of the user charge, in consultation with STIG, to provide a suitable, robust and flexible mechanism to adjust the user charging to control traffic levels so that they reflect levels in the Assessed Case.

### **Traffic and Transport Impacts at Particular Locations**

- 5.2.96 Whilst we have explained our concerns regarding the traffic modelling that has been carried out, we are satisfied that further updated assessments for both pre-and post-opening monitoring and post-opening mitigation would be secured through Requirement 7. We are also satisfied that the triggers and monitoring proposals in the Applicant's final MMS [REP7-049] are sufficiently detailed, but contain sufficient flexibility to enable a robust programme of monitoring and mitigation to be carried out.
- 5.2.97 In addition, the Panel has no reason to doubt the effectiveness of varying the user charge to control traffic levels to keep them at the level of impact that was assessed in the Assessed Case and control impacts upon the adjoining road networks.
- 5.2.98 We consider that the Proposed Development, with the user charge in place, would deliver significant positive effects on the transport network in East London, by reducing travel times and improving reliability.

### **Addressing Congestion and Resilience**

- 5.2.99 The Panel likewise has no doubt that the Proposed Development, when operational with the user charge in place, will help to reduce congestion and provide resilience for vehicles currently using the Blackwall Tunnel.

### **Road Safety Matters**

- 5.2.100 The Panel accepts the Applicant's view that the Proposed Development could have a marginally positive impact upon accident levels and that safety matters have been considered throughout the design process.



## **Overall Conclusion on Traffic and Transport Matters**

- 5.2.101 We agree that the modelling approach and suite of tools employed is consistent with industry wide and government agency guidance and good practice, based on our extensive review of the traffic and transport models and other tools employed in assessing the scheme. Moreover the Panel accepts the arguments advanced by the Applicant in relation to emphasis on local modelling being applied closer to completion of the Proposed Development.
- 5.2.102 Nevertheless there are concerns about specific elements of the model system, including the robustness of the VoT employed particularly when disaggregated by socio economic group. We would therefore caution on over reliance on the projected behavioural responses to aspects of the scheme among certain population groups. A further concern relates to the hierarchical structure of the demand model and in particular the implied relative sensitivity of behavioural responses to the DCO scheme and in particular to the user charge.
- 5.2.103 The levels of uncertainty in relation to projected behaviour changes linked to the DCO scheme indicate that adequately resourced and independent monitoring arrangements need to be put in place to ensure that mitigation measures can be implemented expeditiously and on the basis of robust information should the need arise to effect changes to the user charge regime or other complementary measures.
- 5.2.104 The Panel is satisfied that with the changes secured to Requirement 7 of the dDCO, combined with the strengthening of the role and operation of the STIG through the changes to Article 67, the matters that we considered are necessary have been secured.
- 5.2.105 The NPSNN attaches importance on addressing congestion, resilience and connectivity and support economic growth. Notwithstanding any shortcomings and the criticisms of the forecasting tools employed in support of the application, and in the absence of any comprehensive alternative sources of information, the evidence presented by the Applicant is the most reliable basis on which to draw the most robust conclusions on the traffic and transport impacts of the DCO scheme. This evidence base points to the conclusion that the DCO scheme should meet the goals of the NPSNN to a significant extent.
- 5.2.106 On the basis of the evidence on the traffic impacts and the user charge proposals contained in the DCO scheme, we are satisfied that the road user regime would be consistent with the NPSNN. Section 4.4 of our report concluded that the NPSNN requirement to demonstrate that the proposals are consistent with the development plan and the MTS as a statutory transport plan has been met.
- 5.2.107 The Panel is satisfied that the Applicant's ES described the impacts on the transport networks as well as its mitigation commitments and so we conclude that it is in conformity with NPSNN paragraphs 5.206 in this respect.

- 5.2.108 We consider that the Applicant has also complied with NPSNN paragraphs 5.211 and 5.212 regarding impacts upon local networks.
- 5.2.109 Overall, in terms of traffic and transport impacts, the Panel concludes that the scheme complies with the NPSNN and should deliver significant improvements to the transport network in terms on reducing congestion and improving resilience.

### **5.3 AIR QUALITY**

#### **INTRODUCTION (INCLUDING LEGISLATION AND POLICY BACKGROUND)**

##### **Introduction**

- 5.3.1 This section of Chapter 5 addresses the impacts of the Proposed Development upon air quality within and near the Order Limits.
- 5.3.2 It considers air quality impacts in relation to:
- construction phase emissions;
  - operational phase emissions;
  - compliance with the European Union (EU) Directive on ambient air quality<sup>45</sup>;
  - impacts upon air quality management areas (AQMA); and
  - impacts upon ecological receptors.
- 5.3.3 It does not consider health impacts, as these are considered in section 5.6 of this report.
- 5.3.4 These matters were identified by the Panel in its initial assessment of principle issues [PD-004]. Over two hundred Interested Parties (IP) identified air quality concerns in their Relevant Representations (RR). Impacts upon air quality continued to be an issue that the host and neighbouring boroughs, as well as a range of interest groups including Friends of the Earth (FoE), No to Silvertown and the Westcombe Society maintained throughout the Examination in their representations and in contributions provided at the relevant Issue Specific Hearings (ISH). Issues raised in RRs and Written Representations in (WR) relation to air quality matters are considered in paragraphs 5.3.104 to 5.3.155.
- 5.3.5 Both the ISH on air quality, noise and other environmental issues [EV-025 and EV-035 to EV-038] held on 18 January 2017 and the ISH on any outstanding issues including environmental matters [EV-046 and EV-052 to EV-053] held on 28 March 2017 considered air quality matters.

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<sup>45</sup> Directive 2008/50/EC on ambient air quality and cleaner air for Europe

5.3.6 In addition the Panel asked questions to the Applicant and various IPs about air quality matters in their first written questions (FWQ) [PD-006] and second written questions (SWQs) [PD-012]. The Panel also asked the Applicant and various named IPs including the host and other local planning authorities which had expressed an interest in air quality matters in their representations and Public Health England (PHE), No to Silvertown, Caroline Russell AM and FoE a series of questions relating to air quality modelling and AQMAs in its Rule 17 request for further information [PD-007] issued on 9 November 2016.

### **Legislation**

5.3.7 The UK Government has a statutory obligation to fulfil the requirements of the EU Air Quality Directive 2008<sup>46</sup> (AQD). It is transposed into United Kingdom (UK) legislation through the Air Quality Standards Regulations 2010<sup>47</sup> and implemented in the UK by those organisations implementing the UK National Air Quality Strategy (AQS). If a pollutant exceeds any of the relevant limits or target values the Secretary of State (SoS) must draw up and implement an air quality plan (AQP)<sup>48</sup> in order to bring pollutant levels down to the value or limit.

5.3.8 The AQD sets limit values for the protection of human health for nitrogen dioxide (NO<sub>2</sub>) and particulate matter (PM<sub>10</sub>). These are that:

- annual mean concentration levels of NO<sub>2</sub> do not exceed 40µg/m<sup>3</sup>; and
- hourly mean concentration levels of NO<sub>2</sub> do not exceed 200µg/m<sup>3</sup> of NO<sub>2</sub>, more than 18 times in a calendar year;
- 24-hour average concentrations of 50µg/m<sup>3</sup> of PM<sub>10</sub> not to be exceeded more than 35 times a year; and
- annual mean concentrations of PM<sub>10</sub> do not exceed 40µg/m<sup>3</sup>.

5.3.9 The AQP for nitrogen dioxide, published by the Department of Environment, Food and Rural Affairs, (Defra) in December 2015<sup>49</sup> identified that the largest source of emissions in areas of greatest concern are derived from diesel vehicles. It also identified that one of the main reasons our cities continue to face air quality problems is the failure of diesel vehicles to deliver expected emission reductions in real world driving conditions. Specific implementation measures for London are set out in a zone plan for the Greater London urban Area<sup>50</sup>.

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<sup>46</sup> Directive 2008/50/EC on ambient air quality and cleaner air for Europe

<sup>47</sup> [http://www.legislation.gov.uk/ukxi/2010/1001/pdfs/ukxi\\_20101001\\_en.pdf](http://www.legislation.gov.uk/ukxi/2010/1001/pdfs/ukxi_20101001_en.pdf)

<sup>48</sup> Regulation 26 of The Air Quality Standards Regulations 2010 (SI No 1001):  
[http://www.legislation.gov.uk/ukxi/2010/1001/pdfs/ukxi\\_20101001\\_en.pdf](http://www.legislation.gov.uk/ukxi/2010/1001/pdfs/ukxi_20101001_en.pdf)

<sup>49</sup> Improving Air Quality in the UK Tackling Nitrogen Dioxide in our towns and cities (Defra) December 2015:  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/486636/aq-plan-2015-overview-document.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/486636/aq-plan-2015-overview-document.pdf)

<sup>50</sup> Air Quality Plan for the achievement of EU air quality limit value for nitrogen dioxide (NO<sub>2</sub>) in

5.3.10 In addition to the AQD, the Environment Act (1995) places a duty on local authorities to review and assess air quality in their area. If any standards are being exceeded, or unlikely to be met by the required date, they are required to set up AQMAs and implement Air Quality Management Plans (AQMPs).

### ***Infraction Proceedings and Related Litigation***

5.3.11 The UK Government has been subject to infraction proceedings for breaching the AQD in respect of NO<sub>2</sub> levels in recent years. The most recent outcome of these was a final warning issued by the European Commission in February 2017 for failing to address repeated breaches of pollution limits for NO<sub>2</sub>, indicating that this remains an important and current issue. There have also been a number of related legal challenges to the UK Government position on the implementation of the AQD by ClientEarth.

5.3.12 The outcomes and implications of the legal challenges by ClientEarth are also relevant to this application. In July 2011, ClientEarth submitted a legal challenge in respect of Defra's failure to protect UK citizen's health from the harmful effects of air pollution, with specific reference to the adequacy of compliance with the AQD on NO<sub>2</sub>. Consequently, on 7 March 2013 the Supreme Court ordered the UK government to submit new AQPs to the European Commission no later than 31 December 2015<sup>51</sup> (the 2013 Supreme Court judgment).

5.3.13 As a result of the 2013 Supreme Court judgement, Defra adopted the AQP for NO<sub>2</sub> and associated zone plans in December 2015 (the December 2015 plans). In May 2016, ClientEarth launched a further challenge to these plans, seeking that they be struck down and new plans ordered as they believed the December 2015 plans were inadequate and would not bring down levels of air pollution in the shortest possible time.

5.3.14 The November 2016 ClientEarth v Secretary of State for Environment, Food and Rural Affairs High Court Judgement<sup>52</sup> set out three particular findings:

- the AQP was not clearly developed to meet the EU Limit Value in the shortest time possible;
- the target year for meeting the EU Limit Value of 2025 for London was too coarsely based on modelling carried out at 5 yearly intervals; and
- in developing the AQP, the model adopted for future emissions (the pollution climate mapping model) was too optimistic in

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Greater London Urban Area UK0001), (Defra) December 2015.  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/486113/aq-plan-2015-greater-london-urban-area-uk0001.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/486113/aq-plan-2015-greater-london-urban-area-uk0001.pdf)

<sup>51</sup> R (oao Client Earth) v SOSEFRA, [2015] UKSC 28 & [2013] UKSC 25

<sup>52</sup> ClientEarth v SoS EFRA, [2016] EWHC 2740 (Admin)

relation to the emission reductions that could be achieved for diesel cars.

5.3.15 The Court Order dated 21 November 2016 ordered the following:

- that the current AQP for NO<sub>2</sub> remains in place and should continue to be implemented until a modified AQP is adopted;
- that Defra publish a draft modified AQP by no later than 24 April 2017; and
- that Defra publish a final modified AQP by no later than 31 July 2017.

5.3.16 The revised draft AQP for NO<sub>2</sub> had not been published by the close of the Examination. The Panel is aware that a revised draft AQP for NO<sub>2</sub><sup>53</sup> was consulted on between 5 May 2017 and 15 June 2017. As this took place after the close of the Examination, this is not matter on which the Panel was able to seek the views of the Applicant or IPs and so it has not been taken into account in this report which has been based on the AQD and the December 2015 AQP. It will be a matter for the SoS to satisfy themselves of the position at the time of their decision. This is discussed further below.

### **National Policy Statement for National Networks**

5.3.17 The National Policy Statement for National Networks (NPSNN) at paragraph 5.3 explains that increases in emissions of pollutants during the construction or operation phases of projects on the national networks can result in the worsening of local air quality (though they can also have beneficial effects on air quality, for example through reduced congestion). It goes on to state that increased emissions can contribute to adverse impacts on human health, on protected species and on habitats.

5.3.18 The NPSNN also, in paragraphs 5.4 to 5.13, explains that when the impacts of the project are likely to have significant air quality effects the applicant should undertake an assessment of the impacts of the proposed project as part of the environmental statement (ES). The NPSNN here also identifies the need to consider the effects of a project on health-based ambient air quality objectives and the approach that the Panel should take in providing the SoST with a judgement '*on the risk as the whether the project would affect the UK's ability to comply with the Air Quality Directive.*'

5.3.19 At paragraph 5.11, it states that '*air quality considerations are likely to be particularly relevant where schemes are proposed:*

- *Within or adjacent to Air Quality Management Areas (AQMAs); roads identified as being above Limit Values or nature*

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<sup>53</sup> Consultation: Improving air quality: national plan for tackling nitrogen dioxide in our towns and cities (Defra) Closed 15 June 2017: <https://consult.defra.gov.uk/airquality/air-quality-plan-for-tackling-nitrogen-dioxide/>

*conservation sites (including Natura 2000 sites and SSSIs, including those outside England); and*

- *Where changes are sufficient to bring about the need for a new AQMA or change the size of an existing AQMA; or bring about changes to exceedances of the Limit Values, or where they may have the potential to impact on nature conservation sites.'*

5.3.20 At paragraph 5.12, the NPSNN states that the '*Secretary of State must give air quality considerations substantial weight where, after taking into account mitigation, a project would lead to a significant air quality impact in relation to EIA and /or where they lead to a deterioration in air quality in a zone/agglomeration.*'

5.3.21 It continues , in paragraph 5.13 that the '*Secretary of State should refuse consent where, after taking into account mitigation, the air quality impacts of the scheme will:*

- *Result in a zone/agglomeration which is currently reported as being complaint with the Air Quality Directive becoming non-compliant; or*
- *Affect the ability of a non-compliant area to achieve compliance within the most recent timescales reported to the European Commission at the time of the decision.'*

5.3.22 This last bullet point is important. It confirms that for the purposes of our consideration of the NPSNN, the relevant AQP for NO<sub>2</sub> and the related zone plan for London are those published in December 2015, notwithstanding the effects of the ClientEarth litigation. It is those plans that have been taken into account in this report. Any updated plan in force will need to be taken into account in the SoS's decision.

5.3.23 Mitigation, in relation to air quality effects, is addressed in paragraphs 5.14 to 5.15 of the NPSNN. Here it identifies that mitigation may '*affect the project design, layout, construction, operation and/or may comprise measures to improve air quality in local pollution hotspots beyond the immediate locality of the scheme*'. It goes on to explain that mitigation measures could include changing the route of the new scheme and physical means including barriers as well as speed control.

5.3.24 Dust emissions are addressed in paragraphs 5.81 to 5.89 of the NPSNN. It states that for nationally significant infrastructure projects of the type covered by this national policy statement (NPS), some impact from dust emissions is likely to be unavoidable. It requires that impacts should be kept to a minimum and should be at a level that is acceptable.

5.3.25 The NPSNN was accompanied by an Appraisal of Sustainability (AoS) at the time of its publication<sup>54</sup>, together with a non-technical summary

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<sup>54</sup> National Policy Statement for National Networks: Appraisal of Sustainability

of the AoS<sup>55</sup>. The AoS, in Figure 2, identified the need for contributions towards improving local air quality as a key sustainability issue. Appendix E of the AoS provided high level impact assessment tables, which included 'AoS 2 To contribute towards improving local air quality', which identified that whilst the NPS would support a significant package of improvements and enhancements across the road and rail networks, air quality may temporarily decline. It recognised that the NPS commits to ensuring that breaches of air quality standards are limited as far as possible through mitigation measures if a scheme is likely to result in breaches of air quality standards. It recognised that impacts on human health are likely to be limited.

### **National Planning Policy Framework**

- 5.3.26 The National Planning Policy Framework (NPPF), in paragraph 124, states that planning policies should, '*sustain compliance with and contribute towards EU limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas, and the cumulative impacts on air quality from individual sites in other areas.*'

### **The Mayor's Air Quality Strategy, Greater London Authority**

- 5.3.27 The 2010 Mayor's Air Quality Strategy, Greater London Authority (GLA) [REP1-151, Appendix A] sets out a detailed air quality strategy for London in order to deliver the required reductions in particulate matter less than 10 microns in diameter (PM<sub>10</sub>) and NO<sub>2</sub> concentrations to meet EU limit values.
- 5.3.28 The Mayor's air quality neutral policy states, '*The Mayor will ensure that new developments in London shall as a minimum be 'air quality neutral' through the adoption of best practice in the management and mitigation of emissions.*' It requires applicants of new developments to provide an air quality neutral assessment. However, the Air Quality Neutral Planning Support Update (GLA 80371) April 2014 [REP1-151, Appendix B] states that:- '*Major transport infrastructure development, such as that proposed by TfL, is assessed using the Transport Advisory Guidance (TAG) methodology, which estimates changes to NOx and PM emissions, and then applies an economic valuation. It is therefore suggested that it would be inappropriate to apply the air quality neutral policy to these types of development.*'
- 5.3.29 In this respect, it should be noted that whilst the Mayor's air quality neutral policy does apply to the Proposed Development, the Panel considers that where there are more stringent or specific applicable standards from other policies with statutory force (and most relevantly the AQD), these must be specifically met as a starting point.

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<sup>55</sup> National Policy Statement for National Networks: Appraisal of sustainability, Non-Technical Summary

## **London's Proposed Ultra Low Emission Zones**

- 5.3.30 The Ultra Low Emission Zone (ULEZ), as approved by the Mayor of London in March 2015, is an area within which all cars (other than taxis), motorcycles, vans, minibuses, buses, coaches and heavy goods vehicles will be required to meet exhaust emission standards or pay a daily charge to travel. The ULEZ was originally due to be implemented from September 2020. The ULEZ standards are in addition to any congestion or the Low Emission Zone (LEZ) charges already applied. The area covered by the ULEZ is the same as the current Congestion Charge Zone in central London and will operate 24 hours a day, every day of the year, including bank holidays and weekends. There will be no barriers or toll booths, and cameras will be used to read vehicle number plates as they are driven within the zone to check vehicle compliance or those that have/haven't paid the charge [REP7-038].
- 5.3.31 The ULEZ proposals aim to reduce air pollutant emissions from road transport, including those with the greatest health impacts (NO<sub>2</sub> and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>)) and carbon dioxide (CO<sub>2</sub>), as well as promoting sustainable travel and stimulating the low emission vehicle economy.
- 5.3.32 The Applicant provided a plan showing the proposed boundaries of the ULEZ [REP1-151, item 17.1]. The ULEZ does not overlap with the application area for the Proposed Development. However, the updated ES [AS-023, paragraph 6.3.114] explained that the ULEZ was likely to be operational by 2020 and would have some effect on traffic emissions across the study area in the opening year.
- 5.3.33 On 4 April 2017, the new Mayor of London commenced a consultation to bring forward the start date for the implementation of the central London ULEZ by approximately 17 months, to 8 April 2019, as well as a change to the ULEZ emission standard for diesel vehicles to include particulate matter to ensure alignment with the Government's National Air Quality Plan [REP7-039]. This also identifies that a later stage in the development of the ULEZ would be a statutory consultation on the proposal to expand the ULEZ boundary beyond central London. This is expected to take place in Autumn 2017.
- 5.3.34 The Panel also notes that the Proposed Development lies within the existing London Low Emission Zone (LEZ). The ES did not specifically address the effects of the LEZ and the Panel has taken the LEZ as forming part of the air quality context within which existing background values recorded in the ES were obtained.

## **APPLICANT'S APPROACH**

### **Introduction**

- 5.3.35 The Applicant's initial assessment of the air quality impacts that would arise from the Proposed Development was provided in the ES Chapter 6, Air Quality [APP-031], which relied on information and data provided in various ES appendices, as follows:-



- ES Appendix 6A-Construction Dust Assessment [APP-049];
- ES Appendix 6B-Model Verification [APP-050];
- ES Appendix 6C-Local Authority Monitoring Data 2012-2015 [APP-051];
- ES Appendix 6D-Environmental Traffic Data [APP- 052];
- ES Appendix 6E-Model Parameters [APP-053]; and
- Health and Equalities Impact Assessment [APP-090].

5.3.36 In October 2016, the Applicant submitted additional documents to the Examination, including its update report [AS-021]. This explained that during a review of the base year traffic data used in the ES, differences were identified between the base model used for the air quality assessment and the base model used for traffic assessment. Because of this the Applicant had updated the air quality assessment and provided an updated Chapter 6 of the ES (on air quality) and various associated documents.

5.3.37 These were accepted by the Panel as additional submissions, and included the following:-

- Drawing 6.10 Local NO<sub>2</sub> results [AS-018];
- Updated Chapter 6 on air quality [AS-022];
- Updated Chapter 6 on air quality (with track changes) [AS-023];
- Updated ES Appendix 6B model verification v2 [AS-024]; and
- Updated ES Appendix 6B model verification v2 (with track changes) [AS-025].

5.3.38 In addition, an updated air quality and health assessment [REP2- 041] was submitted to the Examination at Deadline 2 (D2). It explained that it had been prepared in order to update the assessment using the same methodology as that reported in the ES [APP-031], but took into account the July 2016 updated Defra air quality modelling tools. It also considered the additional 400 over-height vehicles (OHV) per day that could travel northbound through the Silvertown tunnel, but are currently unable to use the northbound Blackwall Tunnel (due to height restrictions), and the commitment by the Applicant that any buses using the Silvertown Tunnel would be Euro 6 buses.

5.3.39 The Applicant explained, in response to the Panel's FWQ AQ10 [REP1-151], that the traffic modelling used for the Proposed Development (the River Crossings Highway Assignment Model (RXHAM) model) was a strategic model and interpretation of a vehicle class such as OHVs at a strategic level did not take account the northbound Blackwall Tunnel height restriction. The Applicant therefore accepted that the outputs from the modelling had underestimated OHV flows northbound through the Proposed Development. Because of this, they carried out post-modelling adjustments to provide the *'best estimate at this detailed level'*. It estimated that in the order of around 400 OHVs per day could potentially use the Silvertown Tunnel northbound over and above those assigned to this crossing in the traffic model.

## **Assessment Methodology for Impacts upon Human Receptors**

### ***Construction Dust Emission Methodology***

5.3.40 Paragraph 6.3.22 to 6.3.33 of the updated ES [AS-023], explained that the potential dust impacts upon receptors during the construction phase were assessed qualitatively, using the approach defined in the Greater London Authority Supplementary Planning Guidance (GLA SPG) on the control of dust and emissions from construction and demolition. The steps that were taken (described in the updated ES [AS-023, paragraph 6.3.23]) comprised the following:-

- determining the potential dust emission magnitude for the four construction dust activities (demolition, earthworks, construction and track out);
- defining the sensitivity of the area;
- defining the risks of impacts;
- identifying site-specific mitigation; and
- determining significant effects.

### ***Construction Vehicle Exhaust Emissions***

5.3.41 The updated ES [AS-023, paragraph 6.3.25 to 6.3.26] explained that in accordance with the design manual for roads and bridges (DMRB), an assessment of air quality effects from construction vehicle exhaust emissions may be required where there is a change of daily Heavy Duty Vehicle (HDV<sup>56</sup>) flows of greater than 200 Annual Average Daily Traffic (AADT), or a change in traffic flows of greater than 1,000 AADT during the construction phase.

5.3.42 It further explained that if the number of HDVs and Light Duty Vehicles (LDVs)<sup>57</sup> is less than the stated criteria, or if there are no sensitive receptors (such as residential properties, schools and designated sites) within 200 metres (m) of the affected roads, then the local air quality effect of the project can be considered not significant and no further air quality assessments are required. The distance of 200m is specified in the DRMB as pollutant concentrations return to background concentrations at distances greater than this.

### ***River Transport Emissions***

5.3.43 The updated ES [AS-023, paragraph 6.3.28] explained that vessels would be used for the export and import of materials and the Applicant had committed to transport at least 50% by weight of all materials by river. It explained that there was no prescriptive guidance available for assessing river transport in terms of emissions of nitrogen oxides (NO<sub>x</sub>) and PM<sub>10</sub>. Potential impacts were assessed

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<sup>56</sup> HDVs include Heavy Goods Vehicles as well as buses and coaches

<sup>57</sup> LDVs are light duty vehicles including cars, vans and pick-up trucks, usually with a maximum weight of circa 3.5 tonnes

qualitatively based on the number of barge movements, local site conditions and the location of sensitive receptors, and by applying professional judgement. The commitment to transport materials and waste by river was increased to 55% during the Examination. This is discussed in report paragraph 5.11.6.

### **Methodology for Assessing Operational Impacts**

5.3.44 The Applicant stated in the updated ES Chapter 6[AS-023, paragraph 6.3.30], that it had carried out the operational air quality assessment in accordance with guidance HA207/07 Volume 11, Section 3, Part 1 of the DMRB Highways England 2007, and the associated Defra document and Interim Advice Notes (IAN), which were:-

- Local Air Quality Management Technical Guidance (LAQM) TG(09) issued by Defra;
- IAN 170/12v3 Updated air quality advice on the assessment of future NO<sub>x</sub> and NO<sub>2</sub> projections for users of DMRB November 2013 Vol 11, Section 3, Part 1 'Air Quality' and the associated Excel based tool;
- IAN 174/13 Updated advice for evaluating significant local air quality effects for users of DMRB Volume 11, Section 3, Part 1 'Air Quality' (HA207/07) June 2013 (or latest update available at time of assessment);
- IAN 175/13 Updated advice on risk assessment related to compliance with the EU Directive on ambient air quality and on the production of Scheme Air Quality Action Plans for users of DMRB, June 2013 (or latest update available at time of assessment); and
- IAN 185/15, Updated traffic, air quality and noise advice on the assessment of link speeds and generation of vehicle data into 'speed bands' for users of DMRB Volume 11, Section 3, Part 1 'Air Quality' and Volume 11, Section 3, Part 7 'Noise'.

5.3.45 The updated ES [AS-023] explained in paragraph 6.3.32 that the guidance used (specifically the DMRB) required a number of different assessments to be undertaken including:-

- local air quality assessments;
- regional assessment (for changes in emissions as a result of the scheme including carbon);
- WebTAG assessment (overall change in exposure as a result of the scheme); and
- assessment of the risk of the scheme impacting on the UK's ability to comply with the EU AQD.

5.3.46 Paragraph 6.3.39 of the updated ES [AS-023] explained that to undertake the local air quality assessment concentrations of NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub>, predictions using the Advanced Dispersion Model Software (ADMS) (Roads) detailed dispersion model for the following scenarios was used:

- Base year (2012) - the baseline air quality environment in 2012 was modelled to characterise the baseline air quality environment (identifying the areas where there are current exceedances of air quality objectives);
- Reference Case (2021) - predicts future baseline air quality environment in the proposed scheme opening year of 2021 without the scheme; and
- Assessed Case (2021) - predicted environment in 2021 with the scheme in operation with user charges.

5.3.47 In order to undertake the modelling, detailed traffic data was obtained for the base year, the Reference Case and the Assessed Case. The updated ES [AS-023, paragraph 6.3.41], explained that the year 2021 was used to represent the opening year which aligns with the traffic modelling undertaken, however it accepts that it may not be operational until 2023. It explains that if that is the case, the use of 2021 would be a conservative estimate of air quality impacts as background concentrations and emissions from newer (Euro 6/VI) vehicles are both expected to improve air quality over time as a greater number of low emission vehicles are introduced into the fleet.

5.3.48 Paragraph 6.3.42 of the updated ES [AS-023] explained that the study area for the local air quality assessment was defined using the traffic changed base criteria defined in the DRMB. The Assessed Case 2021 traffic scenario was compared to the Reference Case traffic scenario. Roads that met the criteria were defined as '*affected roads*' all of which together make up '*the affected road network*' (ARN). Concentrations of NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> were predicted at those sensitive receptors located within 200m of those roads.

5.3.49 The updated ES [AS-023, paragraph 6.3.43] explained that the traffic change criteria set out in the DMRB were used to define the ARN for the local air quality assessment. The DMRB traffic change criteria used were:-

- road alignment would change by 5m or more;
- daily traffic flows would change by 1000 AADT or more;
- HDV flows would change by 200 AADT or more; and
- peak hour speed would change by 20 kilometres (km)/hour or more.

5.3.50 The updated ES [AS-023, paragraph 6.3.44] identified the major roads near the Proposed Development which triggered the DMRB criteria. They were as follows:-

- A282 Dartford Crossing;
- A102 (Greenwich) to A2/A2213 junction;
- A1203 Aspen Way and Lower Lea Crossing;
- A1011/A1020 Silvertown Way and Royal Albert Way;
- A12 (from junction with A102 North to A106 junction);
- A13 Alfred's Way to Canning Town;
- Blackwall tunnel (both directions); and

- Silvertown tunnel and new supporting infrastructure.
- 5.3.51 The study area was shown on ES Drawing 6.1 [APP-032], which was updated at D6 [REP6-042]. The ES explained that any roads which did not meet any of the DMRB criteria were scoped out of the assessment.
- 5.3.52 The impacts on receptors (including residential properties, schools, hospitals and future committed developments) within 200m of the ARN were assessed. Following advice in IAN174/13 the Applicant used results to evaluate whether the scheme would be likely to have a significant impact upon air quality in the opening year. The results were also used in accordance with IAN 175/13 to determine whether the scheme would affect compliance with the EU Directive.
- 5.3.53 The updated ES, [AS-023, paragraph 6.3.51], explained that the air quality assessment used the modelled results from the local air quality assessment to evaluate significance. The receptors where changes in air pollutant concentrations were predicted to exceed the AQS objectives in the opening year, either with or without the scheme (that is, the Reference and the Assessed Cases) were used to inform the evaluation of significance. The change in air pollution concentrations (either an improvement or a deterioration) was considered relevant to the determination of whether the Proposed Development's impacts would be significant.
- 5.3.54 The magnitude of change criteria (Highways England IAN 174/13), shown in Table 6-4 of the ES, was applied to annual NO<sub>2</sub> and PM<sub>10</sub> concentrations, as follows:-
- a large magnitude of change is greater than 4µg/m<sup>3</sup>;
  - a medium magnitude of change is between 2 and 4 µg/m<sup>3</sup>;
  - a small magnitude of change is between 0.4 and 2 µg/m<sup>3</sup>; and
  - an imperceptible magnitude of change is less than or equal to 1% of objective (0.4µg/m<sup>3</sup>).
- 5.3.55 The ES further explained [AS-023, paragraph 6.3.53] that the results from the air quality dispersion model at receptors were used to provide data in Table 6-5 which gave the overall significance of the scheme's impacts on air quality. Only receptors which exceeded the AQS objective (annual mean of 40µg/m<sup>3</sup> for NO<sub>2</sub> and PM<sub>10</sub>) in either the Reference Case or the Assessed Case were used to inform the evaluation of significance. The greater the change, the more certainty that the Proposed Development would impact upon air quality. The ES here acknowledged that by following the DMRB methodology there remained '*residual uncertainties as to the impact of the Scheme on air quality, referred to in the IAN as the Measure of Uncertainty.*' This matter is discussed further in paragraphs 5.3.107 to 5.3.118.
- 5.3.56 Any changes above 'imperceptible' were assigned to one of the categories in ES Table 6-5 which provided a guideline to the number of properties constituting a significant effect (taken from Highways England IAN 174/13), as large, medium or small. Where the number

of receptors fell below the lower guideline bands to determine significance, the scheme was deemed to not have a significant impact.

### **Assessment of compliance with EU Directive on Ambient Air Quality**

5.3.57 The updated ES [AS-023 paragraphs 6.3.61 to 6.3.69] explained how the Applicant assessed compliance with the EU Directive on ambient air quality, using guidance within IAN 173/13. They also explained Defra's role in assessing air quality in the UK and reporting to the European Commission, by reference to the limit values for each pollutant. It explained that the main pollutant of concern with respect to compliance is NO<sub>2</sub>.

5.3.58 The updated ES [AS-023, paragraph 6.3.72] explained that the outcomes of the assessment of whether the scheme presented a risk to the Greater London Urban Area Agglomeration achieving compliance with the EU Limit Values within the reported timescales was used to inform the evaluation of whether the scheme's impacts were considered to be significant.

### **Regional Assessment**

5.3.59 The Applicant also carried out a regional assessment as a requirement of DMRB to determine the change in emissions that would result from the Proposed Development. Updated ES [AS-023, paragraph 6.3.74] explained that the assessment of the contribution of the scheme to regional air quality was based on the total annual emission of pollutants over the road network, considering:-

- NO<sub>x</sub>;
- PM<sub>10</sub>; and
- CO<sub>2</sub>.

5.3.60 Matters in relation to CO<sub>2</sub> are considered in report section 5.10 (climate change mitigation and adaptation).

5.3.61 The updated ES [AS-023, paragraphs 6.3.75 and 6.3.76] explained how the regional impacts were calculated, using the Defra Emission Factor Toolkit (EFT)(v6.0.2). Total annual emissions for the base year (2012), Reference Case and Assessed Case scenarios for both the opening year (2021) and the design year (2036) were calculated. As emission factors were not available for 2036, the Applicant used emission factors for 2030 for processing the traffic data for 2036. The Applicant considered that this would be likely to result in an over-estimation of emissions in the design year as it is likely that there would be more Ultra Low Emission Vehicles in the fleet in 2036 than in 2030.

### **Relevant Local Air Quality Criteria**

5.3.62 The updated ES, [AS-023, paragraph 6.3.102] explained that for the pollutants of concern (NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub>), ambient air quality criteria

for the protection of public health are set by the EU and transposed into UK law by the Air Quality Standards Regulations 2010 and those organisations implementing the UK National AQS. The criteria set out in the AQS include standards and objectives for local authorities to work towards achieving the standards set by the EU are legally binding limit values (LVs) requiring national government compliance.

- 5.3.63 The updated ES, [AS-023] explained that local air quality criteria relevant to the Proposed Development include the pollutant levels listed in paragraph 5.3.8 as well as PM<sub>2.5</sub>. PM<sub>2.5</sub> annual mean concentration should not exceed 25µg/m<sup>3</sup>. The updated ES [AS-023, Table 6-6 (footnote)] explained that this objective is noted as having to be met by 2020, however, it is not in the 2010 Regulations and there is no requirement for local authorities to achieve it. However, the Panel notes that the annual target of 25µg/m<sup>3</sup> for PM<sub>2.5</sub> is detailed in the Air Quality Standards Regulations (2010)<sup>58</sup> and the Defra National Air Quality Objectives (NAQO)<sup>59</sup>.

### **Health Effects of the Assessed Air Pollutants**

- 5.3.64 Health effects are discussed in report section 5.6.

### **Limitations**

- 5.3.65 As noted above, the updated ES [AS-023, paragraph 6.3.114] explained that the ULEZ was likely to be operational by 2020 and would have some effect on traffic emissions across the study area in the opening year. However, this had not been factored into the AQ assessment as the Defra EFT did not, at that time, incorporate the ULEZ. It was anticipated that the next version of the Defra EFT would be released during the summer of 2016, with the revised tool reflecting the effects of the ULEZ on the traffic fleet from 2020.
- 5.3.66 The updated Air Quality and Health Assessment [REP2- 041] considered the revised version of the Defra EFT (published in July 2016) which reflected the effect of the ULEZ.

### **Methods used for assessing impacts upon ecological receptors**

- 5.3.67 The updated ES [AS-023, paragraph 6.3.58] explained that for ecological receptors, IAN 174/13 and the DMRB were used to determine whether the scheme was likely to have a significant impact. It went on to provide details [AS-023, paragraphs 6.3.58 to 6.3.60] explaining how significance in relation to changes in nitrogen oxides (NO<sub>x</sub>) on ecosystems and vegetation were assessed, where a level of NO<sub>x</sub> concentrations fall below 30µg/m<sup>3</sup> (the AQS objective for the protection of ecosystems and vegetation), significant effects were not anticipated. If the objective of 30µg/m<sup>3</sup> was exceeded in any of the

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<sup>58</sup> [http://www.legislation.gov.uk/ukxi/2010/1001/pdfs/ukxi\\_20101001\\_en.pdf](http://www.legislation.gov.uk/ukxi/2010/1001/pdfs/ukxi_20101001_en.pdf)

<sup>59</sup> <https://uk-air.defra.gov.uk/air-pollution/uk-eu-limits>

opening year scenarios, significant effects may occur and further consideration would need to be given to magnitude of change. The exception was when the change is under  $0.4\mu\text{g}/\text{m}^3$  when the effects are considered to be imperceptible and unlikely to be significant.

## **BASELINE RESULTS**

### **Baseline traffic levels for Blackwall Tunnels and expected traffic levels for Silvertown Tunnels**

- 5.3.68 Traffic levels using the Blackwall Tunnel in recent years were reported by the Applicant in the ISH on Traffic and Transport on 17 January 2017, [REP3-015]. Data for 2013 to 2016 was presented. The trend was generally one of slight increases year on year with 2016 levels being very similar to those in 2015. Data for 2016 showed:
- weekday daily average movements through the Blackwall Tunnel in 2016 were 49,165 northbound and 52,550 southbound giving a daily total of 101,715; and
  - week-end daily traffic levels in 2016 were only slightly lower at a daily total of 101,196.
- 5.3.69 The Applicant explained [REP3-015, item 3.2], that with the Proposed Development, the Blackwall Tunnel would still be expected to accommodate the majority of traffic as it would remain the strategic cross-river highway link due to its good connections to strategic routes including the A12, A13 and A2. In the opening year, the Applicant anticipated that just under a quarter of all traffic through the Blackwall/Silvertown corridor would use the Silvertown Tunnel.
- 5.3.70 The Applicant's response to the Panel's FWQ AQ6 [REP1-151], stated that the total two way flow of all vehicles, (northbound and southbound traffic combined) in the Silvertown Tunnel itself was forecast to be 22,527 vehicles per day as an AADT flow. The new bus routes would account for 1,036 vehicles out of this daily total, which would represent 4.6% of the total traffic which would use the Silvertown Tunnels.

### **Baseline Air Quality Monitoring Results**

- 5.3.71 The updated ES [AS-023, paragraphs 6.4.3 to 6.4.4] explained that results from monitoring data collected by local authorities in 2014 as part of their regular local air quality management (LAQM) duties using  $\text{NO}_2$  diffusion tubes and continuous automatic monitoring was used by the Applicant to provide bias adjusted<sup>60</sup> results from diffusion tubes across the host boroughs and some of the neighbouring authorities. Table 6-8 of the updated ES showed that there were widespread exceedances of the annual mean  $\text{NO}_2$  AQS objective ( $40\mu\text{g}/\text{m}^3$ ) across

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<sup>60</sup> Bias adjustment means that results from diffusion tubes were adjusted against the automatic analyser results



the study area in 2014. The conditions described were considered to be typical for the heavily urbanised environment in inner London.

- 5.3.72 Results from automatic recording sites, discussed in the updated ES [AS-023, paragraphs 6.4.5 to 6.4.8] showed similar widespread exceedances of the annual mean NO<sub>2</sub> objective of 40µg/m<sup>3</sup> at multiple monitoring sites between 2012 and 2015. The monitoring site WL4 (Crooked Billet in the London Borough of Waltham Forest) recorded the highest number of exceedances of the 1 hour mean AQS objective (not to be exceeded more than 18 times a year), with the highest number of exceedances being reported as 116 for 2014. The highest annual average NO<sub>2</sub> concentration was recorded at the Woolwich Flyover, in the Royal Borough of Greenwich (RBG), with a concentration of 75µg/m<sup>3</sup> for the year 2014.
- 5.3.73 The updated ES [AS-023, paragraph 6.4.8] noted that concentrations of PM<sub>10</sub> were below annual mean objectives between 2012 and 2015 for all site locations apart from WL4 (Crooked Billet), which recorded 50 exceedances in 2014.
- 5.3.74 The updated ES [AS-023, paragraph 6.4.9] also noted that all annual mean PM<sub>2.5</sub> concentrations between 2012 and 2015 recorded at the continuous automatic monitoring sites across the study area were below 20µg/m<sup>3</sup>.
- 5.3.75 The results from the baseline monitoring using diffusion tubes, that the Applicant commissioned for this ES, which were located in positions to fill gaps where no local authority monitoring was being carried out, after adjustment for bias (due to over-reading concentrations of NO<sub>2</sub>) showed that 20 out of 73 locations were in exceedance of the AQS objective for NO<sub>2</sub>.
- 5.3.76 The updated ES [AS-023 paragraph 6.4.16] also reported the results obtained by the 'No to Silvertown' group who undertook air quality monitoring of NO<sub>2</sub> using passive diffusion tubes in February 2013, 2014 and 2015 in the vicinity of the Proposed Development. The results showed that the winter time concentrations of NO<sub>2</sub> were high, often above 70µg/m<sup>3</sup> at a number of locations in the study area.

### **AQMAs and Air Quality Focus Areas**

- 5.3.77 ES Plan 6.9 [REP6-046] shows the locations of the AQMAs in and near the Proposed Development, as part of the air quality constraints maps. For the purpose of Defra's reporting, the UK is divided into 43 zones or agglomerations. Parts of the Proposed Development would be situated within two AQMAs, the Newham AQMA, which covers the main roads within the London Borough of Newham (LBN), and Greenwich AQMA which covers the whole of RBG. In addition the Tower Hamlets AQMA covers the whole borough (LBTH). All three of these AQMAs are identified for NO<sub>2</sub> (annual mean) and PM<sub>10</sub> (24 hour mean). Traffic using the new tunnels would approach them from areas situated in the adjacent authority AQMAs, which are listed in Table 6-13 [AS-023].

The AQMAs that would be directly and indirectly impacted all fall within the Greater London Urban area agglomeration.

- 5.3.78 The updated ES [AS-023, paragraph 6.4.19] explained that air quality focus areas (AQFA) are areas that are identified by the Applicant and the GLA as locations that exceed the AQS objective annual mean for NO<sub>2</sub> where there are sensitive receptors. AQFAs allow those local authorities with borough wide NO<sub>2</sub> based AQMAs to identify air quality hotspots. Updated ES Table 6-14 identified 7 AQFAs in the vicinity (within 500m) of the ARN, two are in RBG; three are in LBN; one is in LBTH and one is in London Borough of Barking and Dagenham (LBBD).

### **Base Year Modelling Results**

- 5.3.79 The updated ES [AS-023, paragraphs 6.4.22 and 6.4.23] explained that the base year (2012) was modelled to provide further information regarding the current state of air quality within the study area as well as being used to undertake model verification. All sensitive receptors within 200m of the ARN were modelled; a total of 13, 274 receptors were modelled. All of the results from the modelling were utilised, where necessary, in the various air quality assessments and in the evaluation of significance. The Applicant used a sub-set of the modelled receptors (the representative receptors) to assist with the commentary of the scheme impacts. These were generally the receptors showing the greatest impacts, such as those located closest to the roads affected or next to junctions that would lead to the highest concentrations.

## **ASSESSMENT OF THE IMPACTS OF THE PROPOSED DEVELOPMENT ON AIR QUALITY**

### **Construction phase impacts**

#### ***Construction phase dust emissions***

- 5.3.80 The Applicant identified in the updated ES [AS-023, paragraphs 6.6.4 to 6.6.6], that there would be human receptors located within 350m of construction areas and haul roads. In accordance with the (GLA SPG) on the control of dust and emissions during construction and demolition<sup>61</sup>, a dust risk assessment was undertaken and provided as Appendix 6.A to the ES [APP-049]. This identified that, without specific measures being implemented to mitigate dust impacts beyond those required in legislation, the risk of dust impacts would be high. However, as the site specific mitigation measures for a high risk site have been incorporated into the scheme, the residual effects from all construction dust generating activities following implementation of mitigation would be not significant, in accordance with the GLA guidance.

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<sup>61</sup> Mayor of London (July 2014). Supplementary Planning Guidance. The Control of Dust and Emissions During Construction and Demolition.

5.3.81 The site specific mitigation measures identified in the Code of Construction Practice (CoCP) (Revision 4) [REP6-057] for construction dust, included the development and implementation of an Air Quality Management Plan at each worksite, which would be secured by Requirement (R) 5(3)(a) of the Applicant's final dDCO [REP7-026]. These would contain details of the measures to limit vehicle, plant and dust emissions during construction and would be approved by the relevant planning authority. The CoCP also included (in Table 5-1) control measures for construction dust in relation to:-

- communications - including community engagement measures;
- site Management -including maintaining a complaints log;
- monitoring - carrying out on-site and off-site inspections to monitor dust and compliance with the site air quality plan;
- preparing and maintaining worksites - including planning site layouts so that dust causing activities and machinery are located as far away as possible from sensitive receptors; erect suitable screens or barriers around dusty activities or the site boundary
- operating vehicle/machinery and suitable transport - including the use of well-maintained /low emission vehicles fitted with catalysts, diesel particulate filters or similar devices; no idling vehicles;
- operations - including the use of water/ dust extraction ventilation as a dust suppression when cutting equipment is used; ensuring an adequate water supply on site for dust suppression;
- waste management - reuse and recycle waste to reduce dust from waste materials; and no bonfires or burning of materials.
- demolition - including ensuring water suppression is available during demolition activities; and avoiding explosive blasting;
- earthworks and construction - including the re-vegetation of earthworks and exposed areas; use of hessian or mulches where it is not possible to re-vegetate; and
- trackout - including the use of water assisted road-sweepers on the access and local roads; ensuring vehicles bodies are covered; implementing a wheel wash system near the site exit.

#### ***Construction vehicle exhaust emissions***

5.3.82 The updated ES [AS-023, ES paragraph 6.6.7] identified that the average number of HDV movements per day (AADT) from each worksite would be 61 in the peak construction year (2021). As this would be below the DMRB criteria of 200 HDV movements per day, the threshold for needing to carry out a construction vehicle exhaust assessment was not reached and so the Applicant did not consider that any further assessments would be required for construction vehicle exhaust emissions.

#### ***Emissions from non-road mobile machinery***

5.3.83 Emissions from non-road mobile machinery are described in the updated ES [AS-023, paragraph 6.6.9]. Whilst it was considered that

emissions from non-road mobile machinery would be inevitable during the construction period, providing the measures set out in the GLA SPG are followed, the impacts at sensitive receptors would not be significant. It goes on to explain that the best practice measures were incorporated into the CoCP [REP6-057]. These are described in paragraph 5.2.1 of the CoCP (which combines mitigation measures for vehicle and plant emissions) and includes:-

- engines of all vehicles, mobile and fixed plant on site would not be left running/idling unnecessarily;
- using low emission vehicles and plant fitted with catalysts, diesel particulate filters and similar devices;
- using ultra low sulphur fuels in plant and machinery;
- plant to be well maintained;
- minimising the use of diesel or petrol powered generators;
- maximising energy efficiency (such as ensuring full loading of vehicles and efficient routing);
- contractor's delivery vehicles would be required to comply with any low emission zone applicable to the worksite and delivery route;
- all contractor's drivers to undertake a fuel efficient driver training course; and
- all vehicles working on the construction of the tunnels would be Euro 6 unless otherwise agreed with the GLA and Local Planning Authorities (LPAs).

### ***Emissions from River Vessels***

5.3.84 In terms of river vessel emissions, the updated ES [AS-023, paragraph 6.6.10-6.6.12] explained that the number of river vessel movements expected at the Silvertown work site would be no more than five per day in the peak construction period. The number of barge movements proposed at Greenwich using existing wharf facilities would be less than two to three vessel movements on average. The Silvertown site would be approximately 450m away from the nearest human receptor (an apartment block on Hanover Avenue), and it would also be upwind of the receptor. The ES considered that sufficient dispersion of pollutants would occur over the distance between the jetty and the receptors and therefore, the contribution of NO<sub>x</sub> and particulate matter levels from river barges would not be significant. The Applicant also considered that impacts from barges using the Greenwich jetty could be screened out as not significant.

### ***Construction Odours***

5.3.85 Construction odours were considered in ES [AS-023, paragraphs 6.6.14 to 6.6.16]. ES chapter 12 also identified that the excavations at the Greenwich work site could expose historically contaminated soils which could have the potential to release odorous volatile organic compounds. As the locations of these materials were not known, best practice control measures were included in section 5.5 of the CoCP [REP6-057] to ensure that a statutory nuisance is not caused by the

works. The updated ES [AS-023, paragraph 6.9.7] concluded that construction phase impacts from dust and emissions would be negligible with the implementation of mitigation measures embedded in the CoCP.

### ***Construction Phase Mitigation***

- 5.3.86 The Applicant's main forms of mitigation in respect of the construction phase of the development are provided through R5 of the Applicant's final dDCO [REP7-026], in terms of having to carry out the development in accordance with the CoCP; as well as preparing and submitting air quality management plans for the work sites (required by R5(3)(a) of [REP7-026]).

### **Operational Impacts**

#### ***Embedded and other mitigation***

- 5.3.87 The updated ES [AS-023, paragraph 6.5.3] explained that mitigation measures to reduce the operational impacts of the scheme on air quality were embedded in the scheme design. The principle mitigation measure would be the user charge which would be used to manage demand for both the Proposed Development and the Blackwall Tunnel. The ES considered that by regulating traffic flows, the user charge could be used for managing local air quality impacts associated with traffic utilising the crossings. It further explained that the Applicant has included a discount for low emission vehicles in the Assessed Case, which would align it to other schemes such as the Ultra-Low Emission Discount arrangements within the central London Congestion Charging Scheme.
- 5.3.88 Also, the Applicant committed to providing new bus routes through the Proposed Development, with a minimum of not less than 20 buses per hour during peak periods in each direction, as well as providing funding for concessionary bus fares for residents of LBN, LBTH and RBG. It also committed to ensuring that all buses that ordinarily use the tunnels would comply with Euro VI emissions [REP7-026, R13] and agreed to a detailed monitoring and mitigation strategy [REP7-026, R7].

#### ***Impact of Scheme in Relation to the Nitrogen Dioxide AQS Objective***

- 5.3.89 The updated ES [AS-023, Table 6-16] provided a summary table which identified the total number of receptors that would experience a change in mean annual NO<sub>2</sub>. It showed that:-
- 585 (4.4% of all modelled receptors) would experience an improvement (greater than 0.4µg/m<sup>3</sup>);
  - 12,206 (91.9% of all modelled receptors) would show an imperceptible change (less than or equal to 0.4µg/m<sup>3</sup>); and
  - 483 (3.7% of all modelled receptors) would experience a deterioration in NO<sub>2</sub> levels (greater than 0.4µg/m<sup>3</sup>).

- 5.3.90 The results of the modelling showed that there would be both improvements and deteriorations in air quality at sensitive receptors due to changes in traffic as a result of the Proposed Development. Receptors in the vicinity of the A12/A13 at Poplar would experience an improvement in air quality, as a result of a reduction in traffic flows along the A12 Blackwall Tunnel Approach Road.
- 5.3.91 Predicted decreases (ie improvements) of between 1-2 $\mu\text{g}/\text{m}^3$  in annual mean  $\text{NO}_2$  at receptors located along-side the section of the A12 between the B125 and the A1020 would occur as a result of the Proposed Development. However most receptors in these areas were still predicted to exceed the annual mean AQS objective despite the improvements.
- 5.3.92 The updated ES [AS-023, paragraphs 6.6.31 and 6.6.32] explained that receptors located in the area encompassing Silvertown south of the A13 around the Royal Docks were predicted to experience a decrease in air quality as a result of the Proposed Development. The largest decrease (deterioration) was predicted to occur on the ground floors of the westernmost edge of the Hoola development (Receptor 51, shown on ES Drawing 6.2 (Modelled Receptors) [APP-032], which was updated at D6 as [REP6-042], where there was a predicted increase of 6.6 $\mu\text{g}/\text{m}^3$  annual mean  $\text{NO}_2$  with the implementation of the Proposed Development. The total  $\text{NO}_2$  concentration at this receptor was 45 $\mu\text{g}/\text{m}^3$  with the scheme in the Assessed Case. The Hoola Development is the closest receptor to the northern portal of the tunnels and the associated roundabout infrastructure and so would be subject to the largest change in traffic.
- 5.3.93 The updated ES [AS-023, Table 6-18 and paragraph 6.6.32] identified that there are no residential receptors on the ground floors of the two residential blocks within the Hoola Development, and so it also predicted the modelled annual mean  $\text{NO}_2$  at various floor heights of this residential development. At the approximate level of the first floor (3m) the Assessed Case would result in increases of annual mean  $\text{NO}_2$  by 6.3 $\mu\text{g}/\text{m}^3$  to 43.5 $\mu\text{g}/\text{m}^3$ . At the approximate level of the second floor, the Assessed Case would increase by 5.5 $\mu\text{g}/\text{m}^3$  to 39.1 $\mu\text{g}/\text{m}^3$ .
- 5.3.94 The Applicant considered that the Proposed Development would be unlikely to be operational until 2023 [AS-023, paragraph 6.6.34]. It further considered that concentrations were predicted to decrease to levels below exceedance by 2025 (when using the factors from IAN 170/12v3) and air quality at this receptor could be below the annual mean AQS objective, when the scheme would become operational or soon after.
- 5.3.95 Annual mean  $\text{NO}_2$  levels were also predicted to increase in the Assessed Case near other receptors, including:
- those located along the A102/A2 between the Greenwich peninsula and Kidbrooke (predicted increase by up to 0.6 $\mu\text{g}/\text{m}^3$ ); and

- the nearest receptor to the Lower Lea Crossing, which would have the largest reassignment of traffic on an existing road (predicted increase is  $0.7\mu\text{g}/\text{m}^3$  but the modelled Assessed Case result was  $31.1\mu\text{g}/\text{m}^3$ , which would be below the AQS objective).

### **Impact of Scheme in Relation to $\text{PM}_{10}$ and $\text{PM}_{2.5}$ Levels**

- 5.3.96 The updated ES [AS-023, paragraph 6.6.43] explained that the maximum concentration (in either the Assessed Case or the Reference Case) for  $\text{PM}_{10}$  was  $25.6\mu\text{g}/\text{m}^3$  (for R24 in the Reference Case, located within 5m of the A12 in Bromley-in-Bow). This would be well below the annual mean AQS objective of  $40\mu\text{g}/\text{m}^3$ . The largest increase in  $\text{PM}_{10}$  was  $0.6\mu\text{g}/\text{m}^3$  at R51 (the Hoola Development), this was the only receptor with a perceptible increase (greater than  $0.4\mu\text{g}/\text{m}^3$ ). It goes on to explain that this dust sensitive receptor is located above ground floor and it had assumed that the change in particulate concentrations is likely to be imperceptible at the height of the receptor.
- 5.3.97 The updated ES [AS-023, paragraph 6.6.44] explained that modelled concentrations of  $\text{PM}_{2.5}$  were all below the annual mean objective of  $25\mu\text{g}/\text{m}^3$  with changes in  $\text{PM}_{2.5}$  levels being largely classed as imperceptible, with only 11 of the 13,274 receptors having a change (increase or decrease) greater than  $0.1\mu\text{g}/\text{m}^3$ . The largest increase was  $0.2\mu\text{g}/\text{m}^3$  at R51 (Hoola Development).

### **Overall Assessment of the Scheme's Impacts on Air Quality at Nearby Sensitive Receptors**

- 5.3.98 The updated ES [AS-023, Table 6-20 and paragraph 6.6.46 to 6.6.47] identified that the results of the Proposed Development would be largely beneficial, with the number of receptors where improvements in air quality would be experienced exceeding the number of deteriorations. Of the sensitive receptors which were predicted to be above the AQS objective annual mean of  $40\mu\text{g}/\text{m}^3$  for  $\text{NO}_2$ , four sensitive receptors were predicted to experience at least a small increase in  $\text{NO}_2$  levels. One receptor was predicted to experience a large worsening of air quality objectives. Of the sensitive receptors that were already above the AQS objective, 231 receptors were predicted to experience at least a small improvement in air quality objectives. Three receptors were predicted to experience a large improvement.

### **Applicant's Conclusions**

- 5.3.99 The updated ES [AS-023, Table 6-21] predicted that there would be no change in the compliance status of the zone, in relation to the AQMAs. The Greater London Urban Agglomeration would be non-compliant with the Air Quality Directive either in the Reference Case or the Assessed Case. The Proposed Development's impact upon compliance was classed as '*low risk*'.
- 5.3.100 The updated ES [AS-023, Table 6-21] stated that, '*taking into account the areas of improvement and the areas of deterioration and the*

*number of properties affected by the Scheme where concentrations are above the AQS objective, the air quality effects are not significant and the Scheme is therefore consistent with relevant national, regional and local planning policy'. It continued, 'Therefore an overall evaluation of 'not significant' has been assigned to the Scheme's operational local air quality impacts.'*

5.3.101 The updated ES [AS-023, paragraph 6.9.5] further concluded that, *'the assessment demonstrates that in terms of impact on Compliance with the EU Directive (following guidance in Highways England IAN 175/13), the Scheme does not delay the Greater London Urban Agglomeration from achieving compliance within the most recent timescales report by Defra.'*

5.3.102 The Applicant's Updated Air Quality and Health Assessment [REP2-041] did not alter the conclusions reported in the ES.

### **Operational effects upon designated ecological sites**

5.3.103 The updated ES [AS-023, ES Table 6-21] identified that there are no designated ecological sites that would be significantly affected by the Proposed Development, in terms of impacts arising from operational air quality. That matter was not challenged by Natural England (NE) or any other IPs.

## **ISSUES ARISING**

### **Introduction**

5.3.104 The impacts arising from the Proposed Development upon ambient air quality was a matter of considerable concern to the host and neighbouring authorities and a number of IPs throughout the Examination. These matters serve to affirm the Panel's position that potential changes in air quality arising from the development was a principal issue for the Examination [PD-004]. Whilst the Panel is unable to report upon all RRs and WR, we confirm that they have all been read and taken into account.

5.3.105 The main aspects of this issue that the Panel finds need to be considered and concluded upon are as follows:-

- the potential for uncertainties in modelling both traffic forecasts and in the air quality assessments;
- the significance of impacts of the Proposed Development on air quality in respect of specific receptors and the use by the Applicant of DMRB and IAN 174/13 for the assessment of significance;
- whether the Proposed Development would result in breaches of statutory requirements concerning AQMAs or under European Directives; and
- whether the monitoring and mitigation measures that are included in the Applicant's final dDCO [REP7-027] are sufficient to ensure that air quality would not be impacted significantly and



that the development would not result in a breach of EU Directives.

- 5.3.106 Public Health England (PHE)[REP2-004] and [REP3-046] wished to encourage any new road or traffic development to consider, if practicable and cost effective, opportunities to secure improvements in local air quality. They recognised that the ES concluded that there would be more receptors that experience a perceptible improvement in air quality compared to deteriorations, despite emissions from the scheme increasing overall.

### **Uncertainties in Air Quality Modelling**

- 5.3.107 The host and neighbouring authorities raised concerns throughout the Examination in respect of the modelling that was used by the Applicant to assess the impacts upon air quality. RBG [REP1-002] considered in their Local Impact Report (LIR), at paragraph 212, that concerns that they had raised at Pre-application stage remained, in respect of the Applicant's failure to take into account potential environmental impacts if the user charging mechanism failed to work as designed.
- 5.3.108 LBN [REP1-014] explained in its LIR that it considered that the traffic model that was used, which underpinned the highway and air quality impacts, was considered to be fundamentally flawed in its assumed value of time and also its assumed behavioural response of drivers. These matters are discussed in the Panel's report section 5.2. LBN also raised concerns about the air quality assessment relying on one set of outputs of the RXHAM traffic model, as being the most likely scenario for traffic flows.
- 5.3.109 LBTH [REP1-005] did not accept the outputs from the Assessed Case model and had doubts about the accuracy of the air quality assessment. It further considered that the air quality assessment should have included sensitivity testing, for example if there was 10% more traffic through the tunnel than the model had forecast.
- 5.3.110 LBS considered [REP3-036, paragraph 3.8] that inherent uncertainties were apparent in the traffic data, which were used as inputs into the air dispersion modelling assessment. If they were not robust, uncertainty/errors in the environmental assessments would be compounded.
- 5.3.111 London Borough of Lewisham (LBL) [REP3-037] reiterated the concerns of LBS.
- 5.3.112 London Borough of Hackney (LBH) [REP3-038] raised concerns regarding the impacts upon their Borough, as the Applicant's area of influence only extended to 3km to the north and there were no monitoring sites identified in LBH, so the effect of the Proposed Development on LBH would not be understood and the value of the Silvertown Tunnel Implementation Group (STIG) to LBH would be severely limited.

- 5.3.113 The Westcombe Society [REP6-009] also considered that the Applicant had not shown that the modelling is robust enough to take account of behavioural changes.
- 5.3.114 The Applicant [REP6-073] considered that, *'although uncertainty is inherent in any traffic forecasting, substantial evidence was submitted to provide assurance that it can be managed by the design of the scheme and mitigation strategy.'*
- 5.3.115 During the ISHs concerns were also raised by the Panel and IPs regarding the effectiveness of the STIG, the time it would take and the mechanism that the Applicant would use to respond to any significant increases in actual traffic levels using the tunnels, compared to the forecast Assessed Case. In recognising these concerns, in its dDCO at D4 [REP4-026], the Applicant added a new requirement for monitoring and mitigation (R7). This was further refined during the latter stages of the Examination, taking into account concerns raised by host and neighbouring authorities and other IPs.
- 5.3.116 In addition, the Applicant revised Article (A) 65 of the dDCO regarding STIG, after concerns were raised by the Panel and others, and combined two draft documents, the monitoring strategy [APP-098] and the Traffic Impacts Mitigation Strategy (TIMS) [APP-099] into an updated Monitoring and Mitigation Strategy (MMS) [REP6-068] which better reflected the outcomes required by the Panel and IPs. The MMS was further refined during the Examination with the final version submitted at D7 [REP7-049].
- 5.3.117 Requests were made by some of the host and neighbouring authorities for additional monitoring locations, for example LBH [REP5-007] and Tower Hamlets [REP3-034]. The Applicant did not agree to monitor sites where adverse air quality effects were not expected [REP4-056] but explained [REP2-035] that the monitoring locations would however be reviewed as part of the Monitoring Strategy, in consultation with STIG.
- 5.3.118 LBN's final position statement [REP7-004] explained that the Assessed Case traffic modelling outputs had not been agreed by the host boroughs. Instead, the council and the other host boroughs were focussing their attention on the MMS [REP6-068] to ensure that any impacts that arose and were worse than those predicted in the Assessed Case would be identified promptly through the monitoring strategy and addressed.

**Significance of the effect of the Proposed Development upon specific receptors and the use by the Applicant of assessment criteria in DMRB/IAN**

***Use by the Applicant of DMRB/IAN Guidance for the Assessment of Significance***

- 5.3.119 LBN [REP1-014] considered that by only basing their air quality assessment on the DMRB and associated guidance, the Applicant had

not taken a more precautionary approach contained in the Institute of Air Quality Management (IAQM) November 2009 document 'Land Use Planning and Development Control and Significance in Air Quality'<sup>62</sup>.

- 5.3.120 LBN's concerns in relation to this matter, in respect of the Applicant's reasoning for not providing further mitigation for the Hoola development, are reported in paragraphs 5.3.129 to 5.3.133.
- 5.3.121 LBN considered [REP2-011, REP3-035, REP4-012, REP5-010, REP6-023 and REP7-004] that the Applicant had, in their view, not provided any quantitative assessment regarding the accuracy of the models used to predict air quality and, in their view, there was no guarantee that London's air quality would be as predicted in 2023. LBN noted that successive reporting of air quality improvements had consistently underestimated pollutant levels in the past.
- 5.3.122 LBN [REP7-007], LBL [REP4-021] and LBS [REP6-024] also raised concerns about the Applicant's use of IAN 174/13, which provides advice that significant effects can only occur where predicted air quality levels exceed NAQOs. In their view, the assessment failed to give adequate weight to changes in air quality levels where air quality remains below the NAQOs.
- 5.3.123 LBH, LBL and LBS also considered that the DMRB/IAN significance criteria were not robust and the Applicant's refusal to use the EPUK/IAQM significance criteria was unreasonable [REP1-009], [REP1-020], [REP1-024], [REP4-021] and [REP4-017]. These IPs noted that detailed air quality assessment had not been undertaken on receptors within their boroughs because the Applicant had applied DMRB screening criteria to determine the ARN.
- 5.3.124 The councils considered that, in the light of increased public concern over NO<sub>2</sub> levels in London, they would prefer the use of a more conservative approach using lower threshold levels and lower thresholds of change as used in the Environmental Protection UK (EPUK)/ IAQM guidance.
- 5.3.125 LBS [REP3-036, paragraph 3.9] stated that had the '*more reasonable and robust*' EPUK/IAQM screening and significance criteria been used, detailed assessment of local air pollution effects in Southwark would likely to have been undertaken. In [REP3-036, paragraphs 3.1 and 3.2] LBS explained that they considered that the Applicant's use of the DMRB assessment methodology for air quality impacts was not sufficiently sensitive for the Proposed Development in a complex road network.

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<sup>62</sup> This was updated in Jan 2017, the more recent version being Environmental Protection UK and the Institute of Air Quality Management (EPUK/IAQM) (January 2017) Guidance on Land Use Planning and Development Control: Planning for Air Quality.

- 5.3.126 LBL [REP3-037] considered it unreasonable that a comparable retail superstore development generating less traffic than the Proposed Development in the same area would be assessed using the more sensitive assessment approach with more rigorous significance criteria (those of the IAQM and EPUK guidance, extracts of which were provided in REP3-037, Appendix A). LBL considered that the Applicant had not used appropriate professional judgement to adopt the IAQM and EPUK screening and significance, had it done so, detailed assessment of air pollution effects in LBL would have been undertaken.
- 5.3.127 The Applicant [REP2-035] argued that the IAQM criteria is designed to assess impacts of new developments, typically commercial/residential and is not appropriate for major new road schemes and asserted [REP3-032] that the Proposed Development would not affect the three local authority AQMAs.

### ***Hoola Development***

- 5.3.128 The GLA [REP1-029] suggested targeted mitigation measures for the properties likely to experience a change in air quality, although the Panel notes that this comment wasn't targeted directly at the Hoola Development.
- 5.3.129 LBN [REP7-004] raised concerns regarding the dwellings within the Hoola Development which were predicted to have a large (greater than  $4\mu\text{g}/\text{m}^3$  change in  $\text{NO}_2$ ) worsening of air quality in the Assessed Case year. LBN acknowledged that the updated air quality and health assessment [REP2-041] indicated improvements in air quality from the ES predictions for the first floor and above residential units of the Hoola development, due to modelling of these receptors being 5m height rather than the standard 3m. LBN's concerns were in respect of the Applicant's argument for not providing further mitigation for the Hoola development, which was based on the Assessed Case year of 2021, whereas in the Applicant's view, the prediction of 2023 as the opening year, was a more likely date, by which time they considered that the air quality at the Hoola development would not be expected to exceed the objective value of  $40\mu\text{g}/\text{m}^3$  for annual mean  $\text{NO}_2$ .
- 5.3.130 The Applicant also explained [REP1-151, paragraphs AQ19.4 to 19.6] that the assessment was undertaken in accordance with the advice in DMRB and its associate IANs; under this guidance, in the Applicant's view, the Proposed Development was not considered to result in a significant adverse impact on air quality and therefore it would not trigger the need for mitigation.
- 5.3.131 The Applicant produced a technical note on Air Quality at The Hoola Development [REP3-031, Appendix 5] at D3, which also concluded that additional mitigation is not required, nor is it proportionate, as there would not be any flats in the Hoola development that would be expected to be in exceedance of the annual mean objective for  $\text{NO}_2$  when the scheme would open in 2023.

- 5.3.132 The council maintained that the potential to retro-fit NO<sub>2</sub> filtration measures, and air intake improvements, should be undertaken prior to commencement of the development with a scheme to implement any such measures and seek necessary agreements with landowners should be implemented prior to the commencement of the development.
- 5.3.133 The Panel notes that these matters were included in the LBN's draft s106 planning obligation agreement, which LBN submitted to the Examination at D7 [REP7-005], but this document was not agreed by the close of the Examination.
- 5.3.134 PHE [REP2-039] also encouraged the Applicant to consider opportunities to secure improvements in local air quality and highlighted the Hoola development as a specific example. PHE [REP2-004] also asked the Applicant to consider public greening as mitigation in the vicinity of the Hoola Development. The Applicant explained [REP2-039] that as the Hoola Development is outside the Order Limits there is no scope to provide landscaping there.

#### ***Siebert Road, Greenwich***

- 5.3.135 Westcombe Society ([REP6-009]) representations raised concerns about existing air quality in the residential areas around Siebert Road, especially in view of the Proposed Development accommodating northbound OHVs, which currently cannot use the Blackwall Tunnel.
- 5.3.136 However they welcomed the Applicant's proposals for the Siebert Road barriers in the legal agreement with RBG [REP7-044], but explained that they would like to see them extended to protect Invicta Primary School as well as the residential properties in Siebert Road and Westcombe Hill. The Applicant confirmed that whilst these barriers would be primarily for noise mitigation, they may provide some protection from air emissions [REP3-016]. The Panel notes that at the end of the Examination the legal agreement with RBG had not been agreed.
- 5.3.137 The Panel concludes on matters relating to the Siebert Road barriers in our report section 5.4 (noise and vibration).

#### **Significance of the Effects of the Proposed Development in relation to the EU Directive**

- 5.3.138 In the Panel's FWQ AQ14 [PD-006], we asked the host authorities whether the Proposed Development would create any hindrances to the LPAs achieving their targets in relation to demonstrating best efforts in achieving AQS objectives. LBN [REP1-015] stated that there would be a significant air quality impact in LBN. They explained that the conclusions of the Defra 2015 AQP would indicate that modelling has under-estimated future air pollution levels which could delay the date of compliance. This could not be known without running the air quality model to confirm the impact and determine whether the impact was significant to delay overall compliance.

- 5.3.139 LBN also raised concerns [REP2-011], [REP3-035] and [REP4-012, in response to the Panel's SWQ AQ2.7] that it would need to declare the area around the Hoola development as an AQMA, as the ES predicts levels above objective levels, as a result of the Proposed Development.
- 5.3.140 The Applicant [REP6-073, action point 7] considered that if the Proposed Development opens in 2023, the modelled annual mean NO<sub>2</sub> levels at first floor height on the west tower at the Hoola Development in the Assessed Case would be 39.6µg/m<sup>3</sup> for that year, that is less than the annual mean objective for NO<sub>2</sub>.
- 5.3.141 RBG [REP1-003] stated that if the Applicant's traffic forecasts are accepted there would be limited impacts in RBG AQMAs, but if compressed peaks or demand exceed the forecasts this would lead to overcrowding on the local road network which could have an impact. RBG considered that this matter deserved further consideration, given the recent High Court judgement.
- 5.3.142 LBTH [REP1-005] explained that as the whole of their Borough is classified as an AQMA, any increase in pollution would be strongly resisted by the council. They noted that only changes at receptors which would exceed the annual air quality objective had been considered in the determination of significance; in their view, receptors nearing the annual objective should have also been considered.
- 5.3.143 In response to the Panel's FWQ AQ13, the Applicant [REP1-151] identified changes at receptors within AQMAs and concluded there would be no need for local authorities to change the size of existing AQMAs or require designation of any new AQMA. This was considered the case as, in the Applicant's view, there would be no receptors outside the existing AQMAs where a change in air quality concentrations would create a new exceedance of an AQS objective.
- 5.3.144 In response to a Rule 17 request for further information from the Panel [PD-007] following the November 2016 ClientEarth Judgement, the Applicant confirmed [REP1-093] that their air quality assessment for the Proposed Development had already accounted for a realistic level of optimism in the published emission factors. They confirmed that although the scheme assessment used the Defra emission factors, based on COPERT (Computer Programme to Calculate Emissions from Road Transport), which were criticised as part of the judgement for being too optimistic, the modelled results were uplifted to account for vehicle performance in the real world. The Applicant further explained that the assessment followed guidance in Highways England's guidance IAN 170/12v3, which allows for the under-performance of vehicle emissions in the real world - particularly light duty diesel vehicles (cars and vans), which had led to concentrations not falling as fast as expected - being corrected in the air quality modelling.

- 5.3.145 Furthermore, the Applicant [REP1-073] considered that the ClientEarth Judgement provides further justification for the proposed approach in relation to the flexibility in setting the user charge. The Applicant confirmed that it would re-run the air quality assessment prior to the Proposed Development opening, utilising the latest evidence at that time, which would include the pre-scheme air quality monitoring, latest vehicle emissions information and consideration of future Defra AQPs, to ensure that the scheme would not lead to a significant impact on air quality or delay compliance with the directive. The Applicant was confident that the impact of the Proposed Development on air quality will not be significant and will not in itself delay the date that the Greater London Urban Agglomeration will become compliant with the AQD.
- 5.3.146 FoE considered in their representations [REP6-008] and [REP7-020] that lesser increases in air quality than the threshold of  $0.4\mu\text{g}/\text{m}^3$  would still be material and significant and illegal if it resulted in air pollution that had already breached limits being worsened. They also considered that any worsening (by a material or significant amount) of air pollution over legal limits would be illegal.
- 5.3.147 No to Silvertown agreed with FoE that it is not acceptable for air quality to worsen anywhere even if the increased level of pollution still remains within the recommended levels [REP6-006].
- 5.3.148 The Applicant [REP6-073] considered that an exceedance of the EU limit value at a single receptor which is the result of the scheme would not mean that the Proposed Development is illegal. It also stated that if FoE's interpretation of the EU Directive was correct, it would prevent any regeneration scheme from coming forward in East London.

### **Impacts on AQMAs in Neighbouring Boroughs**

- 5.3.149 In the ISH on air quality and other environmental issues [EV-025 and EV-035 to EV-038] (18 January 2017) representatives from two neighbouring boroughs (LBL and LBS) had explained that it was not possible to take a view on the scheme impacts, as the air quality impacts in their boroughs were unknown due to a lack of air quality assessments.
- 5.3.150 The Applicant submitted a further technical note to the Examination for D3 in January 2017 [REP3-032, Appendix 8] which considered additional air quality modelling that had been undertaken in order to address earlier concerns from LBL and LBS in relation to potential impacts within their Borough's boundaries. This note concluded that in 2021  $\text{NO}_2$  impacts at the modelled locations along the A200/B207 would be imperceptible (less than a  $0.4\mu\text{g}/\text{m}^3$  change in  $\text{NO}_2$ ). The Applicant considered that the results demonstrated why it was not necessary to consider smaller changes in traffic flows. It considered that smaller changes would not impact upon the conclusion of the assessment that the scheme does not lead to a significant impact upon air quality.

- 5.3.151 LBL also had concerns that TfL's modelling of Lower Road/Evelyn Street in their Borough, showed impacts above the annual mean NO<sub>2</sub> air quality standard which would exceed the EPUK/IAQM 'negligible' criteria. LBL maintained their concerns that the Applicant had not made any concessions to the Borough's on-going air quality concerns and requests for monitoring along key routes [REP7-014]. They also remained concerned that the fundamental methodology of the air quality assessment is not robust and relies on uncertain traffic data. Their objection to the scheme [REP6-025] identified that they considered that the scheme would have an unacceptable impact on LBL's road network, a likely subsequent deterioration in air quality would occur, inadequate monitoring had been proposed (as the Applicant had failed to accept to include the monitoring locations that had been repeatedly requested by LBL including Evelyn Street, the B218, the A21 and the A2212). Also LBL considered that mitigation measures in key locations might be untenable. LBL did not change its view throughout the Examination that the scheme would affect their LAQM and EU responsibilities [REP4-021].
- 5.3.152 LBS [REP6-024] retained their concerns that the Applicant had not considered Old Kent Road, to the south of the A200 corridor in their transport and traffic modelling, nor had they adequately addressed the borough's air quality concerns. In addition, LBS [REP3-036, item 4.12] explained that due to uncertainties they could not agree that the Proposed Development would not make it harder for it to work towards its LAQM objectives, nor to improve its air quality with regard to the EU limit value.
- 5.3.153 In response to the two neighbouring boroughs, the Applicant [REP6-073, item 5.2] explained that the Assessed Case indicated that the development would result in very small ((1% or less) apart from the A12 and Tower Bridge (2%)) changes in traffic flows on these roads. It considered that in view of the distances from the development to these roads (4.8km and 9.8km) the effects on traffic and air quality would be minimal. The Applicant confirmed that monitoring had been agreed on some of the roads identified, but that no further monitoring was planned as forecast changes were so small. In any event of impacts being experienced on the other locations, they would be picked up elsewhere at other monitoring sites along the A12 as proposed in the proposed monitoring regime. LBH [REP1-020 and REP1-021] considered that any increases on the A12 would result in impacts on the Hackney Wick Focus area (where existing pollution is bad). REP1-020 Hackney considered the Proposed Development will set back the aims of Hackney's air quality action plan (AQAP) measures and a sig negative impact on the AQMA.

### **Construction Impacts - Cumulative Impacts from Cruise liners, boats and barges**

- 5.3.154 Mr Hardwick [REP1-185] considered that the Applicant had not considered air emissions from cruise liners moored at Enderby Wharf in the ES. He also raised concerns [REP5-030] that there had not been



any assessment of the air quality impact of the vessels operating on the River Thames in support of the project.

- 5.3.155 The Applicant considered [REP3-016] that cruise ship movements to and from Enderby Wharf was scoped out of the air quality assessment as the number of movements (circa 110 movements per year) did not trigger the criteria in the local air quality management technical guidance. In respect of emissions from river barges used in the construction phase, the Applicant [REP3-016] considered that barge movements would equate to an average of less than 4 per day which equates to less than four tug movements per day. The existing river movements contribute less than 0.5% to the background of both NO<sub>2</sub> and PM<sub>10</sub> and so the Applicant concluded that any increase caused by the development would make a negligible contribution to the background.

### **PANEL'S REASONING AND CONCLUSIONS**

- 5.3.156 The NPSNN states that some construction impacts on amenity for local communities is bound to be unavoidable, but should be kept to a minimum and should be at an acceptable level. The Panel is satisfied that impacts from the construction phase on air quality including dust emissions and odours would be kept to a minimum through implementation of the CoCP and the proposed Construction Environmental Management Plan (CEMP). The CoCP was expanded and further developed throughout the Examination. The Applicant's final draft of the CoCP [REP6-057] would be a certified document in Schedule 14 to the final dDCO [REP7-026]. Compliance with the CoCP would be controlled through R5(1) in Schedule 2 to the dDCO.
- 5.3.157 The Panel agrees with the Applicant that there was no need to provide an 'air quality neutral' assessment as this Mayoral policy does not apply to transportation infrastructure projects. The Panel also agrees with the Applicant in respect of there being no significant impact on air emissions arising from river barges used for the construction phase or cumulative impacts with cruise liners at Enderby Wharf.
- 5.3.158 The Panel is also satisfied that the results of the air quality assessment are robust and valid, as far as the levels of traffic considered in the Assessed Case and the methodology used. We are satisfied that the Applicant's use of DMRB/IAN criteria for assessing significance for the Proposed Development is acceptable, especially as these have been supplemented with the use of Defra local air quality management guidance and tools, but we conclude further on this matter in paragraphs 5.3.161 to 5.3.166.
- 5.3.159 The conclusion that there would be no significant effect on air quality overall, on the basis of the input data that was used to provide the air quality assessments, is accepted, so long as the traffic levels in the Assessed Case reflect the situation when the Proposed Development is operational. Nevertheless, the Panel accepted the concerns raised by the host and neighbouring authorities, and by some IPs (including FoE

in their representations, for example, [REP3-044]), that the Assessed Case may not reflect the traffic level situation on the opening of the tunnels.

- 5.3.160 However the location of the Proposed Development is in areas which are already experiencing levels of NO<sub>2</sub> in excess of EU limits, with consequential potential impacts on air quality and health.
- 5.3.161 The Panel accepts the host borough's concerns (and those of other IPs) regarding the potential for an undefined level of errors in the Assessed Case, which could lead to actual traffic levels to exceed those assessed, thus impacting upon air quality to a greater extent than that predicted. These concerns were due to uncertainties in the traffic modelling work being compounded as the modelling chain proceeds from traffic assessment and forecasting, through emissions calculations for the Assessed Case.
- 5.3.162 The Panel's concerns are that if the modelled levels of traffic and therefore air quality changes are incorrect, receptors could be subject to bigger and worse changes in air quality compared to those assessed. It could also lead to more receptors experiencing a large change in air quality compared to the forecast small changes for four receptors, and a large change for one receptor above the AQS objective of 40µg/m<sup>3</sup> for NO<sub>2</sub>, identified in the ES and reported in paragraph 5.3.98 of our report. If that were to be the case, the Proposed Development would be operating in a quite different air quality environment.
- 5.3.163 Nevertheless, the Panel also recognises that the updated MMS [REP7-049], combined with R7 for monitoring and mitigation in the Applicant's final dDCO [REP7-026], should be sufficient to give the host boroughs confidence that the impacts of the scheme could be effectively mitigated. The Panel is satisfied that there would be sufficient mitigation in place to monitor traffic levels and air quality impacts. If actual traffic levels exceeded those predicted, being able to vary the user charge would provide a robust mitigation mechanism to manage traffic levels in order to ensure that the development's impacts would be no worse than those that were assessed in the ES.
- 5.3.164 The Panel finds that there would be no merit in recommending refusal of the Proposed Development on the basis of the uncertainties that arose from the Assessed Case air quality modelling work, as a fresh application would be likely to result in the same or similar levels of uncertainty and would delay the implementation of the project by some years.
- 5.3.165 Turning to the concerns raised by LBL and LBS regarding the need for additional monitoring locations on the roads that they identified in their boroughs, the Panel agrees with the Applicant that the rationale for monitoring in the MMS [REP6-068] should be adequate to identify areas where air quality impacts over and above those assessed become apparent. The Panel agrees that the Applicant should not have

to monitor air quality on all roads particularly where the impacts are forecast to be small. The Panel considers that the MMS provides sufficient flexibility, should any adverse impacts due to the Proposed Development in the neighbouring boroughs be identified, to enable these locations to be added to the monitoring regime.

- 5.3.166 Instead, the Panel is satisfied that the additional work that the Applicant would undertake to satisfy dDCO R5(3)(a) regarding the preparation, submission and approval of air quality management plans for the construction phase and R7 in relation to monitoring and mitigation for the operational phase, would be sufficient to ensure that the air quality assessment work is updated and sufficient controls would be put in place to enable the LPAs to control the Proposed Development so that it would be constructed and operated at the assessed levels of traffic and impacts.
- 5.3.167 However, the Panel agrees with LBN about the potentially significant increases in annual NO<sub>2</sub> at the affected first floor flats at the Hoola Development. The Panel also agrees with LBN that there is no certainty that the forecast pollution levels decreasing in the vicinity of the Hoola Development prior to the scheme opening, giving rise to NO<sub>2</sub> levels which would be below the limit level, would actually happen. The Panel welcomes the inclusion of retro-fitted ventilation mitigation for these properties in the draft s106 with LBN, but this had not been agreed at the close of the Examination. The Panel therefore recommends that the SoS should be satisfied that the s106 with LBN is agreed and signed prior to making the DCO. An alternative would be through the imposition of a modification to a requirement. This possibility is addressed further in Chapter 9 of this report in respect of the wording of the DCO.
- 5.3.168 Subject to the mitigation for the Hoola Development being capable of being delivered prior to construction commencing, overall, the Panel is satisfied that the Applicant's assessment has used the correct methodology and it would not give rise to significant air quality impacts. Whilst the assessment identifies some adverse impacts at specific receptors, the Panel agrees that the overall conclusion is that there would not be a significant effect.
- 5.3.169 As the Panel accepts LBN's concerns about air quality impacts at the Hoola Development in the opening year, which if the anticipated reduction in NO<sub>2</sub> levels does not materialise, it could cause the air quality at the Hoola Development to exceed the NO<sub>2</sub> AQS objective, meaning that LBN could be obliged to extend the area covered by its AQMA. The NPSNN, paragraph 5.11, quoted in our report paragraph 5.3.19, explains that where a Proposed Development brings about a need to change the size of an existing AQMA, air quality considerations are likely to be particularly relevant. The Panel considers that there is a possibility that there may need to be a change to the AQMA, due to worsening air quality near the Hoola Development in the opening year, but that change would not give rise to a significant impact, as it would be likely to be limited in extent (and also in duration, should the

anticipated trends in air quality materialise, albeit later than expected). The Panel considers that if this was to happen, it would not give rise to one of the two situations described in NPSNN paragraph 5.13 (reported in paragraph 5.3.21), where the SoS should refuse consent. However, the Panel recognises the need, in NPSNN paragraph 5.12 to give *'air quality considerations substantial weight where they ...lead to a deterioration in air quality in a zone/agglomeration'*. We have given substantial weight to these matters as there could be a risk that the LBN AQMA may need to be extended to cover the area around the Hoola Development in the opening year. We consider that this risk is limited, and if it did occur, it would not rise to a significant impact upon air quality overall. We conclude that there is no justification for refusing consent on the basis of the possible need to extend the LBN AQMA to cover the Hoola Development.

- 5.3.170 The Panel recognises the concerns raised by LBN, LBS and LBL regarding the use of IAN 174/13 and agrees that the more recent guidance in the EPUK/IAQM document would have provided a more precautionary approach to defining significant effects. However, the Panel considers that the Applicant has complied with relevant policy and guidance in using DMRB and guidance in IAN 174/13 for the assessments in the ES.
- 5.3.171 We note that the Examining Authority's (ExA) Report for the M4 Junction 3 to 12 Smart Motorway recognised this issue. In paragraph 5.7.69-5.7.70, of the M4 ExA report it recognised that, *'Although IAQM guidance is not intended to replace the more formal guidance of HE<sup>63</sup> in its advice notes, the new guidance does represent the views of the organisation (IAQM) that represent air quality professionals. ... Since there are indications that expert views on the definition of significance are changing, we consider that there is some question as to the weight which should be attributed to advice in IAN 174/13 regarding levels of significance.'*
- 5.3.172 We therefore accept that there are indications that the definition of significance is changing and recommend that the Applicant considers the use of the EPUK/IAQM significance levels in its monitoring and mitigation strategy that is secured under R7. Whilst IAN 174/13 remains the formal guidance for projects such as this one, we are unable to enforce compliance with the EPUK/IAQM significance levels and have not recommended a change to the DCO to accommodate this. However, we see it as a role of STIG to ensure that the Applicant considers this matter and endeavours to work towards meeting the EPUK/IAQM significance criteria in the monitoring and mitigation strategy required under dDCO R7.
- 5.3.173 The Panel is satisfied that the Applicant's assessments of impacts on air quality meet the requirements of the NPSNN (paragraphs 5.6 to

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<sup>63</sup> Highways England

5.9), in particular in relation to the requirements of paragraph 5.8 regarding consistency with Defra's projections. However, the Panel acknowledges that the current Defra predictions are considered to be over-optimistic. The Panel recognises that the Applicant's Updated Air Quality and Health Assessment [REP2-041] utilised the updated suite of air quality modelling tools issued by Defra in July 2016.

- 5.3.174 The Panel further considers that its identification of the risks associated with uncertainties in the air quality forecasting fulfils the requirement in NPSNN paragraph 5.9 to provide the SoS with a judgement as to whether the project would affect the UK's ability to comply with the AQD. The Panel concludes that with R5(1), R5(3)(a), and R7 in place (as provided in the Panel's recommended DCO, Appendix D), there is sufficient mitigation to ensure that the Proposed Development would operate at the levels of traffic and emissions that were assessed in the Assessed Case and the Proposed Development would not give rise to a risk to the UK's ability to comply with the AQD. The Panel is satisfied that the AQD would be able to be met.
- 5.3.175 We are satisfied that the Proposed Development would not hinder meeting the objectives of the current AQP for NO<sub>2</sub>.
- 5.3.176 The Panel also concludes that there would be no significant impact upon designated ecological sites from air quality emissions arising from the Proposed Development.

## **5.4 NOISE AND VIBRATION**

### **INTRODUCTION AND POLICY BACKGROUND**

#### **Introduction**

- 5.4.1 This section addresses the environmental impacts of noise and vibration arising from the Proposed Development upon sensitive receptors.
- 5.4.2 Matters regarding noise impacts were identified by the Panel in its initial assessment of principle issues [PD-004], in relation to whether there would be any adverse noise impacts on sensitive receptors. The Panel considered issues regarding noise and vibration impacts in the Issue Specific Hearing (ISH) on air quality, noise and other environmental issues on 18 January 2017 and the ISH on any outstanding issues including environmental matters held on 28 March 2017.
- 5.4.3 In addition, the Panel asked various questions to the Applicant and other IPs about noise and vibration issues in their first written questions (FWQs) [PD-006] and second written questions (SWQs) [PD-012].
- 5.4.4 This report section considers noise and vibration impacts that would arise from both the construction and operational phases of the development.

## **Policy Background**

### ***The National Policy Statement for National Networks***

- 5.4.5 The National Policy Statement for National Networks (NPSNN) considers noise and vibration impacts in paragraphs 5.186 to 5.200. It states that the Government's noise policy is set out in the Noise Policy Statement for England [REP1-166, Appendix G]. This refers to three thresholds for noise impacts:-
- No observed effect level (NOEL);
  - Lowest observed adverse effect level (LOAEL); and
  - Significant observed adverse effect level (SOAEL).
- 5.4.6 NPSNN paragraphs 5.189 to 5.192 explain the matters that the applicant should include in its noise assessment, including an assessment of the effect of predicted changes on any noise sensitive premises and noise sensitive areas as well as mitigation, considering best available techniques to reduce noise impacts. It also requires potential noise impact elsewhere that is directly associated with the development, such as changes in road traffic movements, to be considered as appropriate. It instructs applicants to assess operational noise, with respect to human receptors, using the principles of the relevant British Standards and other guidance. Predictions of road traffic noise should be based on the method described in Calculation of Road Traffic Noise.
- 5.4.7 NPSNN paragraphs 5.193 to 5.196 explain that developments must be undertaken in accordance with statutory requirements for noise. Due regard must be given to the relevant sections of the Noise Policy Statement for England, the National Planning Policy Framework (NPPF) and the Government's associated planning guidance on noise.
- 5.4.8 It goes on to state that the Secretary of State (SoS) should not grant development consent unless satisfied that the proposals would meet, within the Government's policy on sustainable development, the following aims:-
- *'Avoid significant adverse impacts on health and quality of life from noise as a result of the new development;*
  - *Mitigate and minimise other adverse impacts on health and quality of life from noise from the new development; and*
  - *Contribute to improvements to health and quality of life through the effective management and control of noise, where possible'.*
- 5.4.9 Further, in paragraph 5.196 it states that the SoS should consider whether requirements are needed which specify that mitigation measures proposed by the applicant are in place to ensure that noise levels from the project do not exceed those described in the assessment or any other estimates on which the decision was based. In paragraph 5.197 it goes further saying that the Examining Authority (ExA) and SoS should consider whether mitigation measures are

needed over and above those which form part of the project application.

### ***Noise Policy Statement for England***

5.4.10 The Noise Policy Statement for England explains that noise management is a complex issue and at times requires complex solutions. It explains that there was no European or national noise limits for specific developments at the time of writing (2010). The Aims of the Government's Noise Policy Statement for England include the follows:-

- Avoid significant adverse impacts on health and quality of life;
- Mitigate and minimise adverse impacts on health and quality of life; and
- Where possible, contribute to the improvement of health and quality of life.

### ***National Planning Policy Framework***

5.4.11 Paragraph 123 of the NPPF explains that planning decisions should aim to avoid noise from giving rise to significant impacts on health and quality of life as a result of new development, and also reduce to a minimum other adverse impacts upon health and quality of life arising from noise from new developments, including the use of conditions. It also requires recognition that development will often create some noise.

### ***Planning Practice Guidance on Noise (2014)***

5.4.12 The Planning Practice Guidance (PPG) on noise explains that by increasing noise exposure the SOAEL boundary would be crossed. Above this level the noise causes a material change in behaviour such as keeping windows closed. If the exposure is above this level, the planning process should be used to avoid this effect from occurring.

5.4.13 It also provides details of four broad types of mitigation that can be used for noise making developments:-

- Engineering- reducing the noise generated at source and/or containing the noise generated;
- Layout- where possible, optimising the distance between the source and the noise sensitive receptors and incorporating good design through the use of screening by natural or purpose built barriers, or other buildings;
- Using planning conditions/obligations to restrict activities to certain times or certain noise levels; and
- Noise insulation mitigation in buildings.

5.4.14 It also states that decision taking should take account of the acoustic environment and in so doing, should consider:

- whether or not a significant adverse effect is likely to occur;

- whether or not an adverse effect is likely to occur; and
- whether or not a good standard of amenity can be achieved.

### **APPLICANT'S APPROACH**

5.4.15 The Applicant's assessment of the noise and vibration impacts that would arise from the Proposed Development was provided in the Environmental Statement (ES) Chapter 14, which relied on information and data provided in various ES appendices, as follows:-

- ES figures relevant to Chapter 14 [APP-038] and [APP-039], which were updated at deadline 6 (D6) [REP6-048] and [REP6-049];
- ES Appendix 14.A on construction noise [APP-071];
- ES Appendix 14.B noise survey data [APP-072];
- ES Appendix 14.C assessment of ground-borne noise and vibration and underwater noise from the tunnel boring machine [APP-073];
- ES Appendix 14.D tunnel ventilation noise assessments - northern portal [APP-074]; and
- ES Appendix 14.E tunnel ventilation noise assessments - southern portal [APP-075].

5.4.16 Section 14.3 of the ES [APP-031] sets out the applicant's methodology for the assessment including (for construction and operational effects) the definition of the study areas, receptor sensitivity and noise and vibration impact significance thresholds.

### **Baseline Noise Environment**

5.4.17 The ES [APP-031, Paragraph 14.4.1] explained that baseline noise levels across the study area are predominantly influenced by road traffic noise from the existing highways, rail noise from the Docklands Light Railway (DLR), aircraft noise from London City Airport (LCY), industrial noise from along the River Thames and construction noise from development activity in the vicinity. The ES [APP-031, paragraphs 14.4.6 and 14.4.7] further explained that when preparing the ES, road traffic noise was considered to form a significant part of the existing noise climate. Further analyses showed that there was little difference between day time and night time ambient and traffic noise levels as monitored.

### **Construction phase noise and vibration impacts**

#### ***Noise impacts***

5.4.18 The ES [APP-031, paragraphs 14.6.7 to 14.6.14] explained that the daytime construction noise levels would result in a neutral significance of effect. It also envisaged that overnight construction activities would not be in breach of the appropriate BS5228 criteria. However, night time construction noise levels would be in excess of the LOAEL criteria at the six nearest residential receptors. The noise levels would be below the SOAEL, apart from one receptor, (Western Beach



apartments). The existing noise climate at Western Beach apartments is above 55 decibels (dB) Equivalent Continuous Level (LAeq), at a measured level of 58dB LAeq. The future total construction noise at this receptor would be 60dB LAeq, meaning an increase in ambient noise of 2dB. This is less than the 3dB criterion level, which is the level at which a significant change in noise levels would occur in these situations. Therefore it concluded that at all sensitive receptors considered for night time construction noise, there would be a neutral significance of effect.

- 5.4.19 Section 14.5 of the ES [APP-031] presented those aspects of noise mitigation proposed by the Applicant to avoid or reduce likely significant adverse noise effects by designing necessary mitigation measures into the design of the Proposed Development. The ES [APP-031, paragraph 14.8.4] concluded that throughout the construction period, mitigation measures would be implemented to avoid significant noise impacts. The Code of Construction Practice (CoCP) [REP6-057] would require a noise and vibration management plan (NVMP) for each work site to be prepared and approved with the relevant Local Planning Authority (LPA). This is also required pursuant to the Applicant's final dDCO [REP7-026] Requirement (R) 5(3)(i). The ES considered that by adhering to the CoCP and the NVMP no significant adverse noise impacts would arise during construction.
- 5.4.20 The ES considered that noise and vibration from the Tunnel Boring Machine (TBM) would have a neutral significance of effect. However, it considered that a slight adverse effect from vibration associated with percussive construction piling would occur [APP-031, Table 14-39]. However, paragraph 14.6.27 of the ES stated that percussive piling is only expected to occur for approximately 50 days of the four year construction programme.
- 5.4.21 Construction noise impacts from the proposed pre-cast tunnel manufacturing plant were discussed at the ISH on 18 Jan 2017. The Applicant submitted an assessment at D3 [REP3-020], as well as an environmental appraisal of the slurry TBM and treatment plant [REP3-021]. The reports separately considered the environmental effects of these aspects of the construction phase, both in isolation and also considered cumulative effects of both of these being operation concurrently. The assessments demonstrated that the overall effects with either or both of these options being utilised, fell within the parameters of the Proposed Development's assessed impacts as presented in the ES [REP3-016, item 6.14].

### ***Vibration Impacts***

- 5.4.22 The Applicant considered [REP1-166, NV22] that percussive hammer piling would predominantly occur during the construction of the temporary jetty (dredging) stage and was (at worst) a slight adverse significance of effect. Rotary bored piling activities would result in a neutral significance of effects as would the tunnel boring machine.

- 5.4.23 It confirmed in the ISH on 18 Jan 2017 [REP3-016, item 3.1] that no percussive piling is proposed on land. Controls over piling are contained in the CoCP [REP6-057] and would form part of the NVMP, which would be submitted for approval to the host LPAs under R5(3)(i).

### **Operation phase noise and vibration impacts**

#### ***Impacts from Traffic Using the Proposed Development***

- 5.4.24 The Applicant [REP3-015, item 3.2] explained that the modelled flows of traffic used in the noise assessments use the 18 hour Annual Average Weekday Traffic (AAWT) levels. The assumed traffic levels used in the noise assessment were provided in the Applicant's written summary of its oral representations at the traffic and transport modelling ISH on 17 January 2017 [REP3-015, item 3.5]. This explained why the 18hr AAWT levels for the Proposed Development are lower than the traffic levels used in the air quality assessments (which are based on 24hr Annual Average Daily Traffic (AADT) flows).
- 5.4.25 The expected 18 hr AAWT for the Silvertown tunnels were as follows, firstly for the 2021 Assessed Case:-
- northbound - 10,790
  - southbound - 10,654
- 5.4.26 The expected 18hr AAWT for the Proposed Development in the 2036 Assessed Case were:-
- northbound - 14,064
  - southbound - 13,905
- 5.4.27 The ES also considered [APP-031, paragraph 14.8.5] that changes in traffic levels as a result of the Proposed Development would result in both increases and decreases in noise in the short term and long term impact scenarios. These are presented in tables in Chapter 14 of the ES [APP-031] including 14-41, 14-44, 14-45 and 14-48. Adverse traffic noise impacts arising in the short term would be limited to slight adverse and would not be significant. In the long term, changes in road traffic noise would result in six dwellings in the Hoola Development experiencing a noise increase assessed as a moderate adverse effect. Further assessment work on these dwellings (as described at paragraph 14.8.5 of the ES [APP-031]) showed that the noise insulation at these dwellings would ensure that internal noise levels would not exceed the threshold of 'reasonable' identified in BS8223:2014. The ES concluded that significant adverse impacts from noise on health and quality of life would be avoided. This was reiterated by the Applicant's responses to the Panel's FWQs [REP1-166, Appendix E] which concluded that the internal noise climate within the Hoola Development would be acceptable both during the daytime period and during the overnight period with the implementation of the Proposed Development.

5.4.28 The Applicant explained [REP1-166, NV2 and NV3] that all of the roads within the Order Limits would have low noise surfacing. This would be secured through R12(2) of the Applicant's final dDCO [REP7-026]. In addition the proposed noise barriers, which are shown on ES Drawing 14.6, road traffic noise mitigation [AS-020], which was updated at D6 [REP6-049], and the general arrangement plans [APP-005] were taken into account in the assessment of road noise impacts. These mitigation measures would also be secured through R12(2) of the Applicant's final dDCO [REP7-026]. R12(5) requires the written scheme of proposed noise mitigation measures to reflect the mitigation measures included in the environmental statement or, demonstrate that any different measures would not give rise to any materially new or materially different environmental effects to those presented in the ES.

### **Issues Arising and Further Mitigation Proposed**

#### ***Proposed Barriers at Siebert Road and Westcombe Hill***

- 5.4.29 In the ISH on air quality, noise and other environmental issues on 18 January 2017, the Panel asked whether the noise impacts of over-height vehicles (OHV) travelling north through the Proposed Development had been considered, as these are currently unable to use the northbound Blackwall tunnel, due to height restrictions. The Applicant provided a report which considered the impacts of 400 OHVs travelling northwards along the A102, [REP2-041]. The Applicant summarised the conclusions of this report [REP3-016, item 6.4], stating that the inclusion of 400 OHVs would not materially change the conclusions of the ES in terms of long and short term operational noise effects.
- 5.4.30 The Applicant further addressed concerns from IPs regarding the 'worst case scenario' of 520 additional Heavy Goods Vehicles (HGVs), instead of 400, [REP4-047]. This figure was derived from the number of vehicles over 4m in height that use the Blackwall tunnel southbound on a weekday (around 660 vehicles) and around 210 on an average weekend day [REP3-015, item 3.1, bullet point 4].
- 5.4.31 This report [REP4-047] concluded that with the addition of 520 OHVs, the noise levels resulting would not be materially worse than the results presented in Chapter 14 of the ES and the conclusions related to the significance of effects for operational road traffic would remain as reported (and summarised in Table 14-51 of the ES [REP-031]).
- 5.4.32 The Westcombe Society and other IPs considered that the existing noise and pollution levels arising from traffic along the A102 was impacting upon their communities. They raised concerns about the additional lorries that would travel northbound if the Silvertown Tunnels were constructed. They considered that HGVs travelling at speed are noisy and multiple HGVs travelling at speed would be extremely disruptive [REP6-009].

- 5.4.33 The Applicant's proposals for Siebert Road noise barriers were submitted at D2 [REP2-040]. The noise barriers would be secured through the legal agreement with RBG, which had not been signed by the end of the Examination [REP7-044]. The Applicant confirmed their position at the ISH held on 18 January 2017 that the results of the noise assessment as presented in the ES did not identify a need for mitigation at Siebert Road as a result of the Proposed Development [REP3-016, item 6.1]. The Applicant had however committed to providing an acoustic barrier at Siebert Road to attenuate existing noise from the A102 as part of the legal agreement with RBG.
- 5.4.34 The Westcombe Society requested that it was extended to protect Invicta Primary School as well as the residential properties in Siebert Road and Westcombe Hill [REP3-053]. The Applicant explained [REP3-016, item 6.1] that their report on the barriers [REP2-040] did not refer to the school as this had not been previously suggested by RBG, who had suggested the barrier.

### ***Hoola Development***

- 5.4.35 In the Panel's FWQs, two questions were put to the Applicant concerning the assessment of noise and vibration effects at the Hoola Development [PD-006, NV.27 and NV.28]. In response, the Applicant prepared a technical note on noise and vibration impacts on the Hoola Development [REP1-166, Appendix E].
- 5.4.36 Following questions raised by the Panel in the ISH on air quality, noise and other environmental issues on 18 January 2017 and concerns raised by IPs, the Applicant submitted a draft construction noise and vibration mitigation scheme as Appendix G of the CoCP at D4 [REP4-035]. This included details in relation to temporary rehousing and noise insulation packages for affected households.
- 5.4.37 The CoCP was updated during the Examination, with the Applicant's final draft CoCP being a D6 document [REP6-057].
- 5.4.38 At the ISH on outstanding matters including environmental issues on 28 March 2017, the Applicant [REP6-073, item 7.4] confirmed that the Hoola Development had been constructed with a façade providing a modern standard of high quality sound insulation. This has arisen, not only from road traffic noise outside the buildings, but also due to the proximity of the approach and departure routes of LCY. It went on to explain that the Hoola Development already would have the sound insulation and ventilation provisions that their construction noise and vibration mitigation scheme would provide. It also explained that it was not predicted that the Hoola Development would not be eligible for noise insulation (where eligibility was assessed on outdoor noise predictions). The Panel considers that this means that the Hoola Development could qualify for noise insulation, should outdoor noise predictions indicate that it would be eligible.

## **PANEL'S REASONING AND CONCLUSIONS**

- 5.4.39 The ES identified that there would not be a significant effect upon noise levels as a result of the development either during construction or during the operational phase. The Applicant is proposing to use low noise surfacing throughout the Order Limits (final dDCO [REP7-026] R12(2)(b)) and is proposing various other noise and vibration mitigation measures in the CoCP [REP6-056], the noise and vibration mitigation plan required under R5(3)(i) of the Applicant's final dDCO [REP7-026] and R12 in relation to operational noise mitigation measures. Final dDCO R7 also secures pre and post-opening noise monitoring which must be carried out in accordance with the monitoring and mitigation strategy [REP7-049] certified under schedule 14 of the final dDCO.
- 5.4.40 The Panel notes that noise mitigation for the Hoola Development did not remain an outstanding issue in LBN's representations towards the end of the Examination [REP5-010], [REP6-023] or [REP7-004] and understands that these matters were agreed with the Applicant. The Panel is satisfied that suitable mitigation would be available for any affected residential dwellings, through Appendix G of the CoCP [REP6-056], if necessary. The final NVMP would have to be approved by the relevant planning authority under Requirement 5(3) (i) of the Panel's recommended DCO.
- 5.4.41 In terms of the additional 520 OHVs travelling northbound, the Panel accepts the conclusions of the two reports provided by the Applicant that these would not materially change the ES's conclusions regarding noise impacts. However, the Panel understands the concerns of the Westcombe Society that HGVs travelling at speed are noisy and multiple HGVs travelling at speed could be disruptive. In view of the proximity of the busy and noisy A102 to the Siebert Road residential and school receptors, the Panel finds that the construction of the proposed Siebert Road barriers would be essential prior to the construction of the Proposed Development even if they address primarily a pre-existing situation.
- 5.4.42 The Panel is satisfied that the Siebert Road environmental barriers would be agreed and delivered as part of the proposed legal agreement with RBG. The Panel considers that the SoS should ensure that the legal agreement has been agreed and signed prior to making the DCO. This matter is discussed further in our report Chapter 9.
- 5.4.43 Otherwise, the Panel finds that the Applicant has adopted a reasonable and proportionate approach to assessing the noise impacts arising from the Proposed Development. It considers that the range of noise mitigation measures secured through requirements in the DCO is adequate and sufficiently flexible to protect noise sensitive receptors.
- 5.4.44 The Panel concludes that the Applicant's proposed mitigation measures including low noise surfacing, barriers and mitigation during construction would be sufficient to ensure that a significant noise

impact does not occur at any of the identified sensitive receptors. It would therefore accord with paragraphs 5.186 to 5.200 of the NPSNN. It is also in accordance with paragraph 123 of the NPPF and the associated guidance contained in the PPG on noise.

## **5.5 OTHER CONSTRUCTION IMPACTS**

### **INTRODUCTION AND POLICY BACKGROUND**

#### **Introduction**

- 5.5.1 This section of Chapter 5 considers impacts that would arise from the construction of the Proposed Development arising from artificial light and considers the complaints procedures that the Applicant would implement during the construction phase of the development. It also addresses and concludes upon issues related to the decommissioning of temporary structures required for the construction phase of the Proposed Development and the matter of statutory nuisance.
- 5.5.2 Impacts arising from aerial emissions during construction including particulates and pollutants are considered in report section 5.3; those relating to noise and vibration are discussed in report section 5.4, and impacts from construction upon biodiversity interests are contained in report section 5.15.

#### **Policy background**

- 5.5.3 The National Policy Statement for National Networks (NPSNN) explains in paragraph 5.81 that artificial light has the potential to have a detrimental impact upon amenity or cause a common law nuisance or statutory nuisance under Part III of the Environmental Protection Act (EPA) 1990. It goes on to explain that it is important that the potential for these impacts is considered by the Applicant in their application, by the Examining Authority (ExA) in examining applications and by the Secretary of State (SoS) in taking decisions on development consents.
- 5.5.4 Furthermore, in paragraph 5.83 it is noted that for nationally significant infrastructure projects (NSIPs), some impact upon amenity for local communities is likely to be unavoidable. Impacts should be kept to a minimum and should be at a level that is acceptable.
- 5.5.5 Turning now to the matter of common law nuisance and statutory nuisance, the NPSNN, paragraph 4.57 explains that section 158 of the Planning Act 2008 (PA2008) provides a defence of statutory authority in civil or criminal proceedings for nuisance. Such a defence is also available in respect of anything else authorised by an order granting development consent. The defence does not extinguish the local authority's duties under Part III of the Environmental Protection Act (EPA) 1990 to inspect its area and take reasonable steps to investigate complaints of statutory nuisance and to serve an abatement notice where satisfied of its existence, likely occurrence or recurrence.

- 5.5.6 Further, in paragraph 4.58, it explains that it is very important that during the Examination of an NSIP, possible sources of nuisance under s79(1) of the EPA 1990, and how they may be mitigated or limited are considered by the ExA so that they can recommend appropriate requirements that the SoS might include in any subsequent Order granting development consent.
- 5.5.7 The National Planning Policy Framework (NPPF), paragraph 125 requires that planning decisions limit the amount of light pollution from artificial light on local amenity.

## **THE APPLICANT'S APPROACH**

### **Lighting during construction**

- 5.5.8 The new temporary jetty would be lit for safety and operational purposes. Lighting would consist of fixtures on 20m high masts on the new temporary jetty bridge and 25m long masts on the new temporary jetty head. The lighting on the jetty head would be facing out to the watercourse to assist unloading and loading operations. Cowling and reflectors would be used to avoid excessive light pollution to surrounding areas.
- 5.5.9 The Applicant, in response to the Panel's first written question (FWQ) LI1, explained [REP1-172] that the preliminary lighting design had been undertaken in accordance with BS4589-1:2013 and the guidance contained in the Institute of Lighting Professionals document, 'guidance notes for the reduction of obtrusive lighting GN01:2011 [REP1-172, Appendix A]. It continued to explain that Requirement (R) 3 of the draft Development Consent Order (dDCO) would require the development to be designed and implemented in accordance with the design principles [APP-096].
- 5.5.10 In addition, R5(2)(e) of the Applicant's final dDCO [REP7-026] would require the Applicant to prepare a lighting management plan in consultation with the relevant planning authority, the Port of London Authority (PLA) and the Environment Agency (EA).

### **Decommissioning temporary structures**

- 5.5.11 The ES [APP-031, paragraph 5.2.32] explained that the impacts that would arise from the decommissioning of the temporary structures were considered as part of the construction impacts.
- 5.5.12 Decommissioning the temporary jetty and any other temporary structures within the River Thames would be controlled through the deemed Marine Licence (DML), in paragraph 12 of Schedule 12 to the dDCO [REP7-026]. The Applicant considered that any impacts that would arise from decommissioning the jetty in both the terrestrial and marine environment would be controlled through the Code of Construction Practice (CoCP) [REP3-016, agenda item 3.5].

- 5.5.13 Article (A) 29 of the Applicant's final dDCO [REP7-026] would require the Applicant to remove all temporary works and to restore the land to the reasonable satisfaction of the owners of the land.

### **Lorry routing and hours of working during construction**

- 5.5.14 Matters relating to lorry routing would be controlled through the construction traffic management plan (CTMP) for each worksite, which would be approved by the relevant Local Planning Authority (LPA). The CoCP [REP6-056, paragraph 3.1.4 to 3.1.7] identified the details that would be contained in the CTMP documents. The CTMP would be secured through R5(3)(e) of the Applicant's final dDCO [REP7-026].
- 5.5.15 Hours of working were provided in the CoCP [REP6-056, paragraphs 2.3.1 to 2.3.4]. Normal working hours during construction would be 08:00-18:00 Monday to Friday and 08:00 to 13:00 on Saturdays, with no working on Sundays or bank/public holidays. The contractor requires a period of up to 1 hour before and after the normal working hours for start-up and close down activities which would include preparation, maintenance, training, site briefings and meetings. Plant and machinery which would be likely to cause a disturbance to local residents or businesses must not be operated during the start-up or close down times. The hours of working specified in the CoCP are secured through Requirement 5 of the dDCO [REP7-026].
- 5.5.16 Tunnel boring and associated activities would be carried out on a 24 hours a day, seven days a week basis. These are identified in paragraph 2.3.4 of the CoCP [REP6-056] and include movement of tunnel spoil using conveyors and HGVs (in accordance with the CTMP) and barges.

### **Complaints procedure**

- 5.5.17 The Applicant submitted a statement in respect of statutory nuisance [APP-088], which explained that various provisions of section 79(1) of the Environmental Protection Act (EPA) 1990 could potentially be engaged, in respect of dust, steam, smell or other effluvia, artificial light, noise or any other matter declared by any enactment to be a statutory nuisance. It considered [APP-088, paragraphs 5.11 to 5.1.3], that with the mitigation that is proposed, in place, it was not expected that there would be a breach of section 79(1) of the EPA during construction or operational activities.
- 5.5.18 The Applicant would however set up and maintain a 24 hour telephone helpline service. All calls, emails and complaints would be logged. The Applicant would establish and maintain a community liaison group and a construction information website. These commitments, provided in the CoCP [REP6-056] would be secured through DCO R5.

### **ISSUES ARISING**

- 5.5.19 The Applicant's response to the Panel's FWQs [REP1-172] explained that the limits on lighting to be used on the temporary jetty would be



secured by the CoCP [REP6-056], as the final bullet point of paragraph 8.1.1.

- 5.5.20 Royal Borough of Greenwich (RBG) raised concerns about the Construction Environmental Management Plan (CEMP) during the Examination [REP2-015, within the revised matrix of issues], they explained that they considered that the CEMP and topics covered by the CoCP required clarification and detail. RBG later [REP6-028] and [REP7-011] requested that the CEMP is a part of the DCO.
- 5.5.21 RBG also stated [REP1-001] and [REP1-002] that they would wish to see lorry routes confirmed via the DCO which would preclude the subsequent rat-running where HGVs divert onto local roads, such as Westcombe Hill. This remained a concern of RBG throughout the Examination; at D7 [REP7-011] they explained that although paragraph 3.1.7 of the CoCP specifies the principle routes (with other routes to be approved by the LPA approved CTMP), they would wish to see named safeguards for the north and south HGV routes which run parallel to the A102 between and including Maze Hill and Charlton Lane (including Westcombe Hill) as part of the DCO.

#### **THE PANEL'S REASONING AND CONCLUSIONS**

- 5.5.22 The Panel notes that lorry routing to and from the construction worksites would be controlled through the CTMP that is secured through DCO R5(3)(e). We consider that RBG would have sufficient control over the content of the CTMP (which would have to be approved by the LPA in consultation with the relevant Highway Authority), thus ensuring that it contains sufficient details and controls for the areas that are of concern to them.
- 5.5.23 The Panel also notes that the CEMP, secured through the Applicant's final dDCO [REP7-026] in R5(2)(a) would be prepared in consultation with the relevant planning authority and the PLA. The Panel agrees with RBG that the CEMP is an important document which is used by the contractor during the construction period. The Panel recognises that the CoCP provides the overarching details in relation to controlling construction impacts, but it does not contain site/location specific details. We consider that it is very important to control impacts on a local basis during construction to ensure that impacts are kept to a minimum. We conclude that the CEMP should also be approved by the LPAs in consultation with the PLA, and so in the recommended DCO (rDCO) in Appendix D, the CEMP details have been moved to R5(3)(k) to achieve this.
- 5.5.24 The Panel finds that impacts arising from the construction phase including light and decommissioning the temporary structures required during the construction phase, subject to the approval of the CEMP by the LPAs, would be adequately controlled through the DCO, the CoCP and related plans and strategies. These impacts would be controlled to an adequate level and the Proposed Development therefore it accords with the NPSNN and NPPF regarding these construction impacts.

- 5.5.25 The defence to proceedings in respect of statutory nuisance is provided in Article 62 of the Applicant's final dDCO [REP7-026]. The Panel is satisfied that there would be sufficient mechanisms within the DCO requirements for monitoring, management and mitigation of any potential impacts upon human receptors during construction. Together with the complaints procedure provided in the CoCP [REP6-056] these would provide a suitable and deliverable response mechanism for minimising impacts from construction and dealing with complaints when they arise.
- 5.5.26 The Panel concludes that the wording of A62 of the Applicant's final dDCO is acceptable and has carried this forward to the Panel's rDCO in Appendix D.

## **5.6 HEALTH IMPACTS**

### **INTRODUCTION AND POLICY BACKGROUND**

#### **Introduction**

- 5.6.1 This section of Chapter 5 considers impacts from the Proposed Development upon human health. Our report section 5.3 provides the Panel's assessment of impacts from the Proposed Development upon air quality and report section 5.4 provides the Panel's assessment of impacts in respect of noise and vibration. The key findings from those report sections are taken into account here.
- 5.6.2 The Panel considered that potential impacts of the Proposed Development upon human health was a principle issue for the Examination, in relation to air quality, noise or other possible significant effects upon human health [PD-004].
- 5.6.3 The concerns raised by Interested Parties (IP) in their representations regarding air quality impacts from the Proposed Development upon the health of local residents remained an issue during the Examination, these are discussed in paragraph 5.6.17-5.6.20.
- 5.6.4 The Panel's agenda for the Issue Specific Hearing (ISH) on air quality, noise and other environmental issues on 18 January 2017 [EV-025] considered matters relating to impacts upon human health linked to air emission issues.
- 5.6.5 In addition, the Panel asked Public Health England (PHE) a question about whether they were satisfied with the mitigation proposed by the Applicant in relation to locations and sensitive receptors where there would be a significant impact in terms of predicted air quality changes, in their first written question (FWQ) AQ9 [PD-006].

#### **Policy Background**

- 5.6.6 The National Policy Statement for National Networks (NPSNN) explains in paragraph 4.79 that national road and rail networks have the potential to affect the health, well-being and quality of life of the

population. They can have direct impacts on health because of traffic, noise, vibration, air quality and emissions, light pollution, community severance, dust, odour, polluting water, hazardous waste and pests.

5.6.7 It goes on to explain in paragraph 4.81 where the proposed project has likely significant environmental impacts that would have an effect on human beings, the environmental statement (ES) should identify and set out the assessment of any likely significant adverse health impacts.

5.6.8 NPSNN Paragraph 4.82 requires applicants to identify measures to avoid, reduce or compensate for adverse health impacts as appropriate, including cumulative impacts upon health.

## **APPLICANT'S APPROACH**

### **Introduction**

5.6.9 The Applicant's ES [APP-031] included Chapter 18, a summary of health and equality effects. A Health and Equalities Impact Assessment (HEqIA) was also submitted [APP-090].

### **Noise impacts upon human health**

5.6.10 Six dwellings in proximity to the Proposed Development were predicted in the ES to be above the significant observed adverse effect level noise levels during the operational phase of the Proposed Development [APP-031, paragraph 14.8.5]. These were dwellings in the Hoola Development, which would experience increases in noise as a result of changes in traffic flow and composition along Tidal Basin Road, assessed in the ES as a moderate adverse effect. However, further assessment work undertaken by the Applicant, showed that the noise insulation at these dwellings would ensure that internal noise levels would not exceed the threshold of 'reasonable' identified in the relevant British Standard. The Applicant concluded [REP1-166, Appendix E] that the internal noise climate within the Hoola Development would be acceptable during both the daytime and night-time periods with the implementation of the Proposed Development.

### **Air quality impacts upon health and equalities**

5.6.11 In terms of impacts upon human health arising from air quality impacts, the HEqIA [APP-090, paragraph 11.8.5] explained that the largest deterioration in air quality (in relation to NO<sub>2</sub>) was predicted at the ground floor of the westernmost edge of the Hoola Development. Air quality impacts in relation to these receptors are considered by the Panel in report section 5.3.

5.6.12 The HEqIA [APP-090, Table 11.5] considered equalities effects resulting from changes in air quality during the operational phase. It stated that low income groups could be affected disproportionately as a result of air quality changes. In addition, disabled people could be particularly sensitive to deteriorations in air quality. Older people and

children were not considered to be disproportionately affected by changes in air quality.

- 5.6.13 The HEqIA considered effects on equalities groups (low-income, children, older people and pregnancy and maternity) resulting from changes in noise levels as a result of the Proposed Development. The summary of those effects was provided in [APP-090, Table 10.8]. It stated that low income groups could be affected disproportionately as a result of changes in noise levels during the operational phase of the Proposed Development. In addition, the equality group 'pregnancy and maternity' may potentially experience negative health effects as a result of increased noise levels due to sleep disruption or mental health issues. Children and older people were not considered to be disproportionately affected by noise impacts.
- 5.6.14 It concluded, in paragraph 11.10.8 [APP-090] that overall, the health impacts attributable to likely changes in air quality resulting from the operation of the Proposed Development, were expected to be negligible for the population studied.
- 5.6.15 It also considered health effects arising from light pollution [APP-090, section 13.5], noting that light emissions from various sources are already prevalent in the locality of the Proposed Development, including street lighting and lighting at nearby industrial areas and the O<sub>2</sub> arena. Significant night-time visual effects would be avoided by the use of cut-off, directional lighting. This would limit contributions to sky glow and glare. The Code of Construction Practice (CoCP) [REP6-056, section 12.2] provided details of temporary lighting during construction; the lighting management plan would be secured through Requirement 5(2)(e) of the Applicant's final dDCO [REP7-026].
- 5.6.16 The HEqIA considered [APP-090, paragraph 14.3.4] that there would be no significant in-combination effects on health, wellbeing and equalities during the construction or operation of the Proposed Development.

### **ISSUES ARISING**

- 5.6.17 A number of IPs raised concerns about impacts upon human health in their Relevant Representations (RR). These included, but were not limited to Andrew Beswetherick [RR-096], Andrea Carey Fuller [RR-098], Purnendu Roy [RR-344] and Ian Gibson [RR-352] who all raised concerns about the number of deaths in London that are attributable to pollution from motor vehicles. Friends of the Earth Hackney and Tower Hamlets explained that Tower Hamlets has the third highest figure for early deaths attributable to air quality in London [RR-245].
- 5.6.18 Several IPs raised concerns about the impacts of air pollutants from vehicles in terms of causing asthma and other respiratory diseases. These included Jane Lawson [RR-140], Susan Jenkins [RR-204], Myles Bartoli [RR-206], Joan Sakkas [RR-211] and Carmel Durkin [RR-218].

- 5.6.19 Friends of the Earth (FoE) [RR-343] stated that in addition to the legal imperative for action to reduce air pollution in London, there is also a strong moral case for Londoners' health. The fact that the Proposed Development would worsen air pollution in some locations means, in their view, that it is not acceptable.
- 5.6.20 However, PHE, in their RR [RR-289] noted that the Applicant's ES had considered current developments and those where planning permission has been agreed in the cumulative impact assessment. They considered that it was reassuring that the proposer's HEqIA concluded that following a population exposure analysis of the study area, there would be no significant change in the population exposure to NO<sub>2</sub> or particulate matter as a result of the scheme. They also noted that the Applicant intended to undertake air quality monitoring prior to and during the operation of the scheme.
- 5.6.21 In response to the Panel's FWQ, [REP1-074], PHE considered that there was scope to implement landscaping/urban greening in the vicinity of the Hoola Development, as there is significant and growing evidence on the health benefits of access to good quality green spaces. PHE also explained that, due to limited resources, they were unable to provide comments in relation to aspects of the application which related to noise exposure/mitigation.
- 5.6.22 PHE's response to the Panel's Rule 17 request for information [REP1-183] explained that they had noted that the receptor locations that are predicted to be above or close to the EU limit value for NO<sub>2</sub> (40µg/m<sup>3</sup>) were predicted to experience improvements or insignificant changes in air quality as a result of the scheme being implemented (the Assessed Case), compared to it not being implemented (the Reference Case). Hence, in their minds, it appeared that the Proposed Development had '*no significant impact overall upon local air quality during the operational phase*'. They also reiterated their position that they would encourage any new road to consider, if practicable and cost effective, opportunities to secure improvements in air quality.
- 5.6.23 PHE's final representation to the Examination [REP3-046] explained that the Applicant's updated air quality impact assessment had been undertaken with some additional modelling to estimate the projected concentrations if the scheme was operational in 2023 rather than 2021. The new figures provided reassurance that provided the scheme is operational in 2023, not 2021, the exposure to NO<sub>2</sub> in the vicinity of the Hoola development would be below the current air quality standard for NO<sub>2</sub>. PHE continued to encourage the Applicant to provide green space within the development and encouraged the Applicant to make continued efforts to identify opportunities to improve air quality or options to mitigate adverse impacts.
- 5.6.24 The Applicant's response, reported in [REP3-046] was that the Hoola Development was outside the Order Limits and the Proposed Development would not impact upon the Hoola Development's

landscaping scheme. There would be no scope to provide additional landscaping there.

## **PANEL'S REASONING AND CONCLUSIONS**

- 5.6.25 The Panel's findings and conclusions in respect of air quality impacts are provided in section 5.3 of this report, and those in respect of noise impacts are in section 5.4. Matters regarding equalities issues are reported in Chapter 7 of our report. The Panel is satisfied that the Proposed Development would not give rise to any health impacts in relation to light pollution, community severance, odour, polluting water, hazardous waste or pests.
- 5.6.26 The Panel understands the concerns that IPs raised in respect of impacts from the Proposed Development upon human health, in particular in relation to air quality.
- 5.6.27 However, the Panel also notes and takes comfort from the representations from PHE, reported above in respect of air quality. We accept that the Applicant could not provide green infrastructure at the Hoola Development as it is outside the Order Limits and the development is almost wholly built-up to the highway margin, so there is no available space. We are also satisfied with the agreed mitigation measures for biodiversity impacts, reported in section 5.15 of our report. We also consider that the Applicant has addressed PHE's concerns that they would encourage any new road development to include, if practicable and cost effective, opportunities to secure improvements in air quality, through the agreement of the air quality management plan and air quality monitoring and mitigation that are secured through Requirement (R) 5(3)(a) and R7, as well as those in R13 (for the cross-river bus service) and the provision of a trial scheme for cross river cycle movements, intended to be secured with the host authorities in the legal agreements as referred to more fully in section 5.13 of this report.
- 5.6.28 We are satisfied that with the mitigation now secured in various requirements in the Applicant's final draft Development Consent Order (dDCO), as well as the Panel's recommended changes to the dDCO, in relation to noise and air quality impacts. We consider that with the proposed additional mitigation to reduce those impacts, discussed in section 5.3 and 5.4 and Chapter 9 of our report, in relation to the noise barriers for Siebert Road and retro-fitted ventilation mitigation for the Hoola Development, it would contribute to safeguarding against any harmful impacts upon human health.
- 5.6.29 The Panel concludes that the Proposed Development would not give rise to any harmful impacts upon human health.

## **5.7 GEOLOGY, SOILS AND CONTAMINATED LAND**

### **POLICY BACKGROUND**

- 5.7.1 The National Policy Statement for National Networks (NPSNN) in relation to pollution control and other environmental protection regimes, in paragraph 4.50, explains that in deciding the application, the Examining Authority (ExA) and the Secretary of State (SoS) should focus on whether the development itself is an acceptable use of land, and of the impacts of that use, rather than the control of processes, emissions and discharges themselves. They should assess the impacts of these to inform decision making, but should work on the assumption that in terms of control and enforcement, the relevant pollution control regime would be properly applied and enforced.
- 5.7.2 The NPSNN in paragraph 5.117 states that where necessary, land stability should be considered in respect of new development, as set out in the National Planning Policy Framework (NPPF) and supporting guidance. Proposals should prevent unacceptable risks from land instability.
- 5.7.3 It goes on to state, in paragraph 5.118 that applicants should ensure that any necessary investigations are undertaken to ascertain that their sites are and will remain stable or can be made so as part of the development.
- 5.7.4 The NPPF in paragraph 120 explains that when a site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the developer and/or landowner. Paragraph 121 requires planning decisions to ensure that the site is suitable for its new use including land remediation or impacts on the natural environment arising from that remediation. It also states that adequate site investigation information, prepared by a competent person, should be presented.

### **APPLICANT'S APPROACH**

#### **Introduction**

- 5.7.5 The Applicant considered geology, soils and contaminated land in Chapter 12 of the Environmental Statement (ES) [APP-031]. This was updated at deadline 1 (D1) [REP1-105], with a track change edition of the document also submitted to the Examination [REP1-106].
- 5.7.6 The Applicant also submitted technical appendices to Chapter 12 of the ES and ground investigation reports at D1 as follows :-
- Ground investigation report borehole location plan and geological long sections [APP-069];
  - Settlement assessment report [APP-070]; and
  - Ground investigation reports [REP1-156] to [REP1-163];
  - Silvertown Tunnel preliminary dewatering risk assessment (Appendix K to U) [REP1-164];

- Silvertown Tunnel unexploded ordnance report (Appendix V to Y)[REP1-164];
- Technical analyses concerning prospective unexploded ordnance survey (Appendix Z) [REP1-164];
- Seastar survey Thames Estuary unexploded ordnance survey (Appendix AA) [REP1-164]; and
- Greenwich Peninsula Environmental Method Statement (Appendix BB to DD) [REP1-165].

- 5.7.7 The Applicant explained in their covering letter to their D1 submissions [REP1-092] the reasons for the updated geology, soils and contamination Chapter. Changes related to the consideration of the limits of deviation and clarification of trigger levels for groundwater monitoring, responding to that issue in the EA's Relevant Representation (RR) [RR-299].
- 5.7.8 The Applicant described the geology of the Proposed Development site in its updated ES [REP1-105, paragraphs 12.4.6 to 12.4.9]. It included extensive areas of made ground at both the Silvertown and Greenwich sites. The majority of the area is underlain by superficial deposits comprised of alluvium that rests on river terrace deposits. The underlying solid geology is comprised of the Thames Group, which consists of London Clay Formation, which overlies the Harwich Formation. This lies unconformably<sup>64</sup> on top of the Lambeth Group (which comprises the Woolwich Formation) which in turn lies unconformably on top of the Thanet Sand Formation, which overlies the Chalk.
- 5.7.9 The updated ES [REP1-105, paragraph 12.4.11 - 12.4.12] explained that a number of 'scour hollows' were considered likely to be present in the vicinity of the site; one on the alignment of the Blackwall Tunnel, one at the mouth of the River Lea, and one near the historical Butane Store at the East Greenwich Gasworks. The location of structural geological features was provided [REP1-105, Figure 12-1].
- 5.7.10 The Proposed Development would be located within an area of London which is known to have been heavily bombed during the Second World War. The Applicant commissioned an unexploded ordnance threat assessment as part of its desk study [REP1-105, paragraph 12.4.28]. Further unexploded ordnance survey reports were summarised in the ground investigation report which were requested by the ExA as part of the FWQ's and provided by the Applicant at D1 [REP1-156] to [REP1- 165]. A specific unexploded ordnance assessment was also undertaken to assess the area of the proposed new temporary jetty [APP-046].
- 5.7.11 The ES also reported that the northern and eastern parts of the Greenwich Peninsula were occupied by one of the largest gas works in

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<sup>64</sup> Unconformably, in relation to rock strata means that a series of younger strata do not succeed the underlying older rocks in age or in parallel position, as a result of a long period of erosion or non-deposition.



Europe until the 1970s. These contained a range of associated industries, including a large tar works, chemical works and a power station. Numerous contaminant sources for the Silvertown and Greenwich sites were identified [REP1-105, paragraphs 12.4.40 to 12.4.54].

- 5.7.12 The Proposed Development would fall within a part of the area covered by the Greenwich Peninsula Environmental Method Statement (EMS) (as identified in Table 12-1 of the ES [REP1-105]. As part of their Relevant Representation (RR), the EA noted that an updated EMS documentation was available [RR-299]. At D1 the Applicant provided a copy of the revised version [REP1-165] and the EA confirmed in their response to FWQ GS5 that the overall principles are unlikely to change between drafts [REP1-061].
- 5.7.13 The Applicant explained that the envisaged construction of the scheme would include limited dewatering requirements, which would be dependent on the strata encountered and excavation method adopted [REP1-105, paragraph 12.5.5], however dewatering during tunnel construction using the tunnel boring machine (TBM) was not expected to be necessary as it would rely on a closed face pressure balancing system of operation. Some initial dewatering may be required during the launch of the TBM.
- 5.7.14 In order to manage historic pollution, the Applicant explained that the mitigation measures contained in the Code of Construction Practice (CoCP), the last version of which was submitted to the Examination at D6 [REP6-057], were designed to avoid and limit potentially adverse impacts, including the development of a risk mitigation strategy should existing risks and impacts be identified that the Proposed Development could exacerbate [REP1-105, paragraph 12.5.6]. The management of groundwater ingress and dewatering through the implementation of control measures was included in the CoCP. In addition, a groundwater monitoring and verification plan, would be required to be submitted and approved pursuant to Requirement 5(3)(h) of the final draft Development Consent Order (dDCO) [REP7-026] by the Local Planning Authority and the Environment Agency (EA).
- 5.7.15 In response to the Panel's first written question (FWQ) on the environmental permits that would be required [REP1-155], the Applicant explained that as part of the pre-construction process, permits and licences may be required. Applications would need to be made at detailed design stage for the following:-
- an environmental permit for a discharge licence, should the waste water meet the standards required for discharge; and
  - an environmental permit for a mobile plant treatment plant licence, for example for treatment of contaminated soils prior to their re-use on site.

- 5.7.16 Assessment and mitigation of any settlement that could be induced by a greater zone of influence by large scale dewatering would be undertaken by the Contractor's dewatering design detail, with recommendations for mitigating against any adverse settlement impacts being secured through the CoCP [REP1-105].

### **Impacts**

- 5.7.17 The updated ES [REP1-105, paragraphs 12.6.47 to 12.6.50] considered that with suitable mitigation delivered through the scheme design and secured as part of the CoCP (dDCO, Requirement 5), the construction effects of the Proposed Development during construction would be, at worse, slight adverse in significance. These effects are summarised in Table 12-11 of the updated ES [REP1-105].
- 5.7.18 The updated ES [REP1-105, paragraphs 12.6.47 to 12.6.50] considered that with suitable mitigation (such as passive groundwater level management, where required), the operational impacts on groundwater levels and flow in the shallow aquifer would reduce the significance of effect to neutral.
- 5.7.19 The significance of effects in terms of exposure to contamination of maintenance workers, users of the Proposed Development, ecological receptors land users is also considered to be neutral through adherence to the Greenwich Peninsula EMS in mitigation measures in detailed design [Table 12-12 of REP1-105].
- 5.7.20 The significance of ground settlement effects on the built environment, during the operational phase, after mitigation was considered to be slight adverse [REP1-105, paragraph 12.6.52]. This matter is considered in relation to possible impacts upon the Grade II listed Blackwall Tunnel gatehouse in report section 5.18.
- 5.7.21 There were no cumulative impacts on geology, soils or groundwater [REP1-105, paragraphs 12.7.2 to 12.7.6].

### **ISSUES ARISING AND FURTHER MITIGATION PROPOSED**

- 5.7.22 The Panel asked the Applicant, in its FWQ [PD-006, GS12] where the ES provides details to satisfy the NPPF requirement that where a site is affected by contamination or stability issues, responsibility for securing a safe development rests with the developer and/or landowner. The Applicant's response [REP1-155] explained that such measures are secured in the CoCP [REP6-057]. They also explained that a pollutant release from, say, a tanker spillage in the tunnel, would be contained by the design of the tunnel as a fully sealed, closed system with contaminant measures to capture pollutants. It considered [REP1-155, paragraph GS12.5] that taking into account the mitigation measures proposed, there was not considered to be a significant effect on receptors from contamination. This document went on [REP1-155, paragraph GS.12.14] to explain that the ES would satisfy the NPPF requirement that the development would result in a safe development in terms of land stability.

- 5.7.23 The EA [REP1-060] and [REP3-050] also sought a DCO requirement to secure future ground investigations, any necessary remediation works and a verification report confirming that any contamination risks had been addressed.
- 5.7.24 In the unsigned Statement of Common Ground (SoCG) with the EA [REP3-011, paragraph 4.2.1], it was stated that the EA considered that these matters were agreed in principle, subject to agreeing the wording which relates to this. Paragraph 12.9.3 of the updated ES [REP1-105] stated that an operational groundwater damming and contamination risk assessment would be required at the detailed design stage and that suitable mitigation would need to be incorporated into the detailed design if appreciable risks were identified. In response to the Panel's second written question (SWQ) 2.3, the EA confirmed their satisfaction with draft DCO Requirement 5(3)(h) [REP7-026] relating to the groundwater monitoring and verification plan and that this would mitigate the risk of groundwater damming effects from underground structures.
- 5.7.25 The Panel's revised dDCO, issued on 20 March 2017 [PD-013] contained a new Requirement (Requirement 15 in relation to contamination and remediation, which was based upon the wording proposed by the EA [REP4-001]. The matter was also discussed at the ISH on 28 March 2017 where the Applicant agreed to the inclusion of the additional Requirement [REP6-073]. The Applicant had changed the lay-out of this requirement in its dDCO [REP7-026], but the content and direction of the revised wording remained as suggested initially by the EA.

### **PANEL'S REASONING AND CONCLUSIONS**

- 5.7.26 The Panel is satisfied that the Applicant has suitably considered the matters of contaminated land, land stability and risks arising from pollution and unexploded ordnance within the ES and later documents submitted to the Examination. The latter is addressed in the Code of Construction Practice (CoCP) [REP6-056, section 9.6], which is secured through dDCO Requirement (R)5 [REP7-026].
- 5.7.27 We have considered the potential impacts from pollutants upon ground water, having based our decisions upon the assumption that it terms of control and enforcement, the relevant pollution control regime would be properly applied and enforced.
- 5.7.28 We note the EA's representation at D7 [REP7-015] stated, '*we can confirm that subject to the inclusion of our preferred Protective Provisions, we are satisfied that all other matters which we have previously raised have now been mitigated, or appropriately secured through the DCO.*' The EA's concerns over Protective Provisions at that time relating to flood defences, are discussed in report section 5.8. This D7 statement helps to confirm that the EA's early concerns over future ground investigations, any necessary remediation works and a

verification report in respect of contamination risks had been suitably resolved before the end of the Examination.

- 5.7.29 The Panel is satisfied that the requirements in the Applicant's final dDCO [REP7-026], including R5(3)(h) (CoCP and related plans and strategies) and R15 (contaminated land), together with the relevant parts of the CoCP (version 4) [REP6-57], would provide suitable sufficient mitigation to ensure that the Proposed Development would not give rise to significant impacts upon any existing contaminated land or upon land stability and the development itself would be stable. The Panel is also satisfied that the Proposed Development would adhere to the overarching principles of the Greenwich Peninsula EMS as secured by section 9 of the CoCP (version 4) [REP6-057].
- 5.7.30 The Panel concludes that the Proposed Development would accord with the policy requirements in the NPSNN in respect of land stability and contaminated land. It also accords with the NPPF, paragraphs 120 to 121, in respect of the Applicant's responsibilities for securing a safe development and its proposals for dealing with land remediation.

## **5.8 SURFACE WATER, FLOOD RISK AND HYDROLOGY**

### **INTRODUCTION AND POLICY BACKGROUND**

#### **Introduction**

- 5.8.1 This part of the report considers:-
- flood risk;
  - water quality;
  - Water Framework Directive compliance; and
  - drainage matters.
- 5.8.2 In addition, cumulative effects upon the water environment in relation to other nearby projects or plans are considered in the 'Impacts from the Proposed Development' section.
- 5.8.3 These matters were identified by the Panel in its initial assessment of principle issues [PD-04]. The matter of flood risk, in particular, continued to be an issue that the Environment Agency (EA) and host authorities (London Borough of Newham (LBN) and the Royal Borough of Greenwich (RBG)) raised concerns over in their representations and in contributions provided at the Issue Specific Hearings (ISHs). Both the ISH on air quality, noise and other environmental issues on 18 January 2017 and the ISH on any other outstanding issues including environmental matters on 28 March 2017 considered flood risk and surface water issues. In addition, both sets of the Panel's Written Questions raised matters regarding flood risk, water quality and drainage [PD-006] and [PD-012].

## **Policy Background**

### ***National Policy Statement for National Networks (NPSNN)***

- 5.8.4 The impacts of national networks projects upon water quality and resources are considered in NPSNN paragraphs 5.219 to 5.231. It recognises, in paragraph 5.219, that infrastructure development can have adverse effects on the water environment, including groundwater, inland surface water, transitional waters (bodies of surface water in the vicinity of river mouths which are partly saline but which are substantially influenced by freshwater flows) and coastal waters. It also states that during the construction and operation of the development, there can be increased demands for water, discharges to water and adverse ecological effects resulting from physical modification to the water environment. There may also be increased risks of spills and leaks of pollutants. These impacts could compromise environmental objectives established under the Water Framework Directive (WFD)<sup>65</sup>.
- 5.8.5 It goes on to explain in paragraph 5.220 that the Government's planning policies make clear that the planning system should contribute to and enhance the natural and local environment by preventing new development from contributing to water pollution. It states that where applicable, a Development Consent Order application must have accompanying information identifying water bodies in a River Basin Management Plan.
- 5.8.6 NPSNN explains in paragraph 4.50, that activities that discharge to the water environment are subject to pollution control. Decisions under the Planning Act 2008 should complement but not duplicate those taken under the relevant pollution control regime.
- 5.8.7 Paragraph 4.52 states that there is a statutory duty on applicants to consult the Marine Management Organisation (MMO) on nationally significant infrastructure projects (NSIPs) which would affect, or be likely to affect, any relevant marine areas. The consent issued by the Secretary of State (SoS) may include a deemed marine licence and the MMO will advise on the conditions that should be applied to the licence.
- 5.8.8 Flood risk is covered in NPSNN in paragraphs 5.90 to 5.115. A Flood Risk Assessment (FRA) should be carried out for NSIP applications which lie in flood zones 2 and 3 (medium and high probability of river and sea flooding) and in flood zone 1 (low probability of river and sea flooding). It goes on to explain, in paragraph 5.94, the matters that the FRA should address. In paragraph 5.95 it explains that further guidance can be found in the Government's planning guidance supported by the National Planning Policy Framework (NPPF).

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<sup>65</sup> The Water Framework Directive (2000/60/EC)

- 5.8.9 The NPSNN in paragraphs 5.98 to 5.108 explains that the SoS should be satisfied that where flood risk is a factor in determining an application for development consent, the applicant should apply the sequential test as part of the site selection and, if required, the exception test. In addition, the SoS should be satisfied that flood risk would not be increased elsewhere.
- 5.8.10 In paragraph 5.103, the NPSNN explains that the design of linear infrastructure and the use of embankments may mean that linear infrastructure can reduce the risk of flooding for the surrounding area. In such cases the SoS should take account of any positive benefit to placing linear infrastructure in a flood-risk area. In the following paragraph, it states that where linear infrastructure has been proposed in a flood risk area, the SoS should expect appropriate mitigation measures to have been made, to ensure that the infrastructure remains functional in the event of predicted flooding.

### ***The Thames Estuary 2100 Plan (TE2100)***

- 5.8.11 The Thames Estuary 2100 Plan (TE2100) [REP1-154, Appendix A], (November 2012) was prepared by the EA in order to recommend how to manage tidal flood risk to the end of the century and beyond. It explains how London's communities and London property will continue to be protected from flood risk. It recommends the actions that the EA and others will need to take in the short, medium and long term. It identifies that when the Thames Barrier (which is downstream of the Proposed Development) is closed against high tides, there is a difference of up to 2m either side of the barrier.

## **THE APPLICANT'S APPROACH**

### **Introduction**

- 5.8.12 The Applicant's approach to addressing flood risk, surface water quality, surface water drainage and hydrology in relation to the effects arising from the Proposed Development is provided in the environmental statement (ES) Chapter 16 [APP-031]. Chapter 16 was updated at deadline 1 (D1) [REP1-109], which was accompanied by a track change copy [REP1-110]. In addition, the Applicant submitted the following relevant documents with the application or at a later stage during the Examination:-

- Water Framework Directive Assessment [APP-066];
- Water Framework Directive River Basin Management Plan Second Cycle Waterbody data [APP-083];
- FRA [APP-077];
- Hydrodynamics Modelling [APP-078];
- Flood Warning and Evacuation Plan [APP-079];
- River Wall Structural Survey [APP-080];
- Off-site river sediment chemistry data [APP-081];
- On site survey factual report and information [APP-082];
- Updated FRA [AS-019];

- Water Framework Directive Assessment [REP1-117]; and
- Water Framework Directive Assessment (with track changes) [REP1-118].

5.8.13 The study area used by the Applicant in preparing the ES Chapter on flood risk and surface water is shown on drawing number 16.1 Waterbodies and Watercourses, Thames River Basin District [APP-041]. This was updated for D6 [REP6-051]. It included the area within the Order Limits and the proposed location of the temporary jetty, in addition to downstream reaches of the River Thames.

5.8.14 Other surface water features in the Applicant's study area included:

- The River Lea which has its confluence with the River Thames near to the western boundary of the proposed Silvertown worksite;
- The Royal Victoria Dock, a tidal basin located adjacent to the north eastern boundary of the Order Limits at Silvertown;
- A minor watercourse, known as 'The Cut', that has an open channel section located approximately 120m south-west of Dock Road within the Silvertown site and an associated balancing pond; and
- An un-named minor water-course that has an open channel section located approximately 180m north-west of the southern portal of the Proposed Development.

5.8.15 The area that the Applicant studied to prepare the surface water and FRAs was described as being characterised by highly urbanised land use and a gently undulating topography. Ground levels vary between 3m and 7m above ordnance datum (AOD). The study area receives an annual rainfall of approximately 570mm and its hydrology is dominated by the River Thames [REP1-110, paragraph 16.4.4]. The River Thames supports various functions including the transport and dilution of waste water discharges, commercial and recreational navigation and diverse fisheries.

### **Flood Risk**

5.8.16 The updated ES Chapter 16 [REP1-110] explained that as the Proposed Development would be mostly located within Flood Zone 3, the 1:200 year floodplain, so in accordance with the NPSNN, a stand-alone FRA was prepared [APP-077]. A small part of the Silvertown site would be located in Flood Zone 2, the 1:1000 year flood plain. The FRA was updated once during the Examination [AS-019].

5.8.17 The Applicant collected baseline data from various sources as well as carrying out modelling studies and surveys. To quantify flood conditions associated with potential breaches of the River Thames defences at sites local to the scheme, bespoke breach modelling was undertaken. Three time horizons were modelled; 2005, 2065 and 2115 (including allowances for tide level increases due to climate change).

- 5.8.18 The updated ES [REP1-110, paragraph 16.4.77] explained that the future direction for flood risk management in the study area is set out in the TE2100, which states that existing flood defences will be maintained and improved to ensure a 1 in 1000 standard of protection to the year 2100.
- 5.8.19 A Flood Warning and Evaluation Plan [APP-079] was included as Appendix 16.C to the ES. This would be updated during the detailed design of the Proposed Development and approved by the Local Planning Authority (LPA) in consultation with the EA under Requirement (R) 5 of the Applicant's final draft Development Consent Order (dDCO) [REP7-026].
- 5.8.20 The Applicant also carried out a visual river wall structural condition survey of the key sections of river defences within the Order Limits [APP-080]. The flood defences along the River Thames in the study area comprise of raised, man-made river walls that are privately owned and are the responsibility of the riparian owners. The updated ES reported [REP1-110, paragraph 16.4.61] that the EA inspects the walls twice a year and they must be maintained by their owners to a statutory crest level of 5.18m AOD. The main source of risk was considered to be residual risk, from a breach of existing defences in combination with extreme tide levels in the Thames Estuary.

### **Water Quality**

- 5.8.21 The updated ES Chapter 16 considered the potential impact of the Proposed Development on surface water quality, considering both chemical water quality and suspended solids. The impact assessment was carried out using guidance in the Design Manual for Roads and Bridges (DMRB), volume 11, section 3, part 10 and also included a consideration of cumulative impacts. Potential impacts for both the construction phase and operational phase of the scheme were considered.
- 5.8.22 An assessment of the impacts of the construction of a new temporary jetty at the Silvertown worksite, including the associated dredging that would be required on water quality (chemical and suspended solids), hydrodynamics and sediment scour was also undertaken. Information from modelling studies was used to inform a qualitative assessment of the potential for mobilisation of sediment transportation during dredging operations. Surface sampling of river sediments and sampling of sediment cores was also undertaken in winter 2015/16 in order to obtain sample chemical analysis used to inform the assessment of the new temporary jetty and dredging activities.

### **Water Framework Directive Compliance**

- 5.8.23 The WFD requires the physical, ecological and chemical conditions of waters to be assessed, with a plan of action put in place to improve the condition towards achieving, 'Good' status. The ES was



accompanied by a WFD assessment [APP-066] which was updated during the Examination [REP1-118].

### **Drainage Matters**

- 5.8.24 The Applicant provided details in relation to the management of surface water drainage within the updated ES [REP1-110] and the Code of Construction Practice (CoCP), the last edition submitted to the Examination was [REP6-056].
- 5.8.25 The ES [REP1-110, paragraph 16.5.2-16.5.5] explained that during the construction phase a drainage system would be operational which would help limit the potential for pollution of surface waters associated with construction site run-off. The drainage system would have pollution control systems for example oil interceptors and facilities to control run-off from earthworks and allowing silt to settle before discharge within consented parameters. The Proposed Development would provide permanent drainage systems for the new structures and highways created, improving the quality of drainage discharges to receiving waters, the Cut and the River Thames.
- 5.8.26 Pollution prevention and control measures would be controlled by measures within the CoCP, which sets out the framework for the Construction Environmental Management Plan (CEMP) which would be prepared by the contractor prior to construction starting.
- 5.8.27 Any ingress of water into excavations would be pumped to a suitable settlement lagoon or tank and the clear water discharged into the drainage system to meet the requirements of any discharge consent. The list of consents and permits that would be required as a result of the DCO being granted were listed in the Applicant's document [APP-106] which was updated twice during the Examination. The Applicant's final version was provided in response to the Panel's second written question (SWQ) GA2.6 [REP4-051]. This identified that, if the Development Consent Order was made, the Applicant would, depending upon the construction methodology used, require environmental permits under the Environmental Permitting (England and Wales) 2016 (EPR) Regulations for discharges to water.

### **BASELINE CONDITIONS**

#### **Flood Risk**

- 5.8.28 The ES reported [REP1-110, paragraph 16.4.68] that the majority of the study area is located in an area of 'very low' surface water flood risk (less than 1:1000 chance). However there are some small isolated areas at 'low' risk (between 1:1000 and 1:100 chance), medium (between 1:100 and 1:30 chance) and high (greater than 1 in 30 chance). The location of the proposed approach road to the southern portal of the Silvertown tunnel is in an area classed as at low risk of surface water flooding.

- 5.8.29 The EA's Written Representation (WR) [REP1-060] identified that at least one flood defence wall (Zone 12) in the Applicant's study area is in such poor condition that the Applicant did not wish to carry out intrusive investigations for fear of causing further structural harm. This section is immediately above the line of the tunnel on the northern bank. Other sections of the northern bank were also reported to be in poor condition and may need rebuilding or strengthening.

### **Water Quality**

- 5.8.30 Potential sources of contamination and the most likely possible contaminants in sediment for the Silvertown work site were provided in the ES, Table 16-6 [REP1-110]. This identified a range of potential contaminants associated with various industrial activities dating back, in one instance to 1855. Other potential contaminants are from more recent sources.
- 5.8.31 ES Table 16-8 [REP1-110] summarised the sediment total concentration analysis data (for samples within the Order Limits) and compared these to the relevant UK Actions Levels (ALs) and Canadian Effect Levels (ELs). These levels are detailed in ES [REP1-110, paragraph 16.4.12]. The total concentrations, when compared to the Centre for Environment, Fisheries and Aquaculture Science (Cefas) ALs and Canadian ELs, showed occasional (1 in 12 samples) exceedances of lead, cadmium and mercury. In the proposed dredge area, all exceedances were found in one sample VIB04 (the location of the vibrocore samples is shown on the drawing entitled, River Sediment Sample Locations - Investigation on Site [REP6-051]).
- 5.8.32 The ES considered [REP1-110, paragraph 16.4.39] that the sediment samples collected within the Order Limits showed the continued improvement in sediment concentrations of trace metals in the River Thames. Localised occasional elevated concentrations that were found were considered likely to reflect historic contamination. The ES [REP1-110, paragraph 16.5.15] explained that various measures would be taken to minimise the effects of dredging associated with the temporary jetty, including limiting the areas of dredging to a minimal footprint, avoiding summer/low river flow periods if possible and managing spill water decanting from the excavated material transport barge or minimise locally high concentrations of suspended sediments and changes in water quality. Assessment of the dredged material for disposal is considered in report section 5.9.

### **Water Framework Directive Compliance**

- 5.8.33 The ES [REP1-110] reported that the current ecological status of the River Thames is 'Moderate', with a predicted status in 2027 of 'Moderate'. The chemical status of this waterbody complies with WFD targets for priority hazardous substances. The River Thames and River Lea are classified as heavily modified waterbodies. The current ecological potential is limited by a number of supporting elements,

including dissolved inorganic nitrogen and dissolved oxygen (linked to sewer network discharges).

- 5.8.34 The ES reported that the water quality in Royal Victoria Docks was not assessed by the EA under the WFD. However, it is reported as generally having good water quality and meets the Bathing Water Directive standards [REP1-110, paragraph 16.4.49].

### **Drainage Matters**

- 5.8.35 The ES [REP1-110, paragraph 16.4.69] explained that surface water runoff from the study area is drained by a sewer system comprising an integrated network of sewers that ultimately discharge into the River Thames. The existing drainage catchment of the Silvertown site comprises North Woolwich Road, Dock Road, the A1020 Lower Lea Crossing and the A1011, Silvertown Way. The drainage system on these roads is mainly kerb and gully discharging into carrier drains. In the northern portal area four existing waste handling and recycling sites at Thames Wharf drain, via a balancing pond to 'The Cut', which in turn discharges to the River Thames via an outfall check valve, recessed into the river wall. The ES reported that the Greater London Authority (GLA) has recently carried out works on The Cut, so that at high tide river water from the Thames is prevented from surcharging The Cut and balancing pond and surface water drainage systems have been restored.

## **IMPACTS FROM THE PROPOSED DEVELOPMENT**

### **Flood Risk**

- 5.8.36 The ES considered that during the construction phase baseline standards of fluvial/tide flood protection would be maintained. This is because the design of the Proposed Development would ensure that there would be no impact upon the structural integrity of the river walls; and if needed, following intrusive surveys of the river walls, if remediation works are required, then the Applicant would undertake these works prior to the construction of the scheme. [REP1-110, paragraph 16.6.19].
- 5.8.37 The permeability of the floodplain alluvial layer, through which the tunnel would be bored, would make ground water infiltration into the tunnel a potential risk. This would be mitigated by design to ensure that groundwater ingress would be restricted. The groundwater flood risk impact was considered to be minor adverse with an overall residual significance of effect that is slight adverse [REP1-110, paragraph 16.6.21].
- 5.8.38 During operation, the FRA [AS-019] identified that over the lifetime of the Proposed Development, as a result of climate change, the current standard of flood protection (1:1000 year) would not be maintained, resulting in increased flood risk to the tunnel approaches and the tunnel itself, from overtopping and breach of existing defences. Current defences are sufficient to prevent overtopping to the year

2065; during 2065-2100 defences would need to be upgraded as outlined in the TE2100. The river wall structural survey [APP-080] concluded that the relevant sections of the river wall have the potential to support future raising.

- 5.8.39 The Applicant explained that the construction of the Proposed Development is not anticipated to affect the integrity of the existing river walls [REP1-110, paragraph 16.6.19]. Measures to prevent or reduce flood risk impacts were provided in the Code of Construction Practice (CoCP), the last edition which was submitted to the Examination was revision 4 [REP6-056]. Those measures would include:-
- to minimise the impact of settlement during boring of the tunnels, good tunnelling practice would be implemented, including continuous working;
  - erecting linings immediately after excavation;
  - grouting;
  - management of the tunnel face pressures; and
  - monitoring settlement.
- 5.8.40 The ES considered that the design of the Proposed Development would mitigate the risks of flooding from groundwater ingress and also ensure that surface water runoff is managed so that there would be no increase in flood risk resulting in an effect that has a neutral significance [REP1-110, paragraph 16.6.32].
- 5.8.41 Operational areas at the southern portal would be at a residual risk of flooding should a breach of the River Thames defences occur. The Applicant's modelled data show that the flooding would be to relatively considerable depths and the southern portal area would rely heavily upon the existing river walls to protect the development from flood risk [REP-110, paragraph 16.6.34]. Mitigation in these events would consist of putting into place the Flood Warning and Evacuation Plan [APP-079], which would be updated during the detailed design phase and approved under Requirement (R)5 of the Applicant's final draft DCO [REP7-026], by the LPA in consultation with the EA.
- 5.8.42 In addition, protection of the river walls is addressed in the Protective Provisions (PPs) in favour of the EA, set out in the Applicant's final dDCO, Schedule 13, Part 5 [REP7-026]. The dDCO would require the Applicant to undertake further surveys, assessments, and prepare and submit plans and proposals for the river walls and provide a schedule of defects prior to commencement of any works which would be likely to impact a flood defence. All these matters would have to be approved by the EA prior to commencement and implemented in accordance with the approved designs. However, the Applicant's responsibilities in relation to maintenance of the river walls was an ongoing issue during the Examination that remained unresolved and this is reported in paragraphs 5.8.61 to 5.8.67.

## **Water Quality**

- 5.8.43 The ES considered [REP1-110, paragraph 16.4.33-16.4.36] that very small increases in contaminant concentration would arise, due to the proposed re-suspension of sediments arising from dredging activities.
- 5.8.44 The Applicant explained that the Thames Middle Transitional Waterbody is failing for zinc, the analyses undertaken also showed relatively high levels of copper, tributyltin (TBT), benzo(a)pyrene, and benzo(g,h,i)pyrenes.
- 5.8.45 As TBT is banned for anti-foulant use in the United Kingdom (UK), the ES expected levels in the marine environment to be decreasing, if slowly, as existing levels of TBT in sediment degrade. The proposed dredging would remove some sediment-bound TBT, leading to long term improvement. Given the concentration of TBT, zinc and benzo-pyrenes within the water body, and the very low temporary additions as a result of dredging, the ES considered that the temporary dredging works would not lead to a significant impact on water quality.
- 5.8.46 The ES concluded that the construction impacts on the suspended solids concentrations in the Thames would be negligible and the significance of effect on hydrodynamics and sediment transport in the River Thames neutral [REP1-110].
- 5.8.47 The Applicant's measures to minimise the effects on water quality from dredging associated with the temporary jetty are documented in the CoCP revision 4 [REP6-056, paragraph 15.4.3].
- 5.8.48 There would be a risk of pollution associated with the construction of the tunnel, portals, highway network and the temporary jetty. Accidental spills of oil, chemicals and fuel from mobile and static construction plant would pose the greatest risk. Cement dust and concrete preservatives entering watercourses through dust or run-off could also be detrimental to water quality and aquatic organisms. The mitigation measures proposed within the code of construction practice (CoCP) would result in a slight adverse impact limited to minor incidents, rapid containment and clear-up [REP1-110, paragraph 16.6.17].
- 5.8.49 During the operational phase the risk of impact on surface water quality would be reduced to negligible with an overall residual significance of effect that is neutral. [Table 16-14 of REP1-110].
- 5.8.50 The ES concluded that the residual significance of effects on the River Thames, River Lea (Bow Creek), Royal Victoria Dock, The Cut and the un-named water-course in the southern portal study area, in terms of water quality, flood risk, water resources - water supply and transport/dilution of wastes is neutral. [Table 16-14 of REP1-110].

## **Water Framework Directive Compliance**

- 5.8.51 In conclusion, the ES [REP1-110, paragraph 16.4.35 to 16.4.36] considered that the proposed works at Silvertown are not expected to lead to a long-term deterioration of the assessed contaminants within the Thames Middle Transitional Waterbody. However short-term, short scale increases in concentrations of contaminants could be expected as a result of the dredging needed for the temporary jetty construction, with any small scale uplift in levels returning to background levels very quickly. Paragraph 16.6.13 explained that the Proposed Development would not prevent the water body from meeting its WFD objectives.

## **Drainage Matters**

- 5.8.52 The ES [REP1-110] explained that cut-off drainage would be provided at the tunnel portals to prevent ingress of rainfall run-off from the approach roads into the tunnel. A drainage sump would be located at the tunnel portals which would provide an intercept and storage facility for collected surface water run-off, as well as a reception chamber for water being pumped back from the low point sump in the middle of the tunnel. The residual significance of effect on surface water risk, mitigated by construction phase drainage design was considered to have a negligible magnitude of impact, having an overall residual significance of effect that is neutral.
- 5.8.53 Sustainable drainage system principles including both flow attenuation and treatment were incorporated into the surface water system as far as was possible, due to the constraints of the scheme. The underlying principles of the sustainable drainage system are set out in the FRA [AS-019] and the development would have to be carried out in accordance with the FRA under R 11 of the DCO.
- 5.8.54 The ES concluded that because the Proposed Development would include improved drainage systems, it would result in a minor beneficial magnitude of impact to the water quality of The Cut, resulting in an overall significance of neutral.
- 5.8.55 The PP in favour of the EA, in the Applicant's final dDCO [REP7-026] would require the Applicant to maintain all of the drainage works within the limits of deviation of the Order Limits, during the construction phase.

## **Cumulative Impacts**

- 5.8.56 The Applicant reported that the master planning for a significant new development on the Greenwich peninsula was underway at the time of preparation of the ES and the FRA for that scheme included a commitment to raise the existing river walls to 6.2m AOD. When constructed, the higher walls would benefit the whole of the Greenwich peninsula including the proposed Silvertown tunnels, which would result in a potential moderate beneficial cumulative effect [REP1-110].

## ISSUES ARISING

### Introduction

5.8.57 The issues that arose during the Examination in relation to surface water, flood risk, and hydrology were as follows:-

- flood risk - the impact of the development on the river walls;
- impacts upon water quality from the potential release of suspended sediments or contaminants during dredging and construction of the temporary jetty;
- jetty pile scour; and
- surface water drainage matters.

### Flood Risk

5.8.58 Ms S Boner [RR-086] raised flood risk concerns in her Relevant Representations (RR), explaining that the Blackwall Tunnel had had to close for flooding due to heavy rain in the past.

5.8.59 The EA confirmed it was satisfied with the way that the sequential and exception tests were addressed in the FRA [REP1-061]. The Statement of Common Ground (SoCG) between the Applicant and the EA [REP3-011] also confirmed *'that in principle, the FRA methodology and findings of the likely effects of the Scheme and the conclusions reached within Chapter 16 Surface Water Quality and Flood Risk of the ES (Document Reference 6.1) are robust and reflect advice provided by the Environment Agency during the pre-application Stage'*.

5.8.60 The EA maintained their concerns about the Applicant's proposed wording of the PP in favour of the EA, in respect of flood defence matters, throughout the Examination. The EA explained [REP6-021] that the main dispute with the Applicant was over the maintenance of the flood defences. The Applicant is seeking to dis-apply the Metropolis Management (Thames River Prevention of Floods) Amendment (MMTRPF) Act 1879, in Article 3 of the dDCO [REP7-027]; this piece of legislation places an obligation for the riparian owners to maintain the river wall in London, which is unusual. The EA would only agree to such a disapplication if the Applicant takes on the responsibility to maintain the river wall in a 'fit for purpose' condition and to the statutory levels<sup>66</sup> to which the riparian owners would be liable to maintain it, if the EA took enforcement action against them.

5.8.61 The EA had explained [REP5-026] that the river walls on the northern bank are ageing, and in many cases are in poor condition. They expected that some would last beyond the construction of the Proposed Development, but others (in particular zone 12) would be undergoing remedial repairs in 2017. On some other sections of the

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<sup>66</sup> The Panel understands these to be 5.18m AOD now, rising to 5.7m AOD in the year 2065 and 6.2m AOD in the year 2100 [REP1-060, item 1.3].

wall, (zones 2, 6, 7 and 8), the Applicant was not able to demonstrate that these would be able to withstand the expected loadings associated with the Silvertown tunnel construction programme. The locations of these zones are shown in the river wall structural survey [APP-080]. The EA considered that it was likely that some strengthening/improvements to the walls would be necessary during the construction phase to ensure that an appropriate standard of flood defence is maintained to low lying areas behind the river wall.

- 5.8.62 The EA [REP6-021] explained that the Applicant was only prepared to accept an obligation to maintain the river wall to the same standard of repair as it was before the commencement of the relevant works.
- 5.8.63 The EA also did not consider it reasonable to seek to disapply the MMTRPF Act for a significant period which is likely to be 9 years. The Applicant's final draft of the DCO [REP7-027] at A3 requires the disapplication to apply for the construction and a maintenance period defined in A30.
- 5.8.64 The EA, in [REP6-021] and [REP7-015] further explained that in trying to reach agreement they had suggested both an alternative form of PP wording and an alternative solution for constructing and maintaining a temporary secondary line of flood defences to the statutory level to the landward side of the existing defences. The latter solution was reported as not acceptable to the Applicant [REP6-021].
- 5.8.65 The alternative wording of the PP was provided in a further D6 EA representation [REP6-022]. The EA's preferred wording for paragraph 7 of the PP in relation to Maintenance of the Flood Defences, if incorporated into the DCO, would require the Applicant to maintain the river walls (and any other drainage works) in a fit for purpose condition and, where applicable, to the statutory defence level (or lower level if agreed by the EA). The statutory defence level was confirmed at D7 [REP7-015] to be at 5.18m AOD.
- 5.8.66 The EA's preferred wording for PP paragraph 7 is:-

'Maintenance of the flood defences

*7.—(1) Subject to the provisions of this Schedule and except to the extent that the Agency or any other person is liable to maintain any drainage work and is not precluded by the exercise of the powers of this Order from doing so, TfL must from the commencement of the construction of the specified works until their completion maintain any drainage work which is situated within the limits of deviation or on land held by TfL for the purposes of or in connection with the specified works fit for purpose and where applicable to the statutory defence level (or such lower level as shall be agreed with the Agency) and free from obstruction, whether or not the drainage work is to be constructed under the powers of this Order or is already in existence.*

*(2) If any such work that TfL is liable to maintain under sub-paragraph (1) is not maintained to the reasonable satisfaction of the Agency, the*



*Agency may by notice in writing require TfL to repair and restore the work, or any part of it, or (if TfL so elects and the Agency in writing consents, such consent not to be unreasonably withheld), to remove the work and restore the site to its former condition, to such extent and within such limits as the Agency reasonably requires.*

*(3) If, within a reasonable period being not less than 20 business days beginning with the date on which a notice in respect of any work is served under paragraph 7(2) on TfL, that person has failed to begin taking steps to comply with the reasonable requirements of the notice and has not thereafter made reasonably expeditious progress towards their implementation, the Agency may do what is necessary for such compliance and may recover any expenditure reasonably incurred by it in doing so from that person.*

*(4) In the event of any dispute as to the reasonableness of any requirement of a notice served under paragraph 7(2), the Agency must not, except in a case of immediate foreseeable need, exercise the powers of paragraph 7(3) until the dispute has been finally determined. '*

- 5.8.67 The Applicant did not accept this wording for paragraph 7 of this PP in its final dDCO [REP7-026], nor did it accept the EA's definition of 'fit for purpose flood defence', instead defining 'the statutory defence level' as 5.18m AOD. The Applicant explained [REP6-073, item 12.1] that it should be responsible only for the maintenance of the river walls, not for their rebuilding as that is the responsibility of the riparian owners. Whilst it was in discussions with the riparian owner of zone 12, at that time, the Applicant confirmed that works in relation to this zone of river wall would only be undertaken in lieu of compensation payment to that land interest and not on any other basis.

### **Water Quality**

- 5.8.68 The MMO, in their WR [REP1-046], stated that their advisory body (Cefas) had raised concerns that the modelling used for assessing suspended sediment transport did not consider the worst case scenario. Cefas advised that the modelling should take account of the more consolidated clays collected during the January 2016 survey. The Applicant [REP2-044] considered that their approach to hydrodynamic modelling was appropriate. The MMO [REP6-004] confirmed it is content that a safeguard is in place under draft deemed marine licence (DML) condition 5 to enable the MMO to request further assessment or the agreement of a monitoring and/ or mitigation strategy post consent, and prior to the commencement of any works. MMO's final representation to the Examination [REP7-016] stated that whilst Cefas still had some continued concerns regarding potential for impacts on water quality, they note that they are content to defer to the opinion of the EA on water quality as they are the statutory body responsible for water quality in UK inshore and estuarine waters.

- 5.8.69 The EA, in its Relevant Representation (RR) [RR-299], stated that the Applicant's original WFD assessment did not satisfactorily demonstrate WFD compliance. In response, the Applicant provided updated an WFD assessment with revised calculations of sediment contribution [REP1-117]. The EA, at the ISH of 18 January 2017, confirmed acceptance of these calculations [REP3-050, item 11.2]. This was also confirmed in the Applicant's post-hearing written summary [REP3-016, item 11.2]. The SoCG between the Applicant and the EA stated that the conclusions of the assessment with regard to hydromorphology are agreed [REP3-011].
- 5.8.70 In addition, at the ISH on 28 March 2017, the Panel asked the Applicant and the MMO to provide an update on whether there would need to be additional suspended sediment surveys undertaken and whether a scour and accretion monitoring and mitigation strategy would be necessary. The Applicant explained [REP6-073, item 10.3] that following discussions with NE and Cefas, it was agreed that no further suspended solids modelling was required. The Applicant considered that the requirement for any monitoring and mitigation would best be determined when the detailed construction and dredging methodology was submitted to the MMO for approval. The Panel notes that these matters are included as paragraph 5 of the DML.
- 5.8.71 The conclusions of the updated WFD assessment [REP1-118] are reported in paragraph 5.8.51. They stated that overall there would not be a deterioration of the physico-chemical status of the waterbody nor would the development prevent the waterbody from meeting its objectives.
- 5.8.72 The Applicant's final dDCO [REP7-026], in Schedule 12 (the dML), paragraph 6 requires the licence holder to submit a marine pollution contingency plan, for approval to the MMO, at least six weeks prior to the commencement of any marine licensed activity. The marine pollution contingency plan would need to be prepared in consultation with the EA and PLA. The dML, at paragraph 7 also prohibits any discharge of waste concrete slurry or wash water from concrete or cement into the river.

### **Scour**

- 5.8.73 The EA, in their WR [REP1-060], identified their ongoing concerns about the potential impact of scour on the flood defences which could potentially destabilise embedded river walls. They stated that the Applicant had consulted with them on a technical note on jetty pile scour in the nearshore, which was seeking to address this risk [REP3-032, Appendix 12]. The EA later confirmed [REP7-015] that all outstanding matters apart from the matter of the PP details relating to flood defences had been agreed.

## **Drainage Matters**

- 5.8.74 The Applicant confirmed [REP4-062] that the lead local flood authorities for the Proposed Development are LBN and RBG, who had been consulted on drainage matters.
- 5.8.75 LBN raised concerns about the levels of drainage provision within the dDCO not meeting the council's standards [REP6-023] for major development in terms of post development runoff rates. The proposed drainage scheme (regarding discharging to a combined sewer system) may not meet Newham's minimum policy requirements for major development in terms of post development runoff rates, which it explained was *'not more than 3 times the calculated greenfield peak runoff for events up to and including the 1 in 100 year return period, with an allowance for climate change, which reflects current guidance.'*
- 5.8.76 The Applicant explained [REP6-073, item 12.3] that they had concurred with LBN that these matters should be satisfactorily concluded and explained that LBN would have ultimate approval of the drainage design through R8 of the dDCO. Whilst there was no final confirmation of agreement on these matters from LBN, the Panel notes that LBN's final position statement did not mention drainage matters.
- 5.8.77 RBG [EV-053, item 12.4, approximately 2 hours 47 mins into the tape] confirmed in the ISH on outstanding and other environmental matters that their concerns in respect of drainage (identified in [REP4-014]) matters had been resolved, and drainage matters were not mentioned in their lists of outstanding matters at D6 [REP6-028] and D7 [REP7-011].

## **THE PANEL'S REASONING AND CONCLUSIONS**

- 5.8.78 The FRA would be a certified document under Schedule 14 of the Applicant's final dDCO [REP7-027] and the development would have to be carried out in accordance with it, under R11.
- 5.8.79 The only flood risk matter that was not agreed with the EA at the close of the Examination was the maintenance of the river walls during construction. The Panel notes the comment in the unsigned SoCG between the EA and the Applicant [REP3-011, item 5.3.2] stating that *'EA note it is common practice, in London specifically, for the EA to request developers to invest in improvements to flood defences, to demonstrate will be fit for purpose for the lifetime of the development.'*
- 5.8.80 The Panel considers that, in order to comply with NPSNN paragraphs 5.102 to 5.104, reasonable steps should be taken to avoid, limit and reduce flood risk on the proposed infrastructure and others. The Applicant is expected by the SoS to provide mitigation measures so that that infrastructure remains functional in the event of predicted flooding. The Panel considers, that without the PP required by the EA, the construction of the Proposed Development could cause increased

flood risk through further damage to river walls on the northern bank of the River Thames which are known to be in a poor state of repair.

- 5.8.81 The Panel concludes that the Applicant should be responsible for the maintenance and repair of the flood defences during construction and concludes that it agrees with the EA on these matters. The PP in favour of the EA should therefore include the wording drafted by the EA. The Applicant would be responsible for maintaining the flood defences during the construction phase, so that they remain in a fit for purpose condition, maintained at the statutory levels. The Panel's recommended DCO (Appendix D) reflects this.
- 5.8.82 The Panel is satisfied with all other flood risk matters, including the way that the Applicant has addressed the sequential test and exception test.
- 5.8.83 The Panel is satisfied that the Proposed Development would not have a significant effect on surface water quality during construction, through disturbance of sediments during dredging activities. We consider that these would be adequately controlled through measures in the CoCP and the deemed marine licence (DML) (Schedule 12 to the Applicant's final dDCO [REP7-027]).
- 5.8.84 The WFD assessment meets the requirements of the EA [REP3-011] and would be a certified document [REP7-026, Schedule 14] and the Panel has no reason to disagree. We are satisfied that the Application meets the requirements of NPSNN paragraphs 5.225 to 5.226 and it would have no effect on the achievement of environmental objectives established under the WFD.
- 5.8.85 Turning to surface water drainage matters, the Panel recognises that there may be a distinction between the technical drainage requirements of a tunnel and the more typical land based development that would normally accord with the LBN policy quoted in paragraph 5.8.75. However, we are satisfied that these would be managed to the satisfaction of the lead local flood authorities, under R8 of the Applicant's final dDCO [REP7-026]. In addition, the Applicant would need to apply for an environmental permit for any discharges to surface waters.
- 5.8.86 Overall, we consider that the impacts on the water environment have been adequately assessed and the mitigation measures proposed in requirements, the DML and the CoCP are sufficient. However the Panel is concluding that the PP in favour of the EA should be amended to require the Applicant to maintain and repair (if necessary) the river walls during construction in a fit for purpose condition, to the statutory levels. Without this change the requirements of the NPSNN regarding flood matters would not be met. Otherwise, the Panel is satisfied that the Proposed Development meets the requirements of NPSNN on flood risk, surface water and drainage and WFD matters.

## **5.9 DREDGING AND NAVIGATION**

### **INTRODUCTION AND POLICY BACKGROUND**

#### **Introduction**

- 5.9.1 This section reports on the impacts that would arise from the Proposed Development in respect of dredging works proposed and impacts upon navigational interests on the River Thames. Environmental impacts of dredging are considered elsewhere in our report. Section 5.8 addresses impacts from dredging on water quality, section 5.15 impacts from dredging on biodiversity interests and section 5.18 impacts arising from dredging on archaeological interests.
- 5.9.2 Impacts arising from the Proposed Development on safeguarded and non-safeguarded wharves are considered in our report section 5.14 that addresses industrial and commercial impacts.
- 5.9.3 Matters regarding dredging were identified in the Panel's initial assessment of principle issues [PD-004], specifically whether there would be any issues arising from dredging that could not be adequately mitigated through a construction environment management plan (CEMP), marine licensing or waste permitting regimes. Our principle issues also identified the need to consider the extent to which the Proposed Development would impact upon existing commercial and industrial operations during construction and operation.
- 5.9.4 In addition, the Panel asked various questions to the Applicant and other Interested Parties (IP) about dredging and navigation issues in their first written questions (FWQs) [PD-006], second written questions (SWQ) [PD-012], at the Issue Specific Hearing (ISH) on air quality, noise, and other environmental issues on 18 January 2017 and the ISH on any other outstanding issues including environmental matters on 28 March 2017.

#### **Policy Background**

- 5.9.5 The National Policy Statement for National Networks (NPSNN) in paragraph 5.202 explains that development of national networks can have a variety of impacts on the surrounding transport infrastructure including connecting transport networks. The consideration and mitigation of transport impacts is an essential part of the Government's wider policy objectives for sustainable development.
- 5.9.6 The NPSNN, in paragraph 5.205 informs applicants to consider reasonable opportunities to support other transport modes in developing infrastructure and in paragraph 5.206 requires applicants to consider whether significant impacts would arise from impacts upon transport networks, and if so, to describe those impacts and mitigation in the environmental statement (ES). In all other cases, the applicant's assessment should include a proportionate assessment of the transport impacts on other networks as part of the application.

## **APPLICANT'S APPROACH**

### **Introduction**

- 5.9.7 The Applicant considered dredging location and methods in section 4.4 of the construction method statement (CMS) [APP-046]. The CMS was updated at deadline 6 (D6) [REP6-054] with a track change edition also submitted to the Examination at that time [REP6-055].
- 5.9.8 Navigation impacts were considered (in relation to community and private assets) in Chapter 7 of the environmental statement (ES) [APP-031]. The application was accompanied by a navigational issues and preliminary risk assessment (NIPRA) [APP-054].

### **Dredging for the temporary jetty and preparation of the Not Always Afloat But Safely Aground (NAABSA) Berth**

- 5.9.9 Section 4.4 of the CMS [REP6-054] described the size and construction processes for the temporary jetty and preparation needed for the NAABSA berth. It explained that dredging would be required to improve tidal access for materials handling at the temporary jetty. Approximately 3m depth of material would be dredged from the jetty area. It would probably be carried out by a backhoe dredger excavating the river bed and emptying the dredged material into hopper barges. The Code of Construction Practice (CoCP) [REP6-056, paragraph 13.3.4] explained that material dredged from the river Thames would be assessed (along with all other excavated material) for their suitability at various waste receptor sites, through the receptor site assessment process (Appendix E to the CoTC).
- 5.9.10 The temporary jetty was designed so that it could be used on a 24 hour a day basis, consistent with 24 hour wharf usage in this part of the River Thames.

### **Navigation**

- 5.9.11 The ES [APP-031, paragraph 7.4.52] explained that the application area is within the Thames Barrier Control Zone of the River Thames, which is a controlled navigation zone. The ES further explained in paragraph 7.4.53 that there are three moorings adjacent to the Thames Wharf area (which includes Orchard Wharf, Victoria Docks Barge Roads Upper and Victoria Docks Barge Roads Lower), which are used for delivery and removal of materials via barges. The Victoria Docks Barge Roads Lower mooring would need to be removed and relocated in advance of tunnel construction. In addition, the Victoria Docks Barge Roads 2 Upper Mooring would be impacted during dredging, localised bed levelling and operation of the proposed temporary jetty which would require the temporary removal and relocation of the mooring during the construction phase.
- 5.9.12 River traffic on the Thames in the region of the Proposed Development consists mainly of passenger vessels, fast ferries, tugs and tows (waste transfer or barges delivering construction aggregates), service

vehicles and recreational vehicles such as dragon boats, kayaks and dinghies. In addition, there are multiple events held on the river every year including the Transport on the Water Barge Race and the Tall Ships event [APP-031, paragraphs 7.4.69 and 7.4.70].

- 5.9.13 Impacts from the Proposed Development upon river navigation were described in the ES [APP-031, paragraphs 7.6.20 to 7.6.25]. It considered that the temporary jetty and the NAABSA berth would give rise to a likely local increase in river traffic due to the use of the river for construction materials delivery and spoil removal. It further considered that any risks to navigation were considered to be 'as low as reasonably practicable' through the design and location of the structures.
- 5.9.14 The ES [APP-031] stated that there would be no permanent acquisition of the riverbed. The significance of impacts on river navigation was considered to be slight adverse.

## **ISSUES ARISING**

### **Introduction**

- 5.9.15 The main issues that arose during the Examination in relation to dredging and navigation were:
- impacts from dredging upon other river users;
  - impacts arising from the preparation of the NAABSA berth; and
  - other impacts upon river users in relation to navigation during the construction phase.

### **Impacts from Dredging**

- 5.9.16 The Marine Management Organisation (MMO) [REP1-046], in response to the Panel's FWQ DN6, explained that it is not always possible to determine exact quantities of dredge material before detailed design is undertaken, so it may be more suitable for specifics of the dredge not to be held directly in the deemed marine licence (DML) but rather through the submission and sign off of a method statement. This would allow the MMO to have a secondary approvals process to ensure that any works undertaken (in the marine environment) would be in line with the assessments in the ES.
- 5.9.17 However, the MMO [REP1-046] stated that the co-ordinates of the area to be dredged should be provided within the licensed activities section of the DML. These were subsequently included within the DML [REP3-004, Schedule 12], the last version of the draft Development Consent Order (dDCO) submitted to the Examination by the Applicant was [REP7-026]. The MMO were satisfied with the co-ordinates provided [REP4-010].
- 5.9.18 In response to the Panel's FWQ DN1[REP1-169], the Applicant explained that the dredging depth would be controlled through the DCO by the Protective Provision (PP) in favour of the Port of London

Authority (PLA) and through the method statement approval mechanisms within the DML. Dredging activities were anticipated to last 30 calendar days.

### **Impacts from the preparation and use of the NAABSA berth**

- 5.9.19 The Environment Agency (EA) in their Written Representation [REP1-060] explained that they had concerns about the proposed use of the NAABSA berth, in relation to whether the nature of the berth during construction would intensify the impact on the river wall, or if there would be a cumulative impact from numerous impacts occurring on the foreshore, as this could have a destabilising effect on the river walls. They stated that the Applicant would need to provide evidence to the EA that their activities would not cause a detriment to the defence of the river walls and they may need to carry out strengthening or other mitigation.
- 5.9.20 The Panel, in FWQ DN11[PD-006] asked the Applicant to explain what works would be required to re-commission the NAABSA berth. In response, [REP1-169, paragraph DN11.1] it was explained that the NAABSA berth was already present at Thames Wharf, in use and would not need to be re-commissioned. The likely maintenance works would consist of clearing the berth of debris, and if necessary provide a capping layer to create a uniform level bed. New fenders, emergency egress ladders and other life-saving appliances would be provided as necessary.
- 5.9.21 PLA [REP6-029] explained that the NAABSA berth is an important facility at Thames Wharf. Keltbray currently utilise it in their waterborne cargo handling operations. With the relocation of Keltbray as a result of the Proposed Development, PLA were not clear who would take on the long term river works re-licensing for the NAABSA berth. As a safeguarded wharf, it would be advantageous for the NAABSA berth to remain for any future user. However in the absence of a future user, PLA considered that the Applicant should be required to retain the berth on a river works licence until such time that it is transferred to an operator.
- 5.9.22 PLA confirmed [REP7-019] that at the close of the Examination matters in relation to the long term retention and maintenance of the NAABSA berth were not agreed. The Applicant [REP7-047] at that time, also considered that differences between the parties remained in respect of the long term maintenance of the NAABSA berth.

### **Impacts upon river users in relation to navigation during the construction phase**

- 5.9.23 The Relevant Representation (RR) from Thames Clippers [RR-134] expressed their concern regarding access for staff to their operation and base at North Greenwich Pier and Trinity Buoy Wharf. The RR from the Corporation of Trinity House [RR-014] explained that they



were interested in the possible effects of the construction of the Proposed Development on the safety of navigation.

5.9.24 The PLA [RR-285], in their RR explained that they are the statutory body responsible for the conservancy of the River Thames and the administration of navigation on the river. The area of the river affected by the Proposed Development is within the PLA's jurisdiction and the riverbed is owned by the PLA. Their concerns related to the effects of the Proposed Development upon the ship impact protection pontoons protecting the Emirates Air Line Tower and some Greenwich yacht club moorings and the PLA's mid-stream Barge Road Lower and Barge Road Upper moorings. At that point they had three other main concerns in relation to dredging and navigation:-

- PLA considered that the project could make more use of the river transport during construction;
- temporary works in the river should be constructed with minimum intrusion and proper safeguards on decommissioning;
- the level of impacts upon existing river users, particularly cargo handling operations, which could be severe.

5.9.25 In response to FWQ DN2 from the Panel, regarding impacts upon other river users, the Applicant [REP1-169] explained that together the NIPRA [APP-054], the dDCO and specifically the PPs for the benefit of PLA would address the need to maintain operation of all navigable interests in the River Thames. It further explained that current users of the mooring buoys would be affected and they would have to use a nearby, but an equivalent, re-provisioned facility. Prior to dredging activities and construction of the jetty commencing, a construction exclusion zone would be provided to the PLA pursuant to the NIPRA, so that a notice to mariners would be issued, such that during the dredging and jetty construction phase there would be no river movements in the exclusion zone. The demarcation zone would be outside the river Thames navigable channel, so it would not directly affect other river users passing the site in the navigable channel. Recreational users of the river would not be able to access the exclusion zone during the dredging and jetty construction phase. The exclusion zone would also be demarcated during decommissioning of the jetty.

5.9.26 The Applicant expected that the temporary jetty would be operational for approximately 4 years in the construction phase, during which time minimal dredging would be required [REP1-169, paragraph DN6.2].

5.9.27 The Applicant further explained that in order to manage the navigation risk matters, including the way that the Proposed Development would use the river for marine transport of materials, potentially affecting other river users, their contractor would be required, under Requirement (R)5 of the dDCO, to prepare a Passage Plan, to be approved by the PLA. The Passage Plan would include an update of the NIPRA and contain risk assessment measures identified in the Code of

Construction Practice (CoCP). The last edition of the CoCP to be submitted to the Examination was at deadline 6 (D6) [REP6-056].

- 5.9.28 The Applicant explained that the removal of the temporary jetty would be secured through the DML and the PPs in favour of the PLA [REP1-169, response to FWQ DN9]. On completion of construction of the Proposed Development, the temporary jetty would be removed.
- 5.9.29 The PLA [REP6-029] explained that agreement had been reached with the Applicant regarding temporary works in the river. The temporary jetty and related dredging works and construction operations must be carried out in the area delineated in relation to Works No 20A [REP7-026, Schedule 1] and shown on sheet 3 of the works plans [REP6-033]. At deadline 7 they stated [REP7-019] that the principle of river use during construction and protections for the PLA in respect of navigational risk and depths of tunnels were settled between the PLA and the Applicant.
- 5.9.30 At the close of Examination, the Applicant also confirmed [REP7-047] that protections for the PLA in respect of navigational risk and the principle of river use during construction had been settled between the two parties.

#### **PANEL'S REASONING AND CONCLUSIONS**

- 5.9.31 The Panel notes that by the close of the Examination, the concerns raised by the MMO and the EA reported in paragraphs 5.9.16 to 5.9.19, that related directly to dredging and navigation had been addressed ([REP7-016] and [REP7-015]). The Panel's reasoning and conclusions regarding the EA's remaining concerns over maintenance of the river walls is addressed in our report section 5.8 on surface water, flood risk and hydrology.
- 5.9.32 The Panel considers that there was agreement between the PLA and the Applicant in relation to the first two of PLA's concerns identified in paragraph 5.9.24. With regard to the PLA concern over future licensing of the NAABSA berth, this is part of the wider issue of the impact on industrial and commercial interests in relation to safeguarded and non-safeguarded wharves that is considered in section 5.14 of this report.
- 5.9.33 The Panel is satisfied that dredging and navigational matters would be adequately controlled through the DCO, in particular through R5(3)(j) in respect of the passage plan to be approved by the PLA, the dML (Schedule 12) and the PPs in favour of the PLA. We conclude that with the mitigation in place, there would not be significant impacts arising from dredging interests or any significant impacts upon navigation interests from the Proposed Development.

## **5.10 CLIMATE CHANGE MITIGATION AND ADAPTION**

### **INTRODUCTION**

- 5.10.1 This report section considers impacts that would arise from the Proposed Development upon climate change in terms of both mitigation and adaptation. It also addressed impacts from the development on carbon emissions in relation to the Proposed Development itself.

### **Legislative and Policy Background**

#### ***Climate Change Act 2008***

- 5.10.2 The Climate Change Act 2008 introduced a legally binding target to reduce the UK's greenhouse gas emissions to at least 80% below 1990 levels by 2050.

#### ***National Policy Statement for National Networks***

#### ***Climate Change Adaptation***

- 5.10.3 The National Policy Statement for National Networks (NPSNN), in paragraph 4.37 explains that climate change mitigation is essential to minimise the most dangerous impacts of climate change. Climate change is likely to mean that the UK will experience hotter, drier summers and warmer, wetter winters with an increased risk of flooding and intense rainfall events, as well as rising sea levels.
- 5.10.4 In paragraph 4.38, it goes on to explain that when new development is brought forward in areas that are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the provision of green infrastructure.
- 5.10.5 Further, in paragraph 4.40 it states that new national networks infrastructure will need to remain operational over many decades, in the face of a changing climate. Consequently applicants must consider the impacts of climate change when planning location, design, build and operation. The ES must set out how the proposal would take account of the projected impacts upon climate change.
- 5.10.6 It goes on, in paragraph 4.41, to require applicants, where transport infrastructure has safety critical elements and the design life of the asset is 60 years or more, to apply the UK Climate Projections 2009 high emission scenario (high impact, low likelihood) against the 2080 projections at the 50% probability level.
- 5.10.7 NPSNN Paragraph 4.47 explains that where adaptation measures are necessary to deal with the impact of climate change, and that measure would have an adverse effect upon other aspects of the project and/or the surrounding environment, the SoS may consider requiring the Applicant to ensure the mitigation measure could be

implemented should the need arise, rather than at the outset of the development (for example increasing the height of a sea wall).

### ***Carbon Emissions***

- 5.10.8 Carbon impacts are discussed in NPSNN paragraphs 3.8 and 5.16-5.19.
- 5.10.9 Paragraph 3.8 of the NPSNN explains that the impact of road development on aggregate levels of emissions is likely to be very small. Impacts of road development should be seen against significant projected reductions in carbon emissions and improvements in air quality as a result of current and future policies to meet the Government's legally binding carbon budgets. For carbon, the annual CO<sub>2</sub> impacts from delivering a programme of investment on the strategic road network would amount to below 0.1% of average annual carbon emissions allowed in the fourth carbon budget. This would be outweighed by additional support for Ultra Low Emission Vehicles also identified as overall policy.
- 5.10.10 In paragraphs 3.16 to 3.19 of the NPSNN it explains that for road projects, applicants should provide evidence of the carbon impact of the project and an assessment against the Government's carbon budgets. In decision making, paragraph 5.18 states that any increase in carbon emissions is not a reason to refuse development consent, unless the increase in carbon emissions are so significant that it would have a material impact on the ability of the Government to meet its carbon reduction targets.
- 5.10.11 In paragraph 5.19 it explains that the Secretary of State's view of the adequacy of the mitigation measures relating to design and construction will be a material factor in the decision making process.

### ***The London Plan (2016)***

- 5.10.12 Policy 5.1 of the London Plan includes a strategic target to achieve an overall reduction in London's CO<sub>2</sub> emissions of 60% (below 1990 levels) by 2025.
- 5.10.13 Policy 5.2A requires developments to make the fullest contribution to minimising emissions of CO<sub>2</sub> in accordance with the Mayor's energy hierarchy:-
- Be lean, use less energy;
  - Be clean, supply energy efficiently; and
  - Be green, use renewable energy.

## **APPLICANT'S APPROACH**

### **Climate change**

- 5.10.14 The Applicant provided a Sustainability Statement (SS) [APP-091] and an energy and carbon statement (ECS) [APP-089] with the application documents. In the SS [APP-091, section 5.3] it explained how the Applicant proposed to reduce CO<sub>2</sub> emissions during the construction and operation of the Proposed Development. It included commitments to:-
- transport 50% by weight of all materials by river (this was later increased to 55% as described in our report at paragraph 5.11.6);
  - 80% by weight of construction, demolition and excavation (CDE) materials to be re-used on site or removed from site for beneficial use;
  - use low carbon materials, where possible; and
  - preparation of a construction workers travel plan as part of the construction traffic management plan (CTMP) to encourage the use of sustainable modes of transport by those working on the construction of the Proposed Development.
- 5.10.15 In addition, it provided details in paragraph 5.3.4 in respect of ways that the contractor would implement measures to reduce energy consumption and improve energy efficiency on site, through measures that would be secured in the Code of Construction Practice (CoCP). The final version of the COCP submitted to the Examination by the Applicant was [REP6-056].
- 5.10.16 It explained further [APP-091, paragraph 5.3.5] that there would be very little opportunity for on-site low or zero carbon technologies. Initial energy and CO<sub>2</sub> emission reductions were considered possible through the implementation of passive design and energy efficiency measures. These would allow the scheme to achieve a 13.5% reduction in CO<sub>2</sub> emissions through an enhanced lighting strategy.
- 5.10.17 The ECS [APP-089] also explained that the annual increase in CO<sub>2</sub> emissions from traffic using the Proposed Development when operational would be less than 1% of the annual CO<sub>2</sub> emissions projected by the London Atmospheric Emissions Inventory for the Greater London Area (GLA) in 2030.
- 5.10.18 Paragraph 3.2.5 of the ECS [APP-089] explained that a separate climatic factors topic paper was agreed with the Planning Inspectorate (PINS) not to be required as part of the ES at scoping stage. Instead climatic factors were considered in ES Chapters 6 (air quality); 13, (material resources and waste); and 16 (surface water quality and flood risk). Climate change was also considered in the scheme design, for example as addressed in drainage design, which provided a 30% capacity increase to allow for climate change.

- 5.10.19 The updated ES Chapter 16 [REP1-109, paragraph 16.4.73] explained that climate change is a key driver towards securing future flood risk management policy for the River Thames. The future direction for flood risk management for the study area is set out in the Thames Estuary 2100 Plan which states that the existing flood defences will be maintained and improved to ensure a 1 in 1000 standard of protection to the year 2100.
- 5.10.20 It further explained [REP1-109, paragraph 16.5.22] that during the construction phase a flood warning and evacuation plan would be in place. This would be secured through Requirement 5(3) (g) of the Applicant's final draft Development Consent Order (dDCO) [REP7-026]. A draft flood warning and evacuation plan was submitted with the application [APP-079]. Construction site operatives would use the plan to assess the need to put evacuation and scheme shutdown procedures into action, mitigating the residual risk of flooding in the very unlikely scenario of a breach of the River Thames defences during the construction period. The Applicant further explained that the flood warning and evacuation plan [AS-019, paragraph S1.12] would be the main means of managing residual flood risk throughout the operational lifetime of the Proposed Development.

### **Carbon emissions**

- 5.10.21 The Applicant explained at the Issue Specific Hearing (ISH) on air quality, noise and other environmental issues on 18 January 2017, in relation to agenda item 4.6 [REP3-016] that CO<sub>2</sub> does not give rise to local effects, it does not harm health or the environment, therefore impacts on local receptors were not considered. CO<sub>2</sub> only has to be considered in terms of regional emissions. The effects of CO<sub>2</sub> emissions are related to global warming and it is national emission levels that are of concern.
- 5.10.22 The Applicant's ECS [APP-089] provided a carbon footprint summary table in paragraph 5.3.18, which showed that the carbon embedded in materials would make up the largest proportion of the construction stage carbon footprint and energy and waste would make up a small proportion. It explained that while it would generate carbon emissions, by implementing mitigation through the CoCP, carbon emissions would be minimised as much as practicable.
- 5.10.23 During the operational phase, the biggest proportion of the energy consumption is estimated to be the lighting (54%). Measures for energy reduction would include measures taken at design stage including any potential for natural ventilation, promotion of daylighting, orientation and site layout and use of energy efficient lighting and controls. It explained, [APP-089, paragraph 6.5.6] that there would be a number of constraints associated with the Proposed Development which would restrict the installation of renewable energy and low carbon technologies.

5.10.24 The Applicant's carbon emission calculations [APP-089] stated that a total of 153,279 tonnes of CO<sub>2</sub>e<sup>67</sup> would be generated by the construction of the Proposed Development between 2019 and 2022. If this is compared with the Government's targets for the 3<sup>rd</sup> carbon budget for the UK (2018-2022), this would represent 0.006% of the budget. In relation to the operational phase, [APP-089, paragraph 6.6.12] stated that a total of 1580 tonnes of CO<sub>2</sub>e would be generated by the Proposed Development based on the operation of the tunnel and the buildings (excluding traffic). If this is compared with the Government targets for the 4<sup>th</sup> carbon budget for the UK (2023-2027), this would represent 0.00008% of this budget.

### **ISSUES ARISING**

5.10.25 Friends of the Earth (FoE) [RR-343] considered that there are benefits derived from cutting air pollution in terms of reducing climate change emissions, which in their view, was imperative to act upon. Greenwich FoE [RR-361] explained that in their view, the UK needs to urgently reduce greenhouse gas emissions and the Proposed Development would run counter to this aim.

5.10.26 Hackney and Tower Hamlets Friends of the Earth (FoE)[RR-245] considered that urgent action needs to be taken on carbon emissions to tackle climate change. Carbon emissions from the transport sector accounted for just over a quarter of all CO<sub>2</sub> emissions in 2014 and because of this, they considered that there should be an urgent shift away from reliance on fossil fuel-based transport options.

5.10.27 IPs including Andrea Carey Fuller [RR-098] and Carmel Durkin [RR-218] considered that air pollution is a large contributor to climate change and climate change is an increasing concern in their locality. Improving air quality is essential for the survival of all people and for the planet. Jo Lawbuary [RR-355] stated that planning needs to be carried out for a world changed by a warming climate where the burning of fossil fuels needs to be wound down.

5.10.28 The Applicant at deadline 6 (D6) provided a NPSNN compliance document [REP6-080], which provides its views on how the Proposed Development complies with the NPS climate change adaptation matters.

### **PANEL'S REASONING AND CONCLUSIONS**

5.10.29 The Panel notes that the Applicant did not consider carbon emissions associated with traffic levels using the Proposed Development in the ES or subsidiary documents. The Applicant forecast that just under a quarter of all traffic using the Blackwall Tunnels would use the Proposed Development in the opening year. In view of the user

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<sup>67</sup> CO<sub>2</sub>e is an abbreviation of carbon dioxide equivalent and is the internationally recognised measure of greenhouse emissions.

charging mechanism and the other mitigation measures that would be implemented to ensure that the development does not significantly change from the levels of impact upon traffic and air quality that were assessed in the Assessed Case, the Panel is satisfied that traffic levels would be controlled. The Panel is satisfied that the Proposed Development would therefore not generate any significant new source of carbon emissions from traffic using the tunnels. In view of the commitment by the Applicant to use Euro VI buses, and to provide a cross river facility for cyclists, the Proposed Development may contribute to reducing carbon emissions in this part of East London.

- 5.10.30 The Panel considers that in relation to NPSNN paragraph 4.41, reviewed in our report paragraph 5.10.6 that flood risk could be considered to be a safety critical matter for the Proposed Development.
- 5.10.31 Matters relating to flood risk and river walls are considered in report section 5.8. The Panel concludes in paragraph 5.8.81 that the Applicant should be responsible for maintaining the relevant river wall flood defences during construction, so that they would remain in a fit for purpose condition, maintained at the statutory levels and is recommending that the wording proposed by the Environment Agency (EA) on this matter is used in the dDCO. This has been incorporated into the Panel's recommended DCO in Appendix D.
- 5.10.32 The Panel is satisfied that although the Proposed Development would generate carbon emissions, they would be minimised as far as is reasonably practicable through design and mitigation. The Panel also accepts that green infrastructure could not contribute materially to climate change mitigation within the Order Limits.
- 5.10.33 The targets provided in NPSNN in relation to new development on the SRN does not relate to the Proposed Development, as it does not form part of the SRN. However, the Applicant's estimates of carbon emissions from both the construction and operational phases are shown to be a very small part of the Government's overall carbon budget, which would not be statistically significant.
- 5.10.34 The Panel considers that the Applicant has considered resilience to climate change for both flood risk and drainage matters in the ES and later documents. The Panel concludes that subject to the DCO changes regarding the maintenance of the relevant river wall flood defences so they remain in a fit for purpose condition, maintained at statutory levels, it agrees with the Applicant that the Proposed Development would be in accordance with the NPSNN in respect of matters of climate mitigation, adaptation and carbon emissions.
- 5.10.35 The increase in carbon emissions expected from the construction of the Proposed Development is not significant and so we conclude that it would not have a material impact on the ability of the Government to meet its carbon reduction targets. We also conclude that the mitigation measures proposed for both the construction and



operational phases in the CoCP and subsidiary documents are sufficient to minimise impacts arising from carbon emissions.

## **5.11 RESOURCES AND WASTE ARISING**

### **POLICY BACKGROUND**

- 5.11.1 The National Policy Statement for National Networks (NPSNN) explains in paragraph 5.41-5.42 that large infrastructure projects may generate hazardous and non-hazardous waste during the construction and operation phases. The Applicant should set out the arrangements that are proposed for managing any waste produced. The arrangements described should include information on the proposed waste recovery and disposal system for all waste generated by the development.
- 5.11.2 It goes on to explain that the Secretary of State (SoS) should be satisfied that the process sets out that the waste will be properly managed, both off and on site; any waste arisings can be dealt with appropriately by waste infrastructure which is or likely to be available, without having adverse effects on the capacity of existing waste management facilities. The volume of waste sent for disposal should also be minimised.

### **APPLICANT'S APPROACH**

- 5.11.3 The Applicant considered the management of resources and waste arisings in Chapter 13 of the environmental statement (ES) [APP-031]. This was updated at deadline 1 (D1) to take into account concerns raised by the Panel in their first written questions (FWQs) [PD-006]. The updated Chapter 13 was contained in document [REP1-107], with a track change version also submitted at the same time [REP1-108]. In addition, the Applicant's energy and carbon statement [APP-089] and the Code of Construction Practice (CoCP), contained details in relation to the management of resources and waste during the construction phase. The Applicant's final version of the CoCP submitted to the Examination was [REP6-056].
- 5.11.4 Appendix C of the Applicant's CoCP contained a Construction, Demolition and Excavation (CDE) Materials Commitment; Appendix D was the receptor site assessment and Appendix E provided a draft Site Waste Management Plan for the construction phase.
- 5.11.5 The CDE materials commitments (Appendix C to the CoCP [REP6-056]) considered and provided commitments to the waste proximity principle and gave a commitment to 80% by weight of CDE materials to go to schemes for beneficial use. The commitments for the Proposed Development, in relation to CDE waste were:-
- 80% (by weight) of CDE materials to be re-used on site or removed from site for beneficial use with an aspiration to reach 95% (by weight).

- Safely manage CDE materials in order to minimise their impact on the environment and communities.
  - Follow the self-sufficiency and the proximity principles through the local management and end-use of CDE material.
- 5.11.6 The Applicant also provided a commitment to transport 50% of all waste and materials by river. This was later increased to 55% [AS-021] and [REP1-173, item MR4].
- 5.11.7 These targets and aspirations, contained in the updated CoCP and its Appendices [REP6-057] would be secured by Requirement (R)5 of the Applicant's final draft Development Consent Order (dDCO) [REP7-026]. The EA, in their Statement of Common Ground (SoCG) with the Applicant agreed [REP3-011, item 4.4.1] that, in their view, the mitigation measures, plans and strategies as set out in the CoCP are appropriate.
- 5.11.8 There was also a commitment to use a minimum of 10% (by value) of reused and recycled materials as construction materials, including recycled aggregates. The updated ES explained that the raw materials that would be required, would be as follows:-
- Concrete materials 398,000 tonnes
  - Fill materials including granular fill 172,000 tonnes
  - Tunnel segments 80,000 tonnes
  - Highway/pavement material 30,000 tonnes
  - Steel (reinforcement and structural) 17,000 tonnes
  - Miscellaneous 1,000 tonnes
- 5.11.9 The updated ES Chapter [REP1-107, paragraph 13.4.29] estimated that the Proposed Development would produce a total of approximately 1,175,000 tonnes of CDE wastes, approximately 130,850 tonnes of which would be classed as inert materials. The updated ES Chapter [REP1-107, Table 13.14] further identifies that of this total, circa 195,000 tonnes would be hazardous wastes, the majority of which would be contaminated excavation materials.
- 5.11.10 The study area used for waste facilities that could accept waste arisings from the Proposed Development was Greater London, Kent and Essex [REP1-107, paragraph 13.3.32]. It was concluded in paragraph 13.7.3, that there would be adequate waste management facilities available for the waste arisings from the Proposed Development as well as predicted CDE waste arisings from other projects and waste sources. Paragraph 13.8.1 of the updated ES stated that a receptor site assessment would be completed to provide a detailed list of potential receptor sites for the excavated materials prior to construction and appointment of contractors. In response to the Panel's FWQ MR7 [REP1-173], the Applicant provided a list of permitted facilities which accept hazardous soil and stone waste (European Waste Code (EWC) 17 05 03 \*), which could be used by the Proposed Development.

5.11.11 The Proposed Development was predicted to result in slight adverse effects with the stated mitigation in place although there were moderate adverse cumulative effects associated with the depletion of finite natural resources (namely construction aggregate) within the study area (although scarcity of resource is low on a UK scale).

### **ISSUES ARISING AND FURTHER MITIGATION PROPOSED**

5.11.12 The main issues arising were:

- whether the Applicant had correctly assessed the volumes of different types of waste that would arise and whether there would be sufficient capacity for these volumes in suitable nearby permitted sites;
- how much of the waste arisings would be transported off-site by river; and
- whether the spoil from the development should be retained on site for the construction of a development platform for future regeneration areas.

### **Waste volumes and capacity at permitted sites**

5.11.13 The Applicant, in its responses to the Panels FWQ MR6, [REP1-173] explained that it had updated Table 13-9 (example waste facilities within reasonable proximity to the scheme) to make the distinction between the finite life of a landfill and the annual throughput of a treatment facility more apparent. These details were updated in [REP1-107] but they did not alter the assessment conclusions in terms of significance of effect.

5.11.14 The Environment Agency (EA), in response to the Panel's FWQ MR8 provided a chart identifying the capacity of a range of example waste facilities within reasonable proximity to the Proposed Development [REP1-060, item 5.0]. No other concerns were raised by the EA on these points.

### **Off-site transport by river**

5.11.15 London Borough of Newham (LBN) [REP7-004] and Royal Borough of Greenwich (RBG) [REP7-011] considered that the Applicant's stance regarding the classification of any spoil that was used on site for land-raising for future regeneration projects counting towards the 'offsite transport by river' target of 55%, was unreasonable. LBN viewed this as potentially eroding the amount of material that would need to be truly transported by river, rather than road.

5.11.16 In addition, RBG [REP1-002, REP3-033 and REP7-011] considered that the 55% target should be per worksite (ie proportions / quantum set for both north and south of the river), explaining that the Applicant had not accepted this commitment as it '*could stifle flexibility*'.

5.11.17 LBN requested that dDCO R5(3)(d) should be amended to state: 'Construction Materials Management Plan: incorporating commitments

to river transport to be approved by the relevant planning authority;' (underlining is added to the additional wording requested).

**On-site use of spoil for constructing a built platform above the flood zone for future regeneration projects**

- 5.11.18 Silvertown Homes Limited (SHL) [REP5-032] objected to the Proposed Development at the Compulsory Acquisition Hearing (CAH) on 29 March 2017. The land that they own (as sole owner and also as joint owner under a joint Venture (JV) with GLA Land and Property), at and around Thames Wharf in LBN, is safeguarded for the Applicant's scheme and would be subject to temporary possession [REP6-074]. They explained that they have aspirations to construct a development platform above flood levels on their land, so that it could be used for building new homes. Their objection focussed on the Applicant's refusal to agree to the retention of tunnelling spoil from the development to be used for beneficial use as a construction platform. Their view was that 150,000m<sup>3</sup> (approximately 262,500 tonnes) of suitable spoil would be required to construct the development platform (which would be approximately 20% of the total excavated waste arisings forecast from the construction phase).
- 5.11.19 During the compulsory acquisition hearing (CAH) [EV-055], the Panel ascertained from SHL that their site does not have the benefit of an extant planning permission for either the raised built platform or the proposed regeneration built-development. The earlier draft (unsigned) SoCG between Quintain Ltd (a former name of SHL) and the Applicant [REP1-145] stated that the '*parties agree in principle to the re-use of suitable excavated material from the Scheme in remediating and re-levelling the JV Site to assist its re-development subject to them obtaining the necessary consents.*'
- 5.11.20 At D6, [REP6-003], SHL provided their proposed wording for an additional requirement in relation to the re-use of tunnelling spoil on their sites to facilitate the construction of the built platform.
- 5.11.21 They reiterated their concerns at D7 [REP7-013] stating that one of their two outstanding objections was because of the DCO's failure to account for the significant benefits that could be achieved through the beneficial use on site of spoil arising from the tunnelling works.
- 5.11.22 The Applicant's post CAH submission [REP6-077] explained that it had concerns about SHL's proposals including:-
- their requirement for volumes of excavated material would be far in excess of the available surplus material suitable for land-raising (generated by the Proposed Development);
  - SHL had overestimated available quantities;
  - stockpiling proposals would have significant impacts upon third party stakeholders and land interests;
  - the land raising proposals would require a multi-layered composite cap of material;

- its impacts upon the Proposed Development's construction programme had not been properly developed;
- additional land required for stockpiling would require site clearance and the removal of substructures to 3m;
- construction methods proposed by SHL would not be consistent or necessarily compatible with the Silvertown Tunnel scheme construction and may be undeliverable within the assessed scheme envelope; and
- SHL's estimated cost savings were questioned.

5.11.23 However, the Applicant explained that the DCO and supporting provisions would not preclude the beneficial re-use of excavated material on site; indeed this would be encouraged within the framework of the DCO application. It also identified that there is no current planning policy support for SHL's Proposed Development. In fact, it has some constraints within LBN's local plan where it is allocated as a Strategic Industrial Location and Thames Wharf (which forms part of the site) is a safeguarded wharf which, at the last review was recommended for retention as an operational wharf (and not for release for residential development) [REP6-077].

#### **PANEL'S REASONING AND CONCLUSIONS**

5.11.24 The Panel finds that the Applicant has considered resource use and waste arisings from the Proposed Development adequately. We accept that there would be suitable, sufficient permitted facilities to accommodate the various waste arisings from the Proposed Development. We also agree that this would not impact significantly on the total capacity available for waste from other sources within the study area, including on a cumulative basis with other plans and projects. In this respect, the development conforms with NPSNN paragraphs 5.41 and 5.42.

5.11.25 The Panel accepts the concerns raised by the host authorities regarding the Applicant's inclusion of any spoil used on site for land-raising in the 'transportation by river' target of 55%. The Panel considers that this interpretation would not assist in delivering the host authorities aspirations for ensuring that the maximum amount of waste and materials is transported by river, thus minimising HGV movements. The Panel also finds the request from RBG that the 55% 'transportation by river' target should, if possible, apply to each of the two worksites during the construction phase separately, to be reasonable. Because of these two matters, the Panel accepts the additional wording provided by LBN for R5, provided in paragraph 5.11.17 and has added this to its recommended DCO in Appendix D, so that there is no doubt that matters related to river borne resources and waste transportation would have to be included in the construction materials management plan, secured under R5(3)(d).

5.11.26 The Panel understands SHL's concerns that if possible, tunnelling spoil should be used on site for beneficial use in relation to creating a built platform for regeneration projects, rather than taking it off site.

However, the Panel notes that planning permission for the built platform was not in place by the close of the Examination and the aspirations that SHL has for their land currently conflicts with London's safeguarded wharves policy, although the policy S08 of the Newham Core strategy and an emerging Opportunity Area Planning Framework would give some encouragement<sup>68</sup>. There are unresolved objections from the PLA to taking forward the revised aspirations for the site and until these matters are resolved, it may not be possible for SHL's aspirations to be realised through the grant of suitable planning permissions and a waste permit.

- 5.11.27 The Panel accepts the Applicant's reasoning that the DCO and subsidiary documents including the CoCP and the CDE materials commitments would not preclude the use of tunnelling spoil on SHL's land. The Panel also considers that other projects, which could receive and put to beneficial use the tunnelling spoil by river transport, may be as good a use, for example, if it was needed for wetland habitat creation.
- 5.11.28 The Panel finds that SHL's request for a requirement which specifies that suitable tunnelling spoil should be put to beneficial use within the Order Limits could place unduly restrictive burdens upon the Applicant during the construction phase. Furthermore, such a requirement in the form as drafted by SHL could impact significantly upon the Proposed Development's construction programme. The Panel concludes that a requirement along the lines of that proposed by SHL would not be justified but further consideration is given to the possible justification for a less onerous requirement relating to such matters in Chapter 9.
- 5.11.29 The Panel generally concludes that the Applicant's final dDCO [REP7-026, R5], which secures the CoCP, the SWMP and the CDE materials commitments documents, are sufficient to ensure that the waste hierarchy and the proximity principle would be followed.

## **5.12 HAZARDOUS SUBSTANCES**

### **INTRODUCTION**

#### **Relevance to the Silvertown Tunnel Application**

- 5.12.1 The Panel had not identified the matter of the nearby hazardous substances consents (HSC) in their initial assessment of principle issues [PD-004]. However, at the Preliminary Meeting (PM) [EV-003], a representative of the Health and Safety Executive (HSE) requested that health and safety was considered as a sub-issue within Item 1 (air quality, noise and other construction or operation impacts), in order to ensure that HSE's advice was given consideration at the appropriate Issue Specific Hearing (ISH).

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<sup>68</sup> See section 4.4 of this report

5.12.2 The matters identified by the HSE in the PM were noted and the Panel ensured that they were given sufficient consideration during the relevant ISHs. The Panel also asked questions on matters related to the nearby HSC in both its first written questions (FWQ) [PD-006] and second written questions (SWQ) [PD-012].

### **Legislation**

5.12.3 The EU Seveso III Directive (Directive 2012/18/EU) replaced earlier Seveso Directives and was adopted in 2012, taking into account, amongst other things, of the changes in EU legislation on the classification of chemicals and increased rights for citizens to access information and justice.

5.12.4 The Control of Major Accidents Hazards (COMAH) Regulations 2015 are the enforcing regulations within the UK of the Seveso Directive. They are applicable to any establishment storing or handling large quantities of industrial chemicals of a hazardous nature. The principal aim of the legislation is to reduce the risks of potential major accidents, such as the Flixborough disaster, that are associated with the handling of hazardous substances. The regulations operate on two levels, depending on the establishment's status, either 'Lower Tier' or 'Upper Tier' determined by inventory. The competent authority and enforcing agency in England are the HSE and the Environment Agency (EA).

5.12.5 The Planning (Hazardous Substances) Act 1990 provides the land use planning legislative framework for the prevention of major accidents through the control of sites where hazardous substances could be present and where development is proposed near them. When considering development proposals around hazardous installations the Local Planning Authority (LPA) is expected to seek technical advice on the risks presented by major accident hazards affecting people in the surrounding area and the environment.

### **Policy**

5.12.6 The National Policy Statement for National Networks (NPSNN) does not consider any assessment principles or generic impacts in relation to HSC areas that may impact upon or be impacted by a national network nationally significant infrastructure project (NSIP). However, the NPSNN in paragraph 4.65 requires applicants to demonstrate that:-

- they have considered the safety implications of their project from the outset; and
- they are putting into place rigorous processes for monitoring and evaluating safety.

5.12.7 The National Planning Policy Framework (NPPF), paragraph 3 states, *'This Framework does not contain specific policies for nationally significant infrastructure projects for which particular considerations apply. These are determined in accordance with the decision making*

*framework set out in the Planning Act 2008 and relevant national policy statements for major infrastructure as well as any other matters that are considered both important and relevant (which may include the National Planning Policy Framework).'*

- 5.12.8 However, paragraph 194 of the NPPF advises local planning authorities to consult appropriate bodies when planning, or determining applications, for development around major hazards.

### **Guidance**

- 5.12.9 DCLG's Planning Practice Guidance (PPG) on planning for hazardous substances<sup>69</sup> is one of a suite of PPGs which provide guidance on a variety of topics within the NPPF. It was amended in December 2016. It explains that there are three elements to how the planning system deals with preventing and limiting the consequences of major accidents. These are:

- hazardous substances consent;
- dealing with hazardous substances in plan-making; and
- handling development proposals around hazardous installations.

### **APPLICANT'S APPROACH**

- 5.12.10 The ES does not specifically consider the matter of the nearby HSCs or the impact that the Proposed Development would have upon them, or vice versa. However, in the Applicant's update report [AS-021] it explained that there are two relevant major hazard sites within whose the inner zone the Proposed Development falls, namely: (a) the East Greenwich Gasholder Station (EGGS); and (b) Brenntag Chemicals UK site (Brenntag). Both HSC sites are in the Royal Borough of Greenwich (RBG) and, are shown on a plan attached to the Applicant's responses to the Panels FWQ on health, safety and security [REP1-171] which sought clarification on the possible revocation or modification of these two HSCs as a result of the Proposed Development.

### **ISSUES ARISING AND MITIGATION**

#### **HSE's advice against the development**

- 5.12.11 The Relevant Representation (RR) submitted by HSE on 30 August 2016 [RR-298] stated that the HSE advises against the scheme '*in view of the density of traffic that is likely to be present at this proposed transport link within the Inner Zone (IZ) of two major hazard sites.*' They explained that the current operational status of the land was not taken into account in their advice, as, '*it is HSE's policy to provide its advice on the basis of the hazardous substances consent entitlement.*' However, they explained that there are means by which HSE would be prepared to reconsider its safety advice.

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<sup>69</sup> <https://www.gov.uk/guidance/hazardous-substances>



- 5.12.12 This was re-iterated in their later representations including those at D1 [REP1-080] which stated that '*HSE does not agree with the Southern Tunnel Approach, as shown on Sheet 1 of 3 of the General Arrangement Plan Rev PO3 (APP-005), and its formal advice is to **Advise Against** that part of the proposal due to its proximity to two major accident hazard sites, East Greenwich Gasholder Station (EGGS) and Brenntag Inorganic Chemicals Ltd (BICL).*' (Emphasis was added by HSE).
- 5.12.13 HSE explained [REP4-002] that a site that holds a HSC is not necessarily an establishment subject to COMAH Regulations and the two terms are not interchangeable. HSE's advice is only in relation to planning controls arising from HSC, not COMAH, which implies a concern related to how the site is operated.

### **East Greenwich Gasholder Station (EGGS)**

- 5.12.14 The Applicant explained [REP1-171] that the EGGS is operated by Southern Gas Networks (SGN) and the gasholder station has been purged of gas and the site was de-notified from the COMAH Regulations in March 2015. The draft (unsigned) Statement of Common Ground (SoCG) between the Applicant and HSE [REP3-013] stated that the gasholder station benefits from HSC for 182.92 tonnes of natural gas, under the Planning (Hazardous Substances) Act 1990.
- 5.12.15 The Applicant [REP4-059] considered that HSE's precautionary approach had disregarded the current operational status of EGGS. Whilst not challenging the approach that HSE was taking on its advice regarding the EGGS, it considered that there was no realistic prospect of gas being re-introduced into the gas holder. In addition, the Applicant provided evidence to confirm the permanent decommissioning of the gas holder with their response to SWQ HSS2.1 [REP4-059], which included a letter from SGN, dated 2 March 2015 advising that the EGGS site (amongst others) had been permanently decommissioned. The Applicant also explained that SGN had development aspirations for their site, which had been recently confirmed by a letter sent to TfL by planning consultants appointed by RBG to prepare a planning brief for an area on Greenwich peninsula which included the EGGS site. That letter was also attached to the Applicant's response to SWQ HSS 2.1 [REP4-059].
- 5.12.16 The Applicant raised concerns that whilst there is a likelihood that the HSC for the EGGS site would be revoked by RBG before the Silvertown Tunnel opens for public use, it provided no guarantee that this would happen. The Applicant further considered that revoking the HSC may trigger a compensation liability for RBG [REP4-059].
- 5.12.17 HSE explained [REP5-015] that its advice in respect of EGGS was provided in accordance with government stated policy contained within Planning Practice Guidance, paragraph 068 ('*...advice to local authorities will take account of the maximum quantity of a substance permitted by a hazardous substance consent*'). They considered that

their approach was justified by the information that SGN had recently provided to them, in which they considered the gasholder site was an operational asset with a HSC. HSE further explained that in this case, it is providing its advice in the context of the land uses permitted by the planning system rather than the current operational status of the gasholder site.

- 5.12.18 SGN (the owner of EGGS) submitted representations to the Examination at various deadlines, for example [REP1-078, REP3-058, REP4-068, REP5-025]. Their representations focussed on compulsory acquisition (CA) issues and prior to the January 2017 hearings, their representations [AS-032] and [AS-043] explained that (together with National Grid Property Holdings Ltd, the parent company of Birch Sites Limited) were in advanced discussions regarding future comprehensive development proposals for their joint land interests. They also explained that they had also been in discussion with the Applicant regarding the impacts of the Application on their land, with a view to agreeing Heads of Terms. SGN withdrew all of the representations that they had made in respect of the Proposed Development at D6 [REP6-002].

### **Brenntag Chemicals**

- 5.12.19 The Brenntag site remains an active, operational Lower Tier COMAH establishment [REP1-171]. It has a deemed HSC dating back to 1999 for the storage of a number of toxic substances (17 tonnes in total) including hydrofluoric acid, sodium cyanide, potassium cyanide, sodium dichromate and potassium dichromate (stored only in moveable containers) [REP3-049].
- 5.12.20 Almost all of the new and upgraded approaches to both Blackwall and Silvertown Tunnels and the tunnel southern portal, that would form part of the Proposed Development, would lie within the HSE's consultation IZ for this site.
- 5.12.21 Brenntag submitted an application to RBG in 2012 to modify their HSC, for the storage of up to 199 tonnes of sodium hypochlorite at their site [REP3-049]. They explained that the 2012 submission was necessary for the company due to the reclassification of sodium hypochlorite as a COMAH product (that is a product which is considered dangerous for the environment). That modification, if granted would have the effect of decreasing the size of the HSE consultation zones around the site.
- 5.12.22 Whilst matters related to that HSC application were progressed during the Examination, including the submission of an updated Flood Risk Assessment to RBG, at the close of the Examination it had not been determined. HSE explained at the ISH on 28 March 2017 that it was due to reconsider its advice on the basis of new information that had been submitted regarding this HSC and that new advice was not going to be available until after the close of the Examination [EV-053,

matter 8.1<sup>70</sup> ]. This was confirmed in HSE's representation at D6 [REP6-007].

- 5.12.23 The Applicant made the point [REP6-073, action point 11] that it considered that the consultation zone for the Brenntag site had been based on the current deemed hazardous consent, not on where the hazardous substances are actually stored. It further questioned whether the consultation zone was defined on the most appropriate basis.
- 5.12.24 Brenntag's RR [RR-216] and Written Representation [REP1-037] explained that whilst it did not object in principle to the project, it had serious concerns regarding the impact that the development would have on the continuing operations of its chemical distribution facility at Greenwich. Their concerns related to their site re-configuration that would be needed for the Proposed Development to proceed, with the loss of about 865m<sup>2</sup> which would impact on their car parking spaces and cause issues in relation to access and movement of staff and visitors between the car park and their site office. They explained that the exercise of CA powers would result in a change of the person in charge of the land to which their HSC relates. They reported that they had had discussions with HSE on this matter. HSE had informed them that the HSC would be automatically revoked by the exercise of CA powers by the Applicant in relation to part of the Greenwich site. They considered that the delivery of the Proposed Development should not be at the expense or to the material detriment of such a significant thriving business and local employer.
- 5.12.25 Brenntag's representations at D3 [REP3-049] explained that the Applicant's Non Material Change Number 1 was supported as this related to concerns that had been raised regarding permanent land take and temporary possession. At that point, they reported that discussions with the Applicant relating to the detailed terms of a land and works agreement were ongoing.
- 5.12.26 By the end of the Examination, Brenntag had withdrawn their representations in respect of the DCO application and the anticipated impacts of the Silvertown Tunnel proposals upon their site, subject to the Applicant complying with the terms of the recently agreed land and works agreement for their site in Greenwich which related to the DCO application [REP7-012].

### **Proposed Grampian Requirements**

- 5.12.27 HSE proposed that, as the two HSCs would be likely to remain in place until the end of the Examination, the Panel and the SoS may wish to consider applying Grampian style requirements to enable the DCO to be made, subject to the revocation of the HSC (in the case of EGGs) or their modification by application to RBG (in the case of Brenntag),

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<sup>70</sup> around 1hr 45mins from the start of the tape

prior to the opening of the Proposed Development. The suggested wording for the Grampian requirements was proposed in the draft SoCG between HSE and the Applicant [REP3-013], and is as follows:-

*'No part of the Silvertown Tunnel [as defined in Article 2 of the Development Consent Order] is to be occupied or used by the public and no building at the tunnel services compound at the south end of the Silvertown Tunnel [insert approved plan reference] is to be occupied or used until the hazardous substances consent for the East Greenwich Gasholder Station site has been revoked in accordance with the Planning (Hazardous Substances) Act 1990 as amended, and a copy of the revocation has been submitted to the Health and Safety Executive by the Hazardous Substances Authority.'*

*'No part of the Silvertown Tunnel [as defined in Article 2 of the Development Consent Order] is to be occupied or used by the public and no building at the tunnel services compound at the south end of the Silvertown Tunnel [insert approved plan reference] is to be occupied or used until the hazardous substances consent for the Brenntag Inorganic Chemicals Ltd site has been modified in accordance with the Planning (Hazardous Substances) Act 1990 as amended, and details of the relevant modifications have been submitted to the Health and Safety Executive in writing by the Hazardous Substances Authority, and the Health and Safety Executive has advised in writing that it does not Advise Against the authorised development.'*

- 5.12.28 The Applicant considered that the preferred approach for both the Applicant and the HSE would be for the HSCs at the Brenntag and EGGS sites to be modified or revoked by RBG such that HSE could remove its advice against the scheme [REP4-059, answer to SWQ HS2.1].
- 5.12.29 However, in view of the uncertainty of the modification of the Brenntag site HSC and the revocation of the EGGS site HSC being achieved within the timescales of the Examination and the determination of the application, the Applicant proposed alternative Grampian style requirements which reflected those proposed by the HSE, but contained a second limb. The purpose of the second limb was to provide the Applicant with a means for overcoming the situation that would arise if the HSC for EGGS had not being revoked, and/or the HSC for Brenntag not being modified to the satisfaction of HSE, such that HSE could not remove its 'advice against' the development. The second limb of the Applicant's draft Grampian requirement would enable it to provide an assessment of the extent and severity of the hazard to the public and also in respect of the occupation of the tunnel development for the SoS, who would consult the HSE and enable the SoS to confirm whether the tunnel could be open to the public.
- 5.12.30 The Grampian requirement wording proposed by the HSC would, in the Applicant's view, not allow any such discretion in respect of the EGGS site and the tunnel could not be open to traffic, regardless of

whether the scheme would increase risks to the public or not [REP4-059], if the HSC was not revoked. They considered that it would be more likely that in the case of the Brenntag site the current application to vary the HSC would be determined in time for the opening of the Proposed Development.

- 5.12.31 The Applicant's version of the Grampian requirement wording was included in the Panel's consultation draft Development Consent Order (dDCO) [PD-013] and this was included in the Applicant's dDCO Revision 5 [REP6-039] as Requirement 16 which was retained in the Applicant's final dDCO [REP7-026].
- 5.12.32 HSE's position remained that it did not accept the principle of the two part requirements, identifying that it did not agree to the second part of the proposed two-part requirements. It stated that if the Panel is minded to include this limb in the recommended DCO (rDCO), HSE would not want to be consulted, as it does not have expertise in assessing the adequacy of traffic flow predictions [REP6-007], amongst other reasons.

#### **HSE's Interpretation of the PPG on Hazardous Substances**

- 5.12.33 As an action point after the ISH on any other outstanding issues including environmental matters on 28 March 2017, the Panel asked HSE a series of questions in relation to their interpretation of the relevant paragraph of the PPG on hazardous substances [EV-050].
- 5.12.34 HSE [REP6-007] explained that Government policy on hazardous substances had developed over a number of years and had been recorded in a number of planning circulars. They considered that when planning policy in England was rationalised by the NPPF, the circulars (including the Department of the Environment, Transport and the Regions (DETR) Circular 04/2000 (Planning controls for hazardous substances)), were replaced by being incorporated into a section of the PPG on hazardous substances. HSE's understanding was that Government policy on planning for development around major hazards, such as the gasholder station and Brenntag had not changed.
- 5.12.35 HSE further explained [REP6-007] that it continues to follow the policy position in paragraph 068 of PPG when providing public safety advice to planning decision makers in respect of the residual risks of a major accident from hazardous substances permitted to be present under the Planning (Hazardous Substances) Act 1990. It concluded that its safety advice will continue to be given based on the potential risk to people from the proposed land uses in the vicinity of the major hazards, taking into account the maximum quantity of hazardous substances that are permitted to be present. However HSE recognised that, *'in the rare circumstance that planning decision makers consider this advice too restrictive, then it is open to them to take other matters into consideration'*.

- 5.12.36 The Applicant [REP6-073, in action point 11] stated that it considered that HSE's approach was overly restrictive as it had effectively treated the scheme as 'Development type D2.3- major transport links - motorway, dual carriageway', which treats the scheme as if it were a new dual carriageway being constructed adjacent to the Brenntag site. In their view, the scheme would be better classified as an alteration to the existing A102 which runs adjacent to the Brenntag site. It considered that a different rule from the HSE's Land Use Planning Methodology (Rule 4b) should have been used, which according to the decision matrix, would have likely resulted in the HSE concluding with a '**Do not advise against**' position.
- 5.12.37 The HSE's final representation to the Examination [REP7-009] disagreed with the Applicant on this matter, stating '*the proposal seeks to increase the number of lanes from 5 to 8 which in the circumstances of stationary traffic will increase the population at risk by more than 10%*'. It concluded that HSE did not recognise anything in the TfL report that caused it to change its position.

### **THE PANEL'S REASONING AND CONCLUSIONS**

- 5.12.38 The Panel considers that the SoS may wish to revert to RBG and HSE to establish whether the application to revise the HSC for the Brenntag site has been determined in the time that has elapsed since the end of the Examination, and if so whether the outcome of that application would mean that the HSE recommendation against the grant of the DCO could be removed. If so, the part of R16 that relates to the Brenntag site could be removed from the Panel's rDCO. If it has not been determined, the Panel is satisfied that its proposed wording in R16 would enable a re-assessment of whether the Proposed Development could safely be brought into use at a future date.
- 5.12.39 Turning now to the HSE's advice against the development, based on their interpretation of PPG paragraph 068 and their basis for considering this document as policy, the Panel finds that the NPPF itself constitutes the current relevant planning policy document for this matter as the NPSNN is silent on matters related to HSCs. The NPPF only has one paragraph relating to HSCs, which is quoted in paragraph 5.12.8 and relates only to LPAs. Notwithstanding the policy being targeted only at LPAs; the Panel is satisfied that both the NPPF and the PPG should be taken into account. HSE was consulted and participated in hearings and submitted various representations during the Examination. We have had due regard to the advice from the appropriate body (HSE) in coming to our conclusions on this matter.
- 5.12.40 The Panel recognises and understands the issues concerning hazard sites being near other developments and acknowledges the importance of HSE's role in these fundamentally important matters of public safety.

- 5.12.41 However, as the NPPF is the policy document and the PPGs sit below the NPPF, as guidance, the Panel finds the rigid stance taken by HSE on these matters contained within guidance to be overly restrictive.
- 5.12.42 The Panel agrees with the Applicant that the wording proposed by the HSE for the Grampian style requirement(s) could lead to a situation where the Proposed Development could not be opened for traffic due to compensation issues in relation to the EGGS HSC, even though the gasholder has been decommissioned. Given the national importance of delivering new highway infrastructure quickly, the Panel does not consider that the risks of opening the tunnels whilst the EGGS site retains its HSC would constitute an unreasonable risk, so long as the EGGS is retained in a decommissioned state, but that the second limb of the recommended requirement is necessary to enable the situation to be re-assessed at the appropriate time.
- 5.12.43 Turning now to the Brenntag site, the Panel is satisfied that the modification to the Brenntag HSC is likely to be forthcoming, and this would be likely to happen prior to the Proposed Development opening to traffic. In the event that the Brenntag HSC wasn't modified by then, the second limb of Panel's recommended R16, in respect of the Brenntag site, would provide comfort for the Applicant that the development could be delivered and could be operational prior to the HSC being modified.
- 5.12.44 In addition, the Panel acknowledges HSE recognising '*in the rare circumstance that planning decision makers consider this advice too restrictive, then it is open to them to take other matters into consideration*' [REP6-007].
- 5.12.45 The Panel has therefore retained the two limbs of the two parts of the Applicant's proposed Grampian requirement wording in its rDCO attached as Appendix D. If the SoS disagrees with the Panel on this matter, and reverts to the HSE's suggested Grampian requirement wording, then the Panel considers that this need not have a bearing on the grant of the DCO, which could still be made. However, such an approach may cause a situation where the Proposed Development for this nationally significant infrastructure could not be opened for use, or might be delayed significantly due to compensation issues on these adjoining sites.
- 5.12.46 The Panel concludes that the requirements of paragraph 194 of the NPPF in relation to policy regarding development around major hazards would best be met using the Applicant's recommended wording for the Grampian requirement . We recognise that the Applicant has bracketed the Grampian requirement in its final dDCO [REP7-026], arguing that a judgement could be taken now that there would be no actual increased risk to public safety for the reasons already advanced, including the aim of the Silvertown Tunnel to achieve free-flowing traffic in the vicinity of Brenntag and EGGS. However, we consider that public safety is such an important matter that every opportunity should be afforded to resolve these matters

prior to consideration of opening the new tunnels. If not resolved, inclusion of the version of the Grampian requirement that we recommend would enable the SoS to review the potential risk at that point in the light of an updated risk assessment that must be produced under the Grampian requirement. The Panel also concludes that the relevant part of paragraph 4.65 of the NPSNN would also be met, in relation to ensuring that rigorous processes for monitoring and evaluating safety would be put in place.

## **5.13 SOCIO-ECONOMIC IMPACTS**

### **INTRODUCTION**

#### **Policy Background**

- 5.13.1 This section of the chapter assesses the socio-economic impacts of the Development Consent Order (DCO) scheme and, in particular, the user benefits and costs, wider economic effects and social and distributional impacts that would arise from the DCO scheme.
- 5.13.2 According to paragraph 3.3 of the National Networks National Policy Statement (NPSNN) in delivering new schemes, the Government expects applicants *'to avoid and mitigate environmental and social impacts in line with the principles set out in the NPPF (National Planning Policy Framework) and the Government's planning guidance. Applicants should also provide evidence that they have considered reasonable opportunities to deliver environmental and social benefits as part of schemes'*.
- 5.13.3 A further general requirement on Applicants is to promote equality and to consider the needs of disabled people and other groups with protected characteristics in accordance with the Public Sector Equalities Duty in compliance with the Equalities Act 2010.
- 5.13.4 Paragraph 4.3 of the NPSNN states that *'In considering any proposed development...the Examining Authority... is expected to take into account:*
- *its potential benefits, including facilitating of economic development, including job creation, housing and environmental improvement, and any long-term or wider benefits; and*
  - *its potential adverse impacts, including any longer-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts.'*
- 5.13.5 In paragraph 4.5 of the NPSNN, it is stated that applications, including those brought forward under a s35 Direction, will normally be supported by a business case prepared in accordance with Treasury Green Book principles and drawn up on the basis of the Department for Transport's (DfT's) Business Case guidance and WebTAG guidance. *'The economic case prepared for the transport business case will assess the economic, environmental and social impacts of a*



*development. The information provided will be proportionate to the scale of development.'*

- 5.13.6 Paragraph 4.6, while again referring to modelling being proportionate does expect there to be an assessment of benefits and costs under high and low growth scenarios in addition to the core case, with appropriate sensitivity analysis.
- 5.13.7 Furthermore, as part of the economic case all schemes are expected to be subject to an options appraisal, including viable modal alternatives and tolling. The NPSNN states that where projects have been subject to full options appraisal in achieving their status within existing strategies, policies or investment plans, option testing need not be reconsidered but the Examining Authority should satisfy themselves this assessment has been undertaken. This matter was considered in Chapter 4 of our report, with our consideration of the options analysis in paragraphs 4.6.12 to 4.6.35 and our conclusion at 4.6.36 that the assessment of options had been sufficient to satisfy paragraph 4.27 of the NPSNN.
- 5.13.8 In this section we consider and assess whether the application for a DCO meets the requirements for completion of a comprehensive economic assessment of the DCO scheme, including its environmental, socio-economic and safety effects, economic (user) effects as well as wider economic development impacts, in line with Treasury and DfT methodological guidance and then specifically addresses the distributional socio-economic impacts. Environmental impacts are addressed in other sections of this chapter of our report.

## **THE APPLICANT'S APPROACH**

### **Overview**

- 5.13.9 The economic case is an essential input to developing a transport business case and the principal component of the Outline Business Case (OBC) that was submitted by the Applicant [APP-100].
- 5.13.10 The Economic Assessment Report (EAR) [APP-101] sets out the primary analyses of those benefit and cost streams of options readily capable of being monetised under an accepted analytical framework. The options assessed included a 'With Scheme' (the Assessed Case) option alongside a 'Without Scheme' (the Reference Case), over a 60-year appraisal period. This yields estimates of both absolute and relative valuations of a series of economic, environmental, socio-economic, safety and other benefits and costs of the DCO scheme expressed within an overarching framework consistent with the theory and practice of economic appraisal.
- 5.13.11 This largely monetised economic assessment of the user benefits and dis-benefits is complemented by analysis of other issues including wider economic benefits. The wider economic assessment also includes consideration of regeneration impacts as well as other topics

such as social and distributional impacts attributable to specific schemes.

- 5.13.12 The EAR has been submitted both separately and as a contribution to the OBC. The OBC contains summaries of the separately published Social Impact Appraisal [APP-103] and Distributional Impacts Appraisal [APP-104].

### ***Economic Assessment Process***

- 5.13.13 The economic assessment is stated by the Applicant to have followed standard Her Majesty's Treasury/DfT procedures and economic parameters (TAG Unit A1). The appraisal period used for the assessment has been the standard of 60 years assumed in DfT's Transport Advisory Guidance (TAG) for major highway infrastructure programme.

- 5.13.14 The core component reported in the EAR were:

- road user journey impacts – attributable to changes in travel time and vehicle operating cost and user charges;
- road user journey time savings attributable to reductions in incidents;
- reliability impacts - due to changes in journey time variability;
- road user safety impacts - linked to changes in the number and/or severity of accidents;
- construction and maintenance impacts, including impacts on road users during construction and future maintenance;
- public transport impacts (buses/coaches) – changes in travel time, vehicle operating cost and user charges;
- indirect tax revenue – generated by changes in the amount of fuel and other direct vehicle operating costs purchased/changes in expenditure on transport offsetting other changes in the economy;
- road user charge revenue; and
- greenhouse gas, noise and air quality impacts.

- 5.13.15 The results of the assessment were presented in terms of Transport Economic Efficiency and public accounts together with an Analysis of Monetised Costs and Benefits (AMCB). Wider economic effects such as agglomeration, output change in imperfectly competitive markets and tax revenues arising from changes to the labour market were incorporated into the wider assessment.

### ***The Evidence Base for the Economic Assessment***

- 5.13.16 The Applicant assembled the evidence Base for the Economic Assessment from several sources. The impact upon users of the transport system has been estimated in the main from transport modelling and complementary research that is set out in the Transport assessment [APP-086 and APP-087] and the Traffic forecasting Sensitivity Report [APP-105]. The transport data entered into the economic assessment was derived from the London Regional Demand

Model (LoRDM). The model provided estimates of overall travel demand on both the public transport and the highway network and the associated travel patterns and the mode of travel for trips in the study area. The LoRDM incorporates Transport for London's (TfL) River Crossings Highway Assignment Model (RXHAM) and Railplan (public transport model) in order to estimate the level of service for the roads and public transport which result from the LoRDM travel demand estimates and the forecast transport network and services.

- 5.13.17 The Applicant maintains that an issue of particular importance is assessment of incident delay and travel time variability. Extensive TfL data from traffic monitoring cameras near the Blackwall Tunnels recording the type, duration and location of incidents has formed the basis for estimates of impacts relating to:
- (22) potential resilience time savings (savings in delays due to major incidents), informed from rerunning the SATURN traffic assignment model with a 25% reduction in capacity, with and without the scheme;
  - (23) over-height vehicle incident time savings (with an expectation of an 80% reduction, and
  - (24) reliability benefits via a TAG endorsed a method for calculation and valuation of the changes in journey time variability (TAG Unit A1.323).
- 5.13.18 The EAR [APP-101] notes that TAG-based analyses were undertaken of bus, coach, incident time savings and journey time variability benefits. Accident changes were analysed using the DfT's Cost and Benefits to Accidents – Light Touch software and disbenefits during construction using Queues and Delays at Roadworks (QUADRO) software. The cost estimates of construction and operation of the Silvertown Tunnel have been sourced from TfL's commercial finance model. The impact and cost data were provided as inputs to the DfT's Transport User Benefit Appraisal version 1.9.5 which provides monetised values of the DCO scheme's costs and benefits [APP-101].
- 5.13.19 In addition to the foregoing, estimates of the wider economic impacts relating to economic impacts of transport over and above transport user benefits were included in the wider analysis. These refer typically to indicative estimates of impacts in the labour, product and land markets, including agglomeration, output change in imperfectly competitive markets as well as tax revenues arising from labour market impacts derived from relatively simple procedures (TAG Unit A2.1 (January 2014)).

### **The Assessed Case - Overall Core Economic Performance**

- 5.13.20 The findings from the core economic appraisal were reported by the Applicant under three standard indicators:
- Present Value of Benefits – the monetised value of all user benefits arising from the scheme;

- Present Value of Costs – the cost to the public sector of constructing, maintaining and operating the new infrastructure; includes revenue from user charges
- Net Present Value (NPV) for the scheme – the difference between the Present Value of Benefits and Present Value of Costs values

5.13.21 In line with DfT TAG guidance the findings reported by the Applicant included both 'initial' assessment and an 'adjusted' assessment. The latter included additional journey time reliability benefits. The overall specified scheme is projected to yield a positive NPV of £967million (without reliability benefits) and £1,225 (with reliability benefits). These NPV values indicate a scheme that would generate a very positive economic outcome. The overall economic case is detailed more fully in paragraphs 4.6.40 to 4.6.48 of this report, noting in paragraph 4.6.47-48 that the Applicant has complied with paragraph 4.5 of the NPSNN and that the scheme represents acceptable value for money.

### ***Distributional Impacts Analysis***

5.13.22 It was noted in the documents referred to in the preceding paragraphs that the benefits and disbenefits of the DCO scheme may be experienced to varying degrees by specific social groups. These may include: children, older people, people with a disability, Black, Asian and Minority Ethnic communities, people without access to a car and people on low incomes. The Applicant affirmed recognition of the importance of vulnerable groups not being disadvantaged by receiving a disproportionately low share of the scheme benefits, or a disproportionately high share of the scheme disbenefits.

5.13.23 A relatively simple appraisal of distributional impacts was carried out by the Applicant, based on comparisons of the distribution of scheme benefits against the distributions of specific social group populations in accordance with the DfT TAG guidance (unit A4.2). Eight transport benefit indicators were incorporated into the distributional impact appraisal. These are:

- user benefits;
- noise;
- air quality;
- accidents;
- personal security;
- severance;
- public transport accessibility; and
- personal affordability.

The geographical distribution of eight transport benefit indicators was compared with the spatial distribution of concentrations of groups that may be particularly susceptible to the positive or negative impacts.

### ***Impacts of the Scheme on User Groups***

- 5.13.24 For specific user groups the evidence supplied suggests, by including reliability benefits, the DCO scheme could be expected to produce high net user benefits for all vehicle types apart from Heavy Goods Vehicles (HGVs). HGVs would experience user time and vehicle operating cost benefits, but these would be outweighed by the assumed user charges intended to reflect road space occupied and contribution to congestion, emissions and the wear and tear to the road surface.
- 5.13.25 Within the overall NPV the largest shares of user benefits (journey time, vehicle operating cost, and user delay during construction) would accrue to bus and coach users (some 33% of total benefits) and business car users (some 26%). Under the scheme 23% of benefits are projected to be enjoyed by users of cars with commuter and 'other' journey purposes, and some 18% accrues to goods vehicles (i.e. HGVs and large goods vehicles (LGVs)). The distribution of user charges indicates goods vehicles would pay the highest proportion of the total charges (some 50%), while bus and coach passengers have been assumed to pay no user charges. Overall bus and coach benefits represent 53% of total projected net benefits (including reliability) arising from the scheme.

### ***Environmental Impacts***

- 5.13.26 Turning to environmental impacts the appraisal reported a slight adverse impact on air quality (-£3 million) and noise (-£6 million). The costs attributed to air quality are mainly as a result of a very small increase in nitrogen oxide (NOx) emissions. The assumed significant increase in the number of buses through the Silvertown Tunnel has been projected to contribute to the very small increase in NOx emissions [APP-101; AS-022]. Under the scheme greenhouse gases emissions are projected to reduce, with an estimated monetary saving of £12 million, resulting in a net (monetary) environmental benefit of £3 million.

### ***Road Safety Impacts***

- 5.13.27 In relation to assessment of safety benefits the Cost and Benefits to Accidents – Light Touch analysis indicates that the overall study area would experience a modest decrease in accident costs valued at about £12.4 million over 60 years.

### ***Wider Economic Impacts and Regeneration***

- 5.13.28 This issue was addressed in both the EAR [APP-101] and the Regeneration and Impact Assessment Report [APP-102]. According to the Applicant wider economic impacts would generate a total value of £377.5 million over the 60 year period discounted to a Present Value of Benefits equal to £92.2 million. Some 60% of this is attributed to output change effects for imperfectly competitive markets with the bulk of the remainder accounted for by agglomeration benefits.

5.13.29 The DCO scheme would be expected to increase economic activity and trade between local businesses in the primary catchment area. Improvements in economic performance would tend to make the area more attractive to inward investment, raise land values and facilitate faster development of the area. A bespoke land use transport interaction model suggests the scheme would generate a net increase of 3,000 jobs within East London, 2,200 going to those who live within the eight boroughs that make up the Regeneration Area [APP-101; APP-102]. Improved bus services assumed under the scheme would improve access to existing jobs, supporting an additional 750 local residents into employment. The scheme would create the largest effect on residents of the London Borough of Newham (LBN), who are projected to gain access to 1,250 jobs, London Borough of Tower Hamlets (LBTH), who would gain access to 750 jobs, and Royal Borough of Greenwich (RBG), who would gain access to 600 jobs.

#### ***The Profile of User Benefits***

5.13.30 The evening and inter-peak periods would account for the largest proportion of benefits (39% and 28% respectively), with morning peak benefits being lower (19%). Benefits at weekends would be the lowest due to lower traffic flows. Under the Applicant's projections the travel time benefits in the morning and evening peaks increase slightly between the opening year 2021 and 2031 and then decline from 2031 decline in part due to the effect of background traffic growth.

#### ***Economic Assessment and Uncertainty – Sensitivity Tests***

5.13.31 The Applicant accepted that there is uncertainty surrounding future conditions in which the scheme would be implemented. Consequently, and in accordance with the NPSNN, the Applicant undertook a number of sensitivity tests to reflect alternative scenarios including assumptions about the effect of economic conditions in London compared to elsewhere in the country. These are set out in The Traffic Forecasting Report -Sensitivity Testing [APP-105].

5.13.32 Three sensitivity tests were carried out by the Applicant, one using London Values of Time (VoT's) based on the recommended values in the TfL Business Case Development Manual. The Business Case Development Manual suggested value of time for business users is about 39% higher, and for the commute/other category of users the value of time is about 29% higher than relevant national values of time used in the Assessed Case. Employing these generated a significant uplift in estimated net user benefits of 73% (initial) and 66% (with reliability benefits added).

5.13.33 Two other sensitivity tests were carried out with assumptions for low development and low car growth (referred as the low growth scenario); and high development and high car growth (referred as the high growth scenario). The lower growth scenario assumed the same set of user charges as the Assessed Case while the high growth

scenario assumed a higher set of charges compared with the Assessed Case.

- 5.13.34 The net user benefits for the low growth scenario were projected to be about 17% (initial) and 16% (with reliability benefits) lower compared to the Assessed Case whilst the net user benefits for the high growth scenario are about 2% (initial) and 3% (adjusted with reliability) higher than for the Assessed Case. Overall, the results show much higher net benefits for the London VoT and high growth scenarios. While the low scenario reduces the estimates of NPV, this still represents a high NPV.
- 5.13.35 In response to requests from the Panel, the Applicant provided more information on distributional impacts in a Report on the Impact of the Scheme on Low Income Residents [REP3-024].
- 5.13.36 The Applicant asserted that the close alignment of the enhanced bus system to the distribution of lower-income groups in the population on either side of the River Thames would ensure that the system set out in the indicative network would meet the needs of such groups in the population drawing upon [APP-101, APP-103 and APP-104].
- 5.13.37 Again in response to the concern of Boroughs (for example LBN [REP3-035<sup>71</sup>]) and the Panel at the Issue Specific Hearing (ISH) on 17 January 2017, the Applicant initially responded that it would regard it as very unlikely that a scenario would emerge without the Assessed Case level of bus services through the tunnels because it would be contrary to the DCO scheme's objectives. The Applicant noted that as no new modelling had been undertaken, in responding to the request for production of an assessment of benefits without the enhanced bus services, the estimate would be simplistic in that it would only remove bus user benefits and bus operational costs and revenue. The Applicant also noted that in the event of the bus enhancement not being implemented, it would consider adjusting user charges to reflect that new assumption. It also argued that the existing route, 108, would continue to operate, with significant time savings reliability benefits for users and operators of the route. The Applicant also noted that should the bus improvements not be implemented there would also be some negative effects on other users of the tunnel as fewer car users would be diverted to public transport than originally forecast, although this would not be significant.
- 5.13.38 The Applicant, nevertheless, provided the information sought in [REP3-029]. The effect of removing the enhanced bus package from the economic assessment involves removal of any user benefits and the related private sector bus operated revenue and cost from the business impacts. It also involves the removal of local authority, bus operational costs and revenues from the public accounts tables. Such

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<sup>71</sup> Pages 8-11 refer

a change would have two effects on the economic appraisal. It would produce a reduction in the overall user benefit, particularly for non-business users, together with a significant reduction in the operational costs of the scheme. TfL would no longer need to fund the additional bus services. The Applicant acknowledged that these services would be loss making and charging revenue would help cover any shortfall.

- 5.13.39 On the basis of the Applicant's reported estimates with the net surplus of revenue less investment and operational costs increasing from £9 million in the Assessed Case to some £143 million in the case with no bus improvements, this implies the subsidy requirements for the bus enhancement package as specified in the original model runs is of the order of £135 million. Nonetheless, the Applicant reported the effect of removing the bus enhancement package would have a significant effect on the overall economic performance of the scheme. The NPV would reduce from £1225 million including reliability benefits to £797 million where no such bus package had been implemented. Similar reductions were reported where reliability benefits are ignored.
- 5.13.40 The Applicant argued that the NPV would remain high in both cases and, given there are no net investment or operating costs as these are covered by user charge, the DCO scheme would still represent high value for money. The Applicant did stress, however, that if removal of the bus improvements was a serious consideration TfL would consider other adjustments including user charge changes to promote realisation of the DCO scheme's objectives or implement other transport improvements which offer benefit.
- 5.13.41 Nevertheless, later in the Examination, the Applicant reported that it had undertaken further analysis of a lower enhanced frequency of buses through the tunnel than that assumed in the Assessed Case (down from 37.5 to 20 buses per hour, a 40% reduction) claiming the results showed that this would have little impact on the level of benefits secured or the extent of diversion from private car to public transport [REP5-002]. The Applicant claimed that such revised arrangements would yield the same level or quality of service to potential passengers as that envisaged under the arrangements specified for modelling the effects of the DCO scheme [REP6-082].

### ***The Geographical Distribution of Time Benefits***

- 5.13.42 The economic assessment offered an estimate of the net effect of the DCO scheme at an aggregate level without differentiating the impacts geographically or by population sub-group.
- 5.13.43 The Applicant, however, had as part of the original submission undertaken an outline spatial analysis of benefits on a geographical basis in the Distributional Impacts Appraisal [APP-104]. Transport User Benefit Appraisal was run with a (geographically defined) sector file, user benefits between each model zone origin-destination pair were aggregated into 21 larger geographical areas referred to as sectors. As sectors cover both a different sized area and have a



different population, it is necessary to apply a standardising factor to enable benefits accruing to one sector to be compared meaningfully to those in another sector.

- 5.13.44 The user time benefits from each sector and to each sector were extracted from the detailed Transport User Benefit Appraisal output file (highway) and public transport and reliability elements were added. The analysis under two population based standardised indices showed the highest user time benefits are expected to accrue to the three host boroughs of Greenwich, Newham and Tower Hamlets.

### ***Distributional Impacts***

- 5.13.45 The original Distributional Impacts Appraisal is closely linked to the Social Impacts Appraisal [APP-103]. The Social Impacts Appraisal looked at the overall impact of a range of indicators that are not already part of the economic or environmental assessments. The Distributional Impacts Appraisal looked at the extent to which the DCO scheme affects specific social groups. These more vulnerable groups include children, older people, people with disability, Black, Asian and Minority Ethnic communities, people without access to a car and people on low incomes. This also informed the Health and Equalities Impact Assessment (HEqIA) [APP-090].

- 5.13.46 The Distributional Impacts Appraisal compared the distribution of the DCO scheme's benefits against the distribution of different social groups to assess the extent to which benefits experienced by those groups compared to the wider population. The DfT guidance specifies eight impacts that are to be assessed in the Distributional Impacts Appraisal. These are:

- user benefits;
- noise;
- air quality;
- accidents;
- security;
- severance;
- accessibility, and
- personal affordability.

- 5.13.47 The key findings of the Applicant's Distributional Impacts Assessment can be summarised as follows:

- user benefits - The distribution of net user benefits by income group is in line with population distribution. The conclusion was that the DCO scheme is moderately beneficial for low income users and medium/high income users;
- noise - In all-income groups more residents would experience the increase in noise level than would experience a reduction. There would be no material change close to any schools or community centres. Overall, it was concluded that would be a slight adverse consequence for the most income deprived group, and moderate

to large adverse consequence for other income groups. It was assessed that there would be a neutral effect for children;

- air quality - The DCO scheme was assessed as having a large beneficial effect on the air quality of those populations making up the most deprived regional income quintiles with the largest beneficial effect on areas of the second most deprived group. Changes in air quality close to schools would most cases be imperceptible. The Applicant's conclusion is therefore that the DCO scheme is largely beneficial for people in the most income deprived groups; moderate or large adverse for other income deprived groups; and neutral again for children;
- road accidents - The beneficial and adverse impacts would be balanced for cyclists and motorcyclists. For pedestrians, children, young adult males and older people beneficial impacts slightly outweigh adverse impacts. Overall, the effect would be neutral for cyclists and motorcyclists with a slight beneficial effect for pedestrians, children, older people and young adult males;
- security - The findings indicated that the DCO scheme would have no material impacts;
- severance - Improvements to pedestrian cycling facilities in Silvertown would reduce severance. The area includes a high concentration of households without a car and a low concentration of older people. Overall, the effect would be slightly beneficial for older people; moderately beneficial for children and disabled people; largely beneficial for households without a car;
- accessibility - The proposed significantly enhanced bus service suggested a slight increase in the number of study area residents able to reach their nearest major town centre within 15 minutes. Overall, the effect would be slightly beneficial for young people, older people, disabled people and households without a car, and
- personal affordability - Low-income users account for a low proportion of cross-river car trips currently. The impact of user charges and vehicle operating costs was assessed as slightly adverse for people on low incomes. Savings in the cost of travel achieved by switching from the underground and rail to an improved bus service primarily benefit low-income users. Overall, there is a slightly adverse effect for low-income car users and a largely beneficial effect for low-income public transport users, again, assuming that the bus services are improved in line with the Assessed Case.

5.13.48 The Applicant's assessment highlighted that a cross classified group are households without access to a car. The areas closest to the DCO scheme are as low as or lower than the already low average on this indicator for London. Large parts of LBTH have high concentrations of households without access to a car. The proportion of residents with no access to a car is also an indicator of economic deprivation. There are several areas close to the DCO scheme that fall within the 20% most deprived, including parts of LBN, LBTH and RBG.

5.13.49 Income distribution is a key indicator in the assessments of the distributional impacts of user benefits, personal affordability, and

noise and air quality. The net user benefit (or disbenefit) of the DCO scheme reflects the combined impact of time benefits, vehicle operating costs and user charges. With regard to the initial time benefits and net user benefits for car users, the Applicant's appraisal reported a net disbenefit for both low and high income groups in 2021 as the costs of user charges exceeds the benefits derived from journey time savings and reduced vehicle operating costs. With the inclusion of reliability benefits, for 2021 users from low income groups would continue to experience some net disbenefit, while medium/high income users would experience a net benefit. Users as a whole across both income groups would experience a net benefit. However, by 2031, when reliability is taken into account, users from low income groups would also experience a net benefit.

5.13.50 For public transport users, the net user benefit to public transport users derives entirely from time benefits and valued at £16.6 million. Within the study area, 69% of the population are in the low income group, of which 60% are presumed to be frequent bus users. The Applicant therefore assumed 75% of frequent bus users in the study area would be from the low income group. It allocated the distribution of benefits between income groups on that basis.

5.13.51 Combining the benefits for both road users and public transport users, points to an overall net user benefit of £15.3 million across the study area. Among the low income group the projection is a net user benefit of £11.8 million. On the basis of these assumptions the share of the net benefit received by low income users (77%) would be greater than the share of study area population (69%) in this group. Therefore the Applicant concluded the impact for this group would be scored as large beneficial.

### ***Income and Affordability***

5.13.52 The concept of personal affordability assessment focuses on changes in the monetary cost of travel. It does not take into account the benefits that users experience as a result of time savings. The Report that the Applicant produced on the Distribution of User benefits [REP2-042] provided a strategic personal affordability review to identify aspects of the DCO scheme that may have positive or negative consequences on key financial costs. Across the study area the DCO scheme is projected to produce a net reduction in car user fuel and non-fuel combined vehicle operating costs of £1.0 million in 2021 (2010 prices). The share of benefits for the low income group (31%) is smaller than their share of population in the study area (69%); therefore according to the Applicant on this basis the impact for that group was assessed as slight beneficial.

5.13.53 The impacts of user charges would be adverse for both low and high income groups because there would be a net increase in costs. The share of costs for the low income group overall (26%) is smaller than the share of population in the study area (69%) so the impact for that group is scored as slight adverse. The medium-high income group pay

a larger share of the costs relative to their proportion of the population so the impact for them is scored as large adverse.

- 5.13.54 The impacts for user charges were assessed by the Applicant on the basis of relative shares of the disbenefits to the shares of the populations. This does not take into account the monetary value of time savings and reliability. Nor does it refer to the impact on individuals within the two income groups.
- 5.13.55 Turning to assessment of public transport mode shift savings, according to the Applicant the benefits are assessed as large beneficial for low income users because the share of benefits is greater than the share of the population.
- 5.13.56 The Applicant also reviewed the personal affordability analysis at Borough level in [REP2-042]. For those that drive the vast majority of trips, in all Boroughs this would occur when off-peak user charges applied or no user charge is applicable. Thus it was not envisaged that this would make journeys unaffordable for the vast majority of households. For those that do have to travel when peak user charges would apply, the Applicant acknowledged there would be some regular cross river highway commuters on low incomes where the improved bus network does not offer a realistic alternative.
- 5.13.57 Overall, according to the Applicant, the net position in terms of affordability across the study area is positive. Although some highway users may decide not to make as many cross river journeys on the basis of an increase in costs from the user charge, a slightly larger proportion of residents would see their total cross-river travel costs fall through introduction of enhanced bus services. Given that the personal affordability impacts differ by travel mode, overall the Applicant scored the personal affordability impacts of the scheme as slight adverse for low income car users and large beneficial for low income public transport users.
- 5.13.58 The Applicant also undertook an assessment of the impact of higher user charges on low income residents, while applying variations to Values of Time (VoT's). Under a High Growth (within the economy and in population change) scenario with VoT's increased by 20% compared to the Assessed Case, user charges are increased to manage the flow through the tunnel to levels similar to those in the Assessed Case. This has been achieved by increasing user charges by 20%. The bus network does not change from the Assessed Case. Under this scenario low income users get 77% of the benefits. This is more than the 71% of benefits for low income users in the Assessed Case. This is attributed to the higher levels of growth being focused where growth is already planned to take place, particularly within RB Greenwich, Newham and Tower Hamlets, which are served by the proposed bus network.
- 5.13.59 Under a High Growth, High (London) VoT scenario, growth is increased by 20% and values of time are increased to London levels. This

requires user charges to be increased by 50% in order to manage the flow through the tunnel to levels similar to those in the Assessed Case. Again, the bus network remains unchanged from the Assessed Case. Under this scenario the share of net benefits going to low income groups would increase further to 79%.

- 5.13.60 Under both scenarios therefore where higher user charges were required to be introduced to manage demand the share of benefits accruing to lower income residents and areas slightly increases. This is because, although increases in the charge do reduce benefits for low income users, they also reduce benefits for higher income users. In contrast the public transport benefits are not subject to the increased cost of the user charge so continue to provide benefits, particularly for low income users who rely on the network more than other users.

## **ISSUES ARISING**

### **Matters of Concern**

- 5.13.61 While, for the most part, the findings of the core economic assessment reported in the EAR were not challenged, concerns were raised by host boroughs and other boroughs in initial Relevant Representations (RR), in Written Representations and Local Impact Reports (LIRs) as well as at hearings and further submissions during the course of the Examination over the effect of the scheme on certain groups in the population, notably lower income groups. For example London Borough of Tower Hamlets (LBTH) expressed concern over the impact of charges on low income groups [RR-334 and REP1-004], suggesting a need for some form of local discount and a need to secure the proposed enhanced bus services and measures to enhance crossing facilities for pedestrians and cyclists. The Royal Borough of Greenwich (RBG) made similar points [RR-278 and REP1-001]. They noted the absence of assurance that the bus routes, on which socio-economic benefits are predicated, are an integral part of the proposal. They also noted disproportionate impact on RBG residents and businesses of paying a peak charge in both peak periods in the absence of a discount scheme within charging proposals, despite high levels of local deprivation. They sought a committed and funded public transport element to a quantum that, at least, matches the public transport modal increase forecast in the Transport Assessment.
- 5.13.62 LBN [REP1-013] sought local benefits to offset the distributional impact of the DCO scheme. The London Borough of Lewisham (LBL) [RR-259] commented on the need to secure the bus services and enhanced pedestrian and cycle crossing facilities. A particular focus was on those currently travelling by car and the ability of alternative public transport arrangements to offset any disbenefits faced by such groups. They also commented that if, in the future, TfL decide to apply a local discount, LBL would like to be part of discussions to ensure that the methodology for areas to qualify for a discount is fair and not simply based on borough boundaries.

- 5.13.63 The London Borough of Hackney (LBH) [RR-338] expressed concern over the uncertain benefit to local public transport users and lack of benefit to cyclists and pedestrians. The bus services planned for the new tunnel [APP-086, p 284, Figure 7-47] were only indicative and assurances are needed if the promised increase in bus modal share through the tunnels from the 10% to 30% in the Assessed Case [APP-086, p288, Fig 7-49] are to be realised. They saw the proposal as a missed opportunity to improve cross-river connectivity for cyclists and pedestrians both of whom will be prevented from using the tunnel. In particular, banning cyclists from the tunnel means that the only way to legally cycle across the river downstream of Tower Bridge will continue to be through the Rotherhithe tunnel which has critical air quality issues for cyclists. The tunnel's pricing mechanisms will effectively penalise cyclists. The tunnel not being open to cyclists will force them to use the nearby Emirates Cable Car. An adult single for a cyclist on the Cable Car is £3.40 compared to £1.00 for cars or light vans using the tunnels (off-peak) (£3 in peak).
- 5.13.64 Comments were also made by business interests. The South East London Chamber of Commerce argued that the user-charges would be an unfair tax on east London businesses compared to those in west London [RR-033] and the Federation of Small Businesses stated that the user charges would place a burden on the operation of small businesses in the locality [RR-233]. Mayflower Hygiene Supplies [RR-181] commented that they were concerned that charges will be put into place on the existing Blackwall crossing and that this would have a huge financial effect on the company which uses this crossing on a daily basis to deliver goods north of the Thames. Tarmac Limited [RR-192] noted that there would be an unacceptable economic impact on delivered prices for a network of sites north and south of the River Thames that are reliant on crossing the river. However, as noted at the outset of this report there were also more general expressions of support for the DCO scheme from business interests, such as London First [RR-290], the London Chamber of Commerce and Industry [RR-303] and the Canary Wharf Company plc [RR-323].
- 5.13.65 On the issue of user charging, a significant number of Interested Parties (IP) also initially raised the question of equity and fairness between East and West London. This was raised by a number of contributors, for example Joan Burch [RR-060], Marcus Relton [RR-062], Hamed Shahbakhti [RR-063], Dr Valerie Trower [RR-084], Sarah Poole [RR-089], Fiza Khan [RR-100], Maria Ruggiero [RR-112], Andrew Riley [RR-232], Paul McQuillen [RR-250], Laura Sessions [RR-275], Alan Haughton [RR-300], Chris Gallant [RR-311], Merida Mathen [RR-312], Britannia Village Management Company [RR-316], Ian Gibson [RR-352], Agnes Vivier [RR-358], Elisabeth Whitebread [RR-378], and Ian James Seale [RR-028]. He commented that there is massive discrimination for those wishing, or indeed needing, to cross the Thames to the East of Tower Bridge/Rotherhithe.
- 5.13.66 Stewart Walker [RR-009] commented that he felt that the proposal to charge for both the Silverton Crossing and Blackwell Tunnel is hugely

unfair to those living in the East of London - it effectively means that to travel from south to north has a premium of over £5 whilst those in the West can do this for free. Emily and Mike Norton [RR-286] commented that they objected to the tolling structure in that it penalises residents and businesses in East London compared to West and Central London where it is free to cross the river. The structure of the toll proposals are particularly unfair to those who live or run businesses in South East London and occasional travellers who are not account holders and fear that this will affect investment in South East London. Helen Hutchinson pursued the fairness argument to the close of the Examination [REP6-013] asking how TfL could justify charging people in the East to cross the river when those in the West can do so for free? She argued that tolls in the East are an unfair tax levied on the poorer inhabitants of our capital.

- 5.13.67 More specifically, Dr Mary Mills [RR-002] commented that she had concerns about the bad effects of the tunnel on regeneration and community issues in East Greenwich and the Peninsula and Ann Galloway [RR-012] argued that people who live in SE7 or SE10 or E1 or E14 should not have to pay as [the tunnel] is a local road for them. Rob Hunter [RR-068] also commented that local residents should be given a reduced price to travel through the Blackwall and Silvertown tunnels such as the residents of Dartford receive for the Dartford Tunnel and Bridge and Daniel Margetts [RR-119] made a similar point as did Glyn Ellis [RR-175].
- 5.13.68 No to Silvertown [RR-193 and REP1-059] included in their comments that the business case does not adequately consider the economic impacts for users; that the scheme will not support regeneration in the immediate or the wider areas, as claimed, and that tunnel will not provide economic or social benefits to people living in areas most in need of regeneration locally, notably North Woolwich and Thamesmead. The Campaign for Better Transport (CfBT) [RR-201] argued that there would be no benefit to the communities in North Woolwich, Silvertown and Canning Town where existing car ownership levels are relatively low, and the new homes being built there are largely car-free. They suggested that toll costs would adversely impact local small businesses making deliveries (eg florists). They also sought encouragement of sustainable travel [REP1-050]. The Newham Green Party [RR-345] expressed concern on the impacts on/lack of benefits for local small businesses and residents. They wanted more crossings, but ones that work for everyone in the local community, not just commuters coming in from outside London. The Westcombe society [RR-348] commented that many in their area are concerned that the proposed tidal flow for charges will negatively impact on residents and businesses in south east London. Some individual also pursued the lack of public transport provision across the river, for example Simon Robinson [RR-183].
- 5.13.69 While by implication recognising a substantially enhanced public transport system could offer a potential alternative to the car, the host boroughs remained unconvinced throughout the Examination about

the commitment of the Applicant to provide the enhanced level of service assumed in the economic assessment, bearing in mind budgetary constraints and the fact that no binding commitment to provide such services had been provided. They developed their case on the need to offset the adverse socio-economic consequences on lower income groups as the Examination progressed e.g. RBG [REP2-015].

- 5.13.70 They also had issues concerning the overall transport modelling that is addressed in section 5.2 of this report, which could have influenced the conclusions of the EAR. The output from the transport modelling system provides the key inputs to the core economic assessment as reported in the EAR. In Section 5.2 we detail all the uncertainties that can have a bearing on the outcome of the traffic and transport modelling. These could potentially have affected the robustness of aspects of the overall EAR.
- 5.13.71 At a strategic level, the key issue raised by IPs was the extent to which the case in support of the DCO scheme is dependent upon the implementation of the proposed enhanced bus system through the proposed new tunnels. The results of the economic assessment demonstrate the importance of the enhanced bus system to securing the overall goals of the Applicant, together with maximising the economic benefits to both users and non-users of all modes including those people who would continue to drive through the tunnels.
- 5.13.72 The Applicant's claim that a reduced bus frequency through the tunnels could meet the passenger demands was not accepted by the host boroughs without evidence being provided by detailed modelling, which had not yet been undertaken. While the outcome of the Applicant's distributional analyses is that the DCO scheme is overall beneficial, they stressed the evident significance of the enhanced bus services to ensuring a more equitable distribution of benefits among different income groups.
- 5.13.73 At the close of the Examination, a number of boroughs continued to express concern about the potential implications of imposition of a charging regime for their residents and in particular lower income groups who require to cross the river by car. This issue was pressed right up to closing submissions by the host boroughs [REP7-001, REP7-004 and REP7-011]. The London Borough of Lewisham (LBL) also remained concerned that there is a need to consider the impact on their lower income residents [REP7-014] and the London Borough of Southwark (LBS) remained concerned that the level of bus services through the tunnel is adequately secured [REP7-018]. These concerns are central to consideration of the distributional impact of the benefits.



## **PANEL'S REASONING AND CONCLUSIONS**

### **Overall Economic Assessment of the DCO Scheme**

- 5.13.74 On the basis of the Applicant's own economic assessments and complementary analysis of wider economic benefits and regeneration [APP-101], there is a robust overall economic case for the DCO scheme. We read or heard no evidence that would undermine this conclusion. While there are implications for the environment, including in relation to both noise and air quality, these are of a scale measured in economic impact terms that do not raise any uncertainty about the overall economic assessment. The DCO scheme is therefore consistent with section 4 of the NPSNN in this respect.
- 5.13.75 We do not consider that the issue of overall fairness between east and west London in relation to user-charges for river crossings is a matter that can be properly addressed in considering a specific DCO scheme such as this. It can only be addressed through wider Mayoral policy as we accept that there are compelling reasons for including user-charges in the DCO scheme in relation to mitigating environmental impacts as well as to secure funding.

### **Distributional impacts**

- 5.13.76 Nevertheless, it is important to ensure that the potential benefits of the DCO scheme are realised in a manner that is fair and meets the requirements of paragraph 3.3 of the NPSNN. In our view, the importance of securing the level of public transport service specified in the Assessed Case cannot be over-estimated.

### ***Low Incomes and the DCO scheme***

- 5.13.77 The Applicant reported that the impact of the DCO scheme on low income highway users would depend on the time of day they travel, the availability of alternative river crossing options and the frequency with which they travel. The Applicant's projections indicate no difference in the total change in cross-river trips by low income users compared to medium and higher income users as a result of the DCO scheme. However, recognising low income users have lower values of time, low-income car-users are more likely to seek out alternative cross-river routes such as the Rotherhithe Tunnel. This observation implicitly recognises the limitations of even a substantially enhanced bus network in addressing all the existing travel requirements of highway users and in particular those of low income car users.
- 5.13.78 The number of low income residents crossing the river is expected to increase as a result of the DCO scheme for the host boroughs. Low income residents also receive the majority of the user benefits of the DCO scheme. Although there is a forecast reduction of 550 low income cross-river highway trips, this is offset by an increase in 2,020 cross-river public transport trips – a significant proportion of which are argued to be low income users. The overall impact on low income host borough residents is particularly positive, with a reduction of just 260

low income cross-river trips car trips, offset by an increase of 1,620 public transport trips.

- 5.13.79 Nevertheless, we are concerned as to whether the net benefits of the DCO scheme would be secured simply by the terms of the Applicant's final draft DCO (dDCO) [REP7-026] for low-income groups in the population. Most obviously, any benefits to such groups and particularly those living in the host boroughs depend upon the introduction and continued sustained operation of a quality of bus service in line with that modelled under the Assessed Case linking areas north and south of the river, namely 37.5 buses per hour making use of the tunnels. These services are intended to promote cross river journeys currently not well served directly by public transport and would offer an alternative mode to many current Blackwall Tunnel car users.
- 5.13.80 At the level of the individual traveller, the effect of the road user charge would have greatest effect on lower-income groups. These groups are likely to respond in one of several ways. The first would be seeking alternative routes, particularly if they were travelling in the peak. Secondly, although it is evident that the enhanced bus system would not meet the needs of all of the trip origin destination patterns that are currently reflected in travel by car, in some cases lower-income car users would divert to public transport where the journey origin and destination pair were served adequately by the proposed new or enhanced services.
- 5.13.81 In the third response, trips may be suppressed totally, though from the evidence presented those would not amount to significant numbers of journeys. What is apparent is that because of a combination of issues linked to the value of time for different income groups, the imposition of a user charge would impose disbenefits on lower-income groups largely because, given their lower value of time, the charge levied would outweigh any apparent benefits in terms of reduced journey times by road that they may currently be making, including taking account of variability in that travel time.
- 5.13.82 Thus, a relatively small group of the population in the host boroughs would be adversely affected by the proposed user charges and in not all cases would the improved public transport provided for under the assessed scheme be able to offset that disbenefit.
- 5.13.83 It is evident that for a larger number of people the bus improvements are essential not only to achieving the wider objectives of the DCO scheme for the Applicant, but also to offset the disbenefits for them arising from the introduction of a user charge for both tunnels. The Panel therefore concludes that the bus service enhancements that were subject to modelling and provided a significant element of the economic benefit need to be guaranteed. This is to ensure not only that the wider objectives of the scheme are realised but also that issues of fairness in terms of the distribution of benefits are achieved

in line with paragraph 3.3 of the NPSNN, as would be expected by the host boroughs and the residents of those host boroughs.

- 5.13.84 Progress towards securing these bus services and concessions for defined potentially disadvantaged groups was made during the Examination. The new Requirement 13 that was inserted into Schedule 2 by the Applicant was to address concerns of the Panel and the Boroughs that the proposed bus services through the new tunnel would not materialise. The requirement originally was confined to specifying bus type. However, during the course of the Examination, it was strengthened substantially. The final dDCO [REP7-026] specifies a minimum level of provision on opening and for the duration of the monitoring period and that these services would operate in accordance with the Bus Strategy, a Document to be certified under Schedule 14 to the dDCO, that was also strengthened [REP7-025]. Funding for concessionary travel through the tunnel for qualifying residents of the host boroughs would be provided in accordance with the Bus Strategy.
- 5.13.85 The host boroughs, LBN [REP7-004], RBG [REP7-011] and LBTH [REP7-001] aspire to a higher level of bus services consistent with the Assessed Case modelled flow of vehicles. We consider that their aspirations should be supported, notwithstanding the Applicant's explanation at D6 [REP6-082] since this was introduced so late in the Examination that there was no opportunity to explore the validity of the calculations behind the tabulated results of the analysis presented. Consequently, in Chapter 9 we propose strengthening of the terms of Requirement 13 along the lines sought by the host boroughs to ensure that the DCO scheme realises both scale and the distribution of benefits calculated for the Assessed Case<sup>72</sup>. Our recommendation also meets concerns of neighbouring Boroughs that the Assessed Case level of bus services through the tunnels should be secured, for example [REP7-018].
- 5.13.86 Calls were made from the outset of the Examination by the host boroughs for a residents' user charge discount. LBN saw the matter as an equality issue under the Public Sector Equality Duty (PSED) of the Equalities Act 2010 [REP2-011]. A significant number of IPs, including Morden College and Knight Dragon, as well as those noted earlier in this section of the report, also advocated the provision of a discount scheme for residents or other groups of the population in the locality.
- 5.13.87 The Panel recognises that the concern to achieve equity is consistent with the principles enshrined in the Equalities Act. The Applicant originally claimed that as low income residents are projected to receive the majority of net benefits there was no need for a residents discount to mitigate adverse impacts on low income residents [APP-097 and APP-107]. Additionally, the Applicant was concerned that a general residents' discount for the host boroughs would significantly

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<sup>72</sup> See paragraphs 9.5.9- 9.5.10 and 9.9.19

increase demand for use of the tunnel thereby requiring user charges to be increased to manage flows. This would result in reduced net-benefits for the residents of other East London boroughs. According to the Applicant the most effective mitigation to adverse impacts of the scheme on low income users would be to provide an appropriate level of bus services.

- 5.13.88 We recognise that a user charge is an effective demand management tool. The Panel agrees with the objective that the Silvertown Tunnel and the Blackwall Tunnel together should be managed in such a way as to ensure there is no induced demand. However, we note the Silvertown Tunnel itself, notwithstanding the provision of bus priority measures, will normally be operating at well within its effective capacity. We also note the very small number of low income car users likely to seek to cross the river. Thus, a selective discount scheme for low income users, perhaps applied only to the proposed new tunnels, need not materially affect traffic flows.
- 5.13.89 Initial versions of the Charging Policies and Procedures Document only suggested that there would be a waiver of the initial registration fee for local residents and businesses to register for discounted user-accounts, but the latest version of the Charging Policies and Procedures [REP6-060], a document to be certified under Schedule 14 to the dDCO, also grants under Policy 6, a 50% discount on charges for qualifying residents of the host boroughs. We welcome this.
- 5.13.90 The failure to extend discounts for low income residents in neighbouring boroughs was a particular outstanding objection from LBL, though not expressly one of the reasons why their final submission noted a remaining objection to the overall DCO scheme [REP7-014 and REP6-025]. The reasons cited by the Applicant for not extending the low-income residents' discount to Lewisham are primarily that the numbers concerned would be very low (five to ten times lower than in Greenwich) and that residents in Lewisham have an available non-charged alternative in the Rotherhithe Tunnel<sup>73</sup> [Appendix to REP6-075].
- 5.13.91 We find that the Applicant's general approach on this matter to be broadly convincing, though we accept that any decision should not be based on administrative convenience. Thus, we are content that the issue of whether the discount should be larger than 50% or extended to low income residents of other neighbouring Boroughs is a matter that could be addressed by the Silvertown Tunnel Implementation Group (STIG) when the initial charges come to be set under the Charging Policies and Procedures Document. Although that is a certified document, the procedures laid down within it do allow for discounts and concessions to be reviewed.

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<sup>73</sup> as would low income Southwark residents

- 5.13.92 In this context, the Panel also accepts the arguments presented by the Motorcycle Action Group (MAG) and its supporters, that granting user charge concessions to motor-cycles (and other powered two wheelers) would also be a means of mitigating the impact of user-charges on low income travellers. Initially, requests for waiving charges for motor-cyclist were raised on more general grounds that motor-cyclists do not cause congestion and have low impact in relation to air quality [RR-026, RR-155]. However, after the Applicant sought to resist such concessions, the benefit in terms of assisting low-income travellers was also raised by the MAG [REP6-017 and REP7-010] and by individual supporters of their case.
- 5.13.93 We did not find the arguments advanced by the Applicant<sup>74</sup> to resist the MAG case to be at convincing and seemed contrived in order to find a reason for resisting what seemed a reasonable case presented by MAG. To grant an exemption or 100% discount for motor-cycles would be consistent with other instances where user charges are levied elsewhere in the Greater London area (the Congestion Charging Zone and the Dartford Crossing) and would not prevent more polluting motorcycles being levied charges within Ultra Low Emission Zones (ULEZ). The Panel does not believe that to accept greater concessions or discounts for motor-cycles would materially affect the traffic flows anticipated in the Assessed Case nor give rise to significant environmental consequences.
- 5.13.94 This said, the same considerations apply as to those for possibly increasing the local residents' discount or widening its availability. It is a matter that could be addressed by the STIG when the initial charges come to be set under the Charging Policies and Procedures Document. As referred to above, although that is a certified document, the procedures laid down within it do allow for discounts and concessions to be reviewed.
- 5.13.95 Before turning to our overall conclusions, a comment must be made on the matters that the Applicant has agreed should be included in agreements that it proposes to enter into with each of the host boroughs [REP7-042, REP7-043 and REP7-044]. In recognition of the fact that business users will bear the brunt of the user-charges as noted in paragraph 5.13.24-5.13.25, the Applicant is proposing a transitional business support fund to operate within the host boroughs to assist small businesses in adjusting to the introduction of user-charges. It is also proposing an experimental bus cycle-shuttle or other means to assist active sustainable travel across the river as the DCO scheme does not include a cycle/pedestrian way through the new tunnel.

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<sup>74</sup> The Applicant's arguments are summarised in the MAG submissions referenced above but were also referred to in the Applicant's closing statement [REP7-035] which in turn referred back to their answer to the Panel's SWQ GA2 [REP4-051] and the answer to Action Point 1 from the OFH held on 28 March 2017 [REP6-076].

5.13.96 We regard these measures as also of key importance in ensuring that adverse socio-economic impacts are mitigated as required by paragraph 3.3 of the NPSNN. We therefore recommend in section 9.10 of our report that the DCO be not made unless signed and sealed agreement embodying these measures have been received by the Secretary of State (SoS), though we do note that adding an additional requirement to Schedule 2 of the recommended DCO (rDCO) might be able to address pedestrian/cycle crossing needs.

### **Overall conclusions**

5.13.97 While the findings of any assessment will contain an element of uncertainty, the Panel is satisfied that the overall robustness of reported NPVs indicates that there would be economic benefits to society as a whole from the implementation of the DCO scheme. This is consistent with section 4 of the NPSNN.

5.13.98 Nevertheless, the Panel has noted that there would be some adverse socio-economic impacts, particularly on lower income residents in the vicinity of the existing Blackwall Tunnels and the proposed Silvertown Tunnels as a consequence of the imposition of user-charges under the DCO scheme. It is therefore of considerable importance that the Assessed Case level of bus services or services of equivalent benefit are secured through the tunnels as this would maximise the economic benefit overall and to low income residents in particular. We have therefore recommended a strengthening of Requirement 13. We also consider that the proposed transitional business support fund and the scheme to facilitate complementary sustainable transport across the river from the Greenwich Peninsula to Canary Wharf and Silvertown are also necessary to mitigate adverse socio-economic impacts as required by paragraph 3.3 of the NPSNN.

5.13.99 Provided that these measures, in addition to the mitigation that is already embodied in the Charging Policies and Procedures Certified Document and the Bus Strategy Certified Document, are secured through requirements and/or signed and sealed agreements, we are satisfied that the socio-economic impact would be sufficiently mitigated for the DCO scheme to be consistent with the NPSNN.

### ***Public Sector Equalities Duty (PSED)***

5.13.100 We have also had regard to the PSED. We are satisfied that this would not be breached. The explanations that are given in the updated Statement of Reasons accompanying the request for Compulsory Acquisition (CA) powers [REP4-029] and in the HEqIA [APP-090] make clear that where there are minor adverse impacts on particular groups every effort will be made to mitigate these effects, as indicated in the foregoing paragraphs of this section (and elsewhere in Chapter 5 in relation to environmental impacts).

5.13.101 After mitigation the HEqIA indicated that there would be no differential or disproportionate effects on those groups that have defined

'protected' characteristics, namely children, older people and those with disabilities. Specifically we noted at paragraph 5.6.12 of this report, that older people and children were not considered to be disproportionately affected by changes in air quality and we considered the issue of air quality in detail in section 5.3 of this report. We saw no evidence to lead us to disagree with these conclusions or to indicate that any other groups with 'protected' characteristics would be disproportionately affected. Lower income groups where we consider that further mitigation is necessary are not defined as a group with 'protected' characteristics.

## **5.14 INDUSTRIAL AND COMMERCIAL IMPACTS**

### **INTRODUCTION AND POLICY BACKGROUND**

#### **Introduction**

- 5.14.1 This section of Chapter 5 considers impacts upon industrial and commercial interests in and near the Proposed Development. It particularly considers impacts upon:-
- safeguarded and non-safeguarded wharves;
  - the O<sub>2</sub> arena; and
  - other commercial interests nearby including London City Airport (LCY).
- 5.14.2 The Panel considered matters relating to redevelopment and urban renewal were principal issues in its Initial Assessment of Principal Issues [PD-004], in terms of the effect of the proposed works on redevelopment proposed both south and north of the Thames and the extent to which it would impact existing commercial and industrial businesses during construction and operation.
- 5.14.3 Issues relating to impacts upon safeguarded (and non-safeguarded) wharves were considered in the Panel's first written questions (FWQ) [PD-06]. A number of industrial and commercial businesses registered as Interested Parties (IP) and some of their Relevant Representations (RR) and Written Representations (WR) are discussed in paragraphs 5.14.20 to 5.14.48. Some of the local business community interests including the Port of London Authority (PLA), AnSCO Arena Limited (AnSCO) (with major interests in the operation of the O<sub>2</sub> arena) and LCY participated in various Issue Specific Hearings (ISH) and Compulsory Acquisitions Hearings (CAH) during the Examination. Wharf operators' interests were generally represented by PLA during the hearings and in submissions, with representations also received from Tarmac Limited in relation to the impacts that the development would have upon their existing operations at Dock Entrance Wharf. We visited that wharf and Thames Wharf during Accompanied Site Inspections (ASI).
- 5.14.4 Matters relating to Affected Persons' (AP) concerns regarding the acquisition of land and/or rights through the compulsory acquisition

powers that are being sought by the Applicant within the dDCO are considered in report Chapter 8 and are not duplicated here.

### **Policy background**

- 5.14.5 Economic factors are considered in various parts of the National Policy Statement for National Networks (NPSNN), notably:-
- the need for development of national road networks to support economic growth, in paragraphs 2.1 to 2.27;
  - the improvement of social and environmental impacts, in paragraphs 3.2 to 3.5; and
  - the impacts on transport networks in paragraphs 5.202 to 5.212.
- 5.14.6 In the NPSNN's summary of need, in section 2, it identifies the Government's vision and strategic objectives for the national networks, which includes providing support for national and local economic activity, facilitating growth, creating jobs and improving overall quality of life.
- 5.14.7 The NPSNN, in paragraph 4.3 requires the decision makers to take into account, when considering any Proposed Development:-
- its potential benefits, including the facilitation of economic development, including job creation, and any longer term or wider benefits; and
  - its potential adverse impacts, including any longer-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts.
- 5.14.8 The National Planning Policy Framework (NPPF), paragraph 143, requires local planning authorities, when preparing local plans, to safeguard existing, planned and potential wharfage and concrete batching and facilities which handle, process and distribute substitute, recycled and secondary aggregates as well as facilities which handle and process minerals.
- 5.14.9 The London Plan (2016), policy 7.26 regarding water borne cargo handling operations explains that safeguarded wharves should only be used for waterborne freight handling use. The redevelopment of safeguarded wharves for other land uses should only be accepted if the wharf is no longer viable or capable of being made viable for water-borne freight.
- 5.14.10 The Mayor of London's Safeguarded Wharves Review, Final Recommendation (March 2013) [REP1-169, Appendix A] explained that in January 2005 the Mayor published the 'London Plan Implementation Report - Safeguarded Wharves on the River Thames' to support the then London Plan Policy 4C.9. Fifty wharf sites were safeguarded by the Secretary of State (SoS) through an Article 10(3) direction (which requires the Mayor to be consulted before planning permission for non-river based development on a safeguarded wharf is granted), based on the Mayor's recommendations.



- 5.14.11 The review proposed the release of nine safeguarded wharves in the north east part of the study area (including some wharves in London Boroughs of Newham (LBN), Tower Hamlets (LBTH) and Barking and Dagenham (LBBD)). It also saw the need to facilitate the reactivation of Orchard Wharf in LBTH and Peruvian Wharf in LBN and to retain all wharves handling waste, as they were all considered viable at that time. The review [REP1-169, Appendix A, paragraph 0.12] explained that the next steps would be for the SoS to consider the review report and once approved, the Government would issue a new direction.
- 5.14.12 The Panel notes that the safeguarded wharf that is directly impacted by the Proposed Development (Thames Wharf) is not one of those that was suggested for release. We also note that following the Mayor's review of safeguarded wharves in 2013, there has been no final report published.

### **THE APPLICANT'S APPROACH**

- 5.14.13 The Applicant's ES [APP-031] in Chapter 7 considered impacts upon community and private assets. In addition, the Applicant submitted a regeneration and development impact assessment [APP-102] and a distributional impacts assessment [APP-104]. It considered impacts upon wharves, particularly in relation to Thames Wharf in its navigational issues and preliminary risk assessment [APP-054].
- 5.14.14 The ES [APP-031, Table 7-21] identified commercial and industrial operators located within or adjacent to the Order Limits. It further listed and described the safeguarded wharves in the vicinity of the Proposed Development and the mechanism for their safeguarding in paragraphs 7.4.45 to 7.4.49. The Thames Wharf, which would be directly impacted by the Proposed Development, is described in paragraph 7.4.47 as encompassing the Instone Wharf (the Bow Creek frontage) which was used by the Crossrail project to store and remove excavated materials from tunnelling activities. It is currently in use by a number of operators and '*handles aggregates, construction, demolition waste and project cargoes amongst others*'.
- 5.14.15 The ES [APP-031, Table 7-29] considered that the impact upon Keltbray (tenant occupiers of a part of the Thames Wharf site) from the temporary occupation of land for the construction of the scheme would be moderate adverse (and thus significant). All of the other businesses that would be impacted from temporary occupation were considered to result in a slight adverse or negligible impact. Permanent land take [APP-031, Table 7-29 and paragraph 7.6.11] was only considered to result in a slight adverse impact on all affected businesses.
- 5.14.16 The assessment included the consideration the temporary loss of approximately 730 car parking spaces at the O<sub>2</sub> arena during the construction phase. The ES [APP-031, paragraph 7.4.59] described the O<sub>2</sub> arena as one of the largest arenas in Europe, as it can

accommodate up to 20,000 people for a range of music, entertainment and sporting events.

- 5.14.17 The significance of impacts on private assets was considered to be slight adverse during the construction phase [APP-031, paragraph 7.6.18].
- 5.14.18 The ES [APP-031, paragraph 7.6.22-7.6.25] explained that Thames Wharf would be re-instated to its previous condition and returned to existing owners; the Proposed Development would not affect the safeguarded status of the wharf. The significance of effect of the Proposed Development upon navigation and wharfage overall was considered to be slight adverse.
- 5.14.19 The Applicant prepared a wharves access impact technical note [REP4-048], which included, as Figure 1, a map showing the local wharf locations.

## **ISSUES ARISING**

### **Safeguarded and Non-Safeguarded Wharves**

#### ***Safeguarded Thames Wharf***

- 5.14.20 The Port of London Authority (PLA) [REP1-053] explained that Keltbray handles construction, demolition and excavation (CDE) waste and construction aggregates on the safeguarded Thames wharf site. In 2014 Keltbray was reported to have handled 190,000 tonnes and in 2015, 280,000 tonnes of materials and waste at their site at Thames Wharf. They further explained [REP1-053, paragraph 13.4] that wharf operators including Keltbray had been obliged to accept leases on rolling terms because of the Silvertown Tunnel proposals. PLA further considered at that time that the businesses that would be directly affected were hoping to be left undisturbed or re-accommodated.
- 5.14.21 The Applicant, in response to the Panel's FWQ DN2 [REP1-169], explained that Instone Wharf and the north east land extent of Thames Wharf, used by ASD Metal Services along Bow Creek would not be materially impacted by the Proposed Development. ASD at that time did not use the wharf for their operations, which are road served, but other freehold landowners with a frontage onto Thames Wharf would not be able to use the wharf during the construction period. The Applicant went on to explain that other land-served users of Thames Wharf who operate on a lease basis and whose leases expire prior to the commencement of the Proposed Development would not have their leases renewed.
- 5.14.22 The PLA in their post hearing representations [REP3-039] explained that there are no readily available options for Keltbray's operations to relocate to another safeguarded wharf nearby, so if they did manage to relocate to a site within the area, it would be questionable whether it would be to a safeguarded wharf and they may have to relocate to a site outside the relevant section of the river and/or transport cargoes

by road. In the PLA's view, this sits uncomfortably with planning policy that seeks to increase the amount of freight transported by water. Whilst the safeguarded nature of the wharf would remain after the construction phase, if Keltbray has re-located it would be unlikely that they would return to Thames Wharf, so the Proposed Development could result in their permanent loss from Thames Wharf.

- 5.14.23 The PLA noted [REP6-029] that it had taken 17 years to acquire the safeguarded Peruvian Wharf. They reiterated their position that there are no options to relocate either of these businesses to a safeguarded wharf in the relevant section of the River Thames within the required timeframe as there is no timetable for the proposed re-activation of Orchard Wharf.
- 5.14.24 PLA also provided information [REP1-053, paragraph 13.10] in respect of General and Marine (GM) (Tugs and Barges) Ltd, who use a yard off Dock Road for repair work to barges, which the PLA considered to be an essential river activity. The Proposed Development would require GM to cease their operations during the construction and operation of the temporary jetty. At that time, it was not known whether GM would be able to re-locate.
- 5.14.25 The Applicant explained in its post hearing submissions [REP6-073, item 14.1] that GM had sold their site on to a third party, who had subsequently sold it on to Quintain/GLA. GM were reported as having subsequently been 'decanting' from their site in consequence of the rolling break option on their lease.

### ***Safeguarded Peruvian Wharf***

- 5.14.26 The PLA's WR [REP1-053] explained that PLA is reactivating Peruvian Wharf in accordance with planning policy for river-borne cargo handling operations set out in policy 7.26 of the London Plan. It was therefore imperative to the PLA that the Proposed Development maintains an appropriate road access to and from Peruvian Wharf.
- 5.14.27 The Panel carried out a site inspection of the road access areas for both Thames Wharf and Peruvian Wharf at its compulsory acquisition (CA) ASI on 20 January 2017 [EV-028].
- 5.14.28 At deadline 6 [REP6-029], PLA considered that access arrangements for Peruvian Wharf, proposed as part of the development, were unsatisfactory. They also raised concerns regarding the adverse effects that this would have on the operator's business.
- 5.14.29 Whilst the Applicant had considered that the displaced tenants from Thames Wharf may be accommodated at Peruvian Wharf, PLA explained [REP6-029] that it is not their role to provide operators displaced by the Applicant's scheme with accommodation at Peruvian Wharf. They noted that it had taken them 17 years to acquire the safeguarded Peruvian Wharf. They reiterated their position that there would be no options available to relocate either of the affected

businesses to a safeguarded wharf in the relevant section of the River Thames within the required timeframe.

- 5.14.30 At Deadline 7 [REP7-019] PLA further explained that land at Peruvian Wharf is not available for other operators, as Brett Aggregates Limited has a binding agreement entitling it to occupy Peruvian Wharf for approximately 20 years and a planning permission which covers the entirety of the safeguarded wharf.
- 5.14.31 The Applicant's position at the close of the Examination [REP7-047] was that it accepted that differences remained between the parties in relation to impacts on wharves (including impacts on existing tenants and access to Peruvian Wharf in particular).

### ***Non-safeguarded Dock Entrance Wharf***

- 5.14.32 In their Relevant Representation (RR) [RR-192] Tarmac Limited (Tarmac) explained that, trading as Euromix Limited, they operate a concrete batching plant and wharf at Dock Road, Silvertown which would be both directly and indirectly impacted by the development. They considered that their site could continue to function throughout the construction phase. While the current access link to Dock Road would be severed their site itself was not needed as part of the development and alternative access could be provided. Tarmac considered that the actions proposed by the Applicant would fail to protect an important ready mixed concrete site and an important wharf facility and also fail to meet mineral safeguarding provisions of the NPPF. It would also neglect the opportunity for an existing local river served ready mixed concrete facility to supply the project.
- 5.14.33 The Panel carried out a site inspection of the Tarmac concrete plant and wharf area, amongst other locations, during its Accompanied Site Inspection (ASI) on the 6 December 2016 [EV-011].
- 5.14.34 PLA explained [REP1-053, paragraph 13.9] that Tarmac handle waterborne aggregates and operate a concrete batching plant at the non-safeguarded Dock Entrance Wharf. They explained that the site is owned by Quintain (who became Silvertown Homes Limited, later during the Examination) and the Greater London Authority (GLA). Tarmac were reported to have handled 125,000 tonnes in 2014 and 150,000 tonnes of waterborne aggregates at their Dock Entrance Wharf site in 2015.
- 5.14.35 In their WR [REP1-090] Tarmac explained that building materials and value added products such as asphalt and ready mixed concrete are predominantly delivered relatively short distances, from point of distribution to point of consumption by road. They considered that the imposition of charges on the Blackwall Tunnel and Silvertown Tunnels would have an adverse impact on the economics of their business. Currently, the river represents a geographic boundary but is not a barrier to trade as their business works in radial miles. They estimated that the economic impact of the user charge would add over a £1

million per annum to the cost of haulage across all products for the company on outbound loaded journeys.

- 5.14.36 Tarmac further considered [REP1-090] that it would be uneconomic to displace existing established businesses with capability and capacity to serve the project concrete and aggregate supply needs in favour of establishing alternative operations. They considered that minor changes to the Proposed Development would allow an access to their Dock Road plant to be retained throughout the construction phase, ensuring an uninterrupted supply to the construction site and afterwards to supply future redevelopment needs in the area.
- 5.14.37 Tarmac also raised concerns [REP3-043] regarding a statement made by the Applicant [REP2-046, item 3.1] that '*most firms do not rely solely on HGV use*', which they refuted as they considered that whilst the minerals sector deploys bulk transportation of raw materials, final distribution of products to the end customer is underpinned by road haulage. They further explained that their wharf at Dock Road imports sand and gravel by river and this represents a saving of some 16,000 lorry journeys per year. If an alternative facility is not found, these vehicle movements would be redirected to the road network on closure of their site.
- 5.14.38 PLA [REP6-029] raised concerns that the Applicant's wharves access impact technical note [REP4-048] had not included any details in respect of the non-safeguarded Dock Entrance Wharf and they remained firmly of the view that Tarmac at Dock Entrance Wharf and Keltbray at Thames Wharf would be adversely affected by the Proposed Development due to the short term nature of their leases.
- 5.14.39 At deadline 5 [REP5-014] Tarmac explained that the lease on their site is short term, not because the company wanted to relocate, but because it is asserted that the Proposed Development (which has benefitted from safeguarding directions for over 20 years) requires it.

### **Impacts upon the O<sub>2</sub>**

- 5.14.40 Amongst other reasons, due to issues raised by AnSCO, in respect of the loss of car parking at the O<sub>2</sub> during the construction phase of the Proposed Development, the Applicant submitted an application for non-material changes (NMC) to the application during the Examination. NMC5 was for an extension to the Order Limits of the DCO to seek powers of temporary possession and development consent to create a temporary decked car park on the current site of the O<sub>2</sub> coach car park, as well as revised access and egress arrangements to this proposed facility along West Parkside together with consequential adjustments to other temporary parking arrangements. The Panel accepted these non-material changes into the Examination on 28 March 2017 [PD-015].
- 5.14.41 These non-material changes to the Application submitted by the Applicant, to address issues regarding car parking at the O<sub>2</sub> during the

construction phase [AS-045] to [AS-048] are reported in paragraphs 2.2.5 to 2.2.9.

- 5.14.42 AnSCO objected to the proposed user charging policies for both the Blackwall Tunnels and the Silvertown Tunnels [REP6-087], as they considered that implementing a user charge until 22:00 would result in a detrimental impact to the O<sub>2</sub>'s night time economy. They considered that the southbound evening peak subsides by 19:00 so there should be no requirement to implement user charging after that time. The Panel notes that there was not a further submission from AnSCO at deadline 7 (d7) and so considers that this objection was maintained at the end of the Examination.

### **Impacts upon other Industrial and Commercial Interests**

- 5.14.43 RRs from a number of IPs, including South East London Chamber of Commerce [RR-033], Dartforce Limited [RR-088], Licensed Taxi Drivers Association [RR-160], Alliance of British Drivers [RR-180] supported the Proposed Development, considering that the new crossing is urgently needed to reduce traffic problems in south east London. Wyndham Resources UK Limited made the point that they lose considerable amounts of time travelling through the Blackwall Tunnel every week.
- 5.14.44 However, other IPs considered that imposing charges on the Blackwall Tunnel is unacceptable, including The Centre for Sports Technology [RR-077] and Mayflower Hygiene Supplies Limited [RR-181]. Royal Mail raised concerns [RR-182] regarding the impacts that the construction phase could have upon its operations, by increasing congestion or delays. It later specified [REP4-071] that it wished to be involved in the Community Liaison Group that would be established by the Applicant.
- 5.14.45 LCY [RR-294] recognised that additional capacity is required for river crossings in East London and supported the principle of the Proposed Development. However, they initially objected on three grounds:-
- the impact of construction traffic on the local highway network surrounding the airport;
  - the predicted operational peak hour delay on junctions serving the airport; and
  - insufficient assurance of improvements to public transport services as a result of the Proposed Development.
- 5.14.46 They also later objected to the Silvertown Tunnel Implementation Group (STIG) on a number of grounds: wishing to be a part of the group; the powers of the STIG; and insufficient assurances in respect of increases to cross-river bus services if required post-opening [REP5-027].
- 5.14.47 Excel London Limited (Excel), in their WR [REP1-038] explained their concerns that the transport assessment information provided in the application documents was strategic in nature and did not show the

likely impact of the Proposed Development on the Excel in terms of the local highway network.

- 5.14.48 The signed Statement of Common Ground (SoCG) between the Applicant and Excel [REP5-028] identified that most matters had been agreed between the parties, including traffic modelling and traffic impacts. The only matter still being under discussion at that time was in respect of Excel reserving its position to submit an addendum to the SoCG and/or additional comments in response to documentation submitted subsequent to the date of the SoCG. The Panel notes that no further representations were submitted by Excel.

### **PANEL'S REASONING AND CONCLUSIONS**

- 5.14.49 The Panel accepts the Applicant's assessment of impacts upon Keltbray as being moderate adverse (and thus significant). The Panel also considers that the impact upon the Tarmac operation is also moderate adverse (and thus significant), as both of these operators would be displaced by the Proposed Development, notwithstanding the short term nature of their leases.
- 5.14.50 The Panel accepts that the NPPF paragraph 143 requires local planning authorities to safeguard concrete batching plants in their local plans. As reported in Chapter 4, the northern portal section of the application site is subject to a safeguarding direction from 2001<sup>75</sup> for a potential river crossing; and that Thames Wharf is also the subject of a safeguarding direction and is afforded protection by Policy 7.26 of the London Plan and that it is allocated in terms of local plan policy for industrial use.
- 5.14.51 The Panel also understands the concerns raised by the PLA in respect of Keltbray and Tarmac's operations, as well as those in Tarmac's own representations. In view of the policy requirements in relation to both safeguarded and non-safeguarded wharves and the safeguarding of concrete plants, the Panel considers that the Applicant could have taken responsibility for ensuring that these industrial concerns had suitable arrangements for re-location (in the case of Keltbray) and/or were able to continue their business (in the case of Tarmac).
- 5.14.52 However, as the Panel understands that these businesses are/were on short term lease arrangements, it has no remedies open to it in terms of possible changes to the Development Consent Order (DCO), to accommodate the needs of these businesses, despite the important policy presumption for retaining water-borne freight uses on suitable wharves and the NPPF policy requirement to safeguard concrete plants. The Panel notes that Thames Wharf would be returned to its previous owners after the construction phase is completed, but with the potential loss of the tenant businesses, there is no certainty that

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<sup>75</sup> The date of the most recent safeguarding direction transferring the safeguarding power from the SoS to the Mayor.

this site would be returned to uses compatible with its status as a safeguarded wharf.

- 5.14.53 The Panel concludes that the need for the Proposed Development is sufficient to outweigh the significant impacts upon Keltbray's and Tarmac's operations during the construction phase.
- 5.14.54 The Panel accepts that the return of Thames Wharf (to its current owners) after the construction phase would meet the Applicant's obligation towards the London Plan safeguarded wharves policy. While we do consider that the Applicant or related Mayoral bodies could have been and still could be more proactive in assisting in securing alternative sites for affected operators, for example in seeking to facilitate reactivation of other wharves, we do not consider that the approach of the Applicant would represent a clear breach of the approach to economic issues required within paragraph 4.3 of NPSNN policy which we detailed in paragraph 5.14.7 above.
- 5.14.55 With regard to the PLA concern over future licensing of the Not Always Afloat But Sometimes Aground (NAABSA) berth, as reported in section 5.9, this is part of the wider issue of the impact on commercial interests that is considered here. The Panel considers that the future of the whole of the safeguarded Thames wharf and the un-safeguarded Royal Victoria Dock entrance wharf, as well as the future of the industrial tenants of which are proposed to be displaced during construction, need to be addressed by all the Mayoral bodies concerned so that the current objectives of the London Plan in relation to the safeguarding of wharves and the use of the River Thames are not jeopardised. We recognise, however, that this will require action outside the context of this DCO as its provisions require reinstatement of areas subject to temporary possession albeit that does not necessarily secure restoration of previous uses.
- 5.14.56 Turning to impacts upon the O<sub>2</sub>, the Panel notes that there were no outstanding concerns remaining regarding car parking by D6, and so considers that parking matters were resolved between the O<sub>2</sub> and the Applicant, through the submission of NMC5 and its acceptance into the Examination. However, in respect of the O<sub>2</sub>'s remaining objection regarding user charging after 19:00, and the impact that it would have upon the O<sub>2</sub>'s night time economy, the Panel finds that the user charging mechanism proposed by the Applicant, in Article 53 of its final dDCO [REP7-026] would be sufficiently flexible to accommodate address this issue, if it is found to be appropriate to do so in the consideration of re-assessing the proposed charges on which the Assessed Case is based through the intended review mechanism set out in the Charging Policies and Procedures document [REP6-060] Nevertheless, the Panel considers that the evening user charge up to 22:00 would be unlikely to contribute a significant additional financial burden to O<sub>2</sub> visitors. Car users have to pay for event tickets and car parking in any event and many users would be travelling by public transport. The Panel concludes that it is satisfied that the user charging mechanisms proposed by the Applicant are sufficiently



flexible to be able to accommodate changes to time charging periods, should AnSCO be able identify significant impacts upon its business prior to or following the time of the opening of the Proposed Development, albeit AnSCO would not have the ability to force the Applicant to make changes even if recommended through the STIG.

- 5.14.57 The Panel notes that at D4 [REP4-071] Royal Mail Group withdrew its objections to the Proposed Development, in part because their involvement in the proposed community liaison group for the construction phase had been accepted by the Applicant. The Panel agrees that business interests can probably best be represented through this forum, which is secured through the Requirement 5 of the dDCO [REP7-026] Code of Construction Practice (CoCP). The CoCP [REP6-056, section 4] provides details of the communications and community liaison that would be carried out during the construction phase.
- 5.14.58 The Panel does not consider that LCA should be a member of STIG, as this would become the forum for host and neighbouring authorities to consider and make recommendations on reports, schemes and plans that relate to monitoring and mitigation for the scheme. The Panel finds that the role for STIG is one for local authorities, not the business community. It would not be reasonable for one business interest to have a power (albeit a small one as part of a group) which could hinder or slow down the delivery of a nationally significant infrastructure project (NSIP) which is the subject of a made Order. The Panel, nevertheless, recognises the importance of LCY as a strategic transportation facility but notes that its representatives would be able to observe STIG meetings and to provide inputs through their local council representatives on the group. However, we conclude that their business objectives would be better served in participating in the community liaison group.

## **5.15 BIODIVERSITY, ECOLOGY AND GEOLOGICAL CONSERVATION**

### **INTRODUCTION AND POLICY BACKGROUND**

#### **Introduction**

- 5.15.1 This section of Chapter 5 addresses the issues of the impacts of the Proposed Development upon biodiversity, ecology and geological conservation interests within and near Order Limits. It covers both terrestrial and marine ecology.
- 5.15.2 Matters regarding the adequacy of the baseline assessments and proposed monitoring and whether there would be any likely significant adverse effects on protected sites and species were identified by the Panel in its initial assessment of principle issues [PD-004]. Both the ISH on air quality, noise and other environmental issues on 18 January 2017 and the ISH on any outstanding issues including environmental matters on 28 March considered biodiversity matters.

- 5.15.3 In addition the Panel asked various questions to the Applicant and Interested Parties (IP) about biodiversity matters in their first written questions (FWQ) [PD-006] and second written questions (SWQ) [PD-012].
- 5.15.4 Issues in relation to potential impacts of the development upon nearby European sites are reported separately in Chapter 6 of this report.

### **Policy Background**

- 5.15.5 The National Policy Statement for National Networks (NPSNN) states, at paragraph 5.23 that the Applicant should show how the project has taken advantage of opportunities to conserve and enhance biodiversity and geological conservation interests. Biodiversity and conservation matters that should be considered in decision making are described in paragraphs 5.24 to 5.38 of the NPSNN.

### **APPLICANT'S APPROACH**

#### **Introduction**

- 5.15.6 The Applicant provided its assessment of the impacts of the Proposed Development upon biodiversity and conservation interests in Chapters 9 (terrestrial ecology), 10 (marine ecology) and 12 (geology, soils and hydrology) of the ES [APP-031].
- 5.15.7 The ES was accompanied by the following additional documents:-
- ES figures/drawings [APP-032] which included Figure 9-1 showing statutory sites and Figure 9-2 showing non-statutory sites;
  - Bat activity survey [APP-059];
  - Invertebrate survey [APP-060];
  - Arboricultural survey [APP-061];
  - Arboricultural impact assessment [APP-062];
  - Dedicated species assessments for reptiles and black redstarts [APP-063];
  - Biodiversity Action Plan and Mitigation Strategy [APP-065];
  - Marine ecology survey report [APP-067]; and
  - Underwater noise assessment [APP-068].
- 5.15.8 Some of these documents were updated by the Applicant during the Examination, including the Biodiversity Action Plan and Mitigation Strategy [REP4-034] and the ES Chapter on marine ecology [REP1-103] with a track change version [REP1-104] and the ES drawings relevant to this report section [REP6-047].
- 5.15.9 In addition, the Panel requested that the Applicant prepared and submitted to the Examination an outline Ecology Management Plan (EMP); this was supplied at deadline 4 (D4) as an appendix to the Code of Construction Practice (CoCP) [REP4-036, Appendix G]. Natural England requested some minor amendments to the outline EMP, which

the Applicant accepted [REP6-073, item 9.3] and it was updated at D6 [REP6-057].

### **Terrestrial Ecology Impacts**

- 5.15.10 The ES [APP-031] explained that the impact upon terrestrial ecology interests was assessed in accordance with the Chartered Institute of Ecology and Environmental Management (CIEEM) 2006 guidelines for ecological impact assessment in the UK.
- 5.15.11 The Proposed Development is not situated within or immediately adjacent to any nationally designated sites for nature conservation. However, the ES considered the nearby non-statutory Sites of Interest for Nature Conservation (SINC) as well as habitats within and near to the Proposed Development. Greenwich Peninsula Ecology Park, Bow Creek Ecology Park and the Royal Victoria Dock are the nearest non-statutory designated terrestrial sites to the Proposed Development. It was considered that these sites were highly unlikely to be directly affected by the development due to the separation distance from the Order Limits, being at least 0.2km away, as well as being isolated from the development by infrastructure including roads and buildings and they are not hydrologically connected.
- 5.15.12 The ES [APP-031, paragraph 9.8.3] identified that the areas within the Order Limits were found to be industrial in nature and predominantly comprised hard standing and buildings, with scattered semi-natural habitats that form an open mosaic on previously development land that would have value within the highly urbanised environment. Important ecological features that were identified included commuting and foraging bats, breeding birds, black redstart (protected under the Wildlife and Countryside Act and listed in the London Biodiversity Action Plan) and notable terrestrial invertebrates. It concluded that after mitigation and offsetting<sup>76</sup>, there were no predicted permanent significant adverse effects on biodiversity interests. Temporary impacts from the construction of the scheme were listed in the ES [APP-031, Table 9-17] and included the temporary loss of habitats including broadleaved plantation, scrub, scattered broadleaved trees, semi-improved grassland, standing water, foraging and commuting habitat and disturbance to black redstarts and breeding birds. The ES predicted an overall net gain for biodiversity and slight beneficial effects for brownfield habitat, black redstart and notable invertebrates [APP-031, paragraph 9.8.11].

### **Geological Conservation Sites**

- 5.15.13 Chapter 12 of the ES [APP-031] explained that the Proposed Development is not located within an area of important geology and no statutory designated sites of geological interest were identified

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<sup>76</sup> Offsetting is the provision of ecological enhancements outside the Order Limits to achieve a net gain in ecological habitat in terms of area and quality and the removal of invasive species.

within the area studied. This was not challenged during the Examination. The Panel concludes that there would be no impact upon sites of geological conservation interest.

### **Marine Ecology Impacts**

- 5.15.14 The ES Chapter on marine ecology [APP-031, Chapter 10] was updated during the Examination [REP1-103 and track change version REP1-104]. Paragraphs 10.1.1 to 10.1.4 explained that the Chapter was prepared in accordance with the CIEEM Guidelines for Ecological Impact Assessment in the UK and Guidance on Impact Assessment in Marine Coastal Environments.
- 5.15.15 It considered the potential marine ecological impacts arising from the construction phase of the development, which would include recommissioning the existing Not Always Afloat But Safely Aground (NAABSA) berth at Thames Wharf, the construction, operation and decommissioning of a new jetty within the River Thames and the associated dredging impacts. It also considered impacts relating to moving two moorings, increased vessel movements on the river and possible vibration effects from the tunnel boring machines.
- 5.15.16 ES drawing number 10.1 [APP-037] showed marine mammal sightings along the River Thames in the study area. This drawing was updated during the Examination [REP6-047, drawing 10.1].
- 5.15.17 The updated ES [REP1-104, paragraph 10.4.5] explained that the Order Limits would fall within the boundary of the Thames Estuary recommended Marine Conservation Zone (rMCZ). Natural England (NE) [REP1-063] explained that the Thames Estuary rMCZ was due to go out to consultation in early Spring 2017, which is when it would become a material consideration. However, by the end of the Examination, the Panel had not been made aware of any consultations regarding the rMCZ.
- 5.15.18 In addition, the updated ES [REP1-104, paragraphs 10.4.11 and 10.4.12] identified that the nearest SINCs with aquatic elements are the East India Dock Basin, Royal Docks and Thames and Tidal Tributaries SINCs. The East India Dock Basin SINC is about 0.5km from the Order Limits. One of its qualifying features is the presence of saltmarsh. The Royal Docks SINC is an open body of water approximately 0.2km away from the proposed SINC that directly overlaps with the Proposed Development. Its features include salt-marsh, reed-beds, marsh sow-thistle and wetlands.
- 5.15.19 Possible impacts upon marine ecology receptors including fish and shellfish, marine mammals and benthic habitats and species were considered. Impacts could arise through a number of different pathways, including:-
- changes in water quality;
  - indirect changes in habitat extent and quality;
  - the introduction and colonisation of non-native species;

- loss and/or damage to benthic habitats and species; and
- noise disturbance.

- 5.15.20 The updated ES [REP1-104, paragraphs 10.6.108 to 10.6.111] described the temporary impacts from artificial light upon the marine environment. It considered that there would be potential for artificial light from lighting on the proposed temporary jetty and from operational vessels during the construction phase to modify fish behaviour and potentially disrupt migratory movements.
- 5.15.21 The ES [APP-031, paragraph 10.6.111] further considered that the probability of some light disturbance occurring during the operation of the temporary jetty to be high. However, migrating fish would be able to avoid the lighting zone and so no disruption or blocking of migration was expected. The overall significance of lighting effects on marine ecology interests during construction were considered to be negligible.
- 5.15.22 The updated ES [REP1-104, paragraph 10.9.5] concluded that the significance on these pathways was considered to be minor adverse at worst, taking into account the implementation of the proposed mitigation. In addition, only negligible cumulative and/or in-combination effects would be expected with other developments on the river, which were considered to be relatively small scale.

## **ISSUES ARISING**

### **Introduction**

- 5.15.23 Whilst ecological issues were not the focus of attention of many IPs, some of the statutory IPs, including Natural England (NE), Royal Borough of Greenwich (RBG) and the Marine Management Organisation (MMO) raised concerns in their representations and participated in the Issue Specific Hearing (ISH) on air quality, noise and other environmental matters on 18 January 2017 and the ISH on any outstanding issues including environmental matters on 28 March 2017.
- 5.15.24 The main Examination issues relating to ecology were as follows:-
- Terrestrial Ecology - habitat provision for ecological mitigation; grass seed-mix in RBG to include wild flower meadow seed mixes; the management of habitat created on land subject to temporary possession; and the securing of funds for off-site biodiversity off-setting.
  - Marine Ecology - impacts arising from dredging and percussive piling; the significance of the rMCZ; and concerns over inter-tidal and sub-tidal surveys.

### **Terrestrial Ecology**

- 5.15.25 NE confirmed in their Written Representation (WR) [REP1-062] that they were satisfied with the majority of matters covered by the DCO, with just a few minor areas still under discussion, which were not

considered to be issues of serious concern by them at that time. NE confirmed [REP6-084] that they agreed that none of the nearby Sites of Special Scientific Interest (SSSIs), National Nature Reserves and non-statutory SINCs would be directly affected by the Proposed Development.

- 5.15.26 NE also confirmed [REP1-062, response to FWQ TE7] and [REP6-084] its agreement with the Applicant's proposals for dealing with Japanese knotweed, Virginia creeper and other non-native invasive species, as described in the Code of Construction Practice [REP6-057].
- 5.15.27 The final (signed) Statement of Common Ground (SoCG) between the Applicant and NE [REP6-084] agreed that operational ecological mitigation for the scheme would include replacement habitat which would be targeted towards suitable foraging and sheltering habitat for terrestrial invertebrates (such as invertebrate hotels and dead wood loggeries). These measures would include suitable habitat for the streaked bombardier beetle (*Brachinus sclopeta*), which is known to have a number of populations in the area but isn't found elsewhere in the UK.
- 5.15.28 NE also confirmed its agreement in respect of mitigation proposed for black redstarts in the CoCP [REP6-084].
- 5.15.29 However, NE [REP4-011] raised concerns regarding how land that would be temporarily possessed would be managed in the long term. They stated that their preference would be for land that is enhanced for biodiversity to be included in the future management plan for the site as a whole. The Applicant explained [REP6-084] that temporary land take would be returned to the land owners in its previous state and condition, however, any habitat replaced would be of better quality than that lost. It also clarified that permanent landscaping within the highway boundary would be maintained as part of the Applicant's general duties. The final (signed) SoCG [REP6-084] recorded that these matter were agreed with NE and the additional NE submission of 28 March 2017 [AS-052] confirmed this was the case.
- 5.15.30 RBG suggested that wildflower meadows should be incorporated on the Greenwich side of the Proposed Development as these would provide more biodiversity enhancement and require less maintenance than the proposed amenity grassland [REP1-002]. The Applicant explained [REP2-036] that the Biodiversity Action Plan and Mitigation Strategy (BAPMS) included wildflower elements and requested flexibility in determining seed mix at detailed design stage [REP3-016]. The Applicant revised the BAPMS [REP4-033] which explained that the landscaping scheme developed at the detail design stage would set out the finalised design, species mix and location of habitats and would be approved by RBG through Requirement 6 of the DCO. This matter was not raised further by RBG.
- 5.15.31 RBG also raised concerns about the securing the funds required for biodiversity offsetting (outside the Order Limits), including its

maintenance and management. The Panel notes the draft s106 agreement between RBG and the Applicant was not agreed or signed by the end of the Examination [REP7-044]. Funds for biodiversity offsetting were included in the draft legal agreement.

### **Marine Ecology**

- 5.15.32 The EA raised concerns about the timing of dredging and percussive piling activities in their WR [REP1-060]. They required dredging to avoid June to August to protect juvenile fish from increased levels of suspended sediments and reduced levels of dissolved oxygen, which could result from dredging. The CoCP [REP6-056] was subsequently amended to state that any planned (i.e. non-emergency) dredging work must avoid the period of June-August inclusive. Any dredging within the months of June-August inclusive could only be undertaken with the approval of the Environment Agency in consultation with the PLA.
- 5.15.33 In addition, the EA considered [REP1-060] that percussive piling should only take place between November and March to avoid noise and vibration affecting key fish spawning and migration periods. This was incorporated into the CoCP [REP6-056]. A construction method statement would also be required by paragraph 5 of the Deemed Marine Licence (DML) which would be submitted for approval by the MMO following consultation with the EA, prior to the commencement of any licensed activity (including piling). This was agreed in principle with the EA [REP3-011] and the NE confirmed it was content with this approach [REP5-005].
- 5.15.34 In relation to noise, the MMO [REP1-046] considered that potential behavioural impacts for fish from impact piling activities had not been adequately addressed and identified a number of concerns over the Applicant's noise assessment. The Applicant therefore produced an Underwater Noise Technical Note [Appendix B of REP4-061] setting out the thresholds at which behaviour effects occur for each species. Whilst the MMO considered [REP4-010] that a more conservative assessment would have been more suitable, it was agreed that the issue had been resolved [REP5-006].
- 5.15.35 During the Examination, the significance of the rMCZ was raised. The MMO [REP1-046] considered that until the rMCZ is formally designated, there is no statutory obligation to consider its proposed features. However the Applicant explained that the rMCZ features had been considered within the marine ecology assessment [REP6-084]. NE's position was that the rMCZ had been considered at all stages (equally weighted) even though there wasn't any statutory obligation to consider any of its features [REP6-084].
- 5.15.36 At the ISH on any other outstanding issues including environmental matters on 28 March 2017, the Panel asked the Applicant and IPs about the need for surveys of the rMCZ prior to the commencement of construction works, in order to determine whether there was suitable

habitat present for the lagoon sea slug (*Tenellia adspersa*). The Applicant and NE agreed that this species was not a feature of the rMCZ [REP6-084], [REP6-073] and [AS-052] but it is protected under the Wildlife and Countryside Act 1981. However there was agreement that paragraph 4(1) in the DML (Schedule 12 to the Applicant's final draft Development Consent Order (DCO) [REP7-026]) would provide the mechanism for pre-construction ecological monitoring and mitigation in relation to the river bed.

- 5.15.37 The MMO [REP3-045] explained that whilst the sampling undertaken to inform the Environmental Impact Assessment (EIA) was as agreed, ground conditions at the site were not as anticipated therefore gear failed at 8 out of the 10 sampling sites. The MMO therefore suggested further sampling to be undertaken pre-construction to corroborate the findings of the ES. The need for a benthic ecology monitoring and mitigation plan, including pre-construction benthic surveys, was therefore included within paragraph 4 of the DML [REP7-026]. MMO [REP4-010] noted that this addressed survey requirements and NE's SoCG [REP6-084] confirmed it was satisfied with the benthic ecology mitigation and monitoring strategy that would be secured through the DML.

#### **PANEL'S REASONING AND CONCLUSIONS**

- 5.15.38 The Applicant's design principles were updated during the Examination, with the final edition being submitted at D6 [REP6-058]]. The Panel is satisfied that these would be secured through dDCO Requirement 3 [REP7-026]. The design principles would guide the detailed landscaping arrangements, which would be developed in line with the Biodiversity Action Plan Mitigation Strategy (BAPMS) and would be secured through DCO R6. The BAPMS itself would be secured through R14 and the EMP would be secured through R5(3)(f) . The Panel is also satisfied that the EMP would provide the mitigation for black redstarts, invertebrates and other ecological interests in and near the Order Limits.
- 5.15.39 The DML (Schedule 12 to the Applicant's final dDCO [REP7-026] would control the preparation and approval of the benthic ecology monitoring and mitigation plan, construction activities and percussive piling.
- 5.15.40 In addition the CoCP [REP6-056] would require the implementation of mitigation for marine ecological interests during the construction phase including the use of soft start procedures during piling and limiting the months in which percussive piling could be undertaken (November to March, unless otherwise agreed with the MMO, PLA and EA), in order to minimise impacts on fish and limiting the months that dredging could take place in (avoiding June-August inclusive, unless agreed with the EA and PLA).
- 5.15.41 Turning to the matter of the rMCZ, the Panel notes that matters were not agreed by the end of the Examination, in relation to how much weight should be given to this recommended site [REP6-084].



However, there was agreement that it would not materially change the conclusions of the marine ecology assessment. We are satisfied that there would not be any significant impact upon the rMCZ from the Proposed Development.

5.15.42 In relation to the terrestrial ecology matters of concern to RBG, the Panel is satisfied that there is sufficient flexibility in the Applicant's final dDCO [REP7-026, R6(2)] regarding the proposed landscaping scheme (which would have to be approved by the Local Planning Authority in terms of species and cultivations to be utilised which could include wildflower seed mixes. The Panel suggests that the SoS may wish to ensure that the legal agreement between the Applicant and RBG is finalised and completed before the DCO is made, so that the funds for the off-site biodiversity off-setting are secured.

5.15.43 The Panel concludes that with the mitigation in place, in the form described in this report Chapter, the Proposed Development would not give rise to a significant impact upon any ecological interests and it would satisfy the tests within the NPSNN in relation to biodiversity and geological conservation interests.

## **5.16 LANDSCAPE AND VISUAL IMPACTS**

### **POLICY BACKGROUND**

5.16.1 The National Policy Statement for National Networks (NPSNN) in paragraph 5.144 explains that where the development is subject to environmental impact assessment (EIA), the Applicant should undertake an assessment of any likely landscape and visual impacts and describe these in the ES.

5.16.2 In paragraph 5.145 and 5.146 it explains that the Applicant's assessment should include any significant effects during construction and/or significant effects of the completed development and its operation on landscape components and landscape character. It should also include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity, including any light pollution effects.

5.16.3 It goes on to explain in paragraph 5.149 that in decision making, the aim should be to avoid or minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.

5.16.4 The National Planning Policy Framework (NPPF) at paragraph 125 requires planning decisions to limit the amount of light pollution from artificial light that impacts upon local amenity.

### **APPLICANT'S APPROACH**

5.16.5 The Applicant's assessment of impacts upon townscape and visual amenity was provided in environmental statement (ES) Chapter 15 [APP-031]. This was accompanied by a set of photomontages [APP-

076] and associated figure and viewpoints [APP-040]. The ES figure and viewpoints were updated at deadline 6 (D6) [REP6-050].

- 5.16.6 The Applicant's townscape and visual impact assessments were carried out in accordance with best practice guidance detailed in section 15.3 of the ES [APP-031]. This included Highways Agency (2010) Interim Advice Note 135/10, 'landscape and visual effects assessment' and Landscape Institute and Institute of Environmental Management and Assessment (2013) 'Guidelines for Landscape and Visual Impact Assessment': Third Edition.
- 5.16.7 The ES [APP-031, paragraph 15.6.1-15.6.2] concluded that there would be slight adverse impacts upon townscape and visual amenity during the construction phase. This conclusion was drawn on the basis that construction best practice would be employed as set out in the CoCP, for example through retention of existing vegetation, use of hoarding to screen construction sites and a lighting management plan [APP-031, paragraph 15.5.1]
- 5.16.8 During the operational phase impacts upon townscape and visual amenity would be slight beneficial [APP-031, paragraphs 15.6.3 to 15.6.6]. This was on the basis that the design and external appearance of the Proposed Development would be implemented in accordance with the design principles [REP6-058], as secured through Development Consent Order (DCO) Requirement(R)3.
- 5.16.9 It also considered that, as the Proposed Development would be perceived in the context of a developing urban area with increasing density, it would not be at odds with the character of this townscape as perceived by existing or future receptors. There were not expected to be any significant cumulative townscape and visual amenity effects either north or south of the River Thames [APP-031, paragraphs 15.7.2 and 15.7.5].

### **ISSUES ARISING**

- 5.16.10 While the visual impact of the scheme was identified by the Panel in its initial assessment of principle issues [PD-004], impacts on townscape and visual impact were not key issues during the Examination.
- 5.16.11 In response to the Panel's first written questions (FWQs) on lighting impacts [REP1-172], the Applicant explained that R3 of the dDCO would require the authorised development to be designed and implemented in accordance with the design principles [APP-096, subsequently updated during the Examination with the final version REP6-058]. Section 2.9 of the design principles sets out that lighting should be in accordance with relevant design standards and guidance.
- 5.16.12 During the Examination the Applicant submitted a request for five non-material changes to be accepted into the Examination, following discussions with various Affected Persons. These are described and the process of the acceptance of the changes is reported in paragraphs

2.2.5 to 2.2.8 of this report. Non-Material Change (NMC) Number 5 for the decked car park introduced a new temporary structure into the Order Limits, in order to provide replacement car parking to service the O<sub>2</sub> during construction. The environmental impacts of the new decked car park (which would provide 770 car parking spaces) were described in the Applicant's proposed non-material change application [AS-046]. This explained that the proposed change would introduce new temporary infrastructure, however the built form was considered to be not out of character than with the existing or emerging townscape and visual amenity. During construction, the residual significance on townscape and visual impacts would be as reported in Chapter 15, that is slight adverse and therefore not significant.

- 5.16.13 The Applicant submitted an environmental assessment document for the proposed pre-cast tunnel segment manufacturing plant [REP3-020]. This was an option set out within the Construction Method Statement [APP-046] but not initially assessed within the ES. This explained that this temporary facility would be located to the south of the Silvertown worksite, within the Order Limits. The proposals would include buildings and plant which would be similar to those currently being used for existing industrial purposes at the site and within the immediate site context. The segment manufacturing plant was considered to fall within the assessed parameters for townscape and visual impacts within the ES, that is a slight adverse significance of effect.
- 5.16.14 The ES explained that the landscape design was at an illustrative design stage but contained figures identifying the minimum areas of permanent planting would be established (Figures 4-7 and 4-9 of APP-031 and drawing 9.5 of APP-037]. In addition, a Biodiversity Action Plan Mitigation Strategy (BAPMS) was provided [APP-065] (which included landscaping proposals), compliance of which was secured through R14 of the DCO [REP7-026] at Deadline 1 [REP1-096 and REP1-181]. At Deadline 4, the Applicant submitted a landscaping plan [REP4-049] which would be a certified document within the DCO. The DCO [REP7-026] was amended to state that the landscaping scheme to be submitted to and approved by the relevant planning authority under R6, must be in accordance with the certified landscaping plan.

### **PANEL'S REASONING AND CONCLUSIONS**

- 5.16.15 Considering lighting during the operational phase, the Panel is satisfied that these matters would have to be approved by the relevant host Local Planning Authority under Requirement (R)9 of the Applicant's final draft Development Consent Order (dDCO) [REP7-026].
- 5.16.16 Having viewed the site and its surrounding during our site inspections, the Panel accepts the Applicant's assessment of impacts upon townscape and in relation to visual impact and agrees that there would not be significant impacts arising from the construction or the operation of the Proposed Development.

5.16.17 The Panel concludes that the landscaping details secured through R6 of the Applicant's final dDCO [REP7-026] are adequate and that the NPSNN requirements for visual impact have been met for this Proposed Development.

## **5.17 GOOD DESIGN**

### **POLICY BACKGROUND**

5.17.1 The National Policy Statement for National Networks (NPSNN) in paragraph 4.28 advises applicants to include design as an integral consideration from the outset of a proposal.

5.17.2 In paragraph 4.29 to 4.31 it explains that visual appearance should be a key factor in considering the design of new infrastructure, as well as functionality, fitness for purpose, sustainability and cost. A good design will be one that sustains the improvements to operational efficiency for as many years as is practicable, taking into account capital cost, economics and environmental impacts.

5.17.3 NPSNN, paragraph 4.32 states that the Secretary of State (SoS) needs to be satisfied that national networks infrastructure projects are sustainable and as aesthetically sensitive, durable, adaptive and resilient as they can be (having regard to regulatory and other constraints and including accounting for natural hazards such as flooding). It further states (in paragraph 4.35) that the Examining Authority (ExA) and SoS should take into account the ultimate purpose of the infrastructure and bear in mind the operational, safety and security requirements which the design has to satisfy.

### **THE APPLICANT'S APPROACH**

5.17.4 The Applicant submitted a design and access statement (DAS) [APP-095], a Sustainability Statement (SS) [APP-091] and a design principles (DP) document [APP-096] alongside the environmental statement (ES) [APP-031].

5.17.5 The DAS explained how the design process was conducted and how the design evolved through the pre-application phase. The SS [APP-091] in section 5 set out the sustainable design and construction initiatives proposed by the Applicant for the Proposed Development. These included consideration of the following topics:-

- economic progress;
- tackling climate change;
- safety and security;
- quality of life; and
- transport for all.

5.17.6 The DP document [APP-096] explained that one of its aims was to demonstrate how the Applicant would take account of the criteria for good design set out in policy in order to ensure that the Proposed Development would be as sustainable and as aesthetically sensitive,

durable, adaptable, and resilient as it could be. The DP, in section 2.4 provided design principles for the Boord Street pedestrian and cycle-bridge, section 2.6 considered public art design principles and section 2.9 considered lighting design principles. Appendix A of the DP document [APP-096] provided details of the design review panel (DRP) terms of reference as well as the Applicant's initial list of DRP members.

## **ISSUES ARISING AND MITIGATION**

- 5.17.7 The Royal Borough of Greenwich (RBG), in their Local Impact Report (LIR) [REP1-002] stated that they considered that the arrangements for the preparation and approval of the final scheme are appropriate. They considered that the illustrative scheme described in the DAS to be of a high quality, demonstrating how the above ground elements could be developed in accordance with the design principles. RBG had requested some changes to the design principles in their LIR, particularly in relation to landscaping and sustainable drainage.
- 5.17.8 RBG explained that subject to the changes and the establishment of the DRP, the design of the scheme would be in accordance with the relevant design, landscaping and ecological policies in the RBG core strategy and London Plan 2016. The Panel notes that these matters were not included in RBG's list of unresolved matters at the end of the Examination [REP7-011].
- 5.17.9 London Borough of Newham (LBN) in their LIR [REP1-014] explained that Requirement (R)3 of the draft Development Consent Order (dDCO) would set out that the authorised development must be designed and implemented in accordance with the design principles and through engagement with the Silvertown Tunnel DRP in the manner provided for in the design principles. LBN considered that R4 (detailed design of above ground buildings and structures), 6 (landscaping scheme) and 9 (external lighting and details) may also provide the framework by which the Local Planning Authority could secure a high standard of design in built elements.
- 5.17.10 LBN explained [REP1-014] that they had been in discussions with the Applicant regarding changes to the design principles and the wording of specific requirements. Unless these changes were agreed, LBN could not be satisfied that the Proposed Development would not have a negative impact on existing and emerging built form and heritage assets. The Panel notes that these matters were not included in LBN's list of unresolved matters at the end of the Examination [REP7-004].
- 5.17.11 The Greater London Authority (GLA) [REP1-029] supported the Applicant's design principles. They considered that they would ensure the final design of the portals, the structures and the land surrounding contributes to the continued regeneration of Silvertown and Greenwich. They expected the design principles to ensure that the final design would fit in with the emerging and changing context of surrounding development land and masterplans for the area.

## **PANEL'S REASONING AND CONCLUSIONS**

- 5.17.12 The environmental effects of the design of the Proposed Development are considered separately in this report Chapter. The Panel concludes that there would not be a significant impact upon air quality, noise and vibration, landscape and visual impact, historic environment, heritage interests, human health, water environment or flood risk arising from the development.
- 5.17.13 We have considered the visible design aspects of the Proposed Development and find that it would not be out of place in the emerging townscape near the Order Limits in RBG and LBN.
- 5.17.14 Matters relating to flood risk are considered and concluded upon in our reports section 5.8, matters in relation to road safety are discussed in report section 5.2, climate change in 5.10 and security in 5.19. The Panel is satisfied that the Proposed Development would in principle meet the NPSNN requirements for being sustainable, durable, adaptive and resilient (as well as being aesthetically pleasing). The strengthening of R4 during the Examination should ensure that details of the external appearance of above ground elements would be subject to approval by the relevant local planning Authorities. Overall, we conclude that the Proposed Development would meet the requirements of the NPSNN in terms of good design.

## **5.18 HISTORIC ENVIRONMENT**

### **INTRODUCTION AND POLICY BACKGROUND**

#### **Introduction**

- 5.18.1 The Panel had identified impacts upon heritage assets in its initial assessment of principle issues [PD-004]. We raised two points in relation to cultural heritage and archaeology in that document. These were whether risks to the World Heritage Site (WHS) at Greenwich would arise from traffic congestion and whether the archaeological mitigation proposed in the draft Development Consent Order (dDCO) would be sufficient to ensure that any finds would be identified and recorded.

#### **Policy Background**

- 5.18.2 The National Policy Statement for National Networks (NPSNN), paragraph 5.120 states that the construction and operation of national networks infrastructure has the potential to result in adverse impacts on the historic environment. It goes on to explain in paragraph 5.126 that the Applicant should carry out an assessment of any likely significant heritage impacts of the Proposed Development as part of the environmental impact assessment (EIA) and describe these in the environmental statement (ES).
- 5.18.3 Paragraph 5.128 explains that when determining applications, the Secretary of State (SoS) should seek to identify and assess the

particular significance of any heritage asset that may be affected by the Proposed Development (including the setting of a heritage asset).

- 5.18.4 It further explains in paragraph 5.132 that any harmful impact on the significance of a designated heritage asset should be weighed against the public benefit of the development, recognising that the greater the harm to the significance of the heritage asset, the greater the justification for any loss would need to be.
- 5.18.5 Regulation 3 of the Infrastructure Planning (Decisions) Regulations 2010 states that in deciding an application which affects listed buildings or their setting, the decision maker must have regard to the desirability of preserving the listed building or its setting or any features of special architectural or historic interest which it possesses.

### **THE APPLICANT'S APPROACH**

- 5.18.6 The Applicant's approach to addressing impacts upon heritage assets was provided in Chapter 8 of the ES [APP-031]. This was accompanied by the following documents:
- Figure 8.1, the heritage asset location plan [APP-037], which was updated at D1 [REP1-111];
  - heritage asset gazetteer [APP-055];
  - geo-archaeological model [APP-056]; and
  - archaeological foreshore survey [APP-057].
- 5.18.7 In addition, the Applicant updated ES Chapter 8 at deadline 1(D1) [REP1-101], which was accompanied by a track change version of the same document [REP1-102], and an updated heritage asset gazetteer [REP1-113], also with a track change version [REP1-114].
- 5.18.8 The Applicant's updated assessment [REP1-101] followed the guidelines set out in Design Manual for Roads and Bridges (DMRB) Volume 11, Section 3, Part 2- Cultural Heritage. The study areas extended 1000m from the Order Limits. No WHSs or scheduled monuments were identified within the Order Limits or within the study area. However, the northern edge of the Maritime Greenwich World Heritage Site (MGWHS) is located about 1.5km to the south west of the Proposed Development. No conservation areas were identified within the Order Limits, however the Cold Harbour Conservation Area and a portion of the East Greenwich Conservation Area both lie within the study area. In addition, one listed building was identified within the study area, being the Grade II listed Blackwall tunnel entrance building.
- 5.18.9 On the north side of the River Thames, the Proposed Development and the majority of the study areas lie within the Royal Docks Archaeological Priority Area. On the south side of the river, the Proposed Development and study areas lie within the Greenwich Peninsula and Foreshore Area of High Archaeological Potential. These areas were designated by the relevant local authority.

- 5.18.10 The ES concluded that there would be no potential direct impacts to the setting of heritage assets during the construction phase of the Proposed Development. During operation, there would be a neutral effect on the setting of the Blackwall Tunnel entrance [paragraph 8.6.9 of REP1-101].
- 5.18.11 The Applicant explained [REP1-101, paragraph 8.5.2-8.5.5] that it would be possible to mitigate any adverse impacts to sub-surface archaeological remains through archaeological excavation and watching briefs which would form part of the archaeological written scheme of investigation (WSI), which is secured through Requirement 5(3)(b) of the Applicant's final dDCO [REP7-026].
- 5.18.12 The potential for settlement impacts upon the Grade II listed building at the entrance to the Blackwall Tunnel were identified in the ES [APP-031, paragraph 8.6.9]. However, these would be mitigated through the Code of Construction Practice (CoCP) [REP6-057]. The CoCP requires a further assessment on settlement effects on buildings during the detailed design stage and the identification of mitigation measures if necessary, in accordance with the settlement assessment and mitigation process (appended to the CoCP (Appendix A)). Such mitigation could include ground engineering solutions including injecting grouting and remedial repairs. The Panel notes that these matters were agreed between the Applicant and Historic England in the Statement of Common Ground (SoCG) [REP3-012, item 4.4.2].
- 5.18.13 Mitigation in relation to dredging impacts upon unknown archaeological interests within the area of the proposed jetty would be carried out by monitoring material dredged from the river bed, in order to identify and record any archaeological materials that would be recovered [REP1-101, paragraph 8.5.6].
- 5.18.14 The updated ES [REP1-101, paragraphs 8.6.5 to 8.6.10] stated that following appropriate mitigation, the residual significance of effects on sub surface archaeology was predicted to be neutral. The potential impacts that would arise from scour around the jetty piling areas was also predicted to be neutral after account was taken of mitigation, as was the potential impact of settlement on the Blackwall Tunnel entrance building. Impacts upon the setting of all of the relevant heritage assets were also considered to be neutral.

### **ISSUES ARISING**

- 5.18.15 The issues that arose during the Examination, relevant to cultural heritage and archaeology were as follows:-
- whether traffic diverting through the MGWHS, as a result of the Proposed Development, would cause significant impacts upon it;
  - whether the DCO requirement for the archaeological WSI should include a scheme of archaeological monitoring and recording in relation to the proposed dredging area, or whether this should be addressed through the deemed marine licence (DML; and



- whether the DCO requirement for the WSI should be approved by the local planning authorities and/or Interested Parties (IP) including the Marine Management Organisation (MMO), Port of London Authority (PLA) and Historic England.

### **Maritime Greenwich World Heritage Site**

- 5.18.16 Lalit Gulhane [RR-210], Alan Haughton [RR-300] and eighteen other IPs raised concerns identifying that possible risks from traffic diverting through the MGWHS had not been properly considered. The Written Representation from Royal Borough of Greenwich (RBG) [REP1-001] stated that '*any displacement of traffic through the MGWHS as a result of the Scheme (either to access the free crossing at Rotherhithe or the proposed Silvertown tunnel) is unacceptable*'.
- 5.18.17 The Applicant provided a technical note to the Examination regarding traffic impacts upon the MGWHS entitled 'summary of traffic impacts upon Maritime Greenwich WHS' [REP2-036, Appendix B]. This was summarised in the Applicant's written summary for air quality, noise and other environmental issues issue specific hearing (ISH) on 18 Jan 2017 [REP3-016, item 12.1]. They explained that traffic changes expected at Greenwich town centre would be minimal, therefore there would be no effect on the WHS from changes in traffic flow. While no impacts were predicted, the Applicant agreed to undertaking a refreshed assessment of impacts prior to the development opening and monitoring the impacts once operational. A range of potential mitigation measures could be implemented such as changes to signal timings and junction geometries, traffic management measures and the possible implementation of a user charge at the Rotherhithe Tunnel, should these be found to be necessary.
- 5.18.18 The signed SoCG between the Applicant and Historic England [REP3-012] confirmed that the technical note that the Applicant had prepared [REP2-036, Appendix B] had been agreed.
- 5.18.19 RBG [REP5-011] did not agree that the impact on the town centre would be minimal and explained that the preferred method of mitigation for the WHS would be a sustainable transport fund. They stated that this mechanism had, by that time, already been agreed with the other host authorities as a pragmatic approach to addressing uncertainties within the traffic model.
- 5.18.20 The D7 legal agreement position statement between the Applicant and RBG [REP7-044] explained that the Applicant had responded to requests from RBG for a sustainable transport fund. The Monitoring and Mitigation Strategy (MMS) [REP6-068, paragraph 5.2.7 to 5.2.8 and final row of Appendix F] had been amended to explain that measures to encourage sustainable and active travel could be implemented as part of the MMS to offset any residual adverse impacts not fully mitigated by other measures. The Applicant did not see a need for these matters to be explicitly referenced in the legal agreements.

- 5.18.21 However RBG raised concerns [REP7-011] that there was no commitment to the provision of a sustainable transport fund, or details of the funds available or how payment would be triggered. RBG therefore wished the fund to be part of the legal agreement and to be managed by the Local Planning Authority.
- 5.18.22 At D7, RBG [REP7-011] stated that they would wish to see the timely implementation of user charges at adjacent crossings if required, which the Applicant would administer through its existing powers under s295 of, and Schedule 23 to, the Greater London Authority Act (GLAA) 1999. In the case of the Woolwich Ferry, it would be necessary to repeal or amend the Metropolitan Board of Works Act 1885.

### **Archaeological scheme for the dredge area**

- 5.18.23 The Applicant explained [REP1-175] that the WSI would cover archaeological monitoring and mitigation of the dredging area, which is also discussed in the CoCP, the last edition of which submitted to the Examination was [REP6-057]. The Applicant considered that a separate offshore WSI would not be required [REP1-175, response to FWQ HT3].
- 5.18.24 Scour protection could be required if significant archaeological remains were to be identified during dredging [paragraph 8.5.6 of REP1-101], however the Applicant explained that quantities of scour protection could not be known until the dredging takes place [REP1-175]. In response to the Panel's second written questions (SWQs), the Marine Management Organisation (MMO) [REP4-010] explained that they were content that any scour protection that may be required, should heritage assets be found during the works in the river, would need to have a method statement submitted under the relevant condition within the DML as they would be licensable activities.
- 5.18.25 Historic England [REP4-066] stated that the MMO required that the WSI would be a condition of the draft DML as well as in the Code of Construction Practice (CoCP) so that it could be enforced by the MMO. The basis of the wording that was proposed was to ensure that MMO comments on the WSI were incorporated prior to the works going ahead. On that basis Historic England had no objections to these proposed amendments to the DML or CoCP.

### **Whether the written scheme of investigation should be approved by the Local Planning Authorities and/or relevant Interested Parties**

- 5.18.26 The Applicant's initial draft DCO [APP-013] required the WSI to be prepared in consultation with Historic England and approved by the relevant planning authority. Historic England's signed SoCG [REP3-012] stated that the dDCO should be amended such that the WSI would be approved by Historic England and the Greater London Authority Archaeological Service.

- 5.18.27 The Panel notes that the Applicant changed the structure of R5 so that the WSI would be prepared in consultation with Historic England and, in respect of any elements within the River Thames, the PLA and the MMO, and approved by the relevant Planning Authority. In addition, paragraph 11 of the DML (REP7-026, Schedule 12) requires the licence holder to submit the WSI to the MMO when it submits the first, and subsequent, method statements to the MMO for approval under condition 5 of the DML.

### **THE PANEL'S REASONING AND CONCLUSIONS**

- 5.18.28 The Panel notes that the SoCG with Historic England [REP3-012] states that *'there are no elements of the topic identified within Section 2 of this SoCG that are not agreed'*.
- 5.18.29 The Panel considers that RBG's concerns over the wording in the MMS [REP6-056] regarding the possibilities to support sustainable transport measures are valid as there is no commitment in paragraphs 5.2.7 and 5.2.8 that the Applicant would implement and make available funds to RBG should it be found that the implemented mitigation measures do not prove successful and residual impacts remain. Such residual impacts could include increased traffic pressures on the MGWHS. The Panel therefore agrees that the sustainable transport fund that RBG has requested should be included within the final legal agreement between RBG and the Applicant. We consider that the SoS may wish to ensure that the mechanism for providing this fund to the local authority is included within the legal agreement with RBG prior to making the DCO.
- 5.18.30 Turning to RBG's wish for the Applicant to have the ability to implement user charges at adjacent East London river crossings, the Panel finds that RBG's concerns are valid. We agree that user charging at adjacent crossings should be available as mitigation should traffic divert to the free crossings after the Proposed Development is opened. The Panel finds that the Applicant's explanation in Appendix F of the MMS [REP7-049] that it would administer this through its existing powers under section 295 of and Schedule 23 to, the GLAA 1999 and in the case of the Woolwich Ferry, it would be necessary to repeal or amend the Metropolitan Board of Works Act 1885, as sufficient commitment to implement user charging at adjacent crossings, should these be found to be necessary.
- 5.18.31 The Panel finds that the mechanism that has been agreed for securing the WSI, in relation to impacts from the proposed dredge area, is acceptable. We also consider that the structure of R5 in the Applicant's final dDCO [REP7-026], in relation to the approval of the WSI is acceptable.
- 5.18.32 We agree with the Applicant that there would not be a significant impact upon the Grade II Listed Building at the entrance to Blackwall Tunnel, or its setting and are satisfied with the further assessment on

settlement effects provided for within the CoCP and secured through R5 of the dDCO [REP7-026].

- 5.18.33 We also agree with the Applicant that the mitigation secured through R7, together with the MMS is sufficient to ensure that if any adverse impacts from traffic diverting through the GMWHS were likely to occur, when the Proposed Development is operational, there would be sufficient mechanisms in place to mitigate against these impacts. The Panel notes that mitigation measures have been explicitly added into Article (A) 58.
- 5.18.34 In conclusion, we find that the Applicant's assessment of impacts upon nearby cultural heritage assets to be proportionate and it provides a fair representation of the effects of the Proposed Development upon the historic environment. We also conclude that with the mitigation that would be provided through the CoCP, the MMS as well as R5, in place, together it would be sufficient to ensure that there would not be a significant impact upon any cultural heritage assets or their setting. The Applicant's assessment therefore meets Regulation 3 of the Infrastructure Planning (Decisions) Regulations 2010 and the relevant parts of NPSNN.

## **5.19 SECURITY**

### **POLICY BACKGROUND**

- 5.19.1 The National Policy Statement for National Networks (NPSNN), in paragraph 4.75 explains that Government policy is to ensure that, where possible, proportionate protective security measures are designed into new infrastructure projects at an early stage of the development.

### **APPLICANT'S APPROACH**

- 5.19.2 The Applicant considered security matters in the ES [APP-031, paragraph 4.5.83] where it presented the detailed design commitment to the provision of a secure infrastructure asset by reference to relevant bodies and guidance. It explained that as a minimum, the existing security measures applied at the Blackwall Tunnel would be replicated to manage any security threat to reduce the vulnerability of the Proposed Development.

### **ISSUES ARISING**

- 5.19.3 In the Panel's first written question (FWQ) HSS7, we asked the Applicant to explain how security measures were considered in the infrastructure project design. The Applicant [REP1-171] explained that security is of paramount concern, and in particular the protection of the tunnel users, operational staff and the asset.
- 5.19.4 It further explained [REP1-171, paragraph HSS7.3] that during the design of the scheme a tunnel design safety consultation group had been convened in accordance with Highways England guidance

recommendations of BD78/99: Design of Road Tunnels. The consultation group included representatives from the emergency responders and relevant planning agencies (including the London Fire and Emergency Planning Authority). It considered security as part of the development of the reference design.

- 5.19.5 Requirement 3 in the Applicant's final draft DCO [REP7-026] requires the authorised development to be designed and implemented in accordance with the design principles [APP-096], which were updated during the Examination, with version 3 at deadline 6 being the last version submitted to the Examination [REP6-058]. Design Principle LSCP.02 captures the need to address the relevant guidance on security that must be incorporated into the Proposed Development.

### **THE PANEL'S REASONING AND CONCLUSIONS**

- 5.19.6 The Panel is satisfied that security matters have been considered throughout the design of the Proposed Development and will continue to play an important part in its final design, construction and operation.
- 5.19.7 We consider that the implementation of the Proposed Development would increase resilience in terms of transport networks in east London, in the event of security issues arising. We conclude that the Proposed Development meets the requirements of the NPSNN in terms of proportionate protective security measures having been designed into new infrastructure projects at an early stage of the development.

## **6 FINDINGS AND CONCLUSIONS IN RELATION TO HABITATS REGULATIONS**

### **6.1 POLICY AND LEGISLATIVE BACKGROUND**

6.1.1 The competent authority has certain duties under the Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (as codified) (the Habitats Directive) and the Council Directive 79/409/EEC on the conservation of wild birds (2009/147/EC), as transposed in the United Kingdom (UK) through the Habitats Regulations.

6.1.2 The Secretary of State SoS for Transport is the competent authority for the purposes of the Habitats Regulations for transport applications submitted under the Planning Act 2008 (as amended) (PA2008). Consent for the Proposed Development may only be granted if, having assessed the potential adverse effects the proposed development could have on European sites, the competent authority considers it meets the requirements stipulated in the Habitats Regulations.

6.1.3 Natural England (NE) is the Statutory Nature Conservation Body.

6.1.4 The Panel has been mindful throughout the Examination of the need to ensure that the SoS has such information as may reasonably be required to carry out their duties as the competent authority.

#### **The Applicant's assessment**

6.1.5 The Applicant provided a Habitats Regulations Assessment (HRA) report entitled 'Environmental Statement Appendix 9.G (6.3.9.7) Habitat Regulation Assessment (HRA)' (dated April 2016) [APP-064] with the Development Consent Order (DCO) application. In accordance with Planning Inspectorate (PINS) Advice note ten, the HRA Report included screening matrices which are intended to summarise the screening exercise for likely significant effects (LSE) of the project on the European sites and qualifying features considered.

6.1.6 The HRA Report was determined to be sufficient to accept for examination; however the Panel noted that the footnotes of the screening matrices only contained very generic references to whole chapters of the Environmental Statement (ES) and the matrices did not cross refer to any specific footnote. Therefore, in response to the Panel's first written questions (FWQ) HRA5 [PD-006], the Applicant provided an updated HRA Report at Deadline 1 (D1) [REP1-115] which contained updated screening matrices<sup>77</sup>. The Panel considers the updated matrices provide adequate information on the HRA process undertaken by the Applicant.

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<sup>77</sup> The track changed version of the Updated HRA Report [REP1-116] shows that only minor edits (primarily grammatical) were made to the main text.

## **The Report on the Implications for European Sites (RIES)**

- 6.1.7 The Panel prepared a RIES, with support from PINS Environmental Services Team. The purpose of the RIES [PD-014] is to compile, document and signpost information provided in the DCO application and the information submitted throughout the Examination by both the Applicant and Interested Parties (IP).
- 6.1.8 The RIES [PD-014] was published on the Silvertown Tunnel project page of PINS National Infrastructure Planning webpage and a link was circulated to IPs, including to the relevant Statutory Nature Conservation Body (NE), on 20 March 2017. Consultation on the RIES was undertaken between 20 March 2017 and 5 April 2017.
- 6.1.9 In response, the Applicant [REP6-031] clarified species and European site names and references. NE did not comment on the RIES.

## **6.2 PROJECT LOCATION IN RELATION TO RELEVANT EUROPEAN SITES**

- 6.2.1 The Applicant's updated HRA Report [REP1-115] identified nine European sites within 30km of the Proposed Development. Paragraph 6.1.1 states that this is a radius taken from the Design Manual for Roads and Bridges (DMRB) in order to assess potential impacts on bats and also to ensure that potential functionally linked land for qualifying wintering bird species is considered.
- 6.2.2 The relevant European sites (and features) identified, for which the UK is responsible, are identified in Table 6.1 of the updated HRA.

**Table 6.1: Sites identified in the Applicant's updated HRA Report**

Name of European Site	Approximate distance from the site	Features
Lee Valley Special Protection Area (SPA)	8 kilometres (km) north	<i>Botaurus stellaris</i> ; Bittern (wintering)
		<i>Anas strepera</i> ; Gadwall (wintering)
		<i>Anas clypeata</i> ; Shoveler (wintering)
Lee Valley Ramsar site	8km north	Ramsar criterion 2: The site supports the nationally scarce plant species whorled water-milfoil <i>Myriophyllum verticillatum</i> and the rare or vulnerable invertebrate <i>Micronecta minutissima</i> (a water-boatman)
		Ramsar criterion 6: Internationally important populations of two wintering or passage bird species
Thames Estuary and Marshes SPA	30km east	<i>Calidris alpina alpina</i> ; Dunlin (wintering)
		<i>Calidris canutus</i> ; Knot (wintering)
		<i>Charadrius hiaticula</i> ; Ringed plover (passage)
		<i>Circus cyaneus</i> ; Hen harrier (wintering)
		<i>Limosa limosa islandica</i> ; Black-tailed godwit (wintering)
		<i>Pluvialis squatarola</i> ; Grey plover (wintering)
		<i>Recurvirostra avosetta</i> ; Avocet (wintering)
		<i>Tringa tetanus</i> ; Common redshank (wintering) Assemblage of overwintering waterfowl
Thames Estuary and Marshes Ramsar site	30km east	Ramsar criterion 2: The site supports one endangered plant species and at least 14 nationally scarce plants of wetland habitats. The site also supports more than 20 British Red Data Book invertebrates
		Ramsar criterion 5: Internationally important assemblages of wintering waterfowl
		Ramsar criterion 6: Internationally important populations of six wintering or passage bird species
Epping Forest Special Area of Conservation (SAC)	7km north	Northern Atlantic wet heaths with <i>Erica tetralix</i> ; Wet heathland with cross-leaved heath
		European dry heaths
		Atlantic acidophilous beech forests with <i>Ilex</i> and sometimes also <i>Taxus</i> in the shrublayer ( <i>Quercion robur-petraeae</i> or <i>Ilici-Fagenion</i> ); Beech forests on acid soils
		<i>Lucanus cervus</i> ; Stag beetle



Name of European Site	Approximate distance from the site	Features
Wimbledon Common SAC	Over 20km west	Northern Atlantic wet heaths with <i>Erica tetralix</i>
		European dry heaths
		<i>Lucanus cervus</i> ; Stag beetle
Richmond Park SAC	Over 21km west	<i>Lucanus cervus</i> ; Stag beetle
Wormley Hoddenspark Woods SAC	Over 27km west	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the <i>Carpinion betuli</i>
North Downs Woodlands SAC	30km south-west	<i>Asperulo-Fagetum</i> beech forests
		<i>Taxus baccata</i> woods of the British Isles
		Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) (important orchid sites)

6.2.3 The Applicant did not identify any potential impacts on European sites in another European Economic Area (EEA) State. No comments relating to European sites within another EEA State were received during the examination.

6.2.4 No other UK European sites or European site features that could be affected by the project were identified in any of NE's representations.

### **6.3 ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS RESULTING FROM THE PROJECT, ALONE AND IN COMBINATION**

6.3.1 The Proposed Development is not connected with, or necessary to, the management for nature conservation of any of the European sites considered within the Applicant's assessment.

6.3.2 The Applicant's updated HRA Report [REP1-115] considered the following potential impacts on the European sites:

- changes to air quality;
- changes to water regime/quality; and
- functional habitat loss/damage and/or disturbance.

6.3.3 The Applicant addressed potential in-combination effects within section 7.5 of their updated HRA report. The following proposed plans/projects located within or adjacent to the proposed development were considered:

- Newham Strategic Site S8;
- Greenwich Masterplan 2015; and
- Greenwich Peninsula West Masterplan.

- 6.3.4 The Applicant's updated HRA Report concluded that the project would have no likely significant effects (LSE), either alone or in-combination with other projects or plans, on the qualifying features of any European site. The Applicant therefore did not undertake an assessment of adverse effects on the integrity of the European sites.

#### **Issues considered during the Examination**

- 6.3.5 The Applicant's conclusion of no LSEs in relation to these sites and their features was not disputed by any IPs during the Examination. However, the following matters were raised by the Panel and discussed during the Examination.

#### ***Thames Estuary and Marshes SPA and Ramsar site***

- 6.3.6 The updated HRA Report ruled out a LSEs on the Thames Estuary and Marshes SPA and Ramsar site on the basis that it is '*sufficiently far removed at 30km east of the Scheme not to be within the zone of influence of water quality effects*' (paragraph 7.3.3).
- 6.3.7 However, the Panel noted concerns in the Environment Agency's (EA) Relevant Representation (RR) [RR-299] that the Applicant had not satisfactorily demonstrated Water Framework Directive (WFD) compliance, specifically in relation to mobilisation of contaminants. The EA's representation did not directly attribute these concerns to European sites, but it prompted the Panel to question whether the proposed development could result in the mobilisation of contaminants which could open up impact pathways to the Thames Estuary and Marshes SPA and Ramsar site (FWQ HRA3 [PD-006]).
- 6.3.8 The Applicant [REP1-168] reiterated the conclusions of the assessment of effects on water quality from the mobilisation of contaminants during construction which was presented in Chapter 16 - Water Quality and Flood Risk and Chapter 10 - Marine Ecology of the ES [APP-031]. It reaffirmed that the Thames Estuary and Marshes SPA and Ramsar site is sufficiently far removed at 30km east of the proposed development not to be within the zone of influence of water quality effects and that there is no functionally linked wetland within the zone of influence of the proposed development. This position was agreed with NE [REP1-063 and REP6-084].
- 6.3.9 The Applicant provided an updated WFD compliance assessment [REP1-117] which the EA confirmed [REP1-060] addressed their WFD concerns. As a result, the EA stated [REP1-061] that it would expect potential water quality impacts on the Thames Estuary and Marshes SPA and Ramsar site to be low.

#### ***In-combination assessment***

- 6.3.10 The conclusions of the in-combination assessment (section 7.5 of the updated HRA Report) were drawn on the basis that the Greenwich and Newham local plans have had their own HRA screening assessment

that concluded no significant effect and on the basis that policies in the Core Strategies are to enhance biodiversity.

- 6.3.11 The Panel noted that no specific assessment work had been presented which considered whether in-combination impacts from the proposed development and projects detailed within the local plans could potentially be significant. NE did not submit a RR; therefore the Panel queried whether NE agreed with the approach [HRA2 of FWQ PD-006].
- 6.3.12 At D1, NE [REP1-063] stated that '*the two local authority Local Plan HRA screening assessments as evidence can be accepted but shouldn't be solely relied upon by TfL as the Silvertown Tunnel isn't directly referenced within either in-combination assessment...The early stage of the Silvertown Tunnel project (or it's non-existence) when the HRA screenings were carried out means that it couldn't reasonably have been considered in combination at the time and is not considered to have an impact on its own.*'
- 6.3.13 Both NE and the Applicant [REP1-168] responded that the approach was under discussion.
- 6.3.14 At D2, the Applicant [REP2-034] provided details of the potential in-combination effects that were identified, but not considered to be significant, in the Greenwich Local Plan HRA. These were:
- increased visitor/adjacent recreational pressure resulting in disturbance to bird populations and supporting habitat; and
  - potential for pollution effects downstream.
- 6.3.15 The Applicant further explained that these effects were screened out of the HRA on the basis that the Proposed Development is predicted to result in a reduction in daily traffic demand on the road network in the study area and in particular a reduction in and a moderating regulation of cross-river highway demand [APP-086, paragraph 7.2.6]. There is therefore no reason to predict any in-combination recreational pressure. With regard to any potential for pollution effect downstream, NE had already acknowledged '*The distances to the nearest Natura 2000 sites are great enough that there is not likely to be a significant impact upon any of the screened sites.*' Consequently, the Applicant concluded that there is no potential for in-combination effects.
- 6.3.16 The Statement of Common Ground (SoCG) with NE [REP6-084] confirms that 'it is agreed that the Scheme is not likely to give rise to significant effects upon any N2k<sup>78</sup> sites or their qualifying features, either alone or in combination with other known plans and projects. It is therefore not necessary to carry out an 'Appropriate Assessment' / Stage 2 HRA.'

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<sup>78</sup> European Sites created under the EC Birds Directive and Habitats Directive form part of a larger European network called 'Natura 2000' which can be referred to as N2k.

## **6.4 CONCLUSIONS**

- 6.4.1 A total of nine European sites were identified within the updated HRA Report for consideration within the assessment. The Panel is satisfied that the Applicant has correctly identified all relevant European sites and that all potential impacts have been considered.
- 6.4.2 The Panel notes the agreement between the Applicant and NE with regard to the list of plans or projects to be considered cumulatively [REP6-084] and is satisfied that a robust in-combination assessment has been presented.
- 6.4.3 Taking into account the views expressed by NE [REP6-084], the Panel considers that sufficient information has been provided by the Applicant to allow the SoS to conclude that the project would have no LSEs, either alone or in-combination with other projects or plans, on the qualifying features of any European site.

## **7 THE PANEL'S CONCLUSION ON THE CASE FOR DEVELOPMENT CONSENT**

### **7.1 INTRODUCTION**

7.1.1 The main issues in the Examination of this Proposed Development are set out in sections 4.1 to 4.3 of this report. They include issues which were identified in the Panel's Initial Assessment of Principal Issues [PD-004], those which were raised in the Preliminary Meeting (PM), Open Floor Hearings (OFH), Issue Specific Hearings (ISH) and in written and oral representations, as well as matters raised in the host and neighbouring authorities Local Impact Reports (LIRs). As the Examination progressed it became apparent that the main issues that needed to be resolved included the:

- Adequacy of the traffic and transport modelling;
- The effect of projected traffic flows on air quality having regard to uncertainties inherent in modelling and the translation to air quality assessments;
- The effectiveness of user-charging as a means of preventing induced traffic and mitigating environmental consequences;
- The overall effectiveness of the monitoring and mitigation strategy;
- The mechanisms required to secure the Assessed Case level of bus services through the tunnels and other measures to offset adverse socio-economic distributional impacts;
- The approach to the issue of hazardous substance consents being extant on land adjoining the Proposed Development;
- The need to minimise adverse effects on river users; and
- The means to ensure that no flood risk is created during the construction and initial maintenance period for the Proposed Development.

7.1.2 The designated National Policy Statement for National Networks (NPSNN) provides the primary basis for making decisions on development consent applications for national networks Nationally Significant Infrastructure Projects by the Secretary of State (SoS). This is because we concluded in paragraph 3.3.11 of this report that the application should be determined under s104 of the Planning Act 2008 (as amended) (PA2008). The Panel's conclusions on the case for granting development consent for the application as contained in the documents before us, amended by the five non-material changes that are detailed in paragraph 2.2.5 of this report, are therefore reached within the context of the policies and assessment tests contained in the NPSNN.

### **7.2 THE NEED CASE**

7.2.1 Chapter 2 of the NPSNN explains the need for development of the national networks. It sets out a number of matters of relevance to the Development Consent Order (DCO) scheme including that:

- well-connected and high-performing networks with sufficient capacity are vital to meeting the country's long-term needs and support a prosperous economy (paragraph 2.1);
- there is a critical need to improve the national networks to address road congestion ...and to provide safe, expeditious and resilient networks that better support social and economic activity (paragraph 2.2);
- it is important to provide a transport network that is capable of stimulating and supporting economic growth (paragraph 2.2); and
- in their current state, without development, the national networks will act as a constraint to sustainable economic growth, quality of life and wider environmental objectives (paragraph 2.9).

7.2.2 The Panel accepts that the DCO scheme addresses these policies within the NPSNN and that in relation to the terms of paragraphs 2.10 and 2.27 of the NPSNN there is a compelling need for the Proposed Development.

7.2.3 Paragraph 1.3 of the NPSNN refers to the development plan as being important and relevant in establishing the need for the development where it is subject to a s35 Direction under the PA2008. Furthermore, consistency with the development plan and relevant statutory transport strategies and plans should be demonstrated where road user charges are proposed<sup>79</sup>.

7.2.4 We have set out the relevant details of the development plan and the Mayor's Transport Strategy May 2010 (MTS) [AS-007] in section 4.4 of this report. We accept that they provide support for the need for the DCO scheme and that the principle of proposing user charges is consistent with those documents. In summary, the DCO scheme benefits from longstanding and comprehensive policy support at national<sup>80</sup>, strategic and local level.

7.2.5 In our report section 4.5, the three transport problems experienced at the Blackwall Tunnel of congestion, closures and a lack of resilience are set out, as well as the secondary effects on the economy that they cause. Taken together, high levels of congestion, poor reliability and resilience at the Blackwall Tunnel impose significant costs on the large number of businesses that rely on being able to cross the River Thames, with costs much higher than would be the case if the road network was functioning efficiently. These increased costs effectively result in a 'barrier effect' where the movement across the River Thames is seen as a constraint to the ability to access customers, suppliers, staff and jobs on the other side of the river.

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<sup>79</sup> Paragraphs 1.3 and 3.27 of the NPSNN

<sup>80</sup> The original safeguarding directions from the Secretary of State

- 7.2.6 The Panel finds that the Proposed Development would contribute to reducing congestion, supplying alternative routes for the duration of short term road closures at the Blackwall Tunnel and generally improving resilience on the road network in East London. Therefore, we are satisfied that the need for the development has been adequately demonstrated in relation to the policies set out in Chapters 1 and 2 of the NPSNN.
- 7.2.7 We are also satisfied as noted in paragraphs 4.6.47 to 4.6.48 and in 4.6.37 in Chapter 4 of this report that a robust business case has been established for the DCO scheme and that there has been sufficient assessment of alternative options to comply respectively with paragraphs 4.5 and 4.27 of the NPSNN. In Chapter 4 of this report we also note that requirements in relation to Environmental Impact Assessment (EIA) and Habitats Regulation Assessment (HRA) have been complied with as required in Chapter 4 of the NPSNN. The HRA is considered in Chapter 6 of this report. We are satisfied that the SoS has the necessary information to conclude that there should be no likely significant effects (LSE) on any European Sites.

### **7.3 THE IMPACTS OF THE PROPOSED DEVELOPMENT**

#### **Introduction**

- 7.3.1 Chapter 5 of our report provides our detailed consideration and conclusions regarding potential impacts arising from the Proposed Development upon sensitive receptors and in relation to socio-economic and commercial and industrial considerations. These impacts are considered against the relevant policy assessment tests in the NPSNN. This section provides a summary of the Panel's findings and conclusions in relation to the key impacts considered in Chapter 5.

#### **Traffic and Transport**

- 7.3.2 In report section 5.2, the Panel agrees that the modelling approach and suite of tools employed by the Applicant is consistent with industry wide and government agency guidance and good practice, based on its extensive review of the traffic and transport models and other tools employed in assessing the DCO scheme. Moreover, the Panel accepts the arguments advanced by the Applicant in relation to emphasis on local modelling being applied closer to completion of the DCO scheme.
- 7.3.3 Nevertheless there are concerns about specific elements of the model system, including the robustness of the values of time employed, particularly when disaggregated by socio-economic group. We would therefore caution on over reliance on the projected behavioural responses to aspects of the DCO scheme among certain population groups.
- 7.3.4 The levels of uncertainty in relation to projected behaviour changes linked to the DCO scheme indicate to us that adequately resourced monitoring arrangements need to be put in place to ensure that

mitigation measures can be implemented expeditiously, through changes to the user charging regime, should the need arise.

- 7.3.5 The Panel is however satisfied with the changes secured to Requirement 7 (Monitoring and mitigation strategy) in Schedule 2 to the draft DCO (dDCO), the Monitoring and Mitigation Strategy itself [REP7-049] combined with the strengthening of the role and operation of the Silvertown Tunnel Implementation Group (STIG) through the changes to Article 67 of the dDCO. We are therefore content that the matters that we considered are necessary in the light of our consideration of the modelling and forecasting have been addressed and are secured in the recommended DCO (rDCO) at Appendix D of this report.
- 7.3.6 The Panel has no reason to doubt the effectiveness of varying the user charges to control traffic levels to keep them at the level of impact that was assessed in the Assessed Case and control impacts upon the adjoining road networks. We consider that the Proposed Development, with the user charging in place would deliver significant positive benefits on the transport network in East London, by reducing travel time and improving reliability. We also have no doubt that the Proposed Development would help to reduce congestion and provide resilience for vehicles currently using the Blackwall Tunnel.
- 7.3.7 The DCO scheme would therefore meet the goals of the NPSNN to a significant extent. The Panel is satisfied that it is in conformity with the relevant requirements of the NPSNN, including paragraph 5.206 in relation to potential environmental impacts and paragraphs 5.211 and 5.212 regarding impacts on local roads and policies.

### **Air Quality**

- 7.3.8 In report section 5.3, we report our satisfaction that impacts from the construction phase on air quality (including dust emissions and odours) would be kept to a minimum through the implementation of the Code of Construction Practice (CoCP) and the proposed Construction Environment Management Plan (CEMP). The Applicant's final draft of the CoCP [REP6-057] would be a certified document in Schedule 14 to the final draft DCO [REP7-026]. Compliance with the CoCP would be controlled through Requirement 5(1) in Schedule 2 to the dDCO.
- 7.3.9 The Panel is also satisfied that the results of the air quality assessment are robust and valid in relation to the levels of traffic considered in the Assessed Case and in relation to the methodology used. We are also satisfied that the Applicant's use of the Design Manual for Roads and Bridges /Interim Advice Note (DMRB/IAN) criteria for assessing significance for the Proposed Development is acceptable, especially as these have been supplemented with the use of the Department for Environment, Food and Rural Affairs (Defra) local air quality management guidance and tools, but we comment further on this matter in paragraphs 5.3.172 to 5.3.174.



- 7.3.10 The conclusion that there would be no significant effect on air quality overall, on the basis of the input data that was used to provide the air quality assessments, is accepted by the Panel, so long as the traffic levels in the Assessed Case reflect the situation when the Proposed Development is operational, a point that the Monitoring and Mitigation Strategy is designed to secure.
- 7.3.11 The Panel recognises that the updated Monitoring and Mitigation Strategy (MMS) [REP6-068], combined with Requirement 7 (MMS) in the Applicant's final dDCO [REP7-026], should be sufficient to give the host boroughs confidence that the impacts of the scheme could be effectively mitigated. The Panel is satisfied that there would be sufficient mitigation in place to monitor traffic levels and air quality impacts such that if actual traffic levels exceeded those predicted, there would be a robust mechanism to manage traffic levels in order to ensure that the development's impacts would be no worse than those that were assessed in the Environmental Statement (ES).
- 7.3.12 We are also satisfied that the additional work that the Applicant would undertake to comply with dDCO Requirement 5(3)(a) regarding the preparation, submission and approval of air quality management plans for the construction phase and Requirement 7 in relation to monitoring and mitigation for the operational phase, would be sufficient to ensure that the air quality assessment work is updated prior to construction commencing and sufficient controls would be put in place to enable the Local Planning Authorities (LPA) to control the Proposed Development so that it would be constructed and operated at the assessed levels of traffic and air quality impacts. The direct air quality monitoring procedures specified cover the possibility of any uncertainty in the outcome of the translation of traffic flows to observed air quality conditions.
- 7.3.13 However, the Panel agrees with London Borough of Newham (LBN) that there is no certainty that the forecast pollution levels decreasing in the vicinity of the Hoola Development prior to the scheme opening, giving rise to nitrogen dioxide (NO<sub>2</sub>) levels which would be below the Air Quality Directive (AQD) limit value, would actually happen. The Panel welcomes the inclusion of retro-fitted ventilation mitigation for these properties in the draft legal agreement proposed by LBN, but this had not been agreed at the close of the Examination. The Panel therefore recommends that the SoS should be satisfied that this mitigation is secured prior to making the DCO, but also considers in Chapter 9 whether this could also be secured through a Requirement in the DCO.
- 7.3.14 Subject to the mitigation for the Hoola Development, if it is required, being capable of being delivered as necessary, overall, the Panel is satisfied that the Applicant's assessment has used the correct methodology and that the DCO Scheme would not give rise to significant air quality impacts. Whilst the assessment identifies some adverse impacts at specific receptors, the Panel agrees that the overall conclusion is that there would not be a significant effect.

- 7.3.15 As the Panel accepts LBN's concerns about air quality impacts at the Hoola Development in the opening year, if the anticipated reduction in NO<sub>2</sub> levels at that location does not materialise, the Proposed Development has the potential to cause the air quality at the Hoola Development to exceed the NO<sub>2</sub> air quality strategy (AQS) objective. This means that LBN would be obliged to extend the area covered by its Air Quality Management Area (AQMA) to include the area adjacent to the Hoola Development. The NPSNN, paragraph 5.11, explains that where a Proposed Development brings about a need to change the size of an existing AQMA, air quality considerations are likely to be particularly relevant.
- 7.3.16 The Panel considers that there is a possibility that there may need to be a change to the AQMA, due to worsening air quality near the Hoola Development in the opening year, but that change would not give rise to a significant impact, as it would be likely to be limited in extent (and also in duration, should the trends in improving air quality that are expected, materialise, albeit later than expected). We consider that we have given substantial weight to this matter. We also consider that this risk is limited, and if it did occur, it would not give rise to a significant impact upon air quality overall. We conclude that there is no justification for refusing consent on the basis of the possible need to extend the LBN AQMA to cover the Hoola Development.
- 7.3.17 The Panel recognises the concerns raised by LBN, London Borough of Southwark (LBS) and London Borough of Lewisham (LBL) regarding the use of IAN 174/13 and agrees that the more recent guidance in the Environmental Protection UK/Institute of Air Quality Management (EPUK/IAQM) document would have provided a more precautionary approach to defining significant effects. However, the Panel considers that the Applicant has complied with relevant policy and guidance in using DMRB and guidance in IAN 174/13 for the assessments in the ES.
- 7.3.18 We see it as a role of the STIG to ensure that the Applicant endeavours to work towards meeting the EPUK/IAQM significance criteria in the MMS required under dDCO Requirement 7(Monitoring and Mitigation Strategy).
- 7.3.19 The Panel is satisfied that the Applicant's assessment of impacts on air quality meet the requirements of the NPSNN (paragraphs 5.6 to 5.9), in particular in relation to the requirements of paragraph 5.8 regarding consistency with Defra's projections. However, the Panel acknowledges that Defra predictions current at the time that the NPSNN was drafted are considered to be over-optimistic. However, the Panel recognises that the Applicant's updated air quality and health assessment [REP2-041] utilised the updated suite of air quality modelling tools issued by Defra in July 2016.
- 7.3.20 We further consider that our identification of the risks associated with uncertainties in the air quality forecasting fulfils the requirement in NPSNN paragraph 5.9 to provide the SoS with a judgement as to

whether the project would affect the United Kingdom's (UK) ability to comply with the AQD. The Panel concludes that with Requirements 5(1), 5(3)(a), and 7 in place (as set out in the Panel's rDCO in Appendix D to this report), there would be sufficient mitigation to ensure that the Proposed Development would operate at the levels of traffic and emissions that were assessed in the Assessed Case. Thus, the Proposed Development would not give rise to a risk to the UK's ability to comply with the AQD. Nor would it hinder meeting the objectives of the current Air Quality Plan (AQP) for NO<sub>2</sub>.

### **Noise and vibration**

- 7.3.21 We consider noise and vibration impacts in section 5.4 of our report. Because of the proximity of the A102 to the Siebert Road residential and school receptors, the Panel finds that the construction of the proposed Siebert Road barriers would be essential prior to the construction of the Proposed Development, even if they address primarily a pre-existing situation. The Panel is satisfied that the Siebert Road environmental barriers would be agreed and delivered as part of the proposed legal agreement with Royal Borough of Greenwich (RBG). The Panel considers that the SoS should ensure that the legal agreement has been agreed, signed and sealed prior to making the DCO. This matter is considered further in our report in Chapter 9.
- 7.3.22 Otherwise, the Panel finds that the Applicant has adopted a reasonable and proportionate approach to assessing the noise impacts arising from the Proposed Development. We consider that the range of noise mitigation measures secured through Requirement 12 (Operational noise mitigation measures) in the dDCO, including low noise surfacing, barriers and mitigation during construction is adequate and sufficiently flexible to protect noise sensitive receptors. The Panel is also satisfied that suitable mitigation would be available for any affected residential dwellings, through Appendix G of the CoCP [REP6-056], if necessary.
- 7.3.23 The Proposed Development would therefore accord with paragraphs 5.186 to 5.200 of the NPSNN. In particular, the Panel considers that it would meet the requirements of NPSNN, paragraph 5.195, in respect of avoiding or minimising noise impacts upon health and quality of life.

### **Other construction impacts**

- 7.3.24 In our report section 5.5 on other construction impacts, the Panel notes that the CEMP, secured through the Applicant's final dDCO [REP7-026] in Requirement 5(2)(a) would be prepared in consultation with the relevant LPA and the Port of London Authority (PLA). We agree with the RBG that the CEMP is an important document which is used by the contractor during the construction period. The Panel recognises that the CoCP, as a certified document, provides the overarching details in relation to controlling construction impacts, but it does not contain site/location specific details. We consider that it is very important to control impacts on a local basis during construction

to ensure that impacts are kept to a minimum. We conclude that the CEMP should also be approved by the relevant LPA in consultation with the PLA, and so in the rDCO in Appendix D, the CEMP details have been moved to Requirement 5(3)(k) to achieve this.

7.3.25 The Panel finds that impacts arising from the construction phase including light emissions and decommissioning of temporary structures, would be adequately controlled through the DCO, the CoCP and related plans and strategies. The Proposed Development therefore accords with the NPSNN (paragraphs 4.57 to 4.58, 5.81 to 5.83) and the National Planning Policy Framework (NPPF), paragraph 125 regarding these construction impacts.

7.3.26 The Panel is satisfied that there would be suitable sufficient mechanisms within the DCO requirements for monitoring, management and mitigation of any potential impacts upon human receptors during construction. Together with the complaints procedure provided in the CoCP [REP6-056] these would provide a suitable and deliverable response mechanism for minimising impacts from construction and dealing with complaints when they arise.

### **Health impacts**

7.3.27 In our report section 5.6 we explain that we are satisfied with the mitigation now secured in various requirements in the Applicant's final dDCO, as strengthened by the Panel's recommendations in relation to additional mitigation for noise and air quality impacts. We consider that with the proposed additional mitigation to reduce those impacts, discussed in section 5.3 and 5.4 and in Chapter 9 of our report, in relation to the noise barriers for Siebert Road and retro-fitted ventilation mitigation for the Hoola Development, the DCO scheme would contribute to safeguarding against any harmful impacts upon human health.

7.3.28 The Panel concludes that the Proposed Development would not give rise to any harmful impacts upon human health, thereby meeting the requirements of paragraphs 4.79 to 4.82 of the NPSNN.

### **Geology, Soils and Contaminated Land**

7.3.29 The Panel is satisfied that the Applicant has suitably addressed the matters of contaminated land, land stability and risks arising from pollution, within the ES and later documents submitted to the Examination. We did, however, agree with the Environment Agency (EA) and the host planning authorities that there should be a specific Requirement to address remediation of contaminated land.

7.3.30 In our report section 5.7, we have considered the potential impacts from pollutants upon ground water, having based our decisions upon the assumption that in terms of control and enforcement, the relevant pollution control regime would be properly applied and enforced.

- 7.3.31 The Panel is satisfied that the requirements in the Applicant's final dDCO [REP7-026], including Requirement 5(3)(h) (CoCP and Groundwater Monitoring and Verification Plan) and Requirement 15 (contaminated land), together with the relevant parts of the CoCP (version 4) [REP6-057], would provide suitable sufficient mitigation to ensure that the Proposed Development would not give rise to significant impacts upon any existing contaminated land or upon land stability and the development itself would be stable. The Panel is also satisfied that the Proposed Development will adhere to the overarching principles of the Greenwich Peninsula Environmental Method Statement (EMS) as secured by section 9 of the CoCP (version 4) [REP6-057].
- 7.3.32 The Panel concludes that the Proposed Development would accord with the policy requirements in the NPSNN in respect of land stability and contaminated land. It also accords with the NPPF, paragraphs 120 to 121 in respect of the Applicant's responsibilities for securing a safe development and its proposals for dealing with contamination.

### **Surface water, flood risk and hydrology**

- 7.3.33 In our report section 5.8, the Panel identifies that the only flood risk matter that was not agreed with the EA at the close of the Examination was the maintenance of the river wall flood defences during construction or initial maintenance. The Panel considers that, in order to comply with NPSNN paragraphs 5.102 to 5.104, reasonable steps should be taken to avoid, limit and reduce flood risk on the proposed infrastructure and others who may be affected by any increase in flood risk. The Applicant is expected to provide mitigation measures so that that infrastructure remains functional in the event of predicted flooding. The Panel considers that without the Protective Provisions (PP) in the form requested by the EA, the construction of the Proposed Development could cause increased flood risk particularly in relation to river wall flood defences on the northern bank of the River Thames which are known to be in a poor state of repair.
- 7.3.34 The Panel concludes that the Applicant should be responsible for the maintenance and enhancement of the river wall flood defences during the periods during which the Applicant is in possession of the river walls and we agree with the EA on these matters. The PP in favour of the EA should therefore include the wording sought by the EA. The Applicant would be responsible for maintaining the river walls during construction and allowing such provision during initial maintenance periods, so that they remain in a fit for purpose condition, maintained at the statutory level. The Panel's rDCO (Appendix D) reflects this.
- 7.3.35 The Panel is satisfied with all other flood risk matters, including the way that the Applicant has addressed the sequential test and exception test pursuant to paragraphs 5.105 to 5.109 of the NPSNN.

- 7.3.36 The Panel is also satisfied that the Proposed Development would not have a significant effect on surface water quality during construction, through disturbance of sediments during dredging activities. We consider that these would be adequately controlled through measures in the CoCP and the deemed marine licence (DML) (Schedule 12 to the Applicant's final draft DCO [REP7-026]).
- 7.3.37 The Water Framework Directive (WFD) assessment meets the requirements of the EA [REP3-011] and as they are the statutory consultee, the Panel has no reason to disagree. We are therefore satisfied that the Application meets the requirements of NPSNN paragraphs 5.225 to 5.226 and it would have no effect on the achievement of environmental objectives established under the WFD.
- 7.3.38 Turning to surface water drainage matters, the Panel is satisfied that these would be managed to the satisfaction of the lead local flood authorities, under Requirement 8 of the Applicant's final dDCO [REP7-026]. In addition, the Applicant would need to apply for environmental permits for any discharges to surface waters.
- 7.3.39 Overall, we consider that the impacts on the water environment have been adequately assessed and the mitigation measures proposed in requirements, the DML and the CoCP are sufficient. However, the Panel concludes that the PP in favour of the EA should be amended to require the Applicant to maintain the river wall flood defences during construction in a fit for purpose condition, to the statutory levels. Without this change the requirements of the NPSNN regarding flood matters would not be met. Otherwise, the Panel is satisfied that the Proposed Development meets the requirements of NPSNN on flood risk, surface water and drainage and WFD matters.

### **Dredging and navigation**

- 7.3.40 With regard to the PLA concern over future licensing of the Not Always Afloat But Sometimes Aground (NAABSA) berth, reported in section 5.9, this is part of the wider issue of the impact on commercial interests that is considered in section 5.14 of this report. As we make clear, the future of the whole of the 'safeguarded' Thames Wharf and the un-safeguarded Royal Victoria Dock Entrance Wharf, as well as of the users which would be displaced during construction, needs to be addressed by all the Mayoral bodies concerned so that the current objectives of the London Plan in relation to the safeguarding of wharves and the use of the River Thames are not jeopardised. We recognise, however, that this will require action outside the context of this DCO as its provisions require reinstatement of areas subject to temporary possession, albeit that does not necessarily secure restoration of previous uses.
- 7.3.41 Aside from this concern, the Panel is satisfied that dredging and navigational matters would be adequately controlled through the DCO, in particular through Requirement 5(3)(j) in respect of the passage plan to be approved by the PLA, the DML (Schedule 12 to the dDCO)

and the PPs in favour of the PLA. We conclude that with the mitigation in place, there would not be significant impacts arising from dredging or any significant impacts upon navigation interests from the Proposed Development and that the application is in accordance with the NPSNN, paragraphs 5.202 and 5.205 regarding these matters.

### **Resources and waste arisings**

- 7.3.42 In section 5.10 of our report, the Panel finds that the Applicant has considered resource use and waste arisings from the Proposed Development adequately. We accept that there would be sufficient, suitable facilities benefitting from an environmental permit for the various waste types that would be produced by the Proposed Development to accommodate the various waste arisings. We also agree with the Applicant that this would not impact significantly on the total capacity available for waste from other sources within the study area, including on a cumulative basis with other plans and projects.
- 7.3.43 The Panel accepts the concerns raised by the host authorities regarding the Applicant's inclusion of any spoil used on site for land-raising in the 'transportation by river' target of 55%. The Panel considers that this interpretation would not assist in delivering the host authorities' aspirations for ensuring that the maximum amount of waste and materials is transported by river, thus minimising heavy goods vehicle (HGV) movements. The Panel also finds the request from RBG that the 55% 'transportation by river' target should, if possible, apply to each of the two worksites during the construction phase separately, to be reasonable. Because of these two matters, the Panel accepts the additional wording suggested by LBN for Requirement 5 and specified in paragraph 5.11.6 of this report and has added these words in its rDCO in Appendix D. There would then be no doubt that matters related to river borne resources and waste transportation would have to be included in the construction materials management plan, secured as part of the CoCP under Requirement 5(3)(d) (Code of Construction Practice and related plans and strategies).
- 7.3.44 The Panel understands Silvertown Homes Limited's (SHL) concerns that if possible, tunnelling spoil should be used on site for beneficial use in relation to creating a built platform for regeneration projects, rather than taking it off site. However, the Panel notes that planning permission for the built platform was not in place by the close of the Examination and the aspirations that SHL has for their land currently conflict with London's 'safeguarded' wharves policy, although Policy S08 of the Newham Core strategy and an emerging Opportunity Area Planning Framework would give some encouragement<sup>81</sup>. There are unresolved objections from the PLA to taking forward the revised aspirations for the site. Until these matters are resolved, it may not be

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<sup>81</sup> See section 4.4 of this report

possible for SHL's aspirations to be realised through the grant of suitable planning permissions and a waste permit, though the indications in the final position statement between the Applicant and SHL [REP7-046] imply that this is likely to be achieved.

- 7.3.45 The Panel accepts the Applicant's reasoning that the DCO and subsidiary documents including the CoCP and the construction, demolition and excavation (CDE) materials commitments would not preclude the use of tunnelling spoil on SHL's land. The Panel also considers that other projects, which could receive and put to beneficial use the tunnelling spoil by river transport, may be as good a use, for example if used for wetland habitat creation.
- 7.3.46 The Panel finds that SHL's proposed wording for a requirement which specifies that suitable tunnelling spoil should be put to beneficial use in Silvertown could place unduly restrictive burdens upon the Applicant during the construction phase. Furthermore, such a phasing requirement in the form as drafted by SHL could impact significantly upon the Proposed Development's construction programme. The Panel concludes that requirements along the lines of those proposed by SHL would not be justified but further consideration is given to the possible justification for a less onerous requirement relating to such matters in Chapter 9.
- 7.3.47 Otherwise, the Panel concludes that the Applicant's final dDCO [REP7-026], which secures the CoCP, the Site Waste Management Plan and the CDE materials commitments documents through Requirement 5, are sufficient to ensure that the waste hierarchy and the proximity principle would be followed. In this respect, the development conforms with the NPSNN paragraph 5.42.

### **Hazardous substances consents**

- 7.3.48 The Panel recognises and understands the issues concerning hazard sites being near other developments and acknowledges the importance of the Health and Safety Executive (HSE)'s role in these fundamentally important matters of public safety. We have considered HSE's advice against the development, based on their interpretation of planning practice guidance (PPG) paragraph 068 and their basis for considering this document as policy. The Panel finds that the national planning policy framework (NPPF) itself constitutes the current relevant planning policy document for this matter as the NPSNN is silent on matters related to hazardous substances consents (HSC). The NPPF only has one paragraph relating to HSCs, which is quoted in paragraph 5.12.8 of this report and relates only to LPAs. Notwithstanding the policy being targeted only at LPAs, the Panel is satisfied that both the NPPF and the PPG should be taken into account as important and relevant matters.
- 7.3.49 However, as the NPPF is the policy document and the PPG sits below the NPPF, as guidance, the Panel finds the rigid stance taken by HSE on these matters contained within guidance to be overly restrictive.



- 7.3.50 The Panel agrees with the Applicant that the wording proposed by the HSE for the Grampian style requirement(s) could lead to a situation where the Proposed Development could not be opened for traffic due to compensation issues in relation to the East Greenwich Gasholder Site (EGGS) HSC, even though the gasholder has been decommissioned. Given the national importance of delivering new highway infrastructure quickly, the Panel does not consider that the risks of opening the tunnels whilst the EGGS site retains its HSC would constitute an unsurmountable hazard, so long as the EGGS is retained in a decommissioned state.
- 7.3.51 Turning to the Brenntag site, the Panel is satisfied that the modification to the Brenntag HSC is likely to be forthcoming, and this would be likely to happen prior to the Proposed Development opening to traffic. In the event that the Brenntag HSC was not modified by then, the second limb of Panel's recommended Requirement 16 (Hazardous Substances), in respect of the Brenntag site, would provide comfort for the Applicant that the development could be delivered and could be operational prior to the HSC being modified subject to further consideration by the Secretary of State.
- 7.3.52 In addition, the Panel acknowledges HSE recognising '*in the rare circumstance that planning decision makers consider this advice too restrictive, then it is open to them to take other matters into consideration*' [REP6-007].
- 7.3.53 The Panel has therefore retained the two limbs of the two parts of the Applicant's proposed Grampian-style requirement wording as Requirement 16 in its rDCO attached as Appendix D.
- 7.3.54 The Panel concludes that the requirements of paragraph 194 of the NPPF in relation to policy regarding development around major hazards would best be met using the Applicant's recommended wording for the Grampian requirement . We recognise that the Applicant has bracketed the Grampian requirement in its final dDCO [REP7-026], arguing that a judgement could be taken now that there would be no actual increased risk to public safety for the reasons referred to in section 5.12 of this report, including the aim of the Silvertown Tunnel to achieve free-flowing traffic in the vicinity of Brenntag and EGGS. However, we consider that public safety is such an important matter that every opportunity should be afforded to resolve these matters prior to consideration of opening the new tunnels. If not resolved, inclusion of the version of the Grampian-style requirement that we recommend in the DCO would enable the SoS to review the potential risk at that point in the light of an updated risk assessment that must be produced under that Grampian-style requirement. The Panel also concludes that the relevant part of paragraph 4.65 of the NPSNN would thereby be met in relation to ensuring that rigorous processes for monitoring and evaluating safety would be put in place.

## **Socio-economic impacts**

- 7.3.55 In our report section 5.13, the Panel explains that it is satisfied that the overall robustness of reported Net Present Values (NPVs) indicates that there would be economic benefits to society as a whole from the implementation of the DCO scheme. This is consistent with paragraph 4.5 of the NPSNN.
- 7.3.56 Nevertheless, the Panel has noted that there would be some adverse socio-economic impacts, particularly on lower income residents in the vicinity of the existing Blackwall Tunnels and the proposed Silvertown Tunnels as a consequence of the imposition of user-charges under the DCO scheme. It is therefore of considerable importance that the Assessed Case level of bus services or services of equivalent benefit are secured through the tunnels as this would maximise the economic benefit overall and to low income residents in particular. We have therefore recommended a strengthening of Requirement 13 (Cross-river bus services) in Chapter 9 of our report. With the changes made to the Bus Strategy [REP7-024], we have confidence that the level of cross river bus services on which the Assessed Case is based will be secured. We also consider that the proposed transitional business support fund and the scheme to facilitate complementary sustainable transport across the river from the Greenwich Peninsula to Canary Wharf and Silvertown are also necessary to mitigate adverse socio-economic impacts as required by paragraph 3.3 of the NPSNN.
- 7.3.57 Provided that these measures, in addition to the mitigation that is already embodied in the Charging Policies and Procedures Certified Document and the Bus Strategy Certified Document, are secured through requirements and/or signed and sealed agreements, we are satisfied that the socio-economic impact would be sufficiently mitigated for the DCO scheme to be consistent with the NPSNN.
- 7.3.58 We have also had regard to the Public Sector Equality Duty (PSED) of the Equalities Act 2010. We are satisfied that this would not be breached. The explanations that are given in the updated Statement of Reasons accompanying the request for Compulsory Acquisition (CA) powers [REP4-029] and in the Health and Equalities Impact Assessment (HEqIA) [APP-090] make clear that where there are minor adverse impacts on particular groups every effort will be made to mitigate these effects, as indicated in the foregoing paragraphs (and in Chapter 5 in relation to environmental impacts). After mitigation, the HEqIA indicated that there would be no differential or disproportionate effect on children, older people or those with disabilities, groups that have defined protected characteristics. We saw no evidence to lead us to disagree with this conclusion or to indicate that any other group with protected characteristics would be disproportionately affected.

## **Industrial and commercial impacts**

- 7.3.59 In our report section 5.14, the Panel accepts the Applicant's assessment of impacts upon Keltbray as being moderate adverse (and thus significant). The Panel also considers that the impact upon the Tarmac operation is also moderate adverse (and thus significant), as both of these operators would be displaced by the Proposed Development, notwithstanding the short term nature of their leases.
- 7.3.60 The Panel accepts that the NPPF paragraph 143 requires LPAs to safeguard concrete batching plants in their local plans. As reported in Chapter 4, the northern portal section of the application site is subject to a safeguarding direction from 2001<sup>82</sup> for a potential river crossing; and that Thames Wharf is also the subject of a safeguarding direction and is afforded protection by Policy 7.26 of the London Plan and its long term development plan allocation is for industrial use.
- 7.3.61 The Panel also understands the concerns raised by the PLA in respect of Keltbray and Tarmac's operations, as well as Tarmac's own representations. In view of the policy requirements in relation to both safeguarded and non-safeguarded wharves and the safeguarding of concrete plants, the Panel considers that the Applicant could have taken responsibility for ensuring that these industrial concerns had suitable arrangements for re-location (in the case of Keltbray) and/or were able to continue their business (in the case of Tarmac), but it does recognise that as a consequence of the short-leases held that the Applicant has no legal obligation to take such action.
- 7.3.62 The Panel notes that Thames Wharf would be returned to its previous owners after the construction phase is completed. However, with the potential loss of the tenant businesses, together with developer aspirations for part of the site reported in section 5.11 of this report, there is no certainty that this site would be returned to its 'safeguarded' wharf activities. Nevertheless, the Panel accepts that the return of Thames Wharf (to its current owners) after the construction phase would meet the Applicant's obligation towards the London Plan 'safeguarded' wharves policy. Consequently, we do not consider that there would be direct conflict with the second bullet point of paragraph 4.3 of NPSNN as referred to in paragraph 5.14.7 of this report.
- 7.3.63 The Panel concludes that the need for the Proposed Development is sufficient to outweigh the significant impacts upon Keltbray's and Tarmac's operations during the construction phase.
- 7.3.64 Now, turning to impacts upon the O<sub>2</sub>, the Panel notes that there were no outstanding concerns remaining regarding the loss of car parking during the construction phase by deadline (D)6, and so considers that parking matters were satisfactorily resolved between the O<sub>2</sub> and the

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<sup>82</sup> The date of the most recent safeguarding direction transferring the safeguarding power from the SoS to the Mayor.

Applicant, through the Panel's acceptance of the formal change request non-material change (NMC)<sup>5</sup>. However, in respect of the O<sub>2</sub>'s remaining objection regarding user charging after 19:00, and the impact that it would have upon the O<sub>2</sub>'s night time economy, the Panel finds that the user charging mechanism proposed by the Applicant, in Article 53 of its final dDCO [REP7-026] would be sufficiently flexible to enable this issue to be addressed, if it is found to be necessary around the time of the opening of the Proposed Development. The Panel considers that the evening user charge up to 22:00 would be unlikely to contribute a significant additional financial burden to O<sub>2</sub> visitors. Those who travel by car have to pay for event tickets and car parking and many customers will travel by public transport. The Panel concludes that it is satisfied that the user charging mechanisms proposed by the Applicant are sufficiently flexible to be able to accommodate changes to charge-free times, should AnSCO identify significant impacts upon its business prior to or following the opening of the Proposed Development, albeit that AnSCO would not have the ability to force the Applicant to make the changes sought even if recommended by the STIG.

- 7.3.65 The Panel considers that business interests can best be represented through the proposed community engagement plan, which is secured through Requirement 5 of the dDCO [REP7-026] as part of the CoCP. The CoCP [REP6-056, section 4] provides details of the communications and community liaison that would be carried out during the construction phase.

### **Biodiversity, ecology and geological conservation**

- 7.3.66 Our report section 5.15 identified that the Panel is satisfied with the Applicant's design principles which were updated during the Examination, with the final revision being submitted at D6 [REP6-058]. These would be secured through dDCO Requirement 3 (Design Principle and design review panel) [REP7-026]. The design principles would guide the detailed landscaping arrangements, which would be developed in line with the Biodiversity Action Plan Mitigation Strategy (BAPMS) and would be secured through DCO Requirement 6 (Landscaping Scheme). The BAPMS itself would be secured through Requirement 14 and the Ecology Management Plan (EMP) would be secured through Requirement 5(3) (f) (Code of Construction Practice and related plans and strategies). The Panel is also satisfied that the EMP would provide any necessary mitigation for black redstarts, invertebrates and other ecological interests in and near the Order limits.
- 7.3.67 In addition to this, the DML (Schedule 12 to the Applicant's final draft DCO [REP7-026]) would control the preparation and approval of the benthic ecology monitoring and mitigation plan, construction activities and percussive piling.
- 7.3.68 Furthermore, the CoCP [REP6-056] would require the implementation of mitigation for marine ecological interests during the construction

phase. This includes the use of soft start procedures during piling and limiting the months in which percussive piling could be undertaken (November to March, unless otherwise agreed with the Marine Management Organisation (MMO), PLA and Environment Agency (EA)), in order to minimise impacts on fish. The months that dredging could take place would also be limited to avoid June-August inclusive, unless agreed with the EA and PLA.

7.3.69 The Panel is therefore satisfied that there would not be any significant impact upon the recommended Marine Conservation Zone from the Proposed Development.

7.3.70 In relation to the terrestrial ecology matters of concern to RBG, the Panel is satisfied that there is sufficient flexibility in the Applicant's final dDCO [REP7-026, Requirement 6(2) (Landscaping Scheme), which would have to be approved by the LPA, in terms of species and cultivations to be utilised and which could include wildflower seed mixes. However, the Panel suggests that the SoS may wish to ensure that the legal agreement between the Applicant and RBG is finalised, signed and sealed before the DCO is made, so that the funds for the proposed off-site biodiversity off-setting are secured.

7.3.71 The Panel concludes that with the mitigation in place, in the form described, the Proposed Development would not give rise to a significant impact upon any ecological interests and it would satisfy the tests within paragraphs 5.24 and 5.38 of the NPSNN in relation to biodiversity and geological conservation interests.

### **Historic Environment**

7.3.72 In report section 5.18, the Panel finds that the Applicant's assessment of impacts upon nearby cultural heritage assets to be proportionate and it provides a fair representation of the effects of the Proposed Development upon the historic environment. We also conclude that the mitigation that would be provided through the CoCP and the MMS, as well as through Requirement 5, would be sufficient to ensure that there would not be a significant impact upon any cultural heritage assets or their setting. The Applicant's assessment therefore meets Regulation 3 of the Infrastructure Planning (Decisions) Regulations 2010 and the requirements of the NPSNN on the historic environment contained in paragraphs 5.120 to 5.142.

7.3.73 The Panel finds that the mechanism that has been agreed for securing the written scheme of investigation (WSI), in relation to impacts from the proposed dredge area, is acceptable. We also consider that the structure of Requirement 5 in the Applicant's final dDCO [REP7-026], in relation to the approval of the WSI is acceptable.

### **Other Matters reported in Chapter 5**

7.3.74 Our Report Chapter 5 also considers and concludes upon impacts from the Proposed Development upon climate change mitigation, adaptation and carbon emissions (5.10), landscape and visual impact (5.16) and

security (5.19). We agree that the Proposed Development would be in accordance with the NPSNN in respect of matters of climate mitigation, adaptation and carbon emissions, landscape and visual impact and security.

- 7.3.75 In relation to all of these matters, we are satisfied with the mitigation proposed and that it is secured through the DCO. None of these matters would give rise to a significant impact.

#### **Overall conclusion in respect of matters addressed in Chapter 5**

- 7.3.76 The Panel has weighed the potential adverse effects of the Proposed Development against the benefits of the development, having regard to mitigation that can be secured as required by s104(7) of the PA2008. There are no matters that we consider to be important and relevant that do not accord with the relevant paragraphs of the NPSNN. We recognise the significant benefits to the East London road network that would be delivered by the scheme whilst considering the significant adverse impacts upon two companies that would be displaced during the construction phase.
- 7.3.77 The Panel concludes that with the changes to the DCO that we recommend, the making of rDCO would be consistent with the terms of both paragraph 4.2 and 4.3 of the NPSNN. There is no reason for the Order to be refused in relation to traffic and transportation impacts, air quality, noise, flood risk or any of the other matters considered and concluded upon in Chapter 5.

#### **7.4 HABITATS REGULATIONS ASSESSMENT**

- 7.4.1 The Applicant's updated HRA Report concluded that the project would have no LSEs, either alone or in-combination with other projects or plans, on the qualifying features of any European site.
- 7.4.2 We are satisfied that the Applicant has correctly identified all relevant European sites and that all potential impacts have been considered.
- 7.4.3 The Panel notes the agreement between the Applicant and Natural England (NE) with regard to the list of plans or projects to be considered cumulatively [REP6-084] and is satisfied that a robust in-combination assessment has been presented.
- 7.4.4 Taking into account the views expressed by NE [REP6-084], reported in Chapter 6, the Panel considers that sufficient information has been provided by the Applicant to allow the SoS to conclude that the project would have no LSEs, either alone or in-combination with other projects or plans, on the qualifying features of any European site. It therefore meets the requirements of paragraphs 4.22 and 4.23 of the NPSNN. The Panel concludes that the SoS can rely on the Applicant's updated Habitats Regulations Assessment report [REP1-115].

## **7.5 THE PLANNING BALANCE**

- 7.5.1 The legal and policy context for the Examination of this application has already been set out in chapters 3 and 4 of this report. This has provided a framework for the Panel's subsequent findings and conclusions.
- 7.5.2 The Panel concluded in section 3.3 of our report that the Proposed Development comes within the overarching national policy statement for national networks (NPSNN), and as such a decision falls to be made under s104 of PA2008. Paragraph 2.10 of NPSNN explains that the Government has concluded that at a strategic level there is a compelling need for development of the national networks, both as individual networks and as an integrated system. We conclude that there is a compelling case for the development.
- 7.5.3 The Panel has taken into consideration the potential benefits of the Proposed Development, primarily its contribution to alleviating congestion, providing a solution for closures of the Blackwall Tunnel and improving resilience for cross river traffic in East London. In this respect we are satisfied that the dDCO is consistent with the overarching policy framework within the NPSNN. Moreover, as this is a proposal that has been made subject of a Direction to seek development consent under s35 of the PA2008, in relation to which the NPSNN indicates that the development plan will be important and relevant in establishing need, we are also satisfied that there is clear support for the provisions of the dDCO in the development plan, both the London Plan and the adopted development plans for the host boroughs. The development plan and the MTS also provide policy support for the user-charging provisions of the DCO scheme.
- 7.5.4 The Panel has concluded on the various potential adverse effects of the Proposed Development during construction and operation of the Proposed Development. It has given careful consideration to the potential for impacts upon a wide range of matters referred to in the NPSNN or other policy guidance including traffic and transport, air quality, noise and vibration, human health, biodiversity, the historic environment, hazardous substances and industrial and commercial interests.
- 7.5.5 We have considered the potential impacts of the Proposed Development and the concerns raised by Interested Parties (IP) and others who made representations. Our conclusions are that there would be some harmful effects, during construction, but these would not generally be at a significant level. However, the Panel considers that there would be significant impacts upon industrial and commercial interests arising from Keltbray and Tarmac having to move away from their existing wharf operations to accommodate the construction phase of the Proposed Development. Nevertheless, we conclude that the need for the development is sufficient to outweigh the impacts upon these two businesses.

- 7.5.6 We gave detailed consideration to the operational impacts upon sensitive receptors and how they may be mitigated in relation to the matters considered in chapter 5, the key issues of which are summarised in section 7.3. Impacts in terms of traffic and transport, air quality and noise during the operational phase would be very largely mitigated through controls secured in the rDCO and related certified documents. We are satisfied therefore that the DCO scheme would not result in a significant impact upon air quality overall and that it would not provide a risk to the United Kingdom's (UK's) ability to comply with the AQD, though we have noted that an issue remains to be addressed in respect of air quality within first floor flats in the Hoola development.
- 7.5.7 Subject to that issue being resolved, the Panel is satisfied that the Proposed Development would not give rise to any harmful impacts upon human health.
- 7.5.8 With regard to the impact of the user charges on lower income groups we addressed this issue in 5.13. We are satisfied that mitigation to address these legitimate concerns in the manner that the NPSNN encourages in paragraphs 3.2 and 3.4 would be possible through a number of mechanisms. It would partly be achieved through Requirement 13 (Cross-river bus services) in Schedule 2, as strengthened in our rDCO at Appendix D, and through the related Bus Strategy certified document. The provisions of the strengthened requirement and the certified document would secure the Assessed Case level of new bus services through the tunnels with concessionary fares for qualifying local residents. The Charging Policies and Procedures certified document that is secured through Article 54 (Power to charge for use of the tunnels) would also provide for concessions in relation to road user-charges through the tunnels for low income local residents.
- 7.5.9 Additional mitigation would be provided through legal agreements intended to be signed with each of the host boroughs [REP7-042/4]. These would secure improved river crossing facilities for cyclists and pedestrians and transitional support for local small businesses to offset the initial effects of user-charging. Provided that signed and sealed agreements are submitted to the SoS embodying these provisions, we consider that sufficient mitigation would be achieved to offset the great majority of adverse effects on low income groups in the vicinity of the DCO scheme. We address this matter in detail in Chapter 9 of our report.
- 7.5.10 In reaching our overall conclusions on the case for the granting of development consent, we have had regard to the NPSNN, the development plan, the NPPF, the LIRs and all other matters which we consider to be both important and relevant to the SoS's decision. We have further considered whether the determination of this application would lead the UK to be in breach of any of its European obligations, where relevant. We conclude that we have complied with these duties. If the SoS decides to make the Order, in the form recommended by



the Panel in Appendix D, the Panel finds that there would not be a breach of any European obligations or other statutes.

## **7.6 OVERALL CONCLUSION IN RELATION TO THE MAKING OF THE DCO**

- 7.6.1 The Panel concludes that, for the reasons given above, that development consent should be granted for the Silvertown Tunnel DCO (incorporating the five proposed changes), in the form set out in the Panel's rDCO which is set out as Appendix D to this report.
- 7.6.2 This recommendation is made on the assumption that signed and sealed legal agreements will have been received by the SoS embodying essential elements of mitigation that are detailed in Chapter 9 of this report.

## **8 COMPULSORY ACQUISITION AND OTHER LAND MATTERS**

### **8.1 THE REQUEST FOR COMPULSORY ACQUISITION POWERS**

- 8.1.1 Box 13 of the application form [APP-002] states that the Development Consent Order (DCO) includes compulsory acquisition (CA) of land, or interests in land or rights over land. The draft DCO (dDCO) also includes temporary possession of land. The Applicant submitted with its application the Statement of Reasons (SoR) Document 4.1 [APP-015], the Funding Statement Document 4.2 [APP-016] and the Book of Reference (BoR) Document 4.3 [APP-017], accompanied by Land Plans [APP-006] and a Special Category Land Plan [APP-007].
- 8.1.2 During the Examination, these documents were updated both to add additional information that had come to light through continuing land acquisition negotiations and representations, including the change in names of land interests (eg Quintain (No 8) Limited to Silvertown Homes Limited). Further changes were made to reflect the acceptance of the five non-material changes (NMC) to the application that were agreed by the Panel in our Procedural Decision [PD-015] and described in detail in paragraph 2.2.5 of this report. The initial updating of the BoR AS-002 and AS-003<sup>83</sup>] was made at the opening of the Examination in response to s51 advice from the Planning Inspectorate (PINS) The final updated Land Plans (Revision 1) [REP4-023] and Special Category Land Plan (Revision 2) [REP4-024] were submitted at Deadline (D) 4 together with a corresponding SoR [REP4-029 and REP4-030<sup>84</sup>]. The final update to the BoR [REP7-031 and REP7-032<sup>85</sup>] was submitted at D7 at the close of the Examination.
- 8.1.3 The SoR makes clear that the CA sought includes CA of rights over the Order land and creation of new rights in the Order land including provisions in relation to subsoil in addition to outright land acquisition. The main provisions regarding CA are contained in Part 3 of the dDCO. The powers authorising the acquisition of land, or of interests in and/or rights over land, are principally contained in Articles (A)19 (compulsory acquisition of land) and A22 (compulsory acquisition of rights), but there are a number of other DCO articles in Part 3 which also contain powers affecting land. If the dDCO were made and development consent granted, these powers would also include authorising the acquisition of subsoil and airspace only (A26) and the temporary use of land (A29 and A30) for construction and maintenance.
- 8.1.4 The DCO would also confer on the Applicant other rights and powers, the exercise of which may result in interference with property rights

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<sup>83</sup> AS-003 is a tracked change version.

<sup>84</sup> REP4-030 is a tracked change version.

<sup>85</sup> REP7-032 is a tracked change version.

and private interests in land, for example in relation to street works and the other powers sought in Part 2 of the Order and in relation to apparatus of statutory undertakers in A31 to A33 in the supplementary provisions within Part 3. A more detailed description of the articles within the dDCO is set out in Chapter 9 of this report.

- 8.1.5 A full description of the Order land over which CA powers are sought is set out in paragraphs 2.1.7 to 2.1.14 of this report. In summary, the above ground parts of the site lie on both banks of the river Thames. The northern tunnel portal and associated highway tie-in is situated in Silvertown to the south of Canning Town in the London Borough of Newham (LBN). The tie in to existing highways is proposed to be to the Tidal Basin roundabout junction on the A1020 Lower Lea Crossing-Silvertown Way to which Dock road is also connected. The southern tunnel portal and associated highway tie in lies on the Greenwich Peninsula in the Royal Borough of Greenwich (RBG). The main transport infrastructure on the peninsula includes the A102 Blackwall Tunnel Approach leading to the north and southbound tunnels. The tie in for the new tunnels is proposed to be to this road.
- 8.1.6 Between the northern and southern portals, the Order land includes extensive areas where temporary possession would be required to facilitate construction, but mainly only acquisition of subsoil and imposition of covenants to protect the tunnels that would be constructed beneath ground level. The protections and rights sought are explained in paragraphs 5.1.7 to 5.1.11 of the SoR, including Figure 5.1 which illustrates the proposed zone of protection [REP4-029]. This area includes an area of the river Thames. Permanent works in the river area would only be underground in the twin bored tunnels beneath the Thames. However, temporary works or activities would be required within the river area during construction and possibly during maintenance periods. Within the Order limits all the land is shown either for CA or temporary possession. The Operational Boundaries Plans take in additional land, the Blackwall Tunnel and its approaches, that is not subject to either CA or temporary possession but would be subject to user charging and byelaw provisions that are included in the dDCO.
- 8.1.7 During the Examination, as detailed in earlier chapters of this report, there were ongoing negotiations with the Port of London Authority (PLA) in order to reach a satisfactory formulation of powers and Protective Provisions that would satisfy their land interests and duties as a Statutory Undertaker. As noted in Chapter 5 and particularly in section 5.14 the only matter not agreed was the future of safeguarded wharves and the displacement of commercial interests that currently use wharf areas in respect of which temporary possession would be required. The PLA does not, however, hold land interests in the non-river wharf areas that are of concern, although it does have certain rights in the access to Thames Wharf. The basis for compensation for the CA of subsoil and imposition of rights in relation to the river area does also remain in dispute, but that is not a matter that can be resolved through this Examination.

## **8.2 THE PURPOSES FOR WHICH THE LAND IS REQUIRED**

- 8.2.1 Appendix A to the SoR [REP4-029] specifies the purpose for which each plot of land is required. The first column of the table in Appendix A refers to the plot numbers used in the Land Plans [REP4-023], Special Category Land Plans [REP4-024] and the BoR [REP7-031] to identify plots of land within the Order limits. The second column in the table identifies and describes, in summary terms, the actual purpose for which each plot of land is proposed to be acquired or used. The third column in the table states the relevant Work Number for the purpose of which the plot of land is required. The Work Number is the identification number of a particular element of the proposed development which, if the DCO were made by the Secretary of State (SoS), would be authorised as described and numbered in Schedule 1 to the DCO. The fourth column in the table cites the relevant article(s) in the dDCO, being the source of the power(s) sought in respect of the plot of land. The fifth column includes (where relevant) a reference to the Schedule in the dDCO in which the plot is listed as being required eg only for the acquisition of subsoil and rights above (Schedule 6); or for the acquisition of new rights only (Schedule 4); or for temporary possession only (Schedule 7). Schedule 7 specifies the purposes for which temporary possession is sought.
- 8.2.2 The BoR [REP7-031] lists all the plots subject to CA. The plot references in the BoR refer to those shown on the Land Plans [REP4-023] and Special Category Land Plans [REP4-024]. The plot areas specified in the BoR are stated to be approximate, as these measurements are given in square metres, and each measurement is rounded up to the nearest whole square metre.
- 8.2.3 As required by the Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009, the BoR is divided into five Parts. Part 1 contains the names and addresses of each person within Categories 1 and 2 as set out in section (s)57 of the Planning Act 2008 (PA2008) in respect of any land which it is proposed shall be subject to:
- (i) powers of compulsory acquisition;
  - (ii) rights to use land; or
  - (iii) rights to carry out protective works to buildings.
- 8.2.4 Category 1 persons are defined within s57 of the Planning Act 2008 (as amended) PA2008 as those who own, lease, hold a tenancy in relation to or occupy land within the Order limits. Category 2 persons are those who have an interest in land within the Order limits or have the power to sell and convey or to release such land.
- 8.2.5 Part 2 of the BoR contains the names and addresses for service of each person within Category 3 as set out in s57, namely those persons who would or might be entitled to make a 'relevant claim' (being a claim under section 10 of the Compulsory Purchase Act 1965 and/or under Part 1 of the Land Compensation Act 1973 and/or under section

152(3) of the PA2008 as a result of the implementation of the DCO, as a result of that order having been implemented, or as a result of the use of the land once that order had been implemented whether inside or outside the Order limits.

- 8.2.6 Part 3 of the BoR contains the names of all those entitled to enjoy easements or other private rights over land which it is proposed shall be extinguished, suspended or interfered with. Certain Affected Persons (APs) included within Part 1 of the BoR are also included within Part 3 where their rights may be considered to be affected. Examples include Statutory Undertakers with services in or under the land, and whose rights over the land are likely to be affected whether the land is required permanently or subject of temporary possession.
- 8.2.7 Part 5 of the BoR specifies plots of land to which special parliamentary procedure might apply. This only lists 5 plots in RBG totalling 2,588 square metres. Part 4 would have specified land in which Crown interests are held but none is involved within the Order limits.
- 8.2.8 The application documentation does not summarize the numbers of plots and the areas concerned that are within differing categories, but the BoR indicates that in relation to particular plots the powers sought are:
- to remove existing easements servitudes and other private rights;
  - to acquire freehold;
  - to acquire new rights;
  - to take temporary possession; or
  - to take temporary possession and acquire new rights

The SoR indicates the difficulty in summary categorization as for example the CA sought involves acquisition of subsoil in relation to the proposed tunnels yet rights being required at the surface to safeguard the proposed underground structures. Many plots therefore fall into a number of these categories.

- 8.2.9 Although the River Thames is tidal in the vicinity of the application site, as the river bed below low tide level is held by the PLA, no Crown land is involved within the Order limits as already noted.
- 8.2.9.1 There are three Statutory Undertakers identified in the SoR [REP4-029] in relation to which freehold acquisition or acquisition of rights is sought. These are Southern Gas Networks plc/ Birch Sites Limited<sup>86</sup>, London Power Utilities plc (part of UK Power Networks) and Thames Water Utilities Limited (TWUL). In addition, Appendix D to the SoR lists Statutory Undertakers and other similar bodies having or possibly

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<sup>86</sup> It was subsequently clarified that Birch Sites Limited are part of National Grid Properties Limited (NGP) and in their final representation [REP6-001] they are not stated to be a statutory undertaker in contrast to that from Southern Gas Networks Plc which explicitly states that they are [REP6-002].

having a right to keep equipment on, in or over land within the order limits. In addition to those referred to above, there are a further 80 such bodies listed, though it is doubtful whether all of these bodies would have such status. Paragraphs 8.3.6 to 8.3.22 of the SoR list known diversions of utilities that are anticipated to arise in relation to identified works. The utility companies explicitly referred to in these paragraphs are TWUL, United Kingdom Power Networks (UKPN), National Grid Gas plc (NGG), BT and Virgin Media. Paragraph 8.3.5 of the SoR notes, however, that the DCO scheme may also affect existing minor private utility supplies or services, such as telecommunications cables which it is anticipated may need to be diverted within the highway boundary. In response to the Panel's first written questions (FWQ) on the '*Principle and nature of the development including alternatives*', the Applicant stated that there are 12 Statutory Undertakers that are known to be engaged with the DCO scheme [REP1-178], namely BT Openreach, Colt Technology Services, GTC, Interoute, National Grid Electricity Transmission plc (NGET)/NGG, Southern Gas Networks plc (SGN), Tata, TWUL, Virgin Media, Vodafone/Cable & wireless and Zayo.

- 8.2.10 In A25 the DCO seeks to incorporate the provisions of the Compulsory Purchase (General Vesting Declarations) Act 1981 with modifications and also in A24 powers to override easements and other rights.

### **8.3 THE REQUIREMENTS OF THE PLANNING ACT 2008**

- 8.3.1 CA powers can only be granted if the conditions set out in s122 and s123 of the PA2008 are met.
- 8.3.2 Section 122(2) of the PA2008 requires that the land must be required for the development to which the development consent relates or is required to facilitate or is incidental to the development. In respect of land required for the development, the land to be taken must be no more than is reasonably required and be proportionate.<sup>87</sup>
- 8.3.3 Section 122(3) of the PA2008 requires that there must be a compelling case in the public interest which means that the public benefit derived from the CA must outweigh the private loss that would be suffered by those whose land is affected. In balancing public interest against private loss, CA must be justified in its own right. But this does not mean that the CA proposal can be considered in isolation from the wide consideration of the merits of the project. There must be a need for the project to be carried out and there must be consistency and coherency in the decision-making process.
- 8.3.4 Section 123 of the PA2008 requires that one of three conditions is met by the proposal<sup>88</sup>. The Panel is satisfied that the condition in s123(2)

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<sup>87</sup> Guidance related to procedures for compulsory acquisition DCLG February 2010

<sup>88</sup> (1) An order granting development consent may include provision authorising the compulsory acquisition of land only if the Secretary of State is satisfied that one of the conditions in subsections (2) to (4) is met.

is met because the application for the DCO included a request for CA of the land to be authorised.

8.3.5 A number of general considerations also have to be addressed either as a result of following applicable guidance or in accordance with legal duties on decision-makers –

- all reasonable alternatives to compulsory acquisition must be explored;
- the Applicant must have a clear idea of how it intends to use the land and to demonstrate funds are available; and
- the decision-maker must be satisfied that the purposes stated for the acquisition are legitimate and sufficiently justify the inevitable interference with the human rights of those affected.

8.3.6 During the Examination, although the Applicant accepted a tightening of the limits of deviation for various works, these amendments did not alter the overall boundaries of the application and did not therefore alter the extent of CA or temporary possession sought.

8.3.7 The Applicant put forward five proposed changes to the application on 12 January [AS-045 and AS-046] and 3 February 2017 [AS-047 and AS-048] as a consequence of negotiations with land interests and Statutory Undertakers. These are fully detailed in paragraph 2.2.5 of this report. After issuing our Procedural Decision on 1 February 2017 [PD-010] that additional publicity be given to these changes and considering the responses from the public as well as those of the land interests directly affected, the Panel made a Procedural Decision on 28 March 2017 formally to accept that the changes could be regarded as non-material [PD-015]. This report is therefore made on the basis of the application as amended by those changes and the BoR [REP7-031], SoR [REP4-029] and Land Plans [REP4-023] referred to in subsequent sections of this chapter relate to the application as amended by those changes.

8.3.8 While additional or modified areas were indicated for temporary possession, including land outside the original Order limits, no additional land was made subject to CA of land or rights. Consequently, the provisions of The Infrastructure Planning (Compulsory Acquisition) Regulations 2010 did not need to be invoked.

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(2) The condition is that the application for the order included a request for compulsory acquisition of the land to be authorised.

(3) The condition is that all persons with an interest in the land consent to the inclusion of the provision.

(4) The condition is that the prescribed procedure has been followed in relation to the land.

## **8.4 HOW THE PANEL EXAMINED THE CASE FOR COMPULSORY ACQUISITION**

- 8.4.1 The Panel asked a number of FWQ on aspects of the proposed CA [PD-006]. The Applicant responded at deadline (D)1 [REP1-179].
- 8.4.2 An initial Compulsory Acquisition Hearing (CAH) was held on 8 December 2016 [EV-021 and EV-022] and a detailed agenda for that hearing was also published in advance [EV-014]. Responses made at the hearing were in some instances confirmed in written summaries at D2. These included a written summary for the CAH from the Applicant [REP2-038], appended to which was a schedule of plots in relation to which APs had lodged representations. This had been requested by the Panel as part of the agenda for that meeting in order to confirm the plots in relation to which CA objections may specifically have been raised. APs that made post hearing submissions were Affordable Architects on behalf of those with land interests in Studio 338 [REP2-002], TWUL [REP2-001], the U & I Group Plc (U&I) [REP2-003] and AnSCO Arena Limited [REP2-007]. LBN [REP2-011] and RBG [REP2-015 to REP2-019] also made post-hearing submissions but not on matters relating to their own land interests.
- 8.4.3 A further CAH was held on 20 January 2017 [EV-043] with an agenda also published in advance [EV-027]. An itinerary was also issued for a CA Site Inspection [EV-028] to be held on the same day as the CAH to view particular parcels of land that were subject of representations from land interests and which had not been viewed at the earlier Accompanied Site Inspection (ASI) held on 6 December 2016 [EV-011]. Prior to the January CAH, a number of APs made additional submissions concerning their interests, namely Newable Property Developments Limited in relation to Waterfront Studios [AS-031], Southern Gas Networks and Birch Sites Limited (which is part of National Grid Property Holdings Limited) (NGP) [AS-032 and AS-043], Brenntag UK Limited ('Brenntag') [AS-034], the Port of London Authority (PLA) [AS-035], AnSCO Arena Limited and The Waterfront Limited Partnership (WLP) [AS-038], U&I [AS-039], Freysporne Limited ('Freysporne') [AS-040], Knight Dragon Developments Limited [AS-041] and Trinity (D) Limited [AS-042]. Most of these representations<sup>89</sup> were indicating support for the five proposed non-material changes that the Applicant was putting forward to address their concerns in relation to their land interests. As already noted, these changes are described in paragraph 2.2.5 of this report and were accepted into the Examination by the Panel after further publicity [PD-015].
- 8.4.4 Again, in addition to points made orally at the hearing, there were a number of post hearing summaries confirming the points made or commenting on the updated situation including those from the

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<sup>89</sup> Those relating to land within RBG, though in some instances with further points outstanding.



Applicant [REP3-018], the PLA [REP3-039], Tarmac Trading Limited ('Tarmac') [REP3-043], Lidoka Estates Limited [REP3-0048], Brenntag [REP3-049], TWUL [REP3-051] and SGN and NGP [REP3-058]. The Panel's second written questions (SWQ) [PD-012] issued on 10 February 2017 took account of these submissions and raised a number of CA related questions, in particular seeking further clarification of the position around Studio 338.

- 8.4.5 A number of responses were received at D4 that relate to land interests including ASD Limited (trading as Kloeckner Metals UK) ('ASD') [REP4-004], U&I [REP4-006], TWUL [REP4-009], Brenntag [REP4-064], Lidoka Estates Limited [REP4-065], the PLA [REP4-069] and in particular from the Applicant [REP4-050]. Most were simply holding replies, but the Applicant's submission on the one hand clarified which plots would not be required unless Studio 338<sup>90</sup> were able to be re-activated in its previous form, but on the other sought to justify a case for maintaining CA against the objection from Lidoka Estates Limited in respect of Plot 01-058.
- 8.4.6 A final CAH was held on 29 March 2017 [EV-055], an agenda for which was again published [EV-048]. In advance of this hearing, a number of further submissions were made from land interests for example the PLA [REP5-013], Tarmac Trading Limited [REP5-014], AnSCO Arena Limited [REP5-016], the WLP [REP5-017], Trinity (D) Limited [REP5-018], Brenntag [REP5-019], the U&I [REP5-023], Knight Dragon Developments Limited [REP5-024], SGN and NGP [REP5-025 and AS-053], the Greater London Authority (GLA) [REP5-027] and Silvertown Homes Limited (SHL) (formerly Quintain Limited) [REP5-032]. Many of these were again holding submissions but some, such as SHL and the U&I were making substantive points for further consideration.
- 8.4.7 After the oral representations made at the CAH there were a number of post hearing submissions at D6. Some noted withdrawal of objections eg NGP[REP6-001] and SGP [REP6-002], while others such as that from SHL [REP6-003] and the U&I [REP6-016] pursued their cases. Others such as those from Brenntag [REP6-010] and TWUL [REP6-020] remained holding comments. The Applicant's own response to the final CAH is [REP6-074]. The Applicant also made a specific detailed response [REP6-077] to earlier comments received from SHL for D5 [REP5-032].
- 8.4.8 Finally at D7, immediately prior to the close of the Examination there was an agreed joint statement between the Applicant and TWUL [REP7-008] and a further submission from Brenntag [REP7-012] withdrawing their objections. SHL pursued their objections [REP7-013], but their comments need to be read in the context of the position statement concerning SHL that was submitted by the Applicant [REP7-046]. The Applicant also submitted a Statement of

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<sup>90</sup> Studio 338 is a fire damaged night club/public house.

Common Ground (SoCG) with Morden College that has a bearing on the U&I issues [REP7-033] and a position statement with the PLA [REP7-047] that needs to be read alongside the PLA's final submission [REP7-019]. The Applicant's overall closing statement is [REP7-035].

8.4.9 In the light of the foregoing development of the positions of those with land interests, including the Statutory Undertakers during the course of the Examination, we have noted the very limited range of outstanding objections to the CA and temporary possession powers that are sought in the dDCO.

8.4.10 As a consequence, the structure of the remaining sections of this chapter will be, firstly to set out the Applicant's general case for the granting of CA and temporary possession powers, then to note the objections that have been made that may raise wider issues than matters specific to individual plots or land holdings. After this we address issues raised in relation to the plots over which representations were lodged or might have been considered to have been lodged by the 22 APs that have or may be construed to have raised representations against the CA or temporary possession provisions in respect of plots in which they hold interests. We conclude specifically in relation to those plots before, finally, we conclude on whether CA powers are justified in relation to all plots in relation to which they are sought irrespective whether or not they were subject of representations.

#### **The Applicant's general case**

8.4.11 The Applicant's general case for the inclusion of CA and temporary possession powers in the dDCO is set out in the SoR [APP-015 and final update (Revision 2) REP4-029]. This was amplified and re-iterated at and in follow-up written submissions from the CAHs that have been referred to in the preceding sections of this chapter of our report. All subsequent references to the BoR in this chapter of our report are to the final version submitted at D4 [REP4-029].

#### ***Need***

8.4.12 The Applicant states that the DCO scheme is required in response to the three transport problems which exist at the Blackwall Tunnel: congestion, frequent closures and a lack of resilience (owing to the lack of proximate alternative crossings). These issues lead to adverse effects on the economy and local environment. In the context of continued significant growth, these problems can only get worse, and in turn their secondary impacts will increase. Failing to address these problems could hamper the sustainable and optimal growth of London and the UK. They point to the policy support in both the National Policy Statement for National Networks (NPSNN) and the development plan for the locality, both the current London Plan and the core strategy or other local plan documents for the host boroughs. This statement of need has been more fully detailed in Chapter 4 of this report.

### ***Powers sought***

8.4.13 The powers sought for the purposes of the DCO scheme include powers to:

- acquire land compulsorily;
- create and acquire compulsorily new rights over land;
- extinguish or override existing rights over land; and
- use and possess land temporarily.

8.4.14 The details of the powers sought are primarily set out in Part 3 of the dDCO (A19 to A38) and related Schedules 4 to 7. Other powers that interfere with property rights are contained within Part 2, such as those relating to stopping-up of streets and private means of access (A9), protective works to buildings (A15), work within the River Thames (A17) and felling and lopping of trees (A18). The detail of these articles and issues raised in relation to them are set out in Chapter 9 of this report. The provisions provide for compensation in relation to any interference with property rights occasioned by the powers sought.

### ***Attempts to acquire interests by agreement***

8.4.15 As required in accordance with the PA2008, the Applicant undertook diligent inquiry through a land referencing process to identify parties within Categories 1, 2 and 3, as defined in ss44 and 57 of the PA2008. These include owners, lessees, tenants and occupiers of the land within the Order limits. Category 2 includes parties that are interested in the land or have the power to sell, convey or release the land within the Order limits. Category 3 includes those who might be able to make a claim as a consequence of the implementation of the DCO scheme. Negotiations have been undertaken with Category 1 interests over a protracted period in order to assemble the necessary land for the project by agreement wherever possible.

8.4.16 The Applicant's approach, which combines genuine attempts to acquire land by agreement, with parallel action to initiate formal compulsory acquisition procedures, is in accordance with the guidance issued by the Department for Communities and Local Government (DCLG) in September 2013, PA2008: Guidance related to procedures for the compulsory acquisition of land ('the 2013 DCLG guidance').

8.4.17 Without the powers to acquire rights and interests in land compulsorily (required as explained on a plot by plot basis in Appendix A to the SoR [REP4-029]), there would be insufficient certainty about the Applicant's ability to deliver the Silvertown Tunnel scheme within the necessary timescale. The Applicant therefore requires such powers to be included in the DCO, notwithstanding the Applicant's efforts (both historical and on-going) to acquire the necessary interests in land and rights over land by agreement.

## **Consideration of Alternatives**

- 8.4.18 A detailed options assessment process was carried out which considered a broad range of river crossing options. This is set out in more detail in the Case for the Scheme<sup>91</sup>. A detailed assessment process was then undertaken to identify the land and rights needed to implement the DCO scheme. A number of engineering and design alternatives were considered and ongoing landowner negotiations influenced the process before and during the Examination.

## **Availability and Adequacy of Funds**

- 8.4.19 The Funding Statement for the Proposed Development [APP-016] sets out, in accordance with the 2013 DCLG guidance, paragraph 9, that there is a *'reasonable prospect of the requisite funds for acquisition becoming available'*. It explains how the Proposed Development and the CA of land required to enable its delivery are proposed to be funded, and how the requisite funding would be made available within a required timescale.
- 8.4.20 Transport for London (TfL) is proposing to deliver the Proposed Development through a Public Private Partnership arrangement. The procurement process is expected to run in parallel with the DCO process, so as to ensure that TfL is ready to award the contract to a successful bidder if the SoS's decision on the DCO application is positive. Under the proposed Public Private Partnership arrangements:
- (a) The Project Company (the private sector) will be responsible for the detailed design, construction and ongoing maintenance of Silvertown tunnel for a period of 25 years and for raising the debt required to finance the construction cost;
  - (b) The Project Company, in return, will receive, over the 25 years, payments from TfL linked to the availability of the tunnel for safe use by traffic; and
  - (c) TfL will be responsible for setting and collecting user charges at both Blackwall and Silvertown tunnels and will use the user charge revenue to offset the payments to the Project Company.
- 8.4.21 The Applicant has estimated the direct costs that it will incur through advance land acquisition, and other costs including the cost of obtaining consents, the cost of procuring the scheme including the likely spend on obtaining specialist technical, legal and commercial advice, the cost associated with monitoring and mitigating the effects, where necessary, and the cost related to marketing and communicating the user charges. There is approved TfL budgetary provision for £107.4 million from the TfL Board Meeting on 3 February 2016 (including advance land purchase costs of £20.7 million). KPMG have advised on the assumptions used and certified that they are valid. The forecasts show that over the life of the Public Private

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<sup>91</sup> Summarised in Chapter 4 of this report.

Partnership contract, the estimated availability payments to the Project Company will be covered by the user charging income from both Blackwall and Silvertown tunnels.

- 8.4.22 Thus, the funding required for developing and delivering the DCO scheme is committed in respect of TfL's direct development costs and available through user charging (in respect of the availability payments) and for this reason, the Applicant believes that the DCO scheme is demonstrably financially viable.
- 8.4.23 If due to unforeseen circumstances, a funding shortfall arises in meeting the availability payments to the Project Company (such as lower user charging income than projected or increases in TfL's direct development costs), then these would be expected to be funded from TfL's general income base.
- 8.4.24 TfL's income base comes from a variety of sources including fares, the Congestion Charge, government grant and borrowing and is forecast to be about £10.4 billion for 2016/17. As the forecast availability payments are less than 1% of TfL's annual income, the Applicant is, accordingly, confident that any costs (after user charging income) of the DCO scheme (including payments to the Project Company), the costs of acquiring all the necessary interests in and rights over land and the payment of any compensation claims arising from such acquisition (if required) can be met from its general income base as and when such costs become due.

***The case under s122***

- 8.4.25 The Applicant considers that there is a compelling case in the public interest which would justify the use of powers of CA such that the relevant statutory tests in s122 of the PA2008 are met.
- 8.4.26 The 2013 DCLG guidance related to procedures for the CA of land makes it clear in paragraph 11 that, in order for the first of the three statutory criteria to be met, an applicant for development consent should be able to demonstrate to the satisfaction of the SoS that the land in question is needed for the development for which consent is sought. The 2013 DCLG guidance explains that the SoS will need to be satisfied that the land to be acquired is no more than is reasonably required for the purposes of the development.
- 8.4.27 The 2013 DCLG guidance also explains in paragraph 11 that for the second of the three criteria to be met, the SoS would need to be satisfied that the development could only be delivered to a satisfactory standard if the land in question were to be compulsorily acquired (assuming it could not be acquired by agreement), and that the land to be taken is no more than is reasonably necessary for that purpose, and that the purpose is proportionate.
- 8.4.28 Appendix A of the SoR [REP4-029] sets out the particular purposes for which each plot of land is proposed to be compulsorily acquired or used temporarily. That table demonstrates that the Applicant has 'a

*clear idea of how [it intends] to use the land which [it proposes] to acquire.'* The Applicant has included within the Order limits no more land than is reasonably required for the purposes described in the table in Appendix A, such that its proposed use of land, for the purpose of delivering the Scheme, is proportionate and justifiable.

- 8.4.29 In the Applicant's view, the need for the DCO scheme, the need for certainty as to ability to undertake the Proposed Development within the requisite timescale notwithstanding negotiations to seek acquisition by agreement and the engagement with land interests in consideration of alternatives, demonstrate why these tests are met and that there is a compelling case in the public interest for the powers sought.

***The case under s127 and s138 of the PA2008***

- 8.4.30 Sections 127 and 138 of the PA2008 specify the particular tests that have to be met in relation to land held by Statutory Undertakers for their statutory purposes and where extinguishment of rights or removal of apparatus may be involved. Appendix D to the SoR [REP4-029] contains a list of Statutory Undertakers and other similar bodies which have, or which may have, a right to keep equipment (in connection with their undertaking) on, in or over the land required for the DCO scheme. In response to FWQs and SWQs, the Applicant has named the 12 Statutory Undertakers that are known to be engaged with the DCO scheme and by the close of the Examination all those who had made representations had agreed Protective Provisions and all but TWUL had formally withdrawn their objections. There are no outstanding issues unresolved, but simply completion of a formal agreement with TWUL awaited prior to the withdrawal of their representations. There should be no need therefore for the Panel to make specific recommendations to the SoS in relation to s127.
- 8.4.31 With regard to s138, the utilities diversions that are included in the Schedule of Works which forms Schedule 1 to the dDCO are all necessary in order to carry out the development.

***The case under s131 and s132 of the PA2008 (Special category land)***

- 8.4.32 The Applicant's proposed Order limits include two areas of open space. The Applicant would only be acquiring subsoil beneath the open space, and rights under and over it, not the open space itself. Therefore, in so far as the Applicant would be acquiring land (should CA powers be granted), the land acquired, being subsoil beneath the open space, does not come within the statutory definition of open space and therefore the open space protections in s131 of the PA2008 do not apply to it.
- 8.4.33 Where the Applicant seeks to acquire rights over an area of open space, the nature of those rights, being rights to impose restrictive covenants on the land for the protection of the tunnel structure, is not

incompatible with the continued use of the land at surface level as open space. Therefore, the Applicant considers that the use would be exempted from the protection for open space which s132 of the PA2008 confers, by virtue of the application of the exception in s132(3).

### ***Human rights considerations***

- 8.4.34 The Applicant has given consideration to the purposes for which the land is required, namely the delivery of the DCO scheme, in the context of the provisions of Article 1 of the First Protocol to the European Convention on Human Rights in relation to property and Article 8 of the Convention in relation to the right for a home and family life, if the latter is engaged in respect of any apartments in the Hoola development. Given the availability of compensation, the interference with private property rights are considered to be legitimate and proportionate.
- 8.4.35 The Applicant considers that the procedures followed under the PA2008 satisfy the requirements of Article 6 on the right to a fair hearing.

### ***Consideration of duties under the Equality Act 2010***

- 8.4.36 The Applicant has also complied with its Public Sector Equalities Duty under the Equality Act 2010. Initial assessments showed that adverse impacts may be greatest on the young, the elderly and those of lower income levels in the communities in the locality of the DCO scheme. However, every effort has been made to mitigate any such adverse impacts. After mitigation the Health and Equalities Impact Assessment [APP-090] indicates that there is no differential or disproportionate effect on children, older people or those with disabilities. The only differential impact not wholly mitigated is in relation to low income groups which are not defined as a '*protected*' category. As a consequence there would be no conflict with the duties under this Act.

## **8.5 ISSUES RAISED BY OBJECTORS**

### **GENERAL ISSUES**

- 8.5.1 Very few APs raised what could be construed as general objections to the grant of powers for CA and temporary possession. Clearly, even if not specifically referring to the CA and temporary possession provisions, Interested Parties (IP) or others making representations without land interests who are opposed in principle to the DCO scheme can be assumed to be opposed the grant of these powers. Some opposition in principle arises from interest groups such as Friends of the Earth (FoE) [RR-343] or Campaign for Better Transport (CfBT) [RR-201] because it is a road based scheme and not one for an additional public transport or sustainable transport crossing of the River Thames and argue that there would be adverse environmental consequences. Some in principle opposition arises from individuals because of opposition to the inclusion of user-charging provisions,

while some opposition from local community groups such as No to Silvertown [RR-193], the Westcombe Society [RR-348] or the East Greenwich Residents' Association [REP1-067] arises primarily because they perceive any benefits of the DCO Scheme to be outweighed by potential harm.

- 8.5.2 In all cases detail of such objections and the Applicant's responses are set out earlier in our report and do not need to be repeated in this Chapter. We did not find that any of these arguments would justify withholding consent for the making of the DCO, subject to the securing of all necessary mitigation measures and we do not find them to be sufficient to recommend against the grant of CA powers or temporary possession.
- 8.5.3 With regard to APs, the three who raised what might be construed as general objections<sup>92</sup> are the U&I [RR-185], Quintain Limited/ SHL [RR-329] and the PLA [RR-285]. In some instances the general point of concern only arose during the course of the Examination, but in the case of Quintain Limited/SHL, from the outset they argued that the areas proposed for temporary possession were excessive and greater than necessary to facilitate construction and that this would constrain regeneration proposals. Their particular interest is in relation to land on the north bank of the River Thames in LBN. While issues were raised by the interests in the operation of the O<sub>2</sub> Arena<sup>93</sup> and adjoining commercial developments and the principal developer of the Greenwich Peninsula, Knight Dragon Limited, over the spatial arrangement of temporary measures during construction on the south bank in RBG, these APs did not directly argue that the totality of the temporary possession sought is excessive, but simply that different temporary arrangements during construction would cause less disruption to their operations and development programme.
- 8.5.4 The U&I issue arose out of the interchanges between the Health and Safety Executive (HSE) and the Applicant over the justification for Grampian-style requirements to address concerns over the existence of hazardous substance consents (HSC) in close proximity to the Proposed Development. The U&I argument is that if such requirements are imposed to address the issues over the Brenntag chemicals distribution site or the East Greenwich Gasholder site (EGGS), then there would not be the reasonable certainty that the DCO scheme for which CA powers are sought would be able to be brought into use. In their view therefore to grant such powers would be in conflict with DCLG guidance.
- 8.5.5 As for the PLA issue, this also became more focussed towards the close of the Examination after agreement was reached<sup>94</sup> in relation to the provisions in the dDCO that directly affect their powers, their

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<sup>92</sup> The references quoted are to the initial representations.

<sup>93</sup> Anso Arena Limited, The Waterfront Limited partnership and Trinity (D) Limited

<sup>94</sup> Other than over the basis for compensation for exercise of CA powers in relation to the river area.



duties and their own land interests. The spatial issue that they remained concerned about is safeguarding 'safeguarded' or other river wharves for future river traffic after the period of temporary possession and, in the interim, the relocation of existing businesses that utilise river transport from wharves that would be affected.

- 8.5.6 The general issues raised by these APs can be addressed in relation to the specific representations that they have made concerning particular plots or in relation to the representations of others such as Tarmac [RR-192]. Further detail of these representations, the Applicant's responses and our specific conclusions are therefore set out in the following paragraphs. The specific representations are grouped where appropriate, if there are overlapping sites or issues. Our overall conclusions as to whether there is a compelling case in the public interest to grant CA powers are set out following the sub-sections relating to particular representations.

### **SPECIFIC OBJECTIONS OR REPRESENTATIONS RAISED BY AFFECTED PERSONS**

#### **LAND ON THE SOUTH BANK OF THE RIVER THAMES IN THE ROYAL BOROUGH OF GREENWICH (RBG)**

##### **U and I Group Plc (U&I)**

***Plots: 01-001, 01-022 & 01-024 and 01-007, 01-008, 01-011***

##### ***The case for the objectors***

- 8.5.7 The U&I are long-term leaseholders of Morden Wharf. Their case as set out in [RR-185 and REP1-043 to REP1-045] highlights the need to provide safe and convenient facilities for pedestrians and cyclists in the re-modelling of Tunnel Avenue that is required as part of the DCO scheme. Provision for both north and southbound bus stops is also sought as part of their case for enhancing sustainable transport provision for the west side of the Greenwich Peninsula in accordance with local planning policy and permissions also granted by RBG. This is to enable Tunnel Avenue properly to serve an anticipated housing/mixed use redevelopment of part of the wharf and adjoining land to the south as far as Enderby Wharf (and its approved cruise-liner terminal) and a retained 'safeguarded' portion of wharf to the north that would accommodate existing and other displaced river-related uses.
- 8.5.8 At D6 [REP6-016] it was accepted that the revised design principles and plan showing how a southbound bus-stop could be accommodated on Tunnel Avenue met their concerns in relation to public realm and sustainable transport provided that these enhancements were secured by appropriate requirements.
- 8.5.9 In an additional submission [AS-039], it was argued on behalf of U&I that there could be a variation of the hazardous substances consent (HSC) on the Brenntag site, by limiting storage of hydrofluoric acid to

containers with a maximum capacity of 24 kilograms (kg) and the acid itself to a maximum concentration of 60%, such that the consultation zone would be so reduced that an HSE '*advise against*' recommendation would not arise. At D4 [REP4-006] and D5 [REP5-023], it was argued that despite Brenntag being unwilling to accept the condition suggested on behalf of U&I, the imposition of a Grampian-style requirement simply seeking a modified HSC that would fix the location for sodium hypochlorite storage would not be an acceptable way forward because it would leave uncertainty as to whether the DCO scheme could be implemented. They therefore continued to press for a modification of the consent along the lines that they suggested as in their view that would create certainty. At the Open Floor Hearing (OFH) on 28 March 2017 [EV-054] and in U&I's post-hearing submission [REP6-016], U&I continued to argue that use of a Grampian-style requirement would give rise to such uncertainty over whether the DCO scheme could proceed that the SoS would be unable to confirm inclusion of CA powers in the DCO.

### ***The case for the Applicant***

- 8.5.10 The plots concerned are to enable accommodation works to be undertaken as part of the re-modelling of Tunnel Avenue in order to provide safe access to the Brenntag site and for other users of Morden Wharf and to facilitate the provision of the new Boord Street pedestrian and cycle overbridge following a more direct desire line from Boord Street.
- 8.5.11 The Applicant's closing case [REP7-035] referred back to their CAH post-hearing submission [REP6-074]. In this the Applicant pointed out that in order to satisfy U&I's concerns relating to public realm, at D6 a Sketch Plan Appraising Feasibility for Bus Stop [REP6-081] was submitted showing how a bus stop and pedestrian refuge could potentially be incorporated at a later date. A new design principle was also added relating to the Boord Street footbridge principles and an additional point inserted along with illustrative sections and plans to the design guidance for Tunnel Avenue in Appendix C of the Design Principles (Revision 3) [REP6-058]. A Landscape Plan [REP4-049] had previously been submitted that illustrated the principles sought in terms of the public realm. The plan was revised to accord with the amended design principles [REP6-070] and would have to be adhered to under the terms of Requirement (R)6 in Schedule 2 to the dDCO.
- 8.5.12 With regard to the separate point made on behalf of U&I concerning conditions in relation to storage of hazardous chemicals on the Brenntag site, agreement had been reached with Brenntag on works within their site that would enable modification of their consent in the form acceptable to Brenntag and there would be no justification in terms of the DCO scheme to seek any more fundamental modification to their consent. What was sought by U&I would be likely to be beneficial to that developer by freeing much of Morden Wharf from

HSE consultation zones, but it is not necessary to facilitate the DCO scheme.

***The Panel's conclusions***

- 8.5.13 Our conclusions in relation to U&I's representations follow consideration of the cases of Brenntag and Morden College as the sites and/or issues are over-lapping and interrelated.

**Brenntag UK Limited ('Brenntag')**

***Plots: 01-027, 01-028, 01-030 and 01-050***

***The case for the objectors***

- 8.5.14 In their Relevant Representation (RR) [RR-216] and Written Representation (WR) [REP1-090], Brenntag pointed out the importance of their site for chemical distribution. While not opposed to the DCO scheme in principle, they note that some 865m<sup>2</sup> of land would be lost from their site, in particular to facilitate provision of the replacement Boord Street pedestrian and cycle-bridge and related pedestrian and cycleways. This would involve additional accommodation works within the Brenntag site including the relocation of car parking onto a part of the site not in current use. They also sought assurances that there would be 24 hour unfettered access to their site during construction and because they were not initially convinced by traffic assessments provided they sought provision of additional on-site storage by the Applicant so that they could have greater buffer stocks available.
- 8.5.15 At D7 [REP7-012], it was confirmed that Brenntag had entered into a Land and Works agreement with the Applicant securing the accommodation works in relation to circulation and car parking at the entrances to and within their site. As a consequence their representations were withdrawn. This follows the acceptance of the proposed non-material change NMC1 [PD-015] that facilitates the Applicant undertaking the agreed accommodation works within their site.
- 8.5.16 Earlier at D3 [REP3-049], it was pointed out for Brenntag that the restrictions sought by U&I on the manner in which they store chemicals are entirely unacceptable and, if imposed, would have a detrimental and limiting effect on their business, particularly with regard to size of customer base for the sale and purchase of hydrofluoric acid and the range of commercial opportunities available in respect of this product. Furthermore, it would not be appropriate, or indeed lawful, for any development consent order granted in respect of the DCO Scheme to include a requirement which is aimed at controlling the use of adjacent land and the operations being undertaken upon it, where that land is out with the Order Limits. This was reiterated at D5 [REP5-019].

### ***The case for the Applicant***

- 8.5.17 The plots concerned for permanent use and temporary possession are to facilitate the remodelling of Tunnel Avenue which would improve local access and facilities for cyclists and pedestrians. In accordance with NMC1 they would also include the land on which the Applicant would undertake the accommodation works sought by Brenntag.
- 8.5.18 For the avoidance of doubt, the intention of Brenntag to secure a modified HSC that would simply fix the location of storage on-site of certain chemicals is all that would be necessary to enable the Health and Safety Executive (HSE) to withdraw their '*advise against*' recommendation so that the Applicant is not seeking the more fundamental modification to that consent advocated by U&I. The Code of Construction Practice (CoCP) (Revision 4) [REP6-056] requires access to be maintained to properties at all times so that there is no justification for requiring additional on-site storage accommodation. The Applicant is pleased to note withdrawal of Brenntag's objections.

### ***The Panel's conclusions***

- 8.5.19 Our conclusions in relation to Brenntag's representations follow consideration of the case of Morden College as the site and/or issues are over-lapping and interrelated.

### **Morden College**

***Plots: 01-001, 01-007, 01-008, 01-011, 01-022, 01-024, 01-027 to 01-029, 01-031, 01-035, 01-050, 01-057, 01-061 and 01-063***

### ***The case for the objectors***

- 8.5.20 In their RR [RR-291], Morden College, as the freeholder of land on the western river frontage to the Greenwich Peninsula, while supporting the principle of the DCO scheme, expressed concern to ensure that access is maintained for their tenants (such as Brenntag, including re-provision of car-parking) and also to facilitate redevelopment aspirations of their leaseholder U&I. Thus, they seek to ensure appropriate provision for pedestrians, cyclists and bus services in the proposed remodelling of Tunnel Avenue and 24-hour access to their land holdings throughout the construction period. The representation also included opposition to the user-charging proposals.
- 8.5.21 The College's WR [REP1-034], more fully detailed these points of concern. The position at the close of the Examination is set out in a SoCG with the Applicant that was submitted at D7 [REP7-033]. In this, while progress on many of the detailed concerns is noted, the College remained of the view that current plans do not demonstrate adequate provision for sustainable transport and that their concerns could only be satisfied when they have seen the detailed plans that would be produced by the contractor in accordance with the revised design principles and that 2-way bus services would actually be provided.

They would also only be assured over other matters of concern during construction such as the potential to encounter contaminated land, when they have access to the final version of the CoCP. The issue of discounts in relation the proposed user-charges for local residents and businesses was not agreed.

***The case for the Applicant***

- 8.5.22 The plots of land concerned whether for permanent acquisition or temporary possession are essentially to undertake accommodation works along the frontage to Morden College's land-holding in order to provide safe access for the College's tenants and leaseholders in the remodelling of Tunnel Avenue, that will enable future use for two-way traffic with the kind of provision for pedestrians, cyclists and bus services that is sought. The documents submitted at D6, namely the Design Principles (Revision 3) [REP6-058], the Landscape Plan (Revision 1) [REP6-070], and the Sketch Plan Appraising Feasibility of Bus Stops [REP6-081] for the provision of a southbound bus stop, demonstrate the Applicant's intent to address the college's concerns, but it is noted that none of the points raised actually oppose use of the plots concerned. As for concessions for local residents and businesses, the provisions of the Bus Strategy, Charging Policies and Procedures and the proposed legal agreements with the host boroughs demonstrate how concessions, discounts and transitional support are intended to be provided in ways that would not undermine the environmental objectives and safeguards for the DCO scheme.

***The Panel's conclusions in relation to U and I Group plc (U&I), Brenntag UK Limited ('Brenntag') and Morden College***

- 8.5.23 These land interests are overlapping and adjoining in so far as Morden College are the freeholder and U&I and Brenntag are leaseholders or tenants. Only Brenntag raised issues concerning specific plots of land, in fact by implication seeking greater areas for temporary possession so that the Applicant could undertake accommodation works within their site to replace facilities removed or otherwise needing to be replaced in the re-modelling of Tunnel Avenue and creation of safe property accesses. The Applicant's proposed non-material change NMC1 met Brenntag's requirements and their objections were withdrawn as noted in paragraph 8.5.15.
- 8.5.24 Brenntag have also been willing to put forward a modification to their hazardous substances consent such that once approved by RBG, HSE have indicated that they would be able to withdraw their '*advise against*' recommendation in relation to the Proposed Development. U&I sought to press a more restrictive modification to the HSC that would benefit their development aspirations. This was opposed by Brenntag as detrimental to Brenntag's own business interests. As it would not be necessary to secure this more restrictive modification to the hazardous substances consent we can see no reason for pursuing this issue as part of the DCO Examination process. We cannot see how

it would produce greater certainty given that such a modification is opposed by the company that it would need to be promoted by.

- 8.5.25 More generally, on the concern expressed on behalf of U&I that CA powers should not be granted because the proposed Grampian-style requirements introduce uncertainty over the ability to bring the Proposed Development into use, we did not find this argument at all convincing. The Brenntag modification is underway and while the revocation process in respect of the consent for the East Greenwich Gasholder Station (EGGS) has not commenced, Southern Gas Networks (SGN) and Birch Sites Limited (part of National Grid Properties Limited [REP6-001]) (NGP) have written of their development aspirations (including prospective remediation of the gas holder site) so it seems extremely unlikely that gas storage will be reinstated. If compensation were to be an issue in the consent not having been revoked prior to the intended opening of the proposed new tunnels that would seem to be an issue capable of being resolved. In any event the proposed wording of the requirements would enable the SoS to take a decision that opening could take place having considered up to date risk assessments.
- 8.5.26 As for the concerns of both U&I and Morden College that sufficient enhancement of provision for pedestrians, cyclists and two-way bus services would be secured, although this was not argued in relation to any particular plots, we are satisfied that the revised Design Principles, Landscaping Plan and Sketch Plan showing how a southbound bus stop could be incorporated in the re-aligned Tunnel Avenue adequately address these concerns. We have, moreover, recommended strengthening the relevant requirement by incorporation of the southbound bus stop as a part of the DCO scheme rather than only as a future possibility. We have also recommended making the Design and Access Statement (DAS) [REP4-045] a certified document as that most clearly illustrates the enhancements sought.
- 8.5.27 Taking all these points into account and in the light of what we saw of these sites during our site inspections, we can see no reason to recommend any variation in the CA sought in relation to the land interests of these bodies with the incorporation of NMC1. The updated SoR gives a clear indication of the intended purpose in relation to each plot and the land sought is no more than is reasonably required and is proportionate. The temporary possession sought is also proportionate in order to effect construction of the Proposed Development including necessary accommodation works.
- 8.5.28 With regard to outstanding representations seeking discounts or concessions in relation to the proposed user-charges, this issue does not have a direct bearing on the CA or temporary possession powers sought. It is addressed in section 5.13 of this report and in overall conclusions on the dDCO.

## **The Waterfront Limited Partnership (WLP)**

**Plots: 01-084, 01-087, 02-022, 02-039,02-042, 02-046, 02-065, 02-075,02-075a, 02-076, 03-005, 03-007, 03-009, 03-010, 03-011, 03-016, 03-017, 03-017a, 03-045, 03-049,04-012 and 04-015**

### ***The Case for the objectors***

- 8.5.29 In their RR [RR-261], the WLP (described as a joint venture with AEG Inc, of which AnSCO Arena Limited is a subsidiary, and Crosstree Real Estate Management Limited) under which AnSCO operate the O<sub>2</sub> Arena while WLP operate the entertainment district and factory outlet centre. Their interests are described as aligned with those of AnSCO who would take the lead in making representations. While supporting the principle of the DCO scheme, both had concerns over the effect of the Proposed Development during the construction phase in terms of temporary access measures and car parking. They were also opposed to the proposed user charging during the evening period.
- 8.5.30 On 20 March 2017, by a similar letter to that from AnSCO Arena Limited, WLP confirmed [REP5-017] that a settlement agreement had been reached with the Applicant. Provided that the proposed non-material changes NMC3 and NMC5 were incorporated into the application and the DCO made on this basis, their objections to the physical works and land take would be withdrawn, though their objection to the proposed evening user charges would stand. After acceptance of the proposed non-material changes into the application, by a letter dated 7 April 2017 [REP6-088] in similar terms to that from AnSCO Arena Limited, the objection in relation to evening user charges was solely pursued.

### ***The case for the Applicant***

- 8.5.31 The plots involved are those where permanent acquisition of land or of rights are required to construct the southern portal and the approaches to the new tunnels and the cut and fill and bored sections of the tunnels and also those required for additional areas for temporary possession to facilitate the construction south of the River Thames.
- 8.5.32 As in relation to the representations of AnSCO Arena Limited, negotiations took place with the principal land interests in the Greenwich Peninsula development and proposed non-material changes were put forward to address their concerns. NMC2 removes the proposed head houses from the DCO scheme so there would be less permanent surface development and NMC3 provides for an revised diversion of Edmund Halley Way, the main access road into the O<sub>2</sub> Arena area, during construction such that it would run north rather than south of the existing alignment. This enables access to the North Greenwich tube station and bus interchange and servicing for the O<sub>2</sub> and adjoining developments to be more straightforward. NMC5

provides for construction of a temporary decked car park on the current coach parking area, with consequential rearrangement of other parking areas in order to maintain adequate parking during the construction period and better to facilitate ongoing redevelopment.

- 8.5.33 Given the settlement agreement reached with WLP in relation to the acceptance of the relevant proposed non-material changes, no issue remains in respect of the CA and temporary possession involved in relation to these plots. The Applicant's case as to why the Assessed Case proposed user-charges in the evening period is on record, this is ultimately a matter to be determined under the proposed Charging Policies and Procedures document when the actual user-charges would come to be determined ahead of the opening of the new tunnels.

***The Panel's conclusions***

- 8.5.34 Our conclusions in relation to WLP's representations follow consideration of the cases of AnSCO Arena Limited, Trinity (D) Limited and Knight Dragon as the sites and/or issues are over-lapping and interrelated.

**AnSCO Arena Limited (previously AEG Limited) (AnSCO)**

***Plots: 01-084, 01-087, 02-022, 02-039, 02-042, 02-046, 02-065, 02-075, 02-075a, 02-076, 03-005, 03-007, 03-009, 03-010, 03-011, 03-016, 03-017, 03-017a, 03-045, 03-049, 04-012 and 04-015***

***The case for the objectors***

- 8.5.35 In their RR [RR-262], AnSCO Arena Limited (AnSCO) made similar points to those noted by WLP. These were expanded upon in a WR [REP1-076] and an additional submission [AS-038]. The former provided responses to a number of the Panel's FWQ. Some of the responses addressed the issue of access and parking during construction as well as seeking a particular role in local traffic management. The latter referred to negotiations being ongoing with the Applicant and the expectation that proposed changes would be made to the application to address their concerns, with a similar point anticipating agreement made at D2 [REP2-007].
- 8.5.36 At D5 [REP5-016], by a letter dated 20 March 2017 AnSCO confirmed that a settlement agreement had been reached with the Applicant. Provided that the proposed non-material changes were incorporated into application and the DCO made on this basis, their objections to the physical works and land take would be withdrawn, though their objection to the proposed evening user charges would stand. Following acceptance of the proposed non-material changes into the Application on 28 March 2017 [PD-015], by letter dated 7 April 2017 AnSCO solely pursued their objections to the evening user-charging proposals.



### ***The case for the Applicant***

- 8.5.37 The plots involved are those where permanent acquisition of land or of rights are required to construct the southern portal and the approaches to the new tunnels and the cut and fill and bored sections of the tunnels and also those required for additional areas for temporary possession to facilitate the construction south of the River Thames. Negotiations took place with the principal land interests in the Greenwich Peninsula development and proposed changes were put forward to address their concerns. NMC2 removes the proposed head houses from the DCO scheme so there would be less permanent surface development and NMC3 provides for an revised diversion of Edmund Halley Way, the main access road into the O<sub>2</sub> Arena area, during construction such that it would run north rather than south of the existing alignment. This enables access to the North Greenwich tube station and bus interchange and servicing to be more straightforward, while NMC5 provides for construction of a temporary decked car park on the current coach parking area, with consequential rearrangement of other parking areas in order to maintain adequate parking during the construction period and better to facilitate ongoing redevelopment.
- 8.5.38 Given the settlement agreement reached with AnSCO in relation to the acceptance of the relevant proposed non-material changes, no issue remains in respect of the CA and temporary possession involved in relation to these plots. The Applicant's case as to why the Assessed Case proposed user-charges in the evening period is on record, this is ultimately a matter to be determined under the proposed 'Charging Policies and Procedures' document when the actual user-charges would come to be determined ahead of the opening of the new tunnels.

### ***The Panel's conclusions***

- 8.5.39 Our conclusions in relation to AnSCO's representations follow consideration of the cases of Trinity (D) Limited and Knight Dragon as the sites and/or issues are over-lapping and interrelated.

#### **Trinity (D) Limited**

***Plots: 01-087, 02-022, 02-039, 02-042, 02-046, 02-062,, 02-062a, 02-075, 02-075a, 02-076, 03-007, 03-009, 03-010, 03-011, 03-014, 04-015, 03-016, 03-017, 03-017a, 03-031, 03-033, 03-034, 03-035, 03-036, 03-038, 03-039, 03-040, 03-041, 03-042, 03-043, 03-044, 03-045, 03-046, 03-047, 03-048, 03-049, 03-050, 04-001, 04-004, 04-005, 04-006, 04-007, 04-009, 04-012 and 04-015***

### ***The case for the objectors***

- 8.5.40 In their RR [RR-305], it was argued on behalf of Trinity (D) Limited, the head-lessees of the O<sub>2</sub> Arena and Dome and related parking areas, that in the form initially proposed in the application, the DCO scheme

would have an adverse effect on parking availability both during construction and permanently. In their WR [REP1-056], it was confirmed that acceptable proposals to resolve parking issues had yet to be agreed.

- 8.5.41 Subsequently, by an additional submission [AS-042], it was indicated that Trinity (D) were a party to discussions being held with the Applicant along with other principal land-owners with a view to proposed changes being put forward that would satisfy their concerns, with a similar point made in [REP2-071]. At D5 [REP5-018], by letter dated 20 March 2017, it was stated that subject to NMC3 and NMC5 being accepted and incorporated into the application, the objections of Trinity (D) Limited are withdrawn.

### ***The case for the Applicant***

- 8.5.42 The plots involved are those where permanent acquisition of land or of rights are required to construct the southern portal and the approaches to the new tunnels and the cut and fill and bored sections of the tunnels and those required for additional areas for temporary possession to facilitate the construction south of the River Thames. Negotiations took place with the principal land interests in the Greenwich Peninsula development and proposed changes were put forward to address their concerns. NMC3 provides for a revised diversion of Edmund Halley Way, the main access road into the O2 Arena area, during construction such that it would run north rather than south of the existing alignment. This enables access to the North Greenwich tube station and bus interchange and servicing to be more straightforward, while NMC5 provides for construction of a temporary decked car park on the current coach parking area, with consequential rearrangement of other parking areas in order to maintain adequate parking during the construction period and better to facilitate ongoing redevelopment.
- 8.5.43 Given the settlement agreement reached with Trinity (D) Limited in relation to the acceptance of the relevant proposed changes, no issue remains in respect of the compulsory acquisition and temporary possession involved in relation to these plots.

### ***The Panel's conclusions***

- 8.5.44 Our conclusions in relation to Trinity (D)'s representations follow consideration of the case of Knight Dragon as the sites and/or issues are over-lapping and interrelated.

### **Knight Dragon Developments Limited and Knight Dragon Investments Limited (Knight Dragon)**

***Plots: 03-023, 03-030, 03-031, 03-032, 03-034, 03-037, 03-037a, 03-037b, 03-037c, 03-038, 03-039, 03-040, 03-041, 03-044, 03-047, 03-050, 04-004, 04-005, 04-007 and 01-040, 01-043, 01-044, 01-044a, 01-045, 01-045a, 01-045b, 01-078a, 01-083, 01-084, 01-087, 01-088a, 01-090, 02-018, 02-018a, 02-***

**018b, 02-018c, 02-021, 02-022, 02-026, 02-026a, 02-027, 02-028, 02-029, 02-032, 02-033, 02-036, 02-036a, 02-036b, 02-037, 02-037a, 02-039, 02-040, 02-042, 02-043, 02-043a, 02-046, 02-051, 02-054, 02-056, 02-059, 02-062, 02-062a, 02-065, 02-069, 02-073 to 02-076, 02-078 to 02-080 & 03-001 to 03-026a, 03-028 to 003-029, 03-033 to 03-050 (except those plots listed above above), 04-001 to 04-009 (except those plots listed above), 04-012 to 04-013, 04-015 and 04-021**

***The case for the objectors***

- 8.5.45 In their RR [RR-260], Knight Dragon objected to the originally proposed proposals for re-arranging temporary car parking including its scale and location, over elements of the temporary highway diversions, the programming of works in relation to local highway improvements and their development programme. Objection was also made to the location and scale of the proposed head houses and that of the southern portal building as well as in relation to other issues including the proposed evening user-charges. These concerns were further detailed in their WR [REP1-064] in which the Panel were encouraged to undertake site visits to appreciate these concerns.
- 8.5.46 At D5 [REP5-024], by a letter dated 19 March 2017, Knight Dragon stated that subject to proposed non-material changes NMC3 and NMC5 being accepted as part of the application, their objections in relation to parking and local highway issues are withdrawn.

***The case for the Applicant***

- 8.5.47 The plots involved are those where permanent acquisition of land or of rights are required to construct the southern portal and the approaches to the new tunnels and the cut and fill and bored sections of the tunnels (including the southern portal building) and those required for additional areas for temporary possession to facilitate the construction south of the River Thames.
- 8.5.48 As noted in paragraph 8.5.46 above, on 19 March 2017 Knight Dragon stated that subject to proposed non-material changes NMC3 and NMC5 being accepted as part of the application, their objections in relation to parking and local highway issues are withdrawn.

***The Panel's conclusions in relation to The Waterfront Limited Partnership (WLP), AnSCO Arena Limited (AnSCO), Trinity (D) Limited, Knight Dragon Developments Limited and Knight Dragon Investments Limited (Knight Dragon)***

- 8.5.49 All these companies with major land interests within the south bank Order limits initially raised issues concerning the nature of temporary works to facilitate the construction of the tunnels in relation to the impact on access, parking and their own development programmes. However, the Applicant worked closely with them and brought forward proposed non-material changes NMC3 and NMC5 in the light of which their objections in relation to land and highway issues were withdrawn

as noted in paragraphs 8.5.30, 8.5.36, 8.5.41 and 8.4.46 above. In the withdrawals the further NMC2 that deletes previously proposed head house was not referred to but it meets concerns raised over scattered buildings intruding into their development plans. We had the opportunity to view the development area both from a high level vantage point in the Knight Dragon offices and on foot during the accompanied site inspection (ASI) on 6 December 2016 and during other unaccompanied site inspections (USIs). We are satisfied that the location of the southern tunnel services building immediately outside and to the north of the southern portal is logical and seems to us to intrude less into potential development areas to the south, a location canvassed as preferable in these representations.

- 8.5.50 Having regard to these considerations we consider that the CA areas sought as changed by NMC2, NMC3 and NMC5 are justified as there is a clearly defined reason for CA in relation to each plot as set out in the updated SoR [REP4-029] and the land sought is no more than is reasonably required and is proportionate. The temporary possession sought is also proportionate in order to effect construction of the Proposed Development including necessary accommodation works.
- 8.5.51 The outstanding representations concerning the proposed evening user-charges that are included in the Assessed Case are not matters that have a bearing on the CA and temporary possession sought. Ultimately that issue will have to be addressed under the provisions of the Charging Policies and Procedures certified document through the 'Silvertown Tunnel Implementation Group' (STIG) shortly before the proposed tunnel opening.

### **Tary Property Holdings Limited/Raduga Limited**

***Plots: 01-052, 01-056, 01-058, 01-058a, 01-058b, 01-058c, 01-060, 01-060a, 01-065 and 01-065a***

#### ***The case for the objectors***

- 8.5.52 In their WR [REP1-030], Tary holdings pointed out that the fire damage to Studio 338 did not mean that the CA of neighbouring land to provide for a fire escape route in mitigation for the loss of their road frontage as part of the Proposed Development was no longer required. It was the stated intention of Tary Holdings that the premises would be re-built so that the fire escape route would still be required. By implication, the comment of Affordable Architects on behalf of Tary Property Holdings and Raduga Limited is in support of the CA proposals as put forward by the Applicant. They appeared at the first CAH on 8 December 2016 and subsequently submitted copies of the planning application to the RBG for reinstatement of what they describe as a public house exactly as previously existing. The reason for the replica rebuild was stated to be in order to maintain the current licence held by Raduga Limited, the leaseholder and operator of the premises.

### ***The case for the Applicant***

- 8.5.53 Plot 01-056 is owned by the GLA and those with interests in Studio 338 do not have interests in this plot which is required for widening of the A102. This would have the effect of removing access from the fire escapes on the northern side of Studio 338. Fire escapes from the south-west corner of Studio 338 would be able to gain access to Boord Street. The Applicant's submitted proposal was therefore to provide an escape route around the premises to reach the south west corner. This involves plot 01-058 owned by Lidoka Estates, 01-058a owned by SGN and 01-058c owned by NGP. Plot 01-058b is a corner of Studio 338 itself owned/leased by Tary Property Holdings Limited/Raduga Limited. Additional plots are noted for temporary possession to construct this proposed walkway.
- 8.5.54 The Applicant noted the opposition of Lidoka Estates to CA of plot 0-058 and its view that any reconstruction of Studio 338 should make provision for adequate fire escapes within its own land-holding. Given the uncertain outcome of the planning application, the Applicant maintained a holding position. However, in specific response to the Panel's SWQ the Applicant gave a full statement of its position at D4 [REP4-050]. The Applicant accepted that if a fire escape for Studio 338 in its previous form is not required then there would be no need for CA of plots 01-058, 01-058a, 01-058b and 01-058c nor for the temporary possession of plots 01-047a, 01-047 (part only adjoining 01-058) and 01-060a. However, in their Closing Statement [REP7-035], referring back to [REP6-074], the Applicant maintained that the powers sought should be granted to cover the possibility that Tary Property Holding Limited/Raduga Limited eventually succeed in gaining planning permission for reinstatement to its previous form. Nevertheless, the Applicant appended a copy of the 31 March 2017 Mayoral consultation response on the Tary planning application to RBG which stated '*TfL require that the current design be amended so that the fire escape provision is managed within the applicant's site ownership and conforms to the current design of the Silvertown Tunnel scheme*', ie essentially the position sought by Lidoka Estates and NGP/SGN.

### ***The Panel's conclusions***

- 8.5.55 Our conclusions in relation to Tary Property Holding's and Raduga's representations follow consideration of the cases of Lidoka Estates Limited, RRS London Waste Paper Limited (RRS), NGP and SGN as the sites and/or issues are over-lapping and interrelated.

### **Lidoka Estates Limited**

#### ***Plots: 01-046, 01-047 and 01-058***

### ***The case for the objectors***

- 8.5.56 In their RR [RR-037], Lidoka Estates Limited indicated that they were willing to agree to the acquisition of plot 01-046 in order to facilitate

the DCO scheme and in particular the widening of A102, re-location of the Boord Street pedestrian and cycle bridge and provision of replacement vehicular access from Boord Street for Studio 338. They also accept temporary possession of the main part of plot 01-047 for materials storage to facilitate these works, albeit that this may require relocation of sub-tenants from their land. The land is leased to RBG who lease it on to the London Evening Standard as a base for newspaper distribution but the Evening Standard sub-leases parts to two other businesses including RRS.

8.5.57 Lidoka Estates are, however, opposed to the CA of plot 01-058 in order to provide replacement fire escape routes for Studio 338. In addition to doubting the efficacy of the fire escape route around those premises, they would not wish to give up their freehold to benefit another commercial enterprise. Their position was re-iterated and detailed more fully at various hearings throughout the Examination and a request made for the Panel to view the plots concerned [REP1-089]. In their post hearing submission covering representations made at both the CAHs held on 8 December 2016 and 20 January 2017 [REP3-048], they indicate they, along with SGN and HSE have objected to the planning application for the re-building of Studio 338. Grounds of principle, as well as detail concerning the need to use other parties' land for fire escape purposes, are included in the objections from Lidoka estates and SGN. Their objection in relation to plot 01-058 is re-iterated in [REP4-065], in particular that the land is required not directly for the DCO scheme but only as an indirect consequence and should not therefore be subject of CA.

8.5.58 Lidoka Estates, nevertheless, indicate that they are willing to agree terms with the Applicant provided that there is a clause that would transfer plot 01-058 back to them if not required for a fire escape route for Studio 338.

#### ***The case for the Applicant***

8.5.59 The position of the Applicant has been set out in relation to Tary Property Holdings Limited. They maintain that the fire escape route has been devised having had regard to guidance and consultation with appropriate fire safety bodies and is a more optimum proposal than, for example, seeking solely to provide a route across Birch Sites' land. In the final CA update [REP7-045] it is noted that '*Heads of Terms for an agreement have been signed by both parties to facilitate before and in the event of compulsory acquisition powers being exercised*'. However, the Applicant's final summary of case indicates that there remained no agreement in relation to plot 01-058 [REP7-035].

#### ***The Panel's conclusions***

8.5.60 Our conclusions in relation to Lidoka Estate's representations follow consideration of the cases of RSS, NGP and SGN as the sites and/or issues are over-lapping and interrelated.

**RRS London Waste Paper Limited (RRS)**

***Plots: 01-046, 01-047 and 01-058***

***The case for the objectors***

- 8.5.61 In their RR [RR-341], RRS simply pointed out that their business operated from the same yard as the London Evening Standard distribution so they needed to be kept informed.

***The case for the Applicant***

- 8.5.62 Negotiations with tenants and sub-tenants have been undertaken via the freeholder Lidoka Estates Limited. The position with regard to these plots is addressed in the previous paragraphs.

***The Panel's conclusions***

- 8.5.63 Our conclusions in relation to RRS's representations follow consideration of the cases of RRS London Waste Paper Limited, NGP and SGN as the sites and/or issues are over-lapping and interrelated.

**Birch Sites Limited (NGP)**

***Plots: 01-058c, 01-060, 01-060a, 01-065, 01-065a, 01-076, 01-077, 01-082, 01-092, 02-009, 02-010, 02-011, 02-012, 02-015, 02-017, 02-017a, 02-023, 02-025, 02-088 and 02-089***

***The case for the objectors***

- 8.5.64 In their WR [REP1-077], Birch Sites Limited, which is part of National Grid Property Holdings Limited (NGP), simply referred to negotiations being in progress with a view to Birch Sites being able to agree a solution with the applicant to realise their development aspirations alongside the DCO scheme. Previously by way of an additional submission [AS-011] in response to our Rule 6 letter [PD-004], NGP had made a similar comment. In a joint further additional submission with SGN [AS-032], it was pointed out that both parties have joint development aspirations but these require a new access for NGP to plot 01-077. They indicate that acquisition of plot 01-067, the current pressure reduction station will only be possible by way of its replacement on plots 01-078 and 01-080 by and in agreement with SGN, that CA of certain plots appears unnecessary but more particularly they object to acquisition of land to support the use of Studio 338, as this is a use outside the Order lands and are also concerned that there are pockets of their land cut off by that aspect of the CA and temporary possession sought.
- 8.5.65 At D3 [REP3-058] in a further joint submission, specific objection was lodged in relation to plots 01-047a and 01-058a of SGN and 01-058c and 01-060a of NGP because acquisition or use of these plots is for the benefit of Studio 338, premises outside the Order lands and as a consequence in their view the tests of s122 could not be met and

there cannot be a compelling case in the public interest to grant the powers sought in respect of these plots. They also sought an amendment to A27 so that the Applicant could be forced to acquire land-locked fragments of land and not only parts of dwellings or other buildings. However, they both hoped to secure agreement with the Applicant. At D4 [REP4-068], these views were re-iterated in response to the Panel's SWQ and the possibility that SGN may wish to remediate their land in advance of any TfL acquisition was raised.

- 8.5.66 A further joint additional submission [AS-053], dated 28 March 2017, indicated that they had reached agreement on protective conditions and shortly expected to conclude a land agreement that would enable them to withdraw their representations. Finally, at D6 [REP6-002], it was stated that, *'Birch Sites limited and NGP' withdraw all their representations following agreement with the Applicant.'*

### ***The case for the Applicant***

- 8.5.67 The plots over which CA or temporary possession powers are sought are primarily to facilitate construction of the southern approaches to the proposed new tunnels. More widely some plots are listed for CA or temporary possession because of the need to secure diversion of utilities widely across the Order lands or there is a need to impose rights to safeguard the proposed sub-surface tunnels.

- 8.5.68 The Applicant had put forward NMC6 to provide the new access sought in respect to plot 01-077 and a Procedural Decision to accept this into the application was made on 28 March 2017 [PD-015]. The particular circumstances relating to Studio 338 and the question of whether there is a compelling case to justify CA powers for the benefit of the operation of those premises was addressed in detail in the Applicant's CA Report [REP4-050], in response to SWQ. This was detailed more fully in relation to the representations from Tary holdings and Lidoka Estates. Beyond this, as the Applicant has generally striven to ensure that bodies who may be construed as Statutory Undertakers have their apparatus safeguarded or relocated, it is pleased that agreement has been reached with NGP thereby enabling their representations to be withdrawn.

### ***The Panel's conclusions***

- 8.5.69 Our conclusions in relation to NGP representations follow consideration of the case of SGN as the sites and/or issues are over-lapping and interrelated.

### **Southern Gas Networks plc [SGN]**

***Plots: 01-047a, 01-058a, 01-066, 01-066a, 01-067, 01-077a, 01-078, 01-080, 01-086, 01-088, 02-016, 02-016a, 02-017, 02-017a, 02-023, 02-025, 02-035 and 02-089 and 01-001, 01-002, 01-009, 01-022, 01-023, 01-024, 01-027, 01-028, 01-031, 01-033, 01-034, 01-038, 01-040, 01-041, 01-043, 01-044, 01-044a, 01-045, 01-045a, 01-045b, 01-047, 01-048, 01-049, 01-***



**050, 01-051, 01-055, 01-056, 01-058a, 01-059, 01-066a, 01-067, 01-068, 01-073, 01-077, 01-078, 01-078a, 01-079, 01-081, 01-083, 01-084, 01-086, 01-087, 01-088, 01-088a, 01-090, 02-001, 02-004, 02-005, 02-006, 02-007, 02-008, 02-013, 02-016, 02-016a, 02-017, 02-017a, 02-018, 02-018a, 02-018b, 02-018c, 02-019, 02-021, 02-022, 02-023, 02-025, 02-027, 02-28, 02-030, 02-035, 02-039, 02-042, 02-043, 02-043a, 02-045, 02-046, 02-054, 02-056, 02-059, 02-062, 02-062a, 02-065, 02-069, 02-073, 02-074, 02-078, 02-079, 02-080, 02-089, 03-001, 03-002, 03-002a, 03-002b, 03-004, 03-004a, 03-005, 03-007, 03-008, 03-009, 03-010, 03-011, 03-012, 03-013, 03-014, 03-015, 03-018, 03-019, 03-020, 03-023, 03-024, 03-024a, 03-028, 03-030, 03-031, 03-032, 03-033, 03-036, 03-037, 03-037a, 03-037b, 03-037c, 03-039, 03-040, 03-041, 03-042, 03-044, 03-047, 03-048, 03-050, 04-001, 04-002, 04-004, 04-005, 04-006, 04-007, 04-008, 04-009, 04-012, 04-013, 04-015 and 04-021**

***The case for the objectors***

- 8.5.70 In their WR [REP1-078], SGN simply referred to negotiations being in progress with a view to being able to agree a solution with the applicant to realise their development aspirations alongside the DCO scheme. Previously by way of an additional submission [AS-010] in response to our Rule 6 letter, SGN had made a similar comment. In a joint further additional submission with NGP [AS-032], it was pointed out that both parties have joint development aspirations but these require a new access for NGP to plot 01-077. They indicate that acquisition of plot 01-067, the current pressure reduction station will only be possible by way of its replacement on plots 01-078 and 01-080 by and in agreement with SGN, that CA of certain plots appears unnecessary but more particularly they object to acquisition of land and temporary possession to support the use of Studio 338, as this is a use outside the Order lands and they are also concerned that there are pockets of their land cut off by that aspect of the CA and temporary possession sought.
- 8.5.71 At D3 [REP3-058] in a further joint submission, specific objection was lodged in relation to plots 01-047a and 01-058a of SGN and 01-58c and 01-060a of NGP because acquisition or use of these plots is for the benefit of Studio 338, premises outside the Order lands and as a consequence the tests of s122 could not be met and there cannot be a compelling case in the public interest to grant the powers sought in respect of these plots. Objection had been lodged with RBG to the planning application to re-build Studio 338. They also sought an amendment to A27 so that the Applicant could be forced to acquire land-locked fragments of land and not only parts of dwellings or other buildings. However, they both hoped to secure agreement with the Applicant. At D4, these views were re-iterated in response to SWQ [REP4-068] and the possibility that SGN may wish to remediate their land in advance of any TfL acquisition was raised. At D5, SGN [REP5-025] simply indicated that negotiations were progressing.

8.5.72 A further joint additional submission [AS-053], dated 28 March 2017, indicated that they had reached agreement on protective conditions and shortly expected to conclude a land agreement that would enable them to withdraw their representations. Finally, at D6 [REP6-002], it was stated that as a land-owner and statutory undertaker, SGN withdrew all its representations following agreement with the Applicant.

***The case for the Applicant***

8.5.73 The plots over which CA or temporary possession powers are sought are primarily to facilitate construction of the southern approaches to the proposed new tunnels. More widely some plots are listed for CA or temporary possession because of the need to secure diversion of utilities widely across the Order lands or there is a need to impose rights to safeguard the proposed sub-surface tunnels.

8.5.74 The particular circumstances relating to Studio 338 and the question of whether there is a compelling case to justify CA powers for the benefit of the operation of those premises was addressed in detail in the Applicants CA Report [REP4-050], in response to SWQ. This was detailed more fully in relation to the representations from Tary holdings and Lidoka Estates. Beyond this, as the Applicant has generally striven to ensure that bodies who are statutory undertakers have their apparatus safeguarded or relocated, it is pleased that agreement has been reached with SGN thereby enabling their representations to be withdrawn.

***The Panel's conclusions in relation to Tary Property Holdings Limited/Raduga Limited, Lidoka Estates Limited, RRS Waste Paper Limited (RRS), Birch Sites Limited (NGP) and Southern Gas Networks Plc (SGN)***

8.5.75 These interests again form an adjoining and overlapping group of interests. Dealing first with the interests of NGP and SGN we noted that agreement was reached with both these companies in paragraphs 8.5.66 and 8.5.72 above and that their objections were therefore withdrawn. No details have been provided as to the nature of these agreements so it is not clear how the agreements deal with the plots over which CA and temporary possession is sought in order to provide a fire escape route should consent be obtained for the reinstatement of Studio 338 as previously existing. In paragraphs 8.5.65 and 8.5.71 of this report, detailed legal argument is set out as to why in their view CA cannot be justified in relation to those plots (nor temporary possession).

8.5.76 With regard to Lidoka Estates (and by implication RRS) a fairly similar situation exists. At paragraph 8.5.59 above agreement between Lidoka and the Applicant is noted which the Applicant implies should lead to the withdrawal of Lidoka's representations. Again, no detail of this agreement has been provided so it is not clear how it addresses the issue of plot 01-058 to which Lidoka has raised particular objection

and sought a clause enabling its return to their ownership if it is not required but had been acquired either by agreement or compulsorily. The grounds for opposing CA for the benefit of Studio 338 are essentially as argued by NGP and SGN.

- 8.5.77 Tary Holdings and Raduga simply support the CA and temporary possession sought in order to support their aspiration to re-instate Studio 338 to its previous use precisely as subsisting before fire damage.
- 8.5.78 The Panel viewed the premises and land concerned during its USI [EV-009] on 11 October 2016 and ASI [EV-011] on 6 December 2017. Had Studio 338 remained in operation, we would have had to come to a conclusion as to the respective merits of the legal arguments advanced as to whether CA (and temporary possession) of land from three commercial enterprises could be justified under statute and guidance for the benefit of another commercial enterprise rather than for the direct benefit of the Order scheme. However, that is not the current situation. While a planning application has been made for reinstatement of Studio 338 as previously existing, it is by no means clear that it will be granted. Objections to it have been lodged by NGP and SGN, Lidoka Estates, HSE [REP2-009 and REP3-052] and even by the Applicant via the Mayoral GLA response [REP6-074]. The adjoining land-owners and the Applicant argue that even if the principle of the reinstatement is accepted, provision for its fire escape requirements should be made within its own site having regard to the DCO scheme. The DCO scheme removes the footway that currently runs along the A102 frontage to the fire damaged premises.
- 8.5.79 Clearly, there would be a right of appeal should planning permission be refused so that certainty over the future of the Studio 338 site may not be resolved for some time. In the interim, regardless of whether the CA and temporary possession relating to an indirect consequence of the DCO scheme could be justified, the Panel is satisfied that there is sufficient uncertainty as to the need for the relevant plots that CA or temporary possession powers cannot be justified in relation to these plots. Should permission for reinstatement exactly as previously existing ultimately be secured, the fact that the Applicant has land agreements with NGP and SGN and potentially with Lidoka Estates may enable a resolution of the issue that would then arise as there would appear to be alternative options for re-directing fire escape access that would not necessarily involve land from all three of the objecting neighbouring land-owners. However, if no such route could be secured, we are satisfied that it would become an issue for compensation.
- 8.5.80 While it may have been resolved in the land agreements between the Applicant, SGN and NGP, we note that A27 of the dDCO has been amended so that purchase of severed land would fall within its terms.
- 8.5.81 Overall in relation to these interests, we consider that the inclusion of the specified plots for CA is justified as their purposes are clearly

defined in the updated SoR [REP4-029] and the land sought is no more than is reasonably required and is proportionate, apart from those plots proposed to provide for an alternative fire escape access around Studio 338.

8.5.82 Apart from plots required to facilitate construction of that access, the temporary possession sought is also proportionate in order to effect construction of the Proposed Development including necessary accommodation works.

8.5.83 We therefore recommend that:

- (1) CA powers be not granted in relation to plots 01-058, 01-58a, 01-058b and 01-58c and that these plots be deleted from the BoR; and
- (2) temporary possession of plots 01-047a, 01-047 (part only adjoining 01-058) and 01-060a be not approved and that these plots be deleted from the BoR and from Schedule 7 to the DCO.

#### **NORTH BANK OF THE RIVER THAMES IN THE LONDON BOROUGH OF NEWHAM (LBN)**

#### **GLE Property Developments Limited and Waterfront Studios Limited (subsequently Newable Properties Limited)**

***Plots: 05-121, 05-134, 06-028, 06-029 & 06-031<sup>95</sup> 05-105, 05-117 and 05-116***

#### ***The case for the objectors***

8.5.84 The concern of the company operating the Waterfront studios and related workspaces beneath the Silvertown Way viaduct is the loss of the car park for those facilities during construction and its partial loss permanently to provide an access road to the proposed north bank Tunnel services building. They seek re-provision temporarily and permanently in a convenient location to serve the premises. They also seek to minimise impacts during construction in respect of access, dust, noise or other disturbance [RR-138 and REP1-032]. Plots 05-121, 05-134, 06-028, 06-029, 06-031 are those of particular concern.

8.5.85 Newable Properties specifically asked the Panel to undertake an ASI to understand the nature of their concerns [AS-031] with their concerns re-iterated at the CAH on 20 January 2017. The ASI sought was undertaken during the CA ASI [EV-028] held on 20 January during which the concerns were discussed with representatives of the Applicant.

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<sup>95</sup> Where there are two groups of plots listed, the first relates to Category 1 interests and the second to Category 2 interests.

### ***The response of the Applicant***

- 8.5.86 The plots of concern are required to facilitate construction of the cut and cover section of the proposed tunnel north of the River Thames and specifically to provide service access to the northern tunnel services control building. As was pointed out during the site visit, replacement car parking would be able to be provided displaced only a short distance to the west with, once construction is complete, the land permanently lost to the Studios' car park being able to be replaced primarily on land currently forming the carriageway of Dock road as this would have been re-aligned further west to follow the alignment of the Docklands Light Railway (DLR), so rationalising land uses. Traffic Management arrangements agreed with the LBN for operation during construction while the northern section of Dock road would be temporarily closed were also pointed out at the site visit. It has been calculated that the capacity of the signal controlled junction between North Railway Arches Woolwich road and the A1020 Silvertown Way/Woolwich road would be sufficient to allow for all movements that would be necessary during the construction period.
- 8.5.87 In the Applicant's Closing Statement [REP7-035] it is noted that: *'negotiations are at an advanced stage and, as such, an agreement between these parties and the Applicant is expected to be completed by or shortly following the close of the Examination. When the Agreement is completed, Waterfront Studios Limited and Newable Property Developments Limited will withdraw their objections to the Scheme and will inform the Secretary of State that they have done so'*<sup>96</sup>.

### ***The Panel's conclusions***

- 8.5.88 Our conclusions in relation to Newable Properties' representations follow consideration of the case of the LBN as the sites and issues are interrelated.

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<sup>96</sup> paragraph 7.4.1 page 59

## **London Borough of Newham (LBN)**

***Plots: 05-044\*, 05-044a, 05-045\*, 05-045a\*, 05-048, 05-048a, 05-408b, 05-085, 05-091\*, 05-095, 05-099, 05-102, 05-105, 05-108, 05-108a, 05-112, 05-113\*, 05-120\*, 05-120a\*, 05-120b\*, 05-121, 05-124, 05-128\*, 05-133\*, 05-133a\*, 05-134, 06-0236\*, 06-025\*, 06-026\*, 06-028, 06-029, 06-030\*, 06-031, 06-041\*, 06-043, 06-046\*, 06-064\*, 06-066\*, 06-068, 06-071, 06-072, 06-075, 06-092a\*, 06-095, 06-096, 06-098, 06-098a, 07-003\*, 07-004, 07-005, 07-006, 07-007, 07-007a, 07-007b, 07-008, 07-009, 07-011, 07-012, 07-016, 07-018\*, 07-022, 07-027, 07-028 and 07-029(\* denotes 'as highway authority') and 05-041, 05-116, 05-117, 07-010 and 07-026***

### ***The case for the objectors***

- 8.5.89 In the initial representations from the LBN support for the concerns of GLE Property Developments Limited and Waterfront Studios Limited (subsequently Newable Properties Limited) was expressed as the LBN is the freeholder of the plots concerned [RR-307 and REP1-013]. No further comment was made leaving negotiations to the agents of their tenants. Nor were any specific comments made on any other land acquisition from LBN, such as in relation to the land being held as local highway authority.

### ***The case for the Applicant***

- 8.5.90 As indicated in the final CA update [REP7-045], the Applicant has kept LBN informed of its negotiations with Newable Properties Limited (as described in the previous sub-section of this report). The report states in relation to land acquisition in respect of LBN interests that: *'The agreement is at an advanced stage and it is expected to be completed shortly after the close of the examination'*<sup>97</sup>

### ***The Panel's conclusions in relation to GLE Property Developments Limited and Waterfront Studios Limited (subsequently Newable Properties Limited) and the London Borough of Newham (LBN)***

- 8.5.91 We noted that agreement was close to being agreed between Newable Properties and their landlord, LBN, at paragraphs 8.5.87 and 8.5.90. We viewed the plots concerned at the CA ASI [EV-028]. We are satisfied that convenient alternative parking provision and access should be available during and following construction.
- 8.5.92 Although final agreement between the Applicant and these interest had not been reached by the close of the examination, we are nonetheless satisfied that the relevant plots should be included for CA as a clear purpose for each plot is specified in the updated SoR [REP4-

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<sup>97</sup> Page 54 Appendix 1 to [REP7-045]

029] and the land sought is no more than is reasonably required and is proportionate.

- 8.5.93 Likewise, the temporary possession sought is also proportionate in order to effect construction of the Proposed Development including necessary temporary accommodation works.

**The Port of London Authority (PLA)**

***Plots: 04-011, 04-016 to 04-020, 04-023 to 04-025, 04-027, 04-028, 04-030a-b, 04-031, 04-032 to 04-035, 05-001 to 05-006 & 06-001 and 05-032 to 05-033, 05-074, 05-074a and 05-088***

***The case for the objectors***

- 8.5.94 In their RR [RR-285], the PLA pointed out that it is the statutory body responsible for the conservancy of this part of the River Thames and the administration of navigation on the river. The area of the river affected by the proposed works is within the PLA's jurisdiction and the riverbed is owned by the PLA.
- 8.5.95 They raised a substantial number of detailed legal points concerning the drafting of the dDCO, in particular suggesting that the rights sought within the river area are excessive. The initial comments were followed up in subsequent submissions. In their WR [REP1-053] and subsequently their late WR summary (accepted by the Panel) [REP1-184], it is argued that too much of the river is shown as subject to CA or temporary possession powers, the latter being also possible for too long a period and that the extinguishment of rights could affect navigation and moorings.
- 8.5.96 Much detailed negotiation took place between the PLA and the Applicant during the course of the Examination with submissions taking place at many of the hearings though not expressly pursuing matters in respect of particular plots but primarily in relation to the wording of the dDCO. We have reported the detail of the outcome of negotiations in other parts of this report, in particular in Chapter 5 and in Chapter 9 in relation to the wording of the dDCO. The PLA's final submission at D7 [REP7-019] concentrated heavily upon the need to safeguard sufficient wharves and on the need to find replacement sites for displaced river users like Tarmac and Keltbray. They pointed out that the Peruvian Wharf cannot be regarded as a solution as it is contractually committed to a rival waste, aggregates and ready-mixed concrete operator. They also appended the objections that the PLA and wharf users had made to the draft Opportunity Area Planning Framework (OAPF) which had yet to be finalised. Their comments on responses to the Panels SWQ and other comments, received at D5 [REP5-013] had detailed their concerns over the proposed access to Peruvian Wharf.

### ***The case for the Applicant***

- 8.5.97 The plots owned by the PLA are those comprising parts of the River Thames, though in respect of some plots on the north bank, where CA is sought for subsoil or to create a new access to Dock Road, these plots have rights held by the PLA. The Applicant engaged with the PLA throughout the Examination. Substantial amendments were made to A17, A23, A30, A47 and A53 and to the Protective Provisions (PP) in favour of the PLA in Schedule 14 as well as to corresponding descriptions of works within Schedule 1. These related to river use during construction, the basis for compensation for temporary possession, the nature of environmental assessment, protection of the PLA in relation to navigational risk and protection for the PLA in relation to tunnel design including limits of deviation and specification of depths. These matters are all believed agreed. The only outstanding matters known are the basis for compensation for CA of subsoil, with the PLA seeking a share of charging receipts and in relation to the impacts on wharves including impacts on existing tenants and access to the Peruvian wharf and long-term maintenance of the 'Not always afloat but safely aground' (NAABSA)<sup>98</sup> berth.
- 8.5.98 In their final Closing Statement [REP7-035, para 7.5.4], the Applicant states that *'there can be no basis whatsoever for the PLA's claim to receive a percentage of user-charging revenue following the compulsory acquisition of its land required for the [DCO] Scheme. The PLA will receive compensation for that acquisition in accordance with the established statutory compensation code and that is the sum total of its entitlement for the compulsory acquisition.'* In this the PLA is in no different position to any other land owner whose land is compulsorily for the DCO scheme. In earlier submissions, the Applicant had pointed out that river users like Keltbray and Tarmac Euromix have only short leases knowingly taken out to expire before the anticipated likely construction date, so that there is no obligation to re-locate these businesses.

### ***The Panel's conclusions in relation to the Port of London Authority (PLA)***

- 8.5.99 We have noted the extensive amendments made to the text of a number of articles within the dDCO, the insertion of an additional article on river restrictions and the substantial amendment to the PPs in Schedule 13 for the protection of the PLA that the Applicant made in order that the rights, responsibilities and powers of the PLA are respected. We note that it appears that these matters are agreed and that no objection appears to exist in relation to any of the particular plots in which the PLA has an interest save to the extent that in relation to river area, the PLA disputes the basis on which

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<sup>98</sup> Not Always Afloat But Safe Aground



compensation may be payable in relation to the CA of subsoil and the CA involved in the imposition of rights.

- 8.5.100 We agree with the final comments of the Applicant as recorded in paragraph 8.5.98 above from [REP7-035, para 7.5.4], that there should be no basis for determining compensation outside the Compensation Code. If agreement cannot be reached on the quantum of compensation, provision exists for the matter to be referred to the Upper Tribunal (Lands Chamber) for resolution<sup>99</sup>.
- 8.5.101 On our CA ASI on 20 January 2017 we were shown the access to Peruvian Wharf and had explained to us the issue that could arise during construction when access would not be available through the northern end of Dock road. It seems to us that ensuring that there would be a swept path in both directions available for heavy goods vehicles (HGV) through the columns beneath the DLR is not a matter within the purview of the DCO as the location of the proposed new access for Peruvian Wharf is outside the Order limits and the existing access to Peruvian Wharf does not have any limitations on turning movements. The issue of ensuring the efficacy of the proposed new access during construction (or at any time) would appear to be a matter between the PLA, the developers of the frontage to North Railway Arches Woolwich Road and the LBN as planning and highway authority.
- 8.5.102 As for the more general concerns expressed in the PLA's final submission at D7 [REP7-019], over the safeguarding of 'safeguarded wharves' and ensuring that they are restored to active future use for river traffic after temporary possession, as well as the need to secure relocation of existing river users being displaced, it seems to the Panel that these are not matters relating to the CA of PLA land but rather issues of concern in relation to their powers and duties. Nevertheless, we have considerable sympathy for the points raised. In section 5.14 of this report, we have expressed the view that the Applicant along with other relevant Mayoral bodies could have been and still should be more proactive in seeking to secure alternative wharves for displaced river users whether or not there is any legal obligation to relocate occupants at the expiry of short-term leasehold interests. An objective for the DCO scheme is to *'Support economic... growth, in particular in east and southeast London'*<sup>100</sup>. Such action would be consistent with this objective. Moreover, if Mayoral bodies are seeking to redevelop a 'safeguarded wharf' for a housing led mixed use development, in conflict with the current London Plan, we would expect action to be taken to reactivate a further replacement wharf in the locality, given the evidence from PLA of the non-availability of space at Peruvian Wharf.

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<sup>99</sup> Paragraph 30 of the DCLG Guidance related to procedures for the compulsory acquisition of land.

<sup>100</sup> Objective PO3.

- 8.5.103 This said, we recognise that these actions fall outside the provisions of the dDCO that is before us and that we are consequently unable to put forward formal recommendations to address these issues. Nevertheless, we consider that the arguments advanced by the PLA are valid and should be given support.
- 8.5.104 As a solution to these issues cannot be secured simply through consideration of whether to accept that CA and temporary possession of these plots is justified, we have to conclude that there is no reason why the CA powers sought in relation to these plots should not be granted since there is a clearly defined reason for each plot specified in the updated SoR [REP4-029] and the land sought is no more than is reasonably required and is proportionate.
- 8.5.105 Likewise, having regard to the safeguards built into the final dDCO with regard to the river area, the temporary possession sought is also proportionate in order to effect construction of the Proposed Development including necessary temporary accommodation works.

### **Tarmac Limited**

***Plots: 05-023, 05-029, 05-030, 05-036, 05-056, 05-056a, 05-070, 05-070a, 05-073, 05-078 and 05-083***

### ***The case for the objectors***

- 8.5.106 Tarmac Limited trading as Euromix is one of the river-users that the PLA are concerned over. In their RR [RR-192], Tarmac point out that there is no actual reason why they should not be able to trade during the construction period as their batching plant and Aggregates terminal at Royal Victoria Dock Entrance Wharf are not actually required for the construction of the Proposed Development but are merely indicated as required for temporary possession for the north bank work area<sup>101</sup>. The access to Dock road would be severed, but this could be reinstated temporarily within the Order Limits, as intended permanently for the post construction period. Loss of their site would not just be detrimental to the company. It would prevent there being a local river-served ready-mixed and aggregates supplier already available on site. It would also would limit north bank supplies and potentially reduce river usage contrary to local planning policy and PLA objectives.
- 8.5.107 These points were re-iterated and expanded in their WR [REP1-090]. In addition to making the points concerning unnecessary CA or temporary possession of the site and the conflict with policies to safeguard wharves and concrete batching plants, objections were made in relation to aspects of the proposed user-charging regime.

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<sup>101</sup> Reference was made in the Written Representations to the potential conflict between use of their wharf and the proposed temporary wharf extending out from Thames Wharf.

### ***The case for the Applicant***

- 8.5.108 The Applicant accepts that the plots concerned are partly for temporary possession for river wall works and the construction compound and partly to acquire subsoil and rights to protect the bored tunnel section of the Proposed Development, but some are required to construct the cut and cover section and to create a new access to a re-aligned Dock road. They accept that within the Construction Method Statement (CMS) [APP-046]<sup>102</sup> a ready-mixed concrete batching plant is shown elsewhere within the north bank work area and that they propose to use river transport for aggregates via Thames Wharf. They also accepted in resisting Panel suggestions that the CMS should be made a certified document that it illustrates only one possible layout of the work site.
- 8.5.109 As referred to above in relation to the PLA objections, they pointed out that Euromix occupy the site on a short-term tenancy that will expire before construction is due to start, one which Euromix entered into on this basis. Thus, the Applicant has no obligation to re-locate or retain their use. With regard to the point that a river-served concrete batching plant is intended within the work site, they stressed the need to retain flexibility on commercial grounds as to the prospective operator so that the main contractor could select sub-contractors on a competitive basis. Nevertheless, at hearings they did suggest that Euromix could relocate to Peruvian Wharf, notwithstanding the commercial and contractual arrangement with a rival operator on that site.

### ***The Panel's conclusions relating to Tarmac Limited***

- 8.5.110 Tarmac trading as Euromix are one of the existing users proposed to be displaced by the Proposed Development in this case from a wharf, the Royal Victoria Dock Entrance Wharf, which is not a 'safeguarded wharf. We accept that they are on a short lease that expires prior to the anticipated commencement of development so that the Applicant is not under any obligation to re-locate their operations. They are however, a river served business that the PLA, as well policies of the London Plan and the National Planning Policy Framework (NPPF), seek to encourage or safeguard. Moreover, we accept the argument advanced by Tarmac that they would not need to be displaced from the work site because they could provide the necessary river-served concrete batching plant that is intended to be operated from within the work site, albeit shown in the non-binding CMS elsewhere within the work site, where it would not be affected by the works to vary the access to Dock road and undertake construction of the northern cut and cover section of the proposed tunnel. The proposed temporary jetty extending out from Thames Wharf to ensure that aggregates and waste can be unloaded or loaded at all states of the tide would also

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<sup>102</sup> Document 6.3 ES Appendix 4A.

seem to affect continued operation of the Royal Victoria Dock Entrance Wharf during the construction period.

- 8.5.111 We accept that there may be commercial considerations as to why a competitive selection is appropriate for the batched concrete sub-contractor, but it is ironic that the Applicant has ignored contractual commercial considerations in suggesting that all displaced river users could simply be accommodated at Peruvian Wharf.
- 8.5.112 If the Applicant's selected contractor chooses not to utilise Tarmac as their sub-contractor, then the general comments noted in the previous sub-section of our report relating to the PLA would be applicable.
- 8.5.113 Consequently, we have to conclude that there is no reason why the powers of CA sought in relation to these plots should not be granted since there is a clearly defined reason for each plot specified in the updated SoR [REP4-029] and the land sought is no more than is reasonably required and is proportionate.
- 8.5.114 Likewise, the temporary possession sought is also proportionate in order to effect construction of the Proposed Development including necessary temporary accommodation works.

**ASD Limited (trading as Kloeckner Metals UK)**

***Plots: 05-047, 06-010, 06-005 & 06-013 and 05-043, 05-054, 05-059, 05-075, 05-089, 05-100, 05-122, 05-122a and 06-022***

***The case for the objectors***

- 8.5.115 In their RR [RR-288], ASD, while not opposed to the principle of the DCO scheme, expressed concern over the temporary possession sought of part of their site, which is part freehold and part leasehold, for use as part of the north bank construction compound. In particular the company questioned whether the alternative access proposals during the construction period and indeed the proposed future new access to the re-aligned Dock road would enable them to continue their metal trading activities. Comment was also made in relation to redevelopment possibilities. These concerns were re-iterated and more fully detailed in their WR [REP1-031].
- 8.5.116 At D4 [REP4-004], ASD indicated that negotiations were continuing with the Applicant but agreement had not yet been reached on all matters. Prior to the final CAH hearing on 29 March 2017, the following position statement was agreed with the Applicant: *'Transport for London and ASD Limited have been in on-going discussion to reach an agreement in relation to mitigating the impacts of the temporary possession of ASD's land resulting from the Silvertown Tunnel. Good progress has been made in these discussions, with specifications for temporary and permanent access provision to ASD's site almost agreed. The agreement remains outstanding due to further discussion needed*

*on some detailed legal points. However the parties are working on the basis that an agreement should be in place by the end of the Examination. Until an Agreement is reached, ASD's objections to the Scheme remain. However, as stated above, both sides consider that matters between the parties can be resolved such that ASD's objections will be able to be withdrawn by Deadline 7.*<sup>103</sup>

8.5.117 The final ASD submission [REP7-052] dated 11 April 2017, stated that they expected to sign the agreement on 18 April 2017.

***The case for the Applicant***

8.5.118 The plots concerned are for the most required for temporary possession for the north bank worksite and access to the temporary jetty and wharf for handling materials and waste from the construction. This applies to the plots where ASD have a Category 1 interest though there are a few plots where they have a Category 2 interest where CA is involved to in relation to the bored section of the proposed tunnel.

8.5.119 In the Applicant's Closing Statement [REP7-035, para 7.4.1] it is stated that: *'negotiations (including matters regarding site access) are at an advanced stage and, as such, an agreement between ASD and the Applicant is expected to be completed by the close of the Examination. When the Agreement is completed, ASD will withdraw its objections to the Scheme and will inform the Secretary of State that it has done so. The following position statement has been agreed between the Applicant and ASD:*

- *'Transport for London and ASD Limited's discussions have been on-going since the hearing in respect of reaching an agreement in relation to mitigating the impacts of the temporary possession of ASD's land resulting from the Scheme.*
- *The agreement is not yet complete due to completion technicalities; however the parties are working on the basis that an agreement should be in place by the end of the Examination.*
- *Until an Agreement is reached, ASD's objections to the Scheme remain. However, as stated above, both sides consider that matters between the parties can be resolved such that ASD's objections will be able to be withdrawn by the end of the Examination.'*

***The Panel's conclusions in relation to ASD Limited (trading as Kloeckner Metals UK)***

8.5.120 We noted at paragraphs 8.5.116 and 8.5.119 of this report that agreement had almost been reached between ASD and the Applicant

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<sup>103</sup> Page 16 REP6-074

over their access to the western end of the 'safeguarded' Thames Wharf. We viewed the access arrangements for the ASD during our CA ASI, both those currently existing, the temporary arrangements proposed during construction and the modified final scheme of access to the proposed re-aligned Dock road.

- 8.5.121 We are satisfied that workable access arrangements should be available at all times. Whether or not the anticipated agreement is reached, we are therefore satisfied that the relevant plots can be included for CA as a clear purpose for each plot is specified in the updated SoR[REP4-029] and the land sought is no more than is reasonably required and is proportionate.
- 8.5.122 Likewise, the temporary possession sought is also proportionate in order to effect construction of the Proposed Development including necessary temporary accommodation works.

### **Thames Water Utilities Limited (TWUL)**

#### ***Plots: 05-033 & 06-078***

#### ***The case for the objectors***

- 8.5.123 In their RR [RR-296], TWUL point out that they are not opposed to the principle of the dDCO but wish to ensure adequate provisions are included in the dDCO to protect TWUL's existing and future assets, and TWUL's ability to comply with its statutory obligations. A large number of detailed points are flagged-up for attention in the wording of various articles and that of the PPs in Schedule 13. These points were re-iterated, justified and detailed more fully in their WR [REP1-042]. At D2 in their post-hearing submission [REP2-001], TWUL clarified that their concerns related not just to these two parcels where temporary possession is required of an access and outfall from one of their pumping stations but to all their apparatus within the Order limits, though by D4 in their response to the Panels SWQ [REP4-009], TWUL were able to report progress on negotiations. This was confirmed at D6 in their post-hearing submission [REP6-020] with details of the key matters resolved.
- 8.5.124 At D7 TWUL submitted a joint statement between themselves and the Applicant [REP7-008]. In this it is stated that the wording of the dDCO is now agreed including that of the PPs. Technical details of certain diversions of TWUL's apparatus that the Applicant would like TWUL to use its statutory powers to carry out need to be included in the agreement intended between the parties, but this is not expected by either party to be controversial.
- 8.5.125 The joint statement [REP7-008, para 2.4] states: *'In this light, the parties are confident that formal agreement will be reached shortly following the close of the examination. As soon as reasonably practicable following the reaching of an agreement, TWUL will write to the Secretary of State informing him that its representations are withdrawn, such that this can be taken into account during the*

*decision-making process. However, absent this formal agreement TWUL's outstanding representations remain.'*

***The case for the Applicant***

- 8.5.126 The particular plots identified relate to temporary possession being required to effect improvement to the river wall and to the Tidal Basin roundabout, though the Applicant accepts that TWUL apparatus is also involved in utility diversions that are necessary as a consequence of re-configuring highways as noted in Section 8.3 of the SoR [REP4-029]. It has always been the intention of the Applicant to agree necessary works and related safeguards with Statutory Undertakers.
- 8.5.127 In their Closing Statement [REP7-035], the Applicant states that TWUL is currently in the process of concluding advanced discussions on outstanding matters with the Applicant. The principles and terms of the agreement are largely agreed, although have not formally been secured, this being proposed to be done outside of the dDCO. The parties are confident that agreement will be reached shortly after the close of the examination, at which time TWUL will be able to inform the SoS that its outstanding representations are withdrawn. This position is more fully set out in the joint statement submitted by TWUL [REP7-008].

***The Panel's conclusions in relation to Thames Water Utilities Limited (TWUL)***

- 8.5.128 In paragraph 8.5.125 of this report we noted that agreement in principle has been reached between the Applicant and TWUL in relation to the temporary possession of these two plots and also in relation to all instances where their plant may require to be diverted in relation to the proposed highway works. Formal agreement is anticipated after detailing of some technical points.
- 8.5.129 Whether or not agreement is finally reached, we are satisfied that both plots can be included for temporary possession as a clear purpose for each plot is specified in the updated SoR [REP4-029] and temporary possession would be proportionate to carry out necessary accommodation works to facilitate the Proposed Development.

***Quintain Limited (Subsequently Keystone Silvertown Homes Limited, then Silvertown Homes Limited) (SHL)***

***Plots: 05-009 to 05-011, 05-014 to 05-030, 05-032 to 05-034, 05-036 to 05-038a, 05-040 to 05-042, 05-044, 05-044a, 05-046, 05-052, 05-055 to 05-056a, 05-066, 05-066a, 05-070, 05-070a, 05-073 to 05-074a, 05-078, 05-083, 05-088 and 05-091***

***The case for the objectors***

- 8.5.130 In their RR [RR-329], while not objecting in principle, Quintain suggested that certain details of the scheme could significantly delay their intended development of the Carlsberg-Tetley site, that the

overall intended land-take including temporary possession is excessive and thus that all the CA proposed may not be justified under s122 of the PA2008 and 2013 DCLG guidance. Their case was developed in their WR [REP1-040]. In this they drew attention to their joint venture with GLA Land and Properties Limited (GLAP) that would be seeking to bring forward a residential mixed use development in line with the emerging OAPF. They disputed aspects of the Proposed Development on the basis that it would not fit in with their current master-planning. And they also disputed certain aspects of the Environmental Statement [APP-031 to APP-085] submitted with the application, particularly because it did not require re-use of excavated material on-site. Nevertheless, they said they were in constructive discussions with the Applicant so declined attendance at early CAHs.

8.5.131 In their D4 submission [REP4-007], now trading as SHL, it was pointed out that agreement had not been reached so that they would attend the final CAH on 29 March 2017. In their late submission at D5 [REP5-032], they detailed their arguments as to the environmental advantages of re-using excavated material on-site, supported by a consultant's study on how it could be stored on-site or on their adjacent land-holding, yet still arguing that the land-take is excessive. They accepted that the OAPF had not been adopted but suggested that the Applicant should give weight to it as a document from within the Mayoral family, while at the same time they argued that their comments were not wholly determined by a 2014 master plan. Notwithstanding these comments agreement was noted with the Applicant over the treatment of the river wall and provision of a jetty. At the CAH on 29 March 2017, SHL and the Applicant disagreed over volumes of re-usable spoil likely to be available and the potential for storage on and adjacent to the Order land.

8.5.132 In their post-hearing submission [REP6-003] SHL provided drafts of suggested requirements concerning the storage and re-use of excavated material on the Carlsberg-Tetley Site, the Diverse Ventures Site and the Western Development Site together with early release of the Carlsberg-Tetley site and the adjoining Diverse Ventures Site. Almost finally, their submission at D7 [REP7-013], SHL re-iterated their objections concerning land-take and phasing and re-use of spoil on the basis that there is no agreement with the Applicant.

### ***The case for the Applicant***

8.5.133 The Applicant maintains that the extent of land-take and its detail whether for CA or temporary possession, is the minimum necessary to construct the Proposed Development to appropriate engineering standards and tie-ins to local roads as agreed with the local highway authority and to recognise the needs of all land interests in the locality. The phasing in terms of use of the construction site is a matter that could be agreed with the appointed contractor under the CoCP and related subsidiary plans. Nevertheless, the requirements suggested by SHL are totally unacceptable in terms of being unduly onerous, prescriptive and inflexible. A full rebuttal to the Silvertown



Homes engineering evidence concerning spoil re-use is set out in the Applicants response to Silvertown Homes Ltd D5 representation [REP6-077].

- 8.5.134 Notwithstanding the foregoing, at D7 the Applicant was able to submit a Position Statement with Silvertown Homes Limited [REP7-046]. This is stated to have been agreed between the parties. This Position Statement in paragraph 2.2 and 2.3 states that *'the Applicant and SHL have now negotiated an in-principle resolution to the previous outstanding issues of spoil re-use and early land release. In this light, the parties are confident that formal agreement will be reached shortly following the close of the examination. As soon as reasonably practicable following the reaching of an agreement SHL will write to the Secretary of State informing him that its representations are withdrawn, such that this can be taken into account during the decision-making process. However, absent of this formal agreement, SHL's outstanding representations remain.'*

***The Panel's conclusions in relation to Quintain Limited (subsequently Silvertown Homes Limited)***

- 8.5.135 In paragraphs 8.5.130 to 8.5.133 of this report we detail the arguments between SHL and the Applicant as to whether excessive land is proposed to be subject to CA or in particular for temporary possession for the main work site and the extent to which excavated material should be retained on site for re-use to further future use or redevelopment to the statutory 2100 flood level.
- 8.5.136 At paragraph 8.5.134 above, we note the anticipated agreement between the parties. However, in case that agreement is not ultimately signed, we give our conclusions on these issues. We accept that in the interests of sustainable development it would be desirable to maximise re-use of suitable excavated material on site, but equally we accept that the draft requirements put forward by SHL at D6 [REP6-003] are unreasonable and would be unduly onerous and inflexible. More significantly, as drafted, the requirement on phasing seeks to impose an approach towards the future development of the area that does not have planning permission or even endorsement in an adopted OAPF but would in fact be contrary to the safeguarding of Thames Wharf under the provision of the current London Plan. We have instead recommended a more general requirement on re-use of excavated material on site that would require this to be agreed with the LBN.
- 8.5.137 Finally, as the draft requirement on re-use appears to accept that the desired level of excavated material could only be retained through use of adjacent sites, we are not convinced by the earlier argument of Quintain/SHL that the proposed land take is in anyway excessive.
- 8.5.138 We are therefore satisfied that the relevant plots can be included for CA as a clear purpose for each plot is specified in the updated SoR

[REP4-029] and the land sought is no more than is reasonably required and is proportionate.

- 8.5.139 Likewise, the temporary possession sought is also proportionate in order to effect construction of the Proposed Development including provision of the main worksite and necessary temporary accommodation works.

### **London City Airport (LCY)**

#### ***Plots: 05-006 & 06-001***

#### ***The case for the objectors***

- 8.5.140 In their RR [RR-294], while supporting the DCO scheme in principle, concern was expressed that there could be delays on the road network serving LCY as a consequence of construction traffic and the possibility of junction delays on that network once the DCO scheme is in use. They also wished to ensure that the proposed new cross-river bus services are secured.
- 8.5.141 LCY were represented at the Issue Specific Hearings (ISHs) on traffic and transport forecasting and modelling on 17 January [EV-033 to EV-034] and the drafting of the DCO on 19 January 2017 [EV-039 to EV-042] when, as confirmed in their post-hearing submission [REP3-055], they sought to pursue their highway concerns by commenting on the composition and powers of the STIG. LCY sought direct membership of the STIG on the basis of being an internationally significant transport undertaker in the locality<sup>104</sup>.

#### ***The case for the Applicant***

- 8.5.142 Temporary possession is only sought of these two parcels to facilitate construction work including dredging and provision of a temporary jetty to for transport of materials and waste. The Applicant maintained that the traffic assessments undertaken showed that there would be no adverse effects on road access to the airport. During construction the need to agree a Construction Traffic Management Plan with the local highway authority (LBN) would ensure that construction traffic would be confined to suitable routes and the Monitoring and Mitigation Strategy that would be overseen by the STIG under the strengthened provisions in the dDCO that would address any unforeseen traffic issues that arise in operation. The Applicant did not favour commercial undertakings being directly represented on STIG, but rather that their interests would be represented by their local authority, LBN. This approach was endorsed by LBN.

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<sup>104</sup> In none of the submissions from LCY was there any reference to their mooring rights within plots 05-006 and 06-001

### ***The Panel's conclusions in relation to London City Airport (LCY)***

- 8.5.143 In paragraphs 8.5.140 to 8.5.142 above, we note that the matters raised by LCY did not relate to the mooring rights held in the plots concerned. The safeguards that the PLA have secured within the amended dDCO in relation to navigation and moorings should safeguard any need for LCY to utilise their mooring rights.
- 8.5.144 Consequently, we are satisfied that both plots can be included for temporary possession as a clear purpose for each plot is specified in the updated SoR and temporary use of this river area would be proportionate in order to facilitate construction of the Proposed Development, including the proposed temporary jetty.
- 8.5.145 With regard to LCY's identified concerns these are not matters related to temporary possession of plots in which they have rights, but they are addressed in Chapter 5 of this report.

### ***Freysporne Limited ('Freysporne')***

#### ***Plot: 06-078***

#### ***The case for the objector***

- 8.5.146 In their additional submission [AS-040], Freysporne maintained that they had not been consulted over the DCO scheme and that temporary possession of plot 06-078, the entrance to the Pump House development in which they have an interest, would deny access to that development with adverse consequences.

#### ***The case for the Applicant***

- 8.5.147 The temporary possession of this plot is required in relation to the improvement of the Tidal Basin roundabout and Tidal Basin road. The Applicant's written summary of their representation made at the CAH on 20 January 2017 [REP3-018] confirmed, with detailed documentation, that Freysporne had been consulted. The only reason that plot 06-078 had been identified for temporary possession was to tie in the access with the intended re-surfacing of Tidal Basin Road. The temporary possession would not be likely to result in any loss of access to Freysporne's site other than on a very partial and/or short-lived basis. The Applicant's CoCP [REP6-056] contains provisions requiring access to premises to be maintained during construction of the DCO scheme.

### ***The Panel's conclusions in relation to Freysporne Limited***

- 8.5.148 At paragraph 8.5.147 above, we note the clear evidence provided by the Applicant that Freysporne were consulted and we observed this plot on our site inspections.
- 8.5.149 The proposed temporary possession of this plot is clearly necessary to affect a tie in between the access for the Pump House development

and the intended re-surfacing of Tidal Basin Road as part of the wider tie-in of the northern end of the proposed tunnel. As the Applicant notes the CoCP would ensure that any interruption to or restriction of the access to the Pump House development is kept to a minimum. The position would be no worse for Freyspore than for any highway frontager when carriageway re-surfacing is undertaken adjacent to their access.

- 8.5.150 We are satisfied therefore that temporary possession of this plot can be justified as its purpose is clearly defined and its use to enable accommodation works during the construction of the Proposed Development would be proportionate.

### **BOTH BANKS OF THE RIVER THAMES**

#### **National Grid Gas plc (NGG) and National Grid Electricity Transmission plc (NGET)(Together referred to as National Grid)**

***Plots: 01-043, 01-045, 01-045a, 01-045b, 01-078a, 01-088a, 02-018, 02-018a, b & c, 02-027, 02-028, 02-043, 02-043a, 02-054, 02-056, 02-069, 02-073, 02-078, 03-002, 03-002a & b, 03-008, 03-012, 03-019; 06-068, 06-071, 06-072, 06-094, 06-095, 06-096, 06-098, 06-098a, 07-002, 07-004, 07-005, 07-006, 07-007, 07-007a & b, 07-008, 07-009, 07-011, 07-016, 07-022, 07-027, 07-028 and 07-029***

#### ***The case for the objectors***

- 8.5.151 In their RR [RR-320], National Grid stated that its representation to the Silvertown Tunnel Order was to protect its position in light of apparatus, land and any other equipment not already identified which is within or in close proximity to the proposed DCO boundary. National Grid's primary concern is to meet its statutory obligations and ensure that any development does not impact in any adverse way upon those statutory obligations including its health and safety obligations.
- 8.5.152 However, at D1 [REP1-079], National Grid formally withdrew its representations having agreed PPs with the Applicant, confirming this in response to the Panel's FWQs.

#### ***The case for the Applicant***

- 8.5.153 The relevant plots whether for CA or temporary possession are those where it is known that National Grid Utility services may be affected whether by the Tunnel proposal itself or the alterations to local highways that are necessary to affect tie-ins. The Applicant has striven to ensure that statutory undertakers' rights and responsibilities are protected and welcomes the withdrawal of the National Grid representations.

***The Panel's conclusions in relation to National Grid Gas plc (NGG) and National Grid Electricity Transmission plc (NGET)***

- 8.5.154 At paragraph 8.5.153, we note that National Grid had formally withdrawn its representations having agreed PPs with the Applicant.
- 8.5.155 We are satisfied that the provisions agreed with National Grid adequately protect its interests and are therefore satisfied that the relevant plots can be included for CA as a clear purpose for each plot is specified in the updated SoR [REP4-029] and the land sought is no more than is reasonably required and is proportionate.
- 8.5.156 Likewise, the temporary possession sought is also proportionate in order to effect construction of the Proposed Development including provision of necessary temporary accommodation works.

**GLA Land and Properties Limited (GLAP)**

- 8.5.157 It should be noted that GLAP did submit a representation at D5 [REP5-029], but this was simply pointing out the need for an additional article within the dDCO to avoid the risk of needing separate SoS consent for land transfers between GLAP and the Applicant (TfL). No comment was made concerning any of the extensive schedule of plots held by GLAP.

**8.6 THE PANEL'S OVERALL CONSIDERATION OF COMPULSORY ACQUISITION ISSUES AND TEMPORARY POSSESSION**

**Panel's approach**

- 8.6.1 The Panel's approach to the question of whether and what CA powers it should recommend to the SoS to grant has been to seek to apply the relevant sections of the Act, notably s122 and s123, the Guidance<sup>105</sup>, and the Human Rights Act 1998; and, in the light of the representations received and the evidence submitted, to consider whether a compelling case has been made in the public interest, balancing the public interest against private loss.
- 8.6.2 The Panel understands, however, that the dDCO deals with both the development itself and CA powers. The case for CA powers cannot properly be considered unless and until the Panel has formed a view on the case for the development overall, and the consideration of the CA issues must be consistent with that view.
- 8.6.3 The Panel has shown in the conclusion set out in the preceding Chapter that it has reached the view that development consent should be granted. The question therefore that the Panel addresses here is the extent to which, in the light of the factors set out above, the case

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<sup>105</sup> Planning Act 2008, Guidance related to procedures for compulsory acquisition (CLG, 2013)

is made for CA powers and the temporary possessions powers necessary to enable the development to proceed.

- 8.6.4 Before reaching these overall conclusions, we have addressed the particular issues raised in the representations that have been made by APs that have land interests within the Order limits.

## **GENERAL CONSIDERATIONS**

### **The public benefit**

- 8.6.5 At paragraph 8.4.12 in this report, we set out the need for the scheme as summarised from the Applicant's case which we detailed more fully in Chapter 4 of this report. The reasons for promoting the scheme appear to us to provide a clear public benefit that is in accordance with the NPSNN and the policies of the development plan.
- 8.6.6 The Applicant also set seven clear objectives for the DCO scheme. These are set out in the Case for the Scheme [APP-093] and are also set out in Chapter 4 of our report. Achievement or even achievement of the greater part of these objectives would represent further public benefit for the locality and London as a whole.

### **Alternatives**

- 8.6.7 In our view the Applicant has demonstrated that all reasonable alternatives to CA, including modifications to the scheme have been explored. In the Case for the Scheme, again as summarised in Chapter 4 of this report, there is a detailed recital of the consideration of alternatives that have been evaluated and consulted upon in the development of this project over the years since 1995.
- 8.6.8 The Panel has considered this issue in terms of the selection of the site, the scale of the development proposed, the specific characteristics of the development and then in relation to the identified parcels of land, with particular attention given to plots over which APs made representations or might have been construed to have made representations.

### ***The site selected***

- 8.6.9 The options appraisal process considered non-road crossing possibilities, ie those utilising rail based public transport options and additional crossings to encourage active sustainable travel by pedestrians and cyclists. User-charging of the existing Blackwall Tunnel was also considered and one option that was assessed included such user-charging coupled with a maximisation of public transport. None of these options were assessed as capable of meeting the key objectives for the DCO scheme, particularly in respect of avoidance of congestion and resilience. Various alternative crossing points for a road crossing were also considered such as at Gallions Reach or Woolwich, but again these were not assessed as providing sufficient

relief to the Blackwall Tunnel or network flexibility to meet scheme objectives.

- 8.6.10 The decision was therefore made that a road crossing at Silvertown is required to meet the objectives for the project and this is embodied within and consistent with the policies of the London Plan and the Mayor's Transport Strategy as detailed in Chapter 4 of this report.

***The specific characteristics of the site***

- 8.6.11 The possibility of a bridge was initially considered at Silvertown, but discounted because at that location it would have to be so high to enable shipping to pass under that the approach roads would harm the residential environment of nearby developments, existing and proposed. A lifting bridge was ruled out because of the inherent delay and therefore lack of resilience every time passing shipping required it to be lifted. Once the Emirates Air Line had been constructed in 2012, choice of a bridge was no longer available. In the Environmental Statement (ES), Chapter 3 addresses options considered [APP-031]. In this, the broader options appraisal that we have just outlined was only briefly summarised, as it is set out in full in the Case for the Scheme [APP-093], before consideration is given to why a bored tunnel was selected in preference to a submerged tube, notwithstanding a slightly higher capital cost. The tie-ins to existing highways were then designed in consultation with the relevant local highway authorities.
- 8.6.12 We are satisfied that this options appraisal process has been fully compliant with the guidance on compulsory acquisition.

***The scale of the proposed development***

- 8.6.13 The Proposed Development is proposed as a twin bore tunnel in order to have the capacity to have dedicated bus and HGV lanes in each direction and yet to be capable of handling the total volume of cross-river traffic at this point should one or both of the Blackwall Tunnels have to be closed as a consequence of an incident or for any other reason. Only Dominic Leggett [RR-148] sought to challenge this conclusion by asserting that the normal daily flow in the Assessed Case could be handled by a single bore tunnel. In paragraph 4.6.53 of this report we accept the conclusions put forward by the Applicant that a proper application of Directives and Regulations would require a twin bore tunnel for safety reasons. Irrespective of that judgement a single bore tunnel could not provide the required level of resilience. Thus, we are satisfied that the scale of the Proposed Development can be justified including the provision made for sustainable transport on its approaches.
- 8.6.14 Finally, the willingness of the Applicant to put forward the five proposed non-material changes to meet concerns of land interests demonstrates that every effort has been made to pare down and adjust the requirements for CA or temporary possession.

### ***Acquisition by agreement***

- 8.6.15 The Applicant has also clearly been seeking to acquire necessary land interests by agreement and therefore wherever possible to avoid the need for CA or use of temporary possession powers. However, in order to have certainty over the timing for the development, we accept that it is also necessary for the applicant to pursue in parallel the grant of the powers sought in the dDCO.

### ***Specific plots***

- 8.6.16 At paragraphs 8.5.7 to 8.5.156 in this chapter, we have considered the position of plots over which representations were made or may be construed to have been made. Only in relation to plots in and around the premises known as Studio 338 in the Greenwich Peninsula did we find there to be an insufficient case to justify CA or temporary possession, not least because of uncertainty over the need for the purpose for which the acquisition and temporary possession was sought. Our specific recommendations over those plots is set out at paragraphs 8.5.83, but will be repeated below.
- 8.6.17 We recognise that the tests for approving temporary possession are less comprehensive than those necessary to justify CA. While hitherto in this chapter we have not always distinguished between the two categories of land that are sought under the provisions of the dDCO, we do make separate recommendations below. It should be noted that the dDCO makes full provision for compensation in relation to temporary possession, so APs are not disadvantaged by the Applicant's action in simply seeking temporary possession, a procedure that minimises the extent of CA that has to be sought.

## **8.7 THE PANEL'S OVERALL CA CONCLUSIONS**

- 8.7.1 The Panel's conclusions are as follows:

### **Human Rights Act<sup>106</sup> 1998 considerations**

- 8.7.2 A key consideration in formulating a compelling case is a consideration of the interference with human rights which would occur if compulsory acquisition powers are granted.
- 8.7.3 Article 1 of the First Protocol (rights of those whose property is to be compulsorily acquired and whose peaceful enjoyment of their property is to be interfered with) is engaged. This is because there are parcels of land where outright CA of land is proposed and, in addition, parcels of land in respect of which rights are proposed to be acquired or imposed for example to ensure that even where only subsoil is being acquired to facilitate bored tunnelling, there would be no future detriment to the structures provided below ground level. Further areas

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<sup>106</sup> <http://www.legislation.gov.uk/ukpga/1998/42/contents>



are sought for temporary possession to facilitate construction over a 4 year period and to allow for subsequent maintenance.

- 8.7.4 Article 27 of the dDCO makes general provision for the payment of compensation through the application of the Compulsory Purchase Act 1965 and A22 and A23 together with Schedule 5 make provision for compensation in relation to the acquisition of or imposition of rights and consequential injurious affection. Articles 29 and 30 make provision for compensation for loss or damage during temporary possession. In our judgement, therefore, having regard to compensation that will be payable, the interference with rights under Article 1 of the First Protocol in the grant of the CA powers sought or for temporary possession is proportionate in so far as the public benefit of the scheme that we identified at paragraph 8.6.5 and 8.6.6 of this report will outweigh the private losses that may be incurred for the generality of the scheme.
- 8.7.5 Article 6 of the Convention on Human Rights, which entitles those affected by CA powers sought for the project to a fair and public hearing of their objections, is also engaged.
- 8.7.6 However, the procedures laid down in the PA2008, related Regulations and guidance have provided repeated opportunities both during the pre-application process and during the course of the Examination for objections to be raised, heard and considered. At the outset of this Chapter of our report, we detailed the steps taken to ensure that all representations in respect of CA were thoroughly explored. Provision was made for a number of hearings to allow for oral representations to be made though in the event these opportunities were taken up by a very small number of APs. Thus, we are satisfied that the requirements of Article 6 have been fully met.
- 8.7.7 Article 8 of the Convention on Human Rights, which relates to the right of the individual to 'respect for his private and family life, his home ...' is not directly engaged because no dwellings are located on any of the land within the application site. However, there are a number of apartments in LBN and in particular within the Hoola development (which is nearing completion) that are in very close proximity to the Proposed Development. Indeed, the Hoola development is effectively on a traffic island between roads linking from the Silvertown Way viaduct to Tidal Basin roundabout junction into which the northern portal of the Silvertown Tunnel would tie into. As some works are necessary to adjust these highways in relation to the proposed scheme, they are included within the application site. Air quality and noise impacts are assessed in detail in sections 5.3 and 5.4 of this report. In noise terms mitigation is already in place for the Hoola building because the development is affected by noise from LCY and so required to have a very high standard of noise insulation. However, with regard to air quality, on the basis of the ES information, if the Proposed Development were to be brought into use in 2021 as assessed in the ES, the first floor apartments would be likely to experience a significant worsening of air quality such that Nitrogen

Dioxide (NO<sub>2</sub>) limit values would be exceeded. The Applicant maintains that if the opening date is 2023, as appears more likely, the anticipated improvement in background air quality should mean that exceedences would not occur. Nevertheless, the issue remained of concern to LBN such that we consider it necessary to recommend a strengthening of a requirement to address this matter in Chapter 9.

- 8.7.8 In such a context it could be argued that there might be engagement with A8 in respect for the home of prospective residents of those apartments. Nevertheless, in addition to any possible air filtration scheme or other means to secure acceptable air quality in any affected apartments, compensation would potentially be payable for injurious affection. Consequently, again we consider that the interference with any rights under A8 in the grant of the CA powers sought is proportionate in so far as the public benefit of the scheme will outweigh the private losses that may be incurred in relation to apartments within the Hoola building. The same would apply if such issues were to be discerned in future in relation to apartments within the Pump House development which is currently under construction adjoining the application site between the linking roads and Royal Victoria DLR station.

### **Summary**

- 8.7.9 Having regard to our conclusion in relation to all aspects of the Human Rights Act that are or may be engaged, we are satisfied that any interference with human rights is proportionate in so far as the public benefit of the Proposed Development will outweigh any private losses after allowance for compensation that will be payable.

### **Public Sector Equalities Duty (PSED)**

- 8.7.10 We ensured that the PSED was complied with in the arrangements for hearings and more generally in the conduct of the Examination. With regard to the DCO scheme and inclusion of CA provisions, we were not presented with any evidence to lead us to disagree with the Applicant's own conclusions as set out in their Health and Equalities Impact Assessment [APP-090]. This indicated that there would be no differential or disproportionate effect on children, older people or those with disabilities after the mitigation. We agree that these are the only groups defined as having '*protected*' characteristics in the Equalities Act where there might have been disproportionate or differential effects. Consequently we can see no reason in relation to the PSED why the DCO should not be made, including provisions relating to CA and temporary possession.

### **Adequacy of funding**

- 8.7.11 Paragraph 18 of the 2013 DCLG Guidance on PA2008 procedures for the compulsory acquisition of land states that applicants should be able to demonstrate that adequate funding is likely to be available to enable the CA within the statutory period of 5 years allowed under the

Infrastructure Planning (Miscellaneous Prescribed Provisions) Regulations 2010 for notice to treat to be served and that the resource implications for compensation have been taken into account. The required Funding Statement is set out in the application documents [APP-016].

- 8.7.12 This document indicates that the Applicant proposes to deliver the scheme through a 'Public Private Partnership' arrangement and we were informed during the Examination that pre-qualification procedures were underway in order that a contract might be able to be awarded to the successful bidder following the SoS's decision, should it be positive.
- 8.7.13 The Project Company would be responsible for detailed design and construction, including raising the necessary debt finance to construct and maintain the new tunnels for a period of 25 years and would receive payments from TfL over those 25 years linked to tunnel availability. The proposed user charges would be applied to offset the payments to the Project Company.
- 8.7.14 As a consequence, the document does not specify the total capital cost for the DCO scheme as this was argued during the Examination to be prejudicial to the tendering process<sup>107</sup>. It simply cites a figure for the direct costs to TfL of £107.4m TfL for implementing the scheme, including the cost of obtaining consents, the cost of procuring the scheme including the likely spend on obtaining specialist technical, legal and commercial advice, the cost associated with monitoring and mitigating the scheme effects, where necessary, and the cost related to marketing and communicating the user charges. This figure would include land acquisition costs of up to £20.7m (inclusive of risk and inflation) which would include estimates of rental payments where land is to be subject of temporary possession and compensation for disturbance. The TfL Board approved this expenditure on 3 February 2016<sup>108</sup> so that it is incorporated in the current December 2016 TfL Business Plan [REP3-026].

### ***The source of the funding***

- 8.7.15 As indicated in the preceding paragraphs, the bulk the cost of designing, constructing and maintaining the new tunnels would be met by the Project Company. TfL engaged KPMG to advise upon the funding arrangements and they developed a shadow bid financial model and they certified that the assumptions used are realistic in April 2016<sup>109</sup>.

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<sup>107</sup> In Chapter 4 of this report there is reference to notional figures quoted by the Applicant for cost and revenue in order to demonstrate VFM in terms of NPV or BCR but these were noted as being for the purpose of such calculations only.

<sup>108</sup> The Board paper is Appendix A to APP-016.

<sup>109</sup> Appendix B to APP-016.

- 8.7.16 The Applicant points out<sup>110</sup> that TfL's income base comes from a variety of sources including fares, the Congestion Charge, government grant and borrowing and is forecast to be c£10.4 billion for 2016/17. As the forecast availability payments to the Project Company are less than 1% of TfL's annual income, the Applicant is confident that any costs (after user charging income) of the scheme (including payments to the Project Co), the costs of acquiring all the necessary interests in and rights over land and the payment of any compensation claims arising from such acquisition (if required) can be met from its general income base as and when such costs become due.
- 8.7.17 We are satisfied that this is a reasonable assumption. The Applicant pointed out during hearings in response to host and other boroughs seeking to add additional purposes on which user-charges might be expended under A58, that while in early years there might be a deficit in the income from user-charges compared to the cost of availability payments to the project company, in later years there is an expectation of a surplus that would be able to be paid into TfL's general fund. We conclude therefore that sufficient funding is in prospect to cover all costs of the scheme including CA costs, payments for temporary possession and any subsequent claims for compensation.

### ***Securing the funding***

- 8.7.18 The only issue in relation to the security of funding would be if the powers for CA or temporary possession that would be granted to TfL as Applicant were to be transferred to the Project Company or other party under the provisions of A60 of the dDCO. The Applicant accepted amendments to A60, which are contained in the recommended DCO, such that the SoS's consent would be required for any such transfer of powers so that the financial standing of any transferee may be independently assessed and if necessary some form of guarantee sought.

### **The Panel's recommendations on the granting of CA powers - s122(2)**

- 8.7.19 Section 122(2) requires that the land must be required for the development to which the development consent relates or is required to facilitate or is incidental to the development. In respect of land required for the development, the land to be taken must be no more than is reasonably required and be proportionate.
- 8.7.20 The land in respect of which CA, CA of rights or CA of subsoil is sought is all required for the development to which the Development Consent sought relates or is to facilitate or is incidental to that development, save in relation to the 4 plots around the premises known as Studio 338, if our recommendation is accepted. The use for each parcel is

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<sup>110</sup> Paragraph 2.3.9 of APP-016.

specified in the final updated BoR [REP7-031] and SoR [REP4-029]. The land is no more than reasonably required and proportionate. Wherever possible temporary use only is sought (which we separately address below). Thus, we consider that a proportionate approach has been taken.

***Section 122(3) whether there is a compelling case***

- 8.7.21 In terms of s122(3), the SoS has to be satisfied that there is a compelling case in the public interest in that the public benefits to be derived from CA would outweigh the private loss by those against whom rights are to be acquired or extinguished.
- 8.7.22 The public benefit would derive from addressing the three transport problems which exist at the Blackwall Tunnel: congestion, frequent closures and a lack of resilience (owing to the lack of proximate alternative crossings). These issues lead to adverse effects on the economy and local environment. In the context of continued significant growth, these problems can only get worse, and in turn their secondary impacts will increase. Failing to address these problems could hamper the sustainable and optimal growth of London and the UK. Public benefit would also flow from meeting the specific objectives for the scheme. These include improving the resilience of the river crossings in the highway network in the east and southeast London to cope with planned and unplanned events and incidents; improving the road network performance of the Blackwall Tunnel and its approach roads; and supporting economic and population growth, in particular in east and southeast London by providing improved cross river transport links.
- 8.7.23 To offset this public benefit the private loss to those whose interests are being acquired must be considered. As a generality, we are satisfied that the compensation provisions embodied in the dDCO should offset the value of any land acquired including subsoil and of any rights extinguished or imposed and that the Protective Provisions (PP) in their finalised forms in Schedule 13 should also mitigate very substantially the extent of potential private losses for the undertakers and bodies for whom the PPs are included.
- 8.7.24 **For these reasons we have concluded that a compelling case in the public interest exists in relation to the compulsory acquisition detailed for the plots listed in the BoR and SoR with the exception of plots 01-058, 01-058a, 01-058b and 01-058c.** We recommend that these four plots be deleted from the BoR because we consider that there is too great uncertainty over the need for the specified purpose given for the intended acquisition. Consequently, the private loss would not be outweighed by the public benefit in relation to those four plots. The implementation of the DCO scheme would not be hindered by the removal of these plots from the CA sought.

### **Section 120(5)(a) and s126**

- 8.7.25 Articles 20, 22, 25 and 27 and Schedule 5 do contain provisions that modify statutory provisions in respect of CA and compensation that would be payable, but we are satisfied that the modifications are only such as to adapt the provisions to the circumstances of this dDCO. Consequently, we can see no reason why the SoS cannot make the Order in relation to these CA provisions under s120(5)(a) and s126.

### **Section 127 and s138**

- 8.7.26 In their final CA update [REP7-045], the Applicant provided a summary schedule of the situation with regard to Statutory Undertakers and electronic telecommunications code operators that are known to be affected by with the DCO scheme. We have noted that the 3 Statutory Undertakers who have made representations have either formally withdrawn their representations (National Grid and SGN) or given notice that they anticipate reaching agreement with the Applicant with a view to withdrawing their representations (TWUL).
- 8.7.27 In addition, of the remaining undertakers or operators that are listed as known to be affected, six more have confirmed that they are content with the PPs contained within Schedule 13 to the dDCO namely: BT, Colt Technology Services, Interoute, Tata, UK Power Networks and Virgin Media. Only GTC, Vodafone and Zayo have not confirmed, but none have raised any objection.
- 8.7.28 Although not listed in that document as Statutory Undertakers, in certain contexts both the Environment Agency (EA) and the PLA might be defined as Statutory Undertakers. In the case of the EA, we have recommended adoption of the PPs and the text of articles in the dDCO to be in the form sought by the EA thereby addressing the one matter not resolved with the Applicant. With regard to the PLA, we consider that the unresolved issue over compensation for CA is a matter that could be resolved, if necessary, by the Upper tribunal (Lands Chamber), while their concern over the future of 'safeguarded wharves' that are in the ownership of other persons and the relocation of existing river users are not matters that engage s127.
- 8.7.29 In relation to s127, the situation is that there is only one unwithdrawn objection from a statutory objector. However, that is anticipated to be withdrawn. Moreover, the plots specifically identified in relation to TWUL are for temporary possession only not CA, whereas the technicalities that have to be resolved are in relation to diversion of utilities within highways over which the Applicant wishes TWUL to use its statutory powers. It does not appear to us therefore that the outstanding objection relates to land that TWUL has acquired and use for the purposes of their undertaking. No evidence has been given of any serious detriment to the undertaking. Consequently we can see no reason in relation to s127 why CA powers should not be granted in relation to TWUL. Neither can we see any reason why CA powers

should not be granted in relation to s127 in relation to any other Statutory Undertaker of which we are aware.

- 8.7.30 With regard to s138 we are satisfied that the extinguishing rights or removal of apparatus of Statutory Undertakers is necessary to carry out the Proposed Development. We have noted above at paragraph 8.7.27 that most of the Statutory Undertakers known to be engaged have explicitly noted their acceptance of the PPs contained with Schedule 13 to the dDCO

### **Section 131 and s132 Open space**

- 8.7.31 We were convinced by the Applicant's reasoning as detailed in paragraphs 8.4.32 and 8.4.33 of this report that the requirements of these two sections of the PA2008 are satisfied. The CA in relation to those plots is only in respect of subsoil and the imposition of rights solely to protect the proposed underground structures. Continued use of the open space is therefore not affected.

### **Temporary Possession**

- 8.7.32 **We consider that, with identified exceptions, the proposed temporary use of the plots specified in the BoR and the SoR is generally justified in order to secure the construction and maintenance of the Proposed Development sought in the dDCO.**
- 8.7.33 The Articles of the dDCO concerning temporary possession (A29 and A30), provide for compensation as well as reinstatement at the end of the specified temporary use.

### ***Human Rights Act Considerations***

- 8.7.34 The powers sought to authorise temporary use of land do represent an interference under the Human Rights Act 1998 with rights enshrined in Article 1 of the First Protocol. However, the interference is lesser than that which would arise if CA were to have been sought in relation to these plots. Moreover, the power to take temporary possession is intentionally used to minimise the extent of CA that would otherwise be required. As compensation is payable under Articles 29 and 30 in addition to compensation that might otherwise arise from injurious affection or for other reasons, we consider that the interference with rights under Article 1 of the First Protocol in the grant of powers sought for temporary use is proportionate in so far as the public benefit of the scheme will outweigh the private losses that will be incurred. We also consider that the requirements of Article 6 of the Convention in relation to a fair hearing have been met in respect of consideration of the proposals for temporary possession.

### ***Exceptions***

- 8.7.35 An exception to these general conclusions does, however, relate to three plots that are proposed for temporary possession in order to construct a fire escape route around Studio 338. Since we have

concluded that a compelling case in the public interest does not exist in relation to the CA of the four plots required for the fire escape route itself, it follows that we do not consider temporary use of land to facilitate construction of the walkway on those plots would be justified.

- 8.7.36 Consequently, we recommend that temporary possession of plots 01-047a, 01-047 (part only adjoining 01-058) and 01-060a be not approved and that these plots be deleted from the BoR and from Schedule 7 to the DCO.



## **9 DRAFT DEVELOPMENT CONSENT ORDER AND RELATED MATTERS**

### **9.1 INTRODUCTION**

- 9.1.1 As part of the application, The Applicant submitted a draft Development Consent Order (dDCO) [APP-013] accompanied by an Explanatory Memorandum (EM) [APP-014], which explained its provisions and the reasoning behind the drafting.
- 9.1.2 As the Panel held an issue specific hearing (ISH) [EV-004 and EV-006] on the wording of the dDCO at the outset of the Examination and raised a substantial number of first written questions (FWQ) on the detail of the dDCO, the Applicant put forward an amended dDCO, including a version with track changes at Deadline (D)1 (15 November 2016) (Revision 1) [REP1-095 and REP1-096] together with an amended EM, again including a track changes version [REP1-097 and REP1-098] and the supporting submission of a Document Explaining DCO Amendments [REP1-181]. The Panel had requested that such a document should accompany every iteration of the dDCO.
- 9.1.3 There was further revision at D2 (14 December 2016) with the submission by the Applicant of a further amended dDCO with a track changes version (Revision 2) [REP2-021 and REP2-022], EM including a track changes version [REP2-023 and REP2-024] and the supporting updated submission of a Document Explaining DCO Amendments [REP2-033]. Further iterations followed during the Examination. At D3 (27 January 2017), following the second ISH into the wording of the dDCO, the Applicant submitted a dDCO with a track changes version (Revision 3) [REP3-003 and REP3-004] together with amended EM including a track changes version [REP3-005 and REP3-006] and the supporting updated submission of a Document Explaining DCO Amendments [REP3-019]. In response to our second written questions (SWQ) that again included a number of questions on the detail of the dDCO, the Applicant submitted at D4 a further revision of the dDCO, with track changes [REP4-025 and REP4-026] (Revision 4), amended EM including track changes [REP4-027 and REP4-028] and the supporting updated submission of a Document Explaining DCO Amendments [REP4-043].
- 9.1.4 At this point in the Examination, as a Panel we would have wished to issue a near finalised version of our preferred dDCO. However, because the Applicant was still in substantive discussions with the host Boroughs and a number of Statutory Consultees and other interested Parties (IP) over issues that would affect the wording of the DCO, we were only able to issue an interim preferred dDCO [PD-013] giving our conclusions on certain disputed matters on 20 March 2017 so that these could be considered at the further ISH into the wording of the dDCO [EV-049 and EV-056] that was held on 29 March 2017. At our request the Applicant produced an interim update of the dDCO (which was called version 5.5 during consideration at that hearing), but a consolidated amended dDCO was submitted by the Applicant at D6 (5

April 2017). The Applicant entitled this D6 dDCO, including a track changes version as Revision 5 [REP6-038 and REP6-039] with the accompanying EM, including track changes [REP6-040 and REP6-041] and the supporting updated submission of a Document Explaining DCO Amendments [REP6-071].

- 9.1.5 The Applicant's final version of the dDCO, including a track changes version (Revision 6) [REP7-026 and REP7-027] was submitted at D7 (10 April 2017) with the accompanying EM, including a track changes version [REP7-029 and REP7-030] and the supporting updated submission of a Document Explaining DCO Amendments [REP7-034].
- 9.1.6 It is upon this final version offered by the Applicant that we have based our recommended DCO (rDCO) that is set out as Appendix D to this report. In the rDCO we have included the further amendments that we consider to be necessary to ensure that all necessary mitigation is secured and also that the rDCO is internally consistent and follows established drafting precedent.
- 9.1.7 At the end of this chapter in section 9.10, we detail further amendments that the Secretary of State (SoS) may wish to consider should he be minded to make the DCO in the absence of signed and sealed obligations under relevant enabling legislation with any or all of the host boroughs. In that section we assess both the content and the necessity for those undertakings that were submitted in draft to the Examination.

#### **Summary of changes made during the Examination by the Applicant**

- 9.1.8 As referred to in the preceding paragraphs, there were successive revisions to the dDCO submitted at the time of the application during the Examination. The changes at Revision 1 [REP1-096] comprised a number of stylistic or minor changes to the drafting in various definitions in Article (A) 2. These included the definitions of 'commencement' to exclude only activities that would not give rise to significant environment effects and to the 'river area' so it only refers to the area required for Work No 20. These changes, as well as those in the rest of the dDCO (Revision 1), reflected suggestions made by the Panel in our FWQs or identified by the Applicant as being required, including to the preamble to refer to Examination by a Panel.
- 9.1.9 In A5 the vertical limits to deviation were reduced beneath the river Thames to safeguard navigation. Further safeguards for river users were introduced by way of insertion of a notice period in A17. Clarification of the rights of highway authorities was also made in A11, while there were a number of technical amendments to the articles governing Compulsory Acquisition (CA) and temporary possession including requiring the purpose for such possession to be specified in A30. A number of amendments were made to the articles referring to byelaws and other operational measures proposed in both the proposed tunnel and existing Blackwall Tunnel. These included

reducing the number of provisions that would apply from the commencement of development as opposed to the proposed bringing into use of the new tunnel or the start of its construction. Article 52 was strengthened to ensure that Part 5 of the dDCO must be exercised in accordance with the 'Charging Policies and Procedures'<sup>111</sup>, while A58 was amended to ensure that the Marine Management Organisation (MMO) is notified of any transfer of the benefit of the Order. The provisions of A65 were also amended to ensure a greater degree of input from host and other Boroughs into the 'Silvertown Tunnel Implementation Group' (STIG). The Greater London Authority (GLA) was also added into its membership. A number of detailed definitional amendments were made in Schedule 1 and a number of requirements strengthened in Schedule 2. There were a number of other amendments to the schedules, most significantly to reflect ongoing discussions over Protective Provisions (PP) for Statutory Undertakers in Schedule 13.

9.1.10 In the dDCO (Revision 2) [REP2-022], there were fewer amendments. Article 29 and Schedule 13 were amended to reflect ongoing discussions with the Port of London Authority (PLA) over the terms for compensation in relation to temporary possession. The most fundamental change was to A58. The Panel had expressed concern that the transfer of benefit provisions could have resulted in responsibility for compensation issues arising from the CA included within the dDCO passing to a contractor or other body that might not have sufficient funds to meet the financial commitments that would arise from the making of the dDCO. The amendment requires the approval of the SoS for transfer of the benefit of the CA provisions of the DCO. As a further change to A65 (and consequentially to definitions in A2), Highways England (HE) were added into the membership of STIG in view of their responsibility for the Dartford crossing. Otherwise changes were to correct errors and update references to documentation.

9.1.11 In the dDCO (Revision 3) [REP3-004] amendments were more extensive as they followed consideration at the second ISH into the wording of the dDCO [EV-026 and EV-039 to EV-042] that was held on 19 January 2017 and other hearings such as the ISH into Traffic and Transport Modelling [EV-024 and EV-033 to EV-034] held on 17 January, the ISH into Air Quality, Noise and Other Environmental Issues [EV-025 and EV-035 to EV-038] held on 18 January and the CA hearing (CAH) [EV-027 and EV-043] held on 20 January. Further amendments were made to definitions in A2. These included an initial caveat at the Panel's request 'unless otherwise stated' because there are other definitions within schedules to the Order, and further amendment to the definition of 'river area' to distinguish between Work 20A and Work 20B, with this also reflected in amendments to

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<sup>111</sup> The relevant policy document was re-named to this title during the Examination as a consequence of the merger of two previously separate documents that had to be read together.

Schedule 1. In A4, the word 'adjacent' was replaced by 'adjoining' to reflect current legislative practice and to define the area over which powers might be exercised more precisely, with areas of the river Thames outside the order limits also expressly excluded.

- 9.1.12 Further changes were made to A17, A29 and A30 to reflect ongoing negotiations with the PLA in relation to works that may affect the river area, with a change also to A39 to make clear that the provisions of the PLA Act 1968 would apply to maintenance activities after the initial 5 year maintenance period. In A43 a definition of 'emergency' was inserted as requested by the Royal Borough of Greenwich (RBG) and in A58 a further amendment was made to ensure that the need for SoS approval of transfer of benefit applied to the temporary possession provisions as well as to the CA provisions. A number of largely technical amendments were made to requirements in Schedule 2. Some are substantive such as those to Requirement (R) 12 to ensure retention of mitigation measures including low-noise surfacing. A new R13 requires adherence to the Bus Strategy set out in a separate document that would be certified. In this way proposed cross river bus services would be secured. Schedule 9 (the Byelaws) was amended so it can be read as a standalone document and in Schedule 12 (the Deemed Marine Licence (DML)) coordinates of the area covered were added as requested by the MMO, as well as other amendments being made to reflect ongoing discussions with the MMO, PLA and Environment Agency (EA).
- 9.1.13 The dDCO (Revision 4) [REP4-026] also included extensive amendments as this took account of the Panel's SWQ as well as ongoing discussions with IPs. In A2 further definitions were added including of the 'general arrangement plans' in order that the proposed development can be more precisely defined. The 'Monitoring and Mitigation strategy' is defined with the 'Traffic Impacts Mitigation strategy' deleted to reflect the streamlining of monitoring and mitigation procedures arising out of ongoing discussions with boroughs. The 'river area' definition was also then removed to reflect changes to A17.
- 9.1.14 In A3, it was made clear that the proposed dis-applications were intended to apply for the 5 year maintenance period and not just during construction. As requested by the Panel with support of other IPs, clearer and more precise limits of horizontal deviation were introduced into Article 4<sup>112</sup>. Technical changes were made to A15, A16 and A25 to ensure that the provisions for CA and temporary possession would operate as intended while reflecting recent national legislative changes. Article 17 was substantially amended to meet PLA concerns such that the PLA must approve any suspension of navigation and would issue notices to mariners. Articles 29 and 30 were amended to make clear that relocation of uses onto land subject

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<sup>112</sup> With consequential amendments to the Works plans [REP6-061]

only of temporary possession are limited to activities like storage and car parking, as requested by the London Borough of Newham (LBN), and that temporary possession of the full width of the river could only be sought in emergency, as requested by the PLA.

- 9.1.15 In Article 56, it was made explicit by the Applicant in response to SWQ DC2.5 [REP4-052] that user charges may be used to cover costs of mitigation and not merely operation and maintenance, while A65 was more substantially amended in relation to the operation of the STIG as agreed with LBN and RBG. The amendment to A65 provides for consultation with STIG members whose responses must be taken into account in addition to provision for specific meetings. A new A69 was introduced to define river regions where specified activities may not be undertaken.' Rivers Restriction plans' and 'River Restriction sections' are referred to<sup>113</sup>.
- 9.1.16 In Schedule 1 to the dDCO amendments were made to reflect the proposed changes to the application detailed in Chapter 2 of this report. In Schedule 2, in addition to the introduction of relevant definitions, R3 was strengthened so that detailed design has to have general regard to the 'General Arrangement plans' as well as the 'Design Principles'. Requirement 4 was also amended to require all works that would normally fall outside the definition of permitted development to be subject to approval by the relevant local planning authorities. In R5 there was further clarification of consultation and approving bodies for the various subsidiary plans referred to and in R6 it was specified that the detailed landscaping scheme must be in compliance with the 'Landscaping Plan'<sup>114</sup>. The scheme must also specify the location and specification of routes for 'non-motorised users' (pedestrians and cyclists). In R7, the core commitments of the Monitoring and Mitigation strategy were written into the face of the dDCO, as were those of the Bus Strategy in new R13. Wording in A12 was adjusted to seek consistency in references to the limitations on variations in mitigation measures so that environmental effects that have not been assessed are proscribed while the approval mechanisms in the second part of the schedule were amended to a form agreed with LBN and RBG. Many of these changes were made in the Applicant's response SWQ DCO Wording DC Report [REP4-052] to our SWQ DC2.9 [PD-012].
- 9.1.17 Schedules 3, 6 and 7 were amended to reflect the proposed changes to the application detailed in Chapter 2 of this report and the DML in Schedule 12 was further amended to reflect ongoing discussions with the MMO. Schedule 13 was substantially amended with PPs agreed with UK Power Networks and the addition of PPs to safeguard the local highway authorities as sought by LBN and RBG.

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<sup>113</sup> These were subsequently submitted at D6 [REP6-037] and revised at D7 [REP7-023]

<sup>114</sup><sup>114</sup> Introduced as REP4-49 and revised as REP6-070

- 9.1.18 At this point the Panel published its interim preferred dDCO [PD-013] for consideration at the final ISH into the wording of the DCO that was held on 29 March 2017 [EV-049 and EV-056]. The Applicant, as requested by the Panel, produced their interim update of the dDCO, with a track changes version [AS-049 and AS-050], together with an Interim dDCO Explanatory Document [AS-051], which noted the changes, the latter updated the tabulation contained in the Applicants Update Note [REP5-004] submitted at D5. The content of these interim revisions is not detailed in this report since the Interim dDCO Explanatory Document [AS-051] indicated that some re-ordering of articles was intended so that the numbering of articles would, in some instances, be different in the final revision.
- 9.1.19 The dDCO (Revision 5) [REP6-039] duly formalised the interim amendments proposed together with additional changes arising from the hearing, though it did not revise the ordering of articles. These further changes are detailed together with those included in the interim update. There was a small change to A1 which relates to an addition made to A38 to make clear that certain articles in Part 4 concerning operational provisions would only come into force in relation to the Blackwall Tunnel upon opening of the new tunnel or commencement of its construction rather than upon the making of the Order. There was also a refinement in the definition of the Blackwall Tunnel in A2. There were amendments to A3. The first, to A3(1), was to dis-apply the newly enacted provisions of the Neighbourhood Planning Act 2017 with regard to temporary possession so that the temporary possession provisions embodied in the Order would stand. We accept the Applicant's argument that this is appropriate because these provisions have been subject to detailed scrutiny and amendment during the Examination. The second, through addition of A3(3), was intended to provide comfort to the EA for the dis-application of Metropolis Management (Thames River Prevention of Floods) Amendment Act 1879 on their powers to enforce against riparian owners in relation to river wall maintenance. We have noted however in section 5.8 of this report that the EA remained concerned over the manner in which the river walls are treated in the DCO and we make our recommendations to address this concern in section 9.9 of this chapter.
- 9.1.20 The change made to A14 was to reflect agreement with Thames Water that the deemed consent procedures of A68 would not apply in respect of A14. There were changes to A22, A25, A26 and A27 relating to CA and related issues consequent upon the enactment of the Housing and Planning act 2016, A27 being replaced by wording based on the formulation in Schedule 14 to the High speed Rail (London - West Midlands) Act 2017. In A22, the power to impose restrictive covenants was excluded from areas of the river Thames covered by the Order as sought by the PLA, subject to the inclusion of A69 on River Restrictions. Further amendments were also made to A29 and A30 following agreement with the PLA. In A39 (and elsewhere including in A12, Schedule 1, Schedule 2 and in certified documents), the wording sought by the Panel to place limitations upon maintenance works by

reference to assessed environmental impacts was accepted. This is based on the precedent contained in most recently made DCOs so that all such references now refer to '*new or different*' environmental effects.

- 9.1.21 Article 43 was amended to follow the definition of emergency sought by certain boroughs and various technical amendments were made to A44, A45, A48 to A50, A53 and A55. Substantive changes were made to A58 to allay Borough concerns that a transfer of benefit might take the powers in relation to the setting of user charges away from TfL or otherwise invalidate mechanisms for mitigation and monitoring or affect the operation of the Code of Construction Practice (CoCP). Further changes were also made to A65 in relation to the STIG to reflect the wishes of RBG, to ensure that it covers the operation of bus services through the proposed tunnel and to take up a suggestion by the Panel that the chair should be elected by membership of the STIG. Co-ordinates of the regions specified in the River Restrictions plans were inserted into A69. Finally, the interim revision introduced as A70 a provision to avoid the need to seek the consent of the SoS should it be deemed that any land transfers from GLA Land & Property Limited (GLAP) to the TfL in order to implement the Order were at less than full market value.
- 9.1.22 Within the schedules a number of technical changes were made to wording, in particular to requirements within Schedule 2. The most significant changes were in relation to R13 with the minimum level of bus services now specified for the length of the monitoring period. However, the wording of R13 remained subject to representations seeking a stronger commitment from the host Boroughs, namely the London Borough of Tower Hamlets (LBTH) [REP7-001], LBN [REP7-003 and REP7-004] and RBG [REP7-011] at the close of the Examination and this view was also expressed by some neighbouring Boroughs. A new R15 was also added as sought by the host Boroughs and the EA to address contaminated land remediation rather than leaving that purely to be covered by the CoCP. Although the need for these conditions remained disputed by the Applicant, Grampian-style conditions were also added as R16 to address the hazardous substance issues arising in relation to the Brenntag UK Limited ('Brenntag') and East Greenwich Gasholder Station (EGGS) sites, which are discussed in report section 5.12.
- 9.1.23 On the penultimate day of the Examination the Applicant submitted their dDCO (Revision 6) [REP7-027]. This includes the repositioning of what were new A69 and A70 as A53 and A35 respectively in what were regarded as more appropriate locations within the parts of the Order, with consequent re-numbering of the Articles from 35 onwards. This has meant that throughout many cross references had to be adjusted. References to articles in the remainder of this Chapter are to

the numbering in the Applicant's dDCO (Revision 6) [REP7-026<sup>115</sup>]. There are a number of other technical alterations or clarifications throughout the document.

- 9.1.24 More substantively, in A2 a new definition of 'the 1968 Act' was added to reflect the need for a definition of the Port of London Act 1968, given its use throughout the dDCO. In A3, a minor amendment was made to paragraph (1) to reflect that, under the terms of A30, there could be a number of 'maintenance periods' depending on when a particular part of the authorised development was completed. Similar amendments were made throughout the dDCO for the same reason. A new A3(4) was added to make clear that the Applicant does not consider that there should be a requirement, following any maintenance period under A30(14), to seek a licence from the PLA for any works or operations within the Silvertown Tunnel structure. Article 48 was amended in agreement with the PLA to address issues concerning any third party works affecting land covered by PLA jurisdiction. Article 49 was further amended with regard to the dates on which the new byelaws would become operative, as was A53 (previously A69) concerning restrictions in the river Thames. With regard to the schedules the only substantive changes other than final identification of certified documents in Schedule 14 and agreed amendments to PP in Schedule 13 to address concerns of Statutory Undertakers, is the addition of reference to provision of car parking in Work No 4(b) and in Schedule 7 to make explicit the Applicant's agreement with Brenntag.
- 9.1.25 The Applicant's dDCO (Revision 6) [REP7-026] forms the basis of all subsequent comments in this chapter of our report.

### **The Structure of the DCO**

- 9.1.26 As indicated, the structure that is described in the following paragraphs refers to the final dDCO submitted by the Applicant at D7 [REP7-026] as the new articles were re-positioned in that final amendment to the dDCO submitted by the Applicant.

#### ***Part 1***

- 9.1.27 This contains the preliminary provisions providing for commencement, citation and interpretation.

#### ***Part 2***

- 9.1.28 This sets out the works provisions, with A3 to A5 containing the principal powers, including the dis-application of specified other legislation, as well as the development that would be granted development consent by the Order and the limits of deviation for that development. Articles 6 to 13 deal with matters relating to streets.

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<sup>115</sup> REP7-027 is the tracked-change version of REP7-026]



Articles 14 to 18 cite supplementary powers that would be granted including in A17 powers relating to works within the river Thames.

**Part 3**

- 9.1.29 This contains the powers in relation to acquisition and temporary possession, with A19 to A28 addressing matters relating to CA of land and rights and A29 and A30 temporary possession of land. Articles 31 to 35 address supplementary matters including Statutory Undertakers and, in A35 (previously A70), acquisition from GLAP. Articles 36 to 38 make further provision in relation to compensation to the extent not already covered.

**Part 4**

- 9.1.30 This contains operational provisions in A39 to A53 not just relating to maintenance but also the creation of new byelaws for managing the existing Blackwall Tunnel and well as the new Silvertown Tunnel (A49). Article 53 (previously A69) provides for restrictions on other works within the river Thames in the area affected by the proposed new tunnels.

**Part 5**

- 9.1.31 Articles 54 to 58 cover the imposition of user charges on both tunnels.

**Part 6**

- 9.1.32 This covers a number of miscellaneous and general provisions in A59 to A70. Article 60 covers the possibility of transfer of benefit of the Order, A62 traffic regulation matters, A63 the DML and A64 defence to proceedings in respect of statutory nuisance. Article 65 deals with PPs, A66 the certification of documents and A67 the constitution, powers and mechanisms of the STIG, the body that would advise on monitoring and mitigation including the setting of user charges and the initial specification of bus services through the new tunnels.

**Schedules**

- 9.1.33 Schedules 1 to 14 of the DCO contain information referred to in the articles to the Order, such as the detailed specification of the authorised works that are contained in Schedule 1. Requirements that would govern the construction, operation and mitigation of those works are set out in Schedule 2. Schedule 3 contains details of stopping up and creation of highways and alterations to means of access.
- 9.1.34 Schedules 4 to 6 relate to aspects of CA, with Schedule 7 detailing land subject only of temporary possession. Schedule 8 addresses the removal of motor vehicles and Schedule 9 the Byelaws proposed to be operative in both the existing Blackwall Tunnel and the new Silvertown Tunnel. Schedules 10 and 11 relate to road classification and traffic management matters, while Schedule 12 comprises the DML.

9.1.35 Schedule 13 is a lengthy schedule of PPs for the protection of specified Statutory Undertakers, namely:

- Electricity, gas, water and sewerage undertakers;
- Electronic communications code operators;
- National Grid;
- PLA;
- EA; and
- LBN and RBG.

9.1.36 Finally, Schedule 14 lists all the documents to be certified as subsisting at the close of the Examination.

### **Consideration given to the DCO wording**

9.1.37 The Panel carefully scrutinised the wording of the dDCO throughout the Examination. An initial ISH into its wording was held on 12 October 2016 [EV-004 and EV-006] and 111 questions specifically on the wording of the dDCO were included in our FWQ [PD-006]. A second ISH on the wording of the dDCO was held on 19 January 2017 [EV-026 and EV-039 to EV-042] with a further 14 questions on the wording of the dDCO included in our SWQ [PD-012], some of which had multiple parts.

9.1.38 On 20 March 2017 the Panel published our interim preferred dDCO [PD-013] to facilitate discussion at the final ISH on the wording of the dDCO that was held on 29 March 2017 [EV-049 and EV-056]. For that hearing the Applicant produced an interim updated dDCO [AS-049] at our request to further assist in discussion at the hearing. Following that hearing the Applicant submitted two further revisions to the dDCO, (Revision 5) [REP6-039] that reflected discussion at that hearing and finally (Revision 6) [REP7-027] that took upon board the outcome of continuing discussions with certain IPs as well as re-positioning certain articles as forewarned earlier.

## **9.2 CONTENT OF THE DCO**

9.2.1 In the following sub-sections of this report, the principal provisions of the DCO are summarised. Provisions that were subject of concern are highlighted together with comment on the extent to which amendments during the course of the Examination satisfied IPs including host and other Boroughs and Statutory Undertakers or consultees such as the PLA, EA and MMO.

9.2.2 However, rather than including our own recommendations for further amendments where there are outstanding issues in these descriptive sub-sections, our recommendations are brought together in section 9.9 so that these recommended amendments are clearly identified.

## **9.3 ARTICLES**

9.3.1 Throughout the Examination, the Applicant has accompanied each iteration of the dDCO by a revised EM. This cites the precedents

followed in a number of instances and these will be highlighted where appropriate. The final version of the EM [REP7-029] was submitted at D7. Because version contains the information given at the outset, amended as the Examination proceeded and changes were made to the text of the dDCO and supporting documents, it is this document that will be referred to in the following paragraphs where appropriate.

- 9.3.2 The Applicant points out in the EM that whilst the Infrastructure Planning (Model Provisions) (England and Wales) Order 2009 has lapsed, the Order is broadly based on those model provisions (general and railway), as well as precedents in DCOs and relevant Orders under the Transport and Works Act (TWA) 1992 that have been made to date.

**Part 1**

- 9.3.3 The articles in Part 1 of the dDCO concerning citation, commencement and interpretation, were subject to scrutiny and amendment during the Examination particularly to ensure that proposed new byelaws and related matters concerning the existing Blackwall Tunnels were not prematurely brought into effect and to refine and add necessary definitions. They were, however, not the subject of sustained controversy. The Applicant points out that the definition of '*commence*', which contains exclusions that were refined during the Examination so that certain preliminary matters that would not give rise to significant environmental effects could be undertaken in advance of commencement, is important in order to maintain a degree of flexibility. The Applicant also points out that this was expressly accepted by the SoS in relation to correction of the A160/A180 (Port of Immingham Improvement) Order 2015. We accept that the definition is appropriate in its amended form.
- 9.3.4 With regard to the definition of '*maintain*' there are words used to describe maintenance that would fall outside normal English usage and we did question this. However, we recognise that such definitions have been subject to scrutiny in relation to many made DCOs and accept that there is precedent for the wording used by the Applicant in the Norfolk County Council (Norwich Northern Distributor Road (A1067 to A47(T))) Order 2015. As a local authority road scheme brought within the ambit of the Planning Act 2008 (as amended) (PA2008) by a s35 Direction it is possibly the closest overall precedent for this Order.
- 9.3.5 We accept also that the inclusion of the word '*approximate*' in A2(4) and A2(5) has precedent in previously made Orders such as the Lancashire County Council (Torrisholme to the M6 Link (A683 Completion of Heysham to M6 Link Road)) Order 2013.
- 9.3.6 However, in addition to matters resolved during the Examination we have noted that a minor correction still appears necessary to the preamble. In line 2 of the second paragraph the first reference to part of the PA2008 should be to Chapter 2 and in Part 1 of the dDCO, the definition of the '*authorised development*' in A2 ought to omit '*and any*

*other development authorised by this Order'* since Schedule 1 has a lengthy description of ancillary development at its end that was scrutinised and added to during the Examination so there should not be '*any other development authorised'* by the Order. Requirements in Schedule 2 may require further detailing of particular aspects of the Proposed Development but should not authorise additional development over and above that identified in Schedule 1, and any works required under PPs in Schedule 13 should also be covered by the descriptions at the end of Schedule 1.

## **Part 2**

- 9.3.7 Article 3 contains a list of other legislative provisions that would be dis-applied by the DCO. There was considerable scrutiny of this list during the Examination, particularly centred on concerns of the PLA and the EA. The PLA was ultimately satisfied on the final form of this article having regard to provision made elsewhere within the body of the dDCO, such as in the amendments made to A17, in new A53 (previously A69) on restrictions on other works within the river and in the PPs in Schedule 13. However, while a substantial degree of agreement was reached with the EA, the caveat within A3(3) taken with the PPs in Schedule 13 did not satisfy the EA that their ability to enforce works to secure maintenance and enhancement of the river walls to an appropriate level would not be prejudiced. We addressed the matters in dispute in section 5.8 of this report where we concluded that the further amendments sought to the dDCO by the EA should be accepted because prevention of flood risk is of such critical importance not just to the new infrastructure proposed but also to a wide area of land flanking the river. We make our recommendations on this matter in section 9.9 of this chapter.
- 9.3.8 With regard to the dis-application of the recently enacted Neighbourhood Planning Act 2017 in relation to the temporary possession of land under A29 and A30, we accept the argument of the Applicant that it would be inappropriate to vary the provisions of A29 and A30 as they stood at the close of the Examination because they had been subject to careful scrutiny and adjustment over the course of the Examination to meet the concerns of a number of IPs.
- 9.3.9 The additional provision inserted by the Applicant as A3(4) to dis-apply the need for a licence from the PLA under A30(14) in the dDCO (Revision 6) [REP7-027] was agreed with the PLA by the close of the Examination [REP7-019]. We are content that it is a reasonable provision since the DCO would secure rights for the Applicant to construct the tunnel beneath the tunnel so it should not be necessary for the operator to require licences for maintenance work within the tunnel structure itself.
- 9.3.10 Article 5 was subject to considerable amendment during the Examination as the Panel, the PLA and the host boroughs sought to define the limits of the development more precisely both on land and beneath the river Thames. However, by the close of the Examination

all parties were content with the much more tightly defined limits of deviation both horizontal and vertical. The inclusion of references to the General Arrangement drawings and the Landscaping Plan in R3 and R6 also provide clearer points of reference for the Authorised Development.

- 9.3.11 The remaining A6 to A13 were subject only to limited amendment during the Examination, to safeguard the powers of the street authorities. Coupled with the introduction of PPs in Schedule 13 more generally to safeguard the roles of the host local highway authorities (LBN and RBG), we do not see any further matters warranting attention in the wording of the dDCO in respect of these articles.
- 9.3.12 In terms of the supplementary provisions, changes were made to A14 on the discharge of water to safeguard the duties of Thames Water Utilities Limited (TWUL). Related changes were also made to A70<sup>116</sup>. As TWUL is satisfied [REP7-008], we can see no reason for any further variation of this article. We are also content with the generality of the amended wording of A15 concerning protective works to buildings in the light of the responses by the Applicant [REP1-177] to our FWQ DC43, DC44 and DC45 [PD-006]. We accept that there is precedent for the phraseology used in recently made TWA Orders and DCOs. However, s13 of the 1965 Act enables the acquiring authority to obtain possession by sheriff's warrant if possession is refused. Thus, the provision in paragraph (11) does not sit well with paragraph (6) of this Article (disputes to be referred to arbitration). We therefore consider that paragraph (11) should be prefaced by '*Subject to paragraph (6),*'. Article 17 on work within the river Thames was substantially amended in order to address concerns of the PLA and, as this is not a matter on which the PLA comment further at the close of the Examination, we are content that the amended wording should be incorporated in the rDCO. The Applicant explained in their response to FWQ DC46 [REP1-177] how the time periods in A17(10) and (11) should be interpreted.

### **Part 3**

- 9.3.13 The powers of CA and possession of land in A19 to A38 were subject to a number of amendments during the Examination. These were mainly to take account of changes made to national legislation and we make no comment on those. In A22(5), the exclusion of the power to make byelaws in respects of land subject to river restrictions under A53<sup>117</sup> was to address concerns of the PLA which we accept. There were also other changes to satisfy the PLA in relation to the calculation of compensation for temporary possession of river areas and the need to give reasons for temporary possession were included in both A29 and A30 at the Panel's suggestion (supported by a number of IPs).

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<sup>116</sup> Revision 6 numbering

<sup>117</sup> Revision 6 numbering

- 9.3.14 We see no need for substantive further changes but there are a number of improvements to wording that we do consider should be made in the interests of internal consistency and to follow customary drafting practice for statutory instruments. The most significant of these is to include reference to A29 in A19(2) as the plots referred to as specified in Schedule 7 are precluded from CA. We also consider that in A32(8) reference to Part 11 of the Town and Country Planning Act 1990 needs to be substituted for the reference to the 1980 Act in order to be consistent with s138 of the PA2008 and to cover the full range of Statutory Undertakers that may be affected. These recommendations are detailed in section 9.9 of this chapter.
- 9.3.15 With regard to A34(1), while it is not phrased exactly in the terms of s132 of the PA2008, the particular plots of land to which it refers would be rendered no less advantageous as open space after the period of construction. Finally, we consider that the new A35 (previously A70) that was introduced at the request of is GLAP justified to avoid any possible need for separate consents from the SoS in relation to land transactions between GLA Properties Limited (in some cases with joint venture partners) and the Applicant (Transport for London (TfL)), as both are Mayoral bodies albeit separately accountable.

#### **Part 4**

- 9.3.16 With regard to the operational provisions in A39 to A53, other than in respect of restrictions within the river area, there was relatively little comment on the content of these articles during the Examination. The main probing of the wording used was from the Panel, though in certain instances IPs such as the host boroughs raised issues that have been addressed by the Applicant in the iterative process that has led to Revision 6. In addition, the Applicant has introduced additional refinement of the wording of these articles.
- 9.3.17 Article 53 (previously A69) is the new article introduced and progressively refined in the dialogue that continued throughout the Examination between the Applicant and the PLA. The article represents an agreed position with the PLA. It is not questioned by other IPs. Consequently although the article has substantial and detailed content we are satisfied that it should be included within the rDCO as a key mechanism for governing the issues that exist in relation to works within the river area.
- 9.3.18 The only issue within the operational articles over which we consider that further amendment is warranted is in relation to A48. We do not consider that the reasons given by the Applicant in their response [RE1-177] to FWQ DC66 [PD-006] are sufficient to justify departing from the precedents quoted in the Tyne Tunnel TWA Order or the Mersey Gateway Bridge Order that refer to consent not being unreasonably withheld and to the availability of arbitration. Those roads are or will be undoubtedly key links in their local networks just as the tunnels are or will be in this locality.

## **Part 5**

- 9.3.19 The articles with regard to user-charging are amongst the most controversial in the dDCO. We have already noted in the opening chapters of our report the extent of opposition from individual IPs and some business bodies to perceived unfairness in charging for river crossings in East London while they are free in central and West London. However, the initial submissions making this case were only pursued to a limited degree in Written Representations (WR) or at hearings, with the main comment in these provisions throughout the Examination coming from the host Boroughs and other neighbouring or nearby authorities. With regard to A54, there was concern that this did not explicitly state that the tunnels must be charged for and that the following A55 is simply permissive with regard to the imposition of charges. However, in the amended form of A54 that was accepted by the host Boroughs at the close of the Examination, it is explicit that the charges must be set in accordance with the charging policy, which is contained in a certified document itself substantially changed during the Examination. The final iteration of this document entitled 'Charging Policies and Procedures' (Revision 3) [REP6-060] was submitted at D6. While this would not preclude the removal of charges at a future date if the appropriate consultations and mechanisms to assess environmental impact had been followed, it is clear in that document by reference to the 'Assessed Case' that charging is anticipated on the opening of the proposed new tunnel and for the foreseeable future thereafter. Having to refer back to A2(1) to find that the charging policy is that set out in this document is slightly awkward. However, as the affected local authorities were content with the amended wording of this article at the close of the Examination, we can see no reason to seek any further amendment.
- 9.3.20 The other article that attracted controversy in this part of the dDCO was A58 that specifies what the revenue raised from the charges can be applied to. The issue of ensuring that physical mitigation measures could be funded out of the revenue from charges was addressed by the Applicant in amending A58(a), but host boroughs continued to press the Applicant to include specific provision for funding cross-river bus services, enhancing facilities for active sustainable travel (pedestrians and cyclists) across the river Thames from the Greenwich Peninsula to Canary Wharf and Silvertown and general funding of a greater package of East London river crossings, also a point particularly pressed by Boroughs over a wider area. LBN continued to press the merits of a Gallions Reach crossing in their final submission [REP7-004]. The response of the Applicant [REP4-052] to our SWQ DC2.5 [PD-012] was that in early years shortly after the opening of the new tunnel, charges may not cover contractual payments to the operator. Thus, separate provision for revenue support for initial cross river bus services had been pledged through the 'Bus Strategy' (with in the longer term such services forming part of the overall TfL network and its funding stream within the TfL Business Plan), that the proposed agreements with the host Boroughs would address means to enhance active travel and that the wider package of crossings

proposed for East London would be funded through a variety of means. It was not accepted, therefore that there is any need to specify any of these matters. Moreover, A58(e) in authorising payment into TfL's general fund would in fact authorise expenditure from user-charges on any or all of these matters.

- 9.3.21 For our part, while we can see value in flagging up the need to ensure that funding for the measures referred to by the boroughs is not overlooked, we accept the logic of the Applicant's position that the user-charges would not be likely to be an available funding source in early years and that in the longer term A58(e) would enable any surplus to be applied on such measures. Consequently, we do not recommend any further amendment.

### **Part 6**

- 9.3.22 Most of the miscellaneous and general provisions of the order in A59 to A70 were relatively uncontroversial. As already noted, Article 60 was successively amended in order to ensure that the SoS's consent is required for any transfer of benefit involving CA or temporary possession powers and that the transfer of powers expressly excludes those relating to the operation of the CoCP and key elements of the charging policy in order to guarantee that mitigation can be secured. IPs were not entirely happy that these changes go far enough<sup>118</sup>, but we can see no reason for any further amendment as the changes made appear to provide safeguards for the matters of key concern.
- 9.3.23 Some minor amendments were made to the articles referring to traffic management arrangements and the defence to statutory nuisance proceedings to address concerns of the host boroughs and there were also a number of minor textual improvements put forward by the Applicant. We see no need to comment on any of the final text of the remaining articles apart from A67 and A70. Article 67 governs the composition, powers and required practices of the 'STIG'. As noted earlier in this chapter, this article, previously numbered A65, was subject of sustained requests for amendment primarily from the host Boroughs and other local authorities. The final form appeared to satisfy almost all concerned by ensuring that there would be ongoing consultation and not simply a number of specified meetings; that the STIG would be able to appoint its own chair; that TfL and the Mayor would have to have regard for its recommendations and that publicity must be given to its proceedings. There remained a view that the recommendations of the STIG should be binding upon the Mayor, but we accept the argument of the Applicant that provisions of a DCO could not or should not fetter the discretion given to the Mayor in primary legislation. Thus, we do not recommend any further amendment.

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<sup>118</sup> For Example LBN [REP7-004]



9.3.24 As for A70, we have already noted the exclusion from the deemed consent procedure specified therein certain consents that relate to the powers of TWUL. We are therefore content with its provisions.

#### **9.4 DESCRIPTION OF WORKS - SCHEDULE 1**

9.4.1 The dDCO defines the Proposed Development within the DCO scheme in 20 numbered Works, the last being sub-divided into Work No 20A and Work No 20B in order to relate to the agreements with the PLA. A number of clarifications and additions were made during the course of the Examination primarily to reflect agreements with land interests such as Brenntag, Knight Dragon and AnSCO and which reflect the acceptance of the five proposed changes by the Panel on the basis that they are non-material. The Examination was therefore concluded on the basis that the application was amended by these five changes. Further detail was also added to safeguard the navigable channel as sought by the PLA.

9.4.2 We are content that the Schedule could stand in its amended form although it does not distinguish between development for which development consent is required and associated development. The preamble to the schedule specifies that it covers both categories of development. We accept the argument of the Applicant that as a linear highway scheme there is very little that could be separated out since the works to side roads and rights of way are necessary to tie the principal works into the existing highway network in a safe and appropriate manner. The Applicant did refer to the possibility of distinguishing the landscaping, but we would regard that as a necessary part of the development as are the proposed tunnel services control buildings. Consequently, we would only suggest that, if the SoS is not satisfied over the absence of a distinction, the only works that could be placed into a separate category of associated development would be the temporary works and uses necessary during the construction period which would include Works 20A and 20B and the construction and services compounds referred to under items (v) and (w) of ancillary and related development. There is, however, precedent for not distinguishing associated development in the A14 Cambridge to Huntingdon Improvement Scheme Order 2016.

9.4.3 We did consider whether Work No 2(h) should be omitted in the light of our conclusions in Chapter 8 that a compelling case does not exist in the public interest for CA or temporary possession of land from other private land interests to provide for fire escape access to the premises formerly operated as Studio 338. However, land agreements have been reached between the Applicant and Birch Sites Limited (NGP) and Southern Gas Networks (SGN) [REP6-001 and REP6-002] with their representations withdrawn. The position with regard to Lidoka Estates is less advanced but the final CA update provided by the Applicant [REP7-045] indicates that Heads of Terms for an agreement have been signed by both parties *'to facilitate agreement before and in the event of compulsory acquisition powers being exercised'*. It may therefore still prove expedient for such works to be

undertaken depending on the final outcome of planning decisions in relation to the Studio 338 site. Thus, we accept that authorisation for such works should remain in the Order.

- 9.4.4 Finally, as a detail, we assume that the remedial works to river walls specified in Work No 20B(c) should refer to the area of that work and not Work No 20A.
- 9.4.5 Plans that the SoS would need to sign are specified in Schedule 14 to the Order where the final revisions of all such plans are noted. Some of the revisions include minor adjustments such as those arising from the acceptance of the 5 proposed changes, but others are of more substantial significance such as the amendments to the Works Plans [REP3-002, further revised as REP6-033] to more closely define the limits of deviation, and the additional plans such as the final updated Landscaping Plan [REP6-070] and final updated River Restrictions Plans [REP7-023] which together with further revisions to the General Arrangements Plan (Revision 1) [REP6-085] and Engineering Section Drawings and Plans (Revision 1) [REP6-086] also define the Proposed Development more precisely, particularly in the river area.
- 9.4.6 If our recommendations in Chapter 8 concerning the CA and temporary possession provisions are accepted, this would require a minor amendment to the final version of the Lands Plans [REP4-023].

## **9.5 REQUIREMENTS - SCHEDULE 2**

- 9.5.1 Schedule 2 commences with additional definitions in paragraph 1. There were no outstanding issues in relation to the amended text of those definitions at the close of the Examination, though we note that the reference to the Flood Risk Assessment (FRA) should include the term '*revised*' and be so tied to the document to be certified under Schedule 14 to ensure that the FRA referred to is that accepted by the EA as addressing their concerns.
- 9.5.2 Requirement 2 specifies a standard time limit for commencement of development while R3 specifies the arrangements under which detailed design work would be undertaken. The only point of controversy remaining in relation to this requirement is whether the Design and Access Statement (DAS) [APP-095] should be referenced. The Applicant argued that the DAS simply represents one possible out-working of the design principles that are referenced in the requirement. We accept this logic and so do not recommend further amendment to R3. However, some IPs (eg U&I [REP6-016] and Morden College (REP7-033)) remain concerned that in key elements for provision for sustainable transport, the document entitled 'Design Principles' is not as clear as to intent. Thus, we are less convinced that the DAS should be omitted from the list of certified documents in Schedule 14. The Applicant pointed out that there are many subsidiary documents that are referenced in documents which are to be certified that are not themselves to be certified and that this accords with general drafting practice. We accept this as a general approach but we

note that the 'Design Principles' (Revision 3) [REP6-058] specifies that it should be read alongside the DAS<sup>119</sup>. Consequently, we recommend that the DAS should be added as a certified document in Schedule 14.

- 9.5.3 In addition we note that the Applicant has produced a sketch plan of how a southbound bus stop could be safely provided on the re-aligned Tunnel Avenue to serve the west side of the Greenwich Peninsula [REP6-081]. It seems to us that to ensure that there is flexibility in determining future cross river bus services and maximising benefits in terms of sustainable transport, the landscape drawing should be amended to incorporate this provision so that it would be made during the re-alignment works and does not have to become a later bid for separate funding. We, therefore recommend amendment to R6 as this refers to the location and specification of routes for non-motorised users.
- 9.5.4 Requirement 4 was agreed with the host Boroughs by the close of the Examination. This specifies the matters involving building or engineering works where detailed design approval would rightly need to be sought from the relevant Local Planning Authorities (LPA).
- 9.5.5 Requirement 5 was subject to considerable debate during the Examination. The process led to more of the subsidiary plans that would be required to be prepared and subsequently complied with in order to secure elements of mitigation under the CoCP being subject to consultation or approval by the relevant LPA and other bodies such as the PLA and EA. However, the Applicant resisted suggestions by the Panel and other IPs that sub-paragraphs (2) and (3) should be merged so that all subsidiary plans would require approval. This meant that a small number of concerns from the host Boroughs or other IPs were outstanding. We can appreciate that some plans such as the Fire Plan would not involve responsibilities of the host boroughs. Thus, we do not recommend amendment fully to merge sub-paragraphs (2) and (3). However, we do recommend tidying-up wording and insertion of additional consultation requirements in relation to the Site Waste Management Plan to reflect borough and EA responsibilities even if this is intended to be a contractual matter. In addition, we consider that the Construction Environmental Management Plan (CEMP) should be moved from paragraph (2) to paragraph (3) so that it would require the approval of the relevant LPA and the PLA for the reasons given in section 5.5 of this report.
- 9.5.6 In response to our FWQ DC93 [PD-006], the Applicant within their FWQ DCO DC Report [REP1-177] pointed out that Appendix A of the CoCP sets out the proposed Settlement Assessment and Mitigation Process for the Proposed Development. In contrast to the other plans referred to in R5(2), the CoCP does not anticipate that this process will change in detailed design. Consequently the Applicant asserts that the

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<sup>119</sup> Paragraph 1.1.1

Settlement Assessment and Mitigation Process does not need to be referred to in R5(2) because it is already secured by R5(1). We accept this position which therefore covers concerns of Historic England identified in section 5.18 of this report. Finally, we note in section 5.3 of this report that there should be an amendment to this requirement to address air quality issues in relation to the Hoola development.

- 9.5.7 As already referred to, R6 addresses landscaping requirements. While this was generally agreed in its final form incorporating reference to a submitted Landscaping Plan [REP6-070], we have noted at paragraph 9.5.3 of this report our view that further amendment is warranted. We are also not convinced by the desirability of deletion of what was originally sub-paragraph (2)(e) which would have required identification of trees to be retained and their protection. We note that the host boroughs accepted that this matter was covered in ES documentation, but we nevertheless consider that this element should be part of the landscaping requirement in accordance with usual drafting in relation to such matters.
- 9.5.8 Requirement 7 was subject to very substantial amendment during the Examination to address concerns both of the Panel and host and other Boroughs that the monitoring and mitigation would be sufficiently robust to address uncertainties inherent in forecasting traffic flows and the translation of that modelling into anticipated consequences for air quality and other environmental impacts. The amended wording incorporates reference to the amended consolidated document to be certified, namely the 'Monitoring and Mitigation Strategy' and gives a substantial role to the STIG in considering and making recommendations on the outcome of the monitoring and assessments undertaken. These should ensure that any variations from the 'Assessed Case' would be fully addressed and mitigated. The wording places considerable emphasis on direct monitoring of air quality parameters so as to ensure compliance with Air Quality Management Area (AQMA) requirements. There was general satisfaction with the revised wording at the close of the Examination and we see only a need for minor clarification.
- 9.5.9 Requirements 8, 9, 10 and 11 were uncontroversial and simply require further details of surface water drainage, lighting and signage and compliance with approved details of these works and the FRA. Requirement 12 was strengthened during the Examination to ensure that noise mitigation would be effective in particular by securing use of low noise surfacing. We are content that the final version is appropriately worded.
- 9.5.10 Requirement 13 was a new requirement inserted by the Applicant to address concerns of the Panel and host and other Boroughs that the proposed bus services through the new tunnel, which provide such a significant component of the assessed economic benefit, would actually be secured. The requirement initially only secured use of low emission buses but in its final form, it specifies a minimum level of provision on opening and for the duration of the monitoring period,

that these services would operate in accordance with the Bus Strategy<sup>120</sup> and that funding for concessionary travel through the tunnel for residents of the host Boroughs would be provided in accordance with the Bus Strategy. The host Boroughs, LBN [REP7-004], RBG [REP7-011] and LBTH [REP7-001], still wished to see the higher level of bus services referred to as part of the Assessed Case specified in this requirement.

- 9.5.11 We address this issue at length in section 5.13 of our report as securing a sufficiently high level of bus services through the proposed tunnels is also of critical importance to mitigating adverse socio-economic impacts on the least advantaged members of the local community. We therefore recommend strengthened wording in section 9.9 of this chapter taking on board suggestions made by the host Boroughs.
- 9.5.12 Requirement 14 simply requires adherence to the Bio-diversity Action Plan while R15 concerning contaminated land was introduced at the request of the host boroughs and the EA rather than such matters being only governed by provisions within the CoCP. We are satisfied that it is appropriate for the LPAs to retain responsibility for verifying that appropriate action has been taken in respect of such matters, particularly as on the Greenwich Peninsula there are known to have been historic land uses that may have left contaminated material in situ. A date for final compliance should be inserted in sub-paragraph (7) so that the requirement is capable of enforcement.
- 9.5.13 Requirement 16 is the additional requirement inserted to address the concerns over the presence of hazardous substance consents in close proximity to the proposed development on the Greenwich Peninsula which we addressed in section 5.12 of our report. The Applicant inserted these provisions within square brackets arguing that while the Health and Safety Executive (HSE) had applied their policy or guidance, they had not adequately had regard for the fact that the new tunnel is a modification of an existing road, the objective of which is to ensure free-flow of traffic. Consequently, the Applicant argues that the DCO scheme is no more likely than the existing Blackwall Tunnel to result in large volumes of stationary traffic in close proximity to the sites on which current hazardous substance permits exist and that it should lessen the number of occasions when such stationary traffic occurs. HSE remain of the view that the DCO scheme could still result in more queuing traffic close to those sites [REP7-009]. Thus, because they could not see any change in their advice arising if consulted again at the time when the road would shortly be ready for opening, they would only wish for the first leg of the requirements re the Brenntag and EGGs sites to be imposed and, if the second leg is imposed, not to be a consultee.

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<sup>120</sup> A separate document to be certified under Schedule 14

- 9.5.14 For our part, we find the arguments advanced by the Applicant to have considerable merit but recognise that the HSE are correct that queuing traffic could still arise on the approaches to both tunnels in unforeseen circumstances. Thus, we consider that the first half of the requirement concerning both these sites is necessary. Given what we heard and read during the Examination we consider that it is highly likely that the hazardous substance consent for the Brenntag site will have been modified well before the prospective opening date for the new tunnel into a form that would enable HSE to withdraw their 'advise against' recommendation in relation to the Proposed Development. We have noted the desire of U & I for a more radical modification of the Brenntag hazardous substance consent in order to facilitate their development aspirations but that Brenntag consider that this would have an adverse effect on their business. Our conclusion is therefore based on the modification agreed between the Applicant and Brenntag, with any greater modification to the consent being a separate matter for negotiation between U & I and Brenntag. The agreed modification is sufficient to remove the circumstances that cause the HSE to make an '*advise against*' recommendation in relation to this application
- 9.5.15 The prospective revocation of the hazardous substance consent for the EGGs site appears less certain to be achieved within the requisite timescale. It is clear from the submissions of SGN and NGP that they envisage the redevelopment of the gasholder site as part of the mixed use/residential development of the Greenwich peninsula. However, the gasholder could be re-activated and revocation could involve compensation. Thus, although RBG appear to favour the prospective redevelopment, complex negotiations have to be concluded. As a consequence, we consider that it would be appropriate for both limbs within suggested R16 to be included within the DCO including a requirement for further consultation with HSE so that all views can be taken into account by the SoS in the circumstances prevailing at the time should either or both of the hazardous substance consents not have been modified sufficiently or revoked. We do not propose re-formulating the requirement to relate to the commencement of construction since this could result in significant delay because progress on the modification and revocation procedures for the hazardous substance consents has to date been slow.
- 9.5.16 The responsibility for discharge of requirements would generally fall to the relevant LPA, with consultation with appropriate consultees where necessary. Paragraphs 17 to 20 in Part 2 of Schedule 2 cover these matters including appeals. There were significant amendments to the provisions of paragraph 18 to cover the involvement of the LBTH and not merely LBN in relation to discharge of requirements that affect the north bank of the River Thames, given that all the physical development on the North Bank is within LBN and only the north portal of the Blackwall Tunnel within LBTH. Agreement was reached on such matters and we see no reason to recommend any further amendment.

- 9.5.17 Both the provisions for discharge of requirements and the appeal mechanism to the SoS include addressing issues arising out of the s60 or s61 of the Control of Pollution Act 1974 (CoPA 1974). We accept the argument of the Applicant that there is precedent for this approach in Schedule 17 to the Thames Water Utilities Limited (Thames Tideway Tunnel) Order 2014 and that it would streamline the appeal process, thus minimising the risk to timely delivery of the proposed development. It is agreed with the host boroughs so we see no reason to dissent.
- 9.5.18 In assessing these requirements and the additions that we recommend including a requirement regarding re-use of excavated material on site that we refer to in section 5.8 of this report, we have had regard to the advice of the National Planning Policy Framework (NPPF). The NPPF at paragraphs 203 to 206 refers to the use of conditions to make development acceptable and this advice is detailed more fully in planning practice guidance. We are satisfied that all the requirements that we recommend to be imposed in Schedule 2 are necessary, relevant to planning and to the development to be consented and that they would be enforceable, precise and reasonable in all other respects.

## **9.6 DEEMED MARINE LICENCE - SCHEDULE 12**

- 9.6.1 The DML that is set out in Schedule 12 went through a number of iterations, progressively adding further detail as sought by the MMO and also addressing matters raised by EA and Natural England. The provision for notification to the MMO of transfer of benefit was moved out of the schedule into A60. Otherwise the additional detail concerning a written scheme of investigation for marine archaeology, additional benthic surveys and written method statements for licensable marine activities and insertion of the coordinates within which dredging might take place satisfied requirements of Historic England and other consultees and the MMO itself. The latter is confirmed in the final MMO submissions [REP4-010, REP6-004 and REP7-016]. We can see no reason to recommend any further amendment to the DML.

## **9.7 PROTECTIVE PROVISIONS - SCHEDULE 13**

- 9.7.1 Protective Provisions (PP) were negotiated between the Applicant and other parties, particularly Statutory Undertakers and relevant local highway authorities, before and during the Examination. The list of PPs set out in the respective parts of Schedule 13 is given in paragraph 9.1.35 of this report. Apart from the issue relating to ensuring that river walls can be retained and enhanced to meet the required 2100 flood levels over which the EA seek further amendments, which we address in section 9.9 of this report, these PPs were agreed by the end of the Examination with the respective undertakers and local authorities. In certain instances final agreement may need to be notified to the SoS following the close of the Examination because documentation for separate agreements, although agreed in principle,

had not been finalised. The joint statement of Thames Water and the Applicant [REP7-008] makes this point. We also recommend grammatical correction where necessary.

- 9.7.2 In Chapter 8 of this report, we detailed the position in relation to the provisions of s127 and s138 of the PA2008 and Statutory Undertakers and telecommunications code operators. We do not consider that any issues remain since apart from final confirmation from Thames Water, the undertakers, operators and authorities that had made representations had indicated their satisfaction with the relevant PPs by the close of the Examination.

## **9.8 OTHER SCHEDULES**

- 9.8.1 By the close of the Examination no issues remained in respect of Schedule 3 concerning stopping up and or replacement of highways and accesses. Amendments had been made to cover the changes sought by Brenntag and Birch Sites Limited, which were covered in the Applicant's proposed changes that the Panel accepted into the Examination. Similarly no issues remained in relation to Schedule 4 that specifies the plots in relation to which acquisition of rights only is sought.

- 9.8.2 In Schedule 5 significant changes were made by the Applicant to seek consistency with provisions made in newly enacted national legislation regarding aspects of CA under the Housing and Planning Act 2016. While the wording proposed is not in all instances identical to that contained in in this Act, we were given no reasons to seek any amended wording save in respect of paragraph (9) where we recommend a clarification to the wording.

- 9.8.3 No issues remained in relation to Schedule 6 that lists plots in which only rights in subsoil or above subsoil and surface may be acquired. In Schedule 7 various amendments were made to the plots listed as subject to temporary possession and to the descriptions of the purposes for that possession during the course of the Examination to reflect agreements reached with Brenntag, Birch Sites Limited, Knight Dragon and AnSCO/The Waterfront Limited Partnership in RBG and in relation to Waterside Studios in LBN. If our recommendations in Chapter 8 are accepted that a compelling case in the public interest does not exist at the present time for access over other private land to provide alternative fire escape routes for the derelict fire damaged Studio 338 premises, exclusion of certain plots from this schedule as well as from the Book of Reference [REP7-031] would be required. Without CA for such an access, there would be no justification for temporary possession to allow for its construction.

- 9.8.4 Schedule 8 concerning the recovery of vehicles was subject of technical amendments during the course of the Examination. We see no reason to recommend any further changes save that the title ought also to refer also to the recovery of penalty charges. Schedule 9 provides new byelaws for both the existing Blackwall Tunnel and the



proposed new Silvertown Tunnel. It was also subject to technical amendments during the Examination, including at the Panel's suggestion to define Tfl so that the byelaws can be read as a standalone document. No matters remained outstanding and we do not recommend any further amendments. There were no significant issues outstanding with regard to Schedule 10 concerning the Classification of Roads or in relation to Schedule 11 concerning Traffic Regulation Measures that would warrant recommending any amendments.

- 9.8.5 Finally, in relation to Schedule 14 that contains the list of plans and documents to be certified, this was updated by the Applicant at the close of the Examination within dDCO (Revision 6) [REP7-026]. Thus, the only recommendation that we make is the addition of the DAS and its addendum as certified documents for the reasons given in paragraph 9.5.2.

## **9.9 CHANGES RECOMMENDED BY THE EXAMINING AUTHORITY**

- 9.9.1 The background to the recommendations for amendment to the Applicant's dDCO (Revision 6) [REP7-026] to produce the rDCO that is set out in Appendix D to this report is contained in relevant sections of Chapter 5 of this report. Previous sections of this chapter also highlight where additional textual improvements or necessary corrections are considered to be necessary. Chapter 8 recommends a small number of reductions in plots for CA and temporary possession because we do not consider that a compelling case has been made in the public interest for the proposed CA.
- 9.9.2 The following paragraphs set out our recommendation in the same order as the articles and schedules to the dDCO.
- 9.9.3 In the preamble, we recommend that in line 2 of the second paragraph of the preamble, the first reference to part of the PA2008 should be corrected from 'Chapter 3' to '**Chapter 2**' for the reason given in paragraph 9.3.6 of this report.
- 9.9.4 In Part 1, A2, we recommend that in the definition of the 'authorised development' in A2 the following words should be omitted: '**and any other development authorised by this Order**' again for the reasons given in paragraph 9.3.6 of this report.
- 9.9.5 In Part 2, A3(3) we recommend the omission of the words: '**and within any maintenance period defined in article 30(14), any maintenance of the authorised development**' for the reasons given in paragraph 9.3.7 and section 5.8 of this report in order to give effect to the final position of the EA at the close of the Examination [REP7-015]. On this basis we would anticipate that the EA would be able to consent to the dis-application referred to in A3(1) under s150 of the PA2008. This recommended amendment would accompany the substitution in Schedule 13 of the EA's version of the PPs in their favour as set out in their D6 submission [REP6-022] in a slightly

amended form as referred to in their D7 submission [REP7-015] where the changes sought have not been made by the Applicant.

- 9.9.6 In Part 2, A15, we recommend that the apparent conflict between A15(6) and 15(11) be resolved by the insertion of the words: **'Subject to paragraph (6),...'** at the start of paragraph 15(13) for the reasons given in paragraph 9.3.12 of this report.
- 9.9.7 In Part 3, A19(2), we recommend that the **'and'** following **'...rights)'** be deleted and replaced by **'**, and the following added at the end: **'and Article 29 (Temporary use of land for carrying out the authorised development)'** for the reasons given in paragraph 9.3.14 of this report.
- 9.9.8 In the final line of A29(3), we recommend that the words **'will be'** be replaced by the word **'is'** in accordance with normal drafting practice as indicated in paragraph 9.3.14 of this report of this report.
- 9.9.9 In the final line of A30(10), we recommend that the word **'must'** be replaced by **'is to'** in accordance with normal drafting practice as indicated in paragraph 9.3.14 of this report and that this formulation should apply to all the other references to determinations under the 1961 Act.
- 9.9.10 In A32(8), we recommend that the reference to the **'1980 Act'** be replaced by the **1990 Act'** for the reasons given in paragraph 9.3.14 of this report.
- 9.9.11 In Part 4, A48(1), we recommend the that the following words be added at the end: **' , such consent not to be unreasonably withheld and any disputes as to failure to consent or over terms and conditions to be subject to the arbitration provisions in article 69'** for the reasons given in paragraph 9.3.18 of this report.
- 9.9.12 In Schedule 1, we recommend correction of an apparent error in Work No 20B(c) to replace the reference to 'Work No 20A' by **'Work No 20B'** as noted in paragraph 9.4.4 of this report.
- 9.9.13 In Schedule 2 in the interpretation paragraph 1 for the subsequent requirements, we recommend clarifying the description of the Flood Risk Assessment (FRA) by insertion of the preface **'revised'** before 'flood risk assessment' and **'substituted'** before appendix 16A for the reasons given in paragraph 9.5.1 of this report.
- 9.9.14 In Schedule 2 in R5, we recommend in R5(2)(c) insertion of the word **'and'** between 'services' and 'the relevant'; and in R5(2)(f) addition at the end of the words **'to be prepared in consultation with the relevant planning authority and the Environment Agency'** for the reasons given in paragraph 9.5.5. We also recommend that R5(2)(a) be moved to become R5(3)k) with consequential re-numbering of the sub-paragraphs in R5(2) for the reasons given in paragraph 9.5.5 of this report.

- 9.9.15 In addition in paragraph 9.5.6, we refer to concerns over air quality at the Hoola development as detailed in section 5.3 of this report. In paragraph 5.3.168 we refer to the need to ensure that sufficient measures are taken to ensure that air quality within first floor flats in the Hoola development is acceptable. Reference is made in a clause in the draft of a planning agreement between the Applicant and LBN that has been submitted by Newham Council [REP7-005<sup>121</sup>] to measures to achieve this objective. However, while if an agreement is signed and sealed containing this provision our concern would be addressed, we note that the Applicant continued to oppose the need for additional measures at the Hoola building up to the close of the Examination and that no such provision is made in the Applicant's alternative draft of that proposed obligation [REP7-043]. Thus, there can be no certainty that an agreement will be signed and sealed between the Applicant and LBN containing a provision concerning air quality at the Hoola building. Consequently, we recommend at the end of R5(3)(a) addition of the words **'including in the London Borough of Newham, such scheme of ventilation at the Hoola building as necessary to reduce the exposure of first floor residential accommodation to nitrogen oxide to acceptable levels'**. The SoS may alternatively wish to make this into a separate requirement.
- 9.9.16 In Schedule 2, in R5(3)(d), we recommend the addition after Construction Materials Management Plan of the words: **'incorporating commitments to river transport'** to give effect to our conclusion in paragraph 5.11.17.
- 9.9.17 In Schedule 2, in R6(2)(c), we recommend that the following additional words be added at the end: **'including provision of a bus stop to serve southbound buses in the re-aligned Tunnel Avenue'** for the reasons given in paragraph 9.5.3. In addition, we recommend reinstatement of the original R6(2)(e) as **'6(2)(f) details of existing trees to be retained, with measures for their protection during the construction period; and'** consequentially renumbering **'6(2)(f)'** as **'6(2)(g)'** for the reasons given in paragraph 9.5.7.
- 9.9.18 In Schedule 2, in R7(7) line 2, we recommend clarification by replacing **'opens'** by **'is expected to open'** as the date would be in the future.
- 9.9.19 In Schedule 2, in R13(1), we recommend after 'TfL must secure' the addition of the following words: **'a cross-river bus service provision using the tunnels which delivers the same or greater levels of public transport benefits (as quantified in the pre-Scheme Refreshed Case modelling) as those identified in the Assessed Case without any reduction in any other user benefits'**

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<sup>121</sup> Part 3 Environmental Works of that draft, paragraph 1.2.1. REP7-006 also refers.

**generated by the scheme and in any event'** for the reasons given in section 5.13 and paragraph 9.5.11 of this report.

- 9.9.20 In Schedule 2, in R15(7), we recommend the addition of the following words at the end: **'by the date agreed with that authority'** for the reason given in paragraph 9.5.12 of this report.
- 9.9.21 In Schedule 2 with regard to R16, we recommend removal of the square brackets because we regard the full text of this requirement as drafted as necessary in order to address the issue of the hazardous substance consents on both Brenntag and EGGGS sites for the reasons given in paragraphs 9.5.13 to 9.5.15 of this report.
- 9.9.22 With regard to the first part of Schedule 2, there remains an issue of whether there needs to be a further requirement to address the issue of seeking to ensure the maximum retention of suitable excavated material on site for use in the subsequent re-use or redevelopment of the areas over which temporary possession is sought during construction. This was discussed in section 5.11<sup>122</sup> and reference was made to the conditions suggested by Silvertown Homes Limited [REP6-003] and to our conclusions that those conditions could not be justified as they would impose inflexible requirements upon the Applicant and would moreover assume an end-use that is not as yet adopted planning policy. Nevertheless, the NPSNN does advocate attention to sustainability, albeit mainly with specific reference to active travel<sup>123</sup>. The references to application of the waste hierarchy and the proximity principle in the CoCP taken with the river transport percentage specified would not necessarily prevent suitable excavated material being transported off-site for re-use on other river accessible sites and then for material to have to be imported to achieve the 2100 flood levels for subsequent use or redevelopment of the riverside areas, particularly within the Silvertown area. A much simpler requirement would enable approval of the extent of retention on site for re-use to be approved by the relevant LPAs in a way that would be consistent with the final agree position statement between the Applicant and Silvertown Homes Limited [REP7-046].
- 9.9.23 Consequently, we recommend that the following additional requirement be added to Schedule 2: **'Re-use of excavated material on-site 17. The works to implement the authorised development must be undertaken in a manner that will maximise the potential for re-use of suitable excavated material on site for the subsequent re-use of areas that will be subject to temporary possession. Prior to the commencement of development, details of the storage of suitable excavated material and of its subsequent re-use within or adjoining the Order limits must be submitted to and approved by the relevant local planning authority. The construction must be**

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<sup>122</sup> Paragraphs 5.11.18 to 5.11.28

<sup>123</sup> Paragraph 3.15 to 3.18, 4.29 and 4.32

**carried as approved.'** Subsequent paragraphs in Schedule 2 would require re-numbering.

- 9.9.24 In Schedule 5 paragraph 9, we recommend that in the first line '**is**' be replaced by '**as modified by article 27(3) is also**' to provide the clarification referred to in paragraph 9.8.2 of this report.
- 9.9.25 In Schedule 7, if our recommendation in Chapter 8 not to grant CA or temporary possession powers to the Applicant to secure alternative fire access to the premises known as Studio 338 is accepted, the following plots should be deleted from the table: **plots 01-047a and, 01-060a**<sup>124</sup> as referred to in paragraph 9.8.3 of this report.
- 9.9.26 We recommend that the title of Schedule 8 be amended by addition of the words: '**AND RECOVERY OF PENALTY CHARGES**' as referred to in paragraph 9.8.4.
- 9.9.27 In Schedule 13, Part 1 paragraph 8(4), we recommend that '**applies**' be corrected to '**apply**' as referred to at the end of paragraph 9.7.1. The provisions of Part 5, the PPs in favour of the EA also require amendment as referred to in that paragraph to give effect to our conclusions in section 5.8 of this report. The detailed changes sought by the EA were set out at D6 [REP6-021/2] as amended by their final submission [REP7-015]. The required changes that have not been made by the Applicant in dDCO (Revision 6) [REP7-026] are as follows:
- delete the caveats from the definition of 'flood defences' in paragraph 54;
  - modify paragraph 59(1) into the following form: '**(1) Subject to the provisions of this Schedule and except to the extent that the Agency or any other person is liable to maintain any drainage work and is not precluded by the exercise of the powers of this Order from doing so, TfL must from the commencement of the construction of the specified works until their completion maintain any drainage work which is situated within the limits of deviation or on land held by TfL for the purposes of or in connection with the specified works fit for purpose and where applicable to the statutory defence level of 5.18m AOD (or such lower level as shall be agreed with the Agency) and free from obstruction, whether or not the drainage work is to be constructed under the powers of this Order or is already in existence.**';
  - delete paragraphs 59(2), 59(7) and 59(8);
  - modify the preamble to paragraph 62 to the following: '**(1) TfL is responsible for and must indemnify the Agency against all financial liabilities, claims, demands proceedings, costs,**

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<sup>124</sup> The last row on page 97 of the dDCO Revision 6 [Rep7-026]

**expenses, damages and losses (including but not limited to any direct, indirect or consequential losses, loss of reputation and all interest, penalties and legal costs calculated on a full indemnity basis) and all other professional costs and expenses not otherwise provided for in this Part of this Schedule which may be reasonably incurred or suffered by the Agency by reason of—'**

- 9.9.28 Finally, in Schedule 14, we recommend that the **Design and Access Statement Document 7.3** [APP-095] and the **Design and Access Statement Addendum Document 8.83** [REP4-045] be added as documents to be certified for the reasons given in paragraphs 9.5.2 and 9.8.5 of this report.

## **9.10 OTHER LEGAL AGREEMENTS**

- 9.10.1 In Chapters 1 and 4 of this report we noted that the Applicant had put forward proposed agreements with each of the host boroughs shortly before the close of the Examination. It was stated that these would be agreed with the RBG, LBTH and LBN and that signed and sealed copies would be forwarded to the SoS. At the close of the Examination none of these intended agreements had been signed, though the position statements submitted by the Applicant at D7 indicate that agreement may be close with RBG and LBTH [REP7-042 and REP7-044]. It is less clear that negotiations are as far advanced with LBN [REP7-043] as that borough has submitted its own alternative approach for a s106 obligation linked to the DCO [REP7-003 and REP7-006].
- 9.10.2 The submissions from the LBN question the enabling powers under which the Applicant proposes that the agreements be made. LBN argues that the agreements should be obligations secured under s106 of the Town and County Planning Act 1990 as amended by the PA2008 whereas the Applicant proposes that the agreements should be under s111 of the Local Government Act 1972, section 2 of the Local Government Act 2000, section 1 of the Localism Act 2011 and all other enabling powers that may be relevant to the enforcement of the obligations contained in the deed. Before commenting on the content of the proposed deeds and the necessity for any or all of the provisions to be secured before the Order is made, it is necessary therefore for the Panel to comment on the issue of the legislation under which the deeds should be made.
- 9.10.3 The footnote to paragraph 4.10 of the NPSNN indicates that its reference to planning obligations being sought only *'where they are necessary to make the development acceptable in planning terms, directly related to the proposed development and fairly related in in scale and kind to the development'* refers to 'development consent obligations' under s106 of the Town and County Planning Act 1990 as amended by s174 of the PA2008. The key benefit of s106 is that it would enable provisions to be enforced by the relevant borough planning authority not only against the original parties to the

agreement but also against successors in title to the land which is bound by the agreement.

- 9.10.4 The Applicant argues that it does not at present hold enough land to be bound by s106 for enforcement purposes even within LBN since TfL is a separate Mayoral body from GLAP. The Applicant argues that it would cause unreasonable delay to seek to bind additional land-owners into the agreements [REP6-075]. Conversely, LBN draw attention to the substantial extent of GLAP's land holding within the Order limits in Silvertown.
- 9.10.5 For our part we accept the Applicant's argument that, while s156 of the PA2008 indicates that a DCO consent benefits the land subject of the application, this is subject to any contrary provision in the DCO. In this case A59 and A60 make the Order personal to the Applicant and any transferees under those articles. Thus, there is less need to bind the land. We accept that GLAP is a separate entity from TfL and that it was for this reason that A35 had to be introduced into the Order to address land transactions between the two Mayoral entities. We also note that much of the GLA Land and Properties Limited's land is held in joint ventures including, in respect of wide areas within Newham, with Silvertown Homes Limited. It is by no means clear that joint venture partners would agree to bind their interests at this time. Moreover, again as the Applicant points out, the proposed deeds are between public authorities so there ought not to be a need to bind them in relation to land holdings.
- 9.10.6 Our conclusion is therefore that while we consider that it would be desirable for the deeds to be made under the provisions of s106, it does not seem to us that it is an absolute necessity.
- 9.10.7 With regard to the content of the proposed deeds, the most recent drafts provided by the Applicant in relation to LBTH [REP7-042], RBG [REP7-044] and LBN [REP7-043] are essentially in similar terms, having regard to the fact that the proposed development works are confined to LBN and RBG. The three draft deeds contain provisions concerning employment, skills training and wage levels in the construction contract; provision of a shuttle bus service to carry cycles through either or both tunnels to provide for improved means for active travel across the river from the Greenwich Peninsula to Canary Wharf and Silvertown (with alternative options being referred to) and for transitional business support. Within the LBN draft deed, pedestrian and cycle route enhancements are detailed while in that for RBG there is a proposed contribution for road safety education. However, RBG are pressing for a sustainable transport fund that might enable comparable physical works to those identified in LBN. In both LBN and RBG deeds, schedules of fees payable to those authorities for clearance of requirements are proposed. Within the proposed RBG deed there are two unique provisions, firstly to secure provision of noise mitigation barriers alongside the A102 in the Siebert Road and Invicta Road area of Westcombe Hill and secondly to pay a biodiversity

offsetting contribution because replacement habitat has not to date been identified within the Order limits within Greenwich.

- 9.10.8 With regard to the alternative LBN draft s106 Agreement [REP7-005], leaving aside the s106 issue, there are essentially similar substantive provisions, namely concerning employment, skills training and wage levels in the construction contract, transitional business support, fees payable to the authority for clearance of requirements and the specific pedestrian, cycle and urban realm enhancements cited by the Applicant. Additionally, LBN seek a general sustainable transport fund like RBG and more general environmental enhancements. The latter would explicitly include the additional measures within the Hoola building to secure acceptable air quality. We addressed these provisions in paragraph 9.9.15 as this does not seem likely to be a matter that will be agreed within a deed between the Applicant and LBN given the final position of the Applicant at the close of the Examination.
- 9.10.9 We have assessed the provisions of the proposed obligations against the tests set out in paragraph 204 of the NPPF which are given statutory force by the Community Infrastructure Levy Regulations 2010. The tests state that a planning obligation may only constitute a reason for granting planning permission for a development if the obligation is (a) necessary to make the development acceptable in planning terms, (b) directly related to the development and (c) fairly and reasonably related in scale and kind to the development.
- 9.10.10 We are satisfied that all aspects of the proposed agreements are related to the development and either necessary to make the development acceptable by securing mitigation or would contribute towards delivering benefits as encouraged by paragraph 3.4 of the NPSNN. Having regard to the overall development costs of the DCO scheme, albeit that the great majority of these are intended to be met by the contractor/operator and recouped from user-charges, we consider that the sums likely to be included within the proposed agreements should be regarded as fairly and reasonably related in scale to the development.
- 9.10.11 As we regard the requisite tests to be met, provided that signed and sealed copies of the three proposed agreements essentially as described in this report are received by the SoS, we consider that they should be taken into account by the SoS and given due weight in the determination of this application for a DCO.
- 9.10.12 However, we recognise that it is possible that one or more of the proposed obligations may not be signed or sealed or that particular provisions may be excluded. It is therefore necessary for us to specify those elements of the proposed deeds that are in our view essential to secure mitigation and those that may be regarded simply as desirable enhancements to the benefits sought in the dDCO.



- 9.10.13 We regard the provisions concerning employment, skills training and wage levels in the construction contract and payments for clearance of requirements to be desirable rather than essential matters and likely to be achieved regardless of the deeds as part of public sector contracting arrangements in London and normal relationships between authorities. Similarly, we regard the greater part of the identified pedestrian, cycling and public realm proposals identified as enhancements and therefore desirable rather than essential mitigation measures. The sustainable transport fund sought by LBN and RBG again appears to be within the desirable rather than the essential category and we also accept the argument advanced by the Applicant that the terms of the 'Mitigation and Monitoring Strategy' that is secured through R7 ought to enable necessary measures to be identified and funded, particularly as mitigation measures have been explicitly added into A58.
- 9.10.14 This leaves the cycle shuttle provisions, the transitional business support provisions, the Hoola works in LBN and the Siebert Road/Westcombe Hill noise barriers in RBG and the biodiversity offsetting contribution in RBG.
- 9.10.15 In section 5.13 of this report we identify that there are potentially adverse socio-economic implications of the DCO scheme because of the impact of user-charging on low-income residents in the host boroughs<sup>125</sup> and also on businesses. In the latter case, only by inclusion of reliability benefits are net positive benefits assessed in relation to users of light goods vehicles and, even with reliability benefits, a negative benefit (ie a dis-benefit) is identified for heavy goods vehicle (HGV) operators.
- 9.10.16 One aspect of mitigation that is built into the Assessed Case and the face of the Order through R13 and the related certified Bus Strategy Document [REP7-024] is to secure additional bus services through the new tunnel, as these services provide the greater part of the benefit for low income groups. We have recommended strengthening R13 at paragraph 9.9.19 earlier in this chapter to ensure that the assessed benefits are secured. However, we regard the cycle shuttle provisions as another essential element of mitigation to counter adverse socio-economic impacts on low income residents. Likewise, we regard the transitional business support provisions as essential because they should help local small businesses to adjust to the imposition of user-charges. In this way social impacts would be mitigated as required by paragraph 3.3 of the NPSNN.
- 9.10.17 Provision of the Siebert Road area noise barriers is also in our view essential environmental mitigation that is necessary to comply with paragraph 3.3 of the NPSNN. We accept that the barriers are already needed to address the existing adverse noise climate experienced by

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<sup>125</sup> Other neighbouring boroughs argue that this concern applies more widely, but the Applicant has been unwilling to include additional boroughs in concessions for qualifying local residents.

residents and community facilities including the Invicta Road primary school. However, the DCO scheme will worsen the noise levels experienced in this locality, particularly when the likelihood of additional north bound HGV movements is factored into the traffic forecasts. Theoretically the projected increase in noise levels may not be significant in Environmental Statement (ES) terms. However, because conditions are already unacceptable we regard provision of these barriers as essential prior to construction of the DCO scheme. If the Applicant maintains that it is not possible to provide replacement habitat within the Order limits in Greenwich, then the biodiversity off-setting contribution must also be essential environmental mitigation. Finally, we have already noted that we regard the measures suggested by LBN for securing adequate air quality within first floor apartments in the Hoola building to be essential.

- 9.10.18 Consequently, our conclusion is that unless the generality of the measures referred to in paragraph 9.10.14 can be secured through signed and sealed agreements or by other means, we would recommend that the DCO should not be made because there would be inadequate mitigation.
- 9.10.19 The reference to other means is because we can see possible means to secure most of these items of mitigation through additional requirements. This applies to the measures at the Hoola building already detailed in paragraph 9.9.15 as we consider it to be unlikely that these measures will be agreed in a deed.
- 9.10.20 We are not convinced that it would be impossible to secure replacement habitat within the Order limits in Greenwich. We therefore recommend that if the biodiversity offsetting contribution is not secured in a deed, the following additional words be added at the end of R6(2)(a): **'including habitat creation in lieu of offsite biodiversity offsetting'**.
- 9.10.21 We also consider that a requirement comparable to the R13 that secures the Bus Strategy could be added in respect of the proposed cycle shuttle. We suggest therefore that an additional requirement could be added in the following terms: **'Cross-river cycle/pedestrian facilities (xx)(1) TfL must secure the provision of enhanced river crossing facilities for cyclists and pedestrians between the Greenwich Peninsula and Canary Wharf and Silvertown for at least the duration of the monitoring period whether by bus shuttles, ferry services and/or modified charging policy on the Air Line service. (2) Details of such provision shall be submitted to and approved by the relevant planning authorities prior to the opening of the Silvertown Tunnel and such scheme or schemes as may be approved shall be retained for no less than the monitoring period unless agreed otherwise by the relevant planning authorities.'**

- 9.10.22 With regard to the Siebert Road area noise barriers, although the location is at some distance from the order limits, it would seem to us that it would not be unlawful to impose a Grampian style requirement. If a signed and sealed agreement with RBG is not entered into containing provisions relating to the installation of noise barriers in the Siebert Road area, we would suggest adding the following requirement to Schedule 2 to the rDCO: **'Siebert Road and Westcombe Hill area noise barriers (xy) Prior to the bringing of the Proposed Development into operation, TfL shall first have installed noise barriers to protect properties in the Siebert Road, Invicta Road/Westcombe Hill area from the effects of traffic noise from the A102. Details of these barriers must be submitted to and approved by the LPA after consultation with local residents, before installation is commenced. The installation must be undertaken in the form approved.'**
- 9.10.23 It should be noted that the recommendations contained in paragraphs 9.10.20 to 9.10.22 are not included in the rDCO that is set out as Appendix D to this report on the assumption that these matters will be addressed in signed and sealed deeds.
- 9.10.24 We cannot suggest any alternative to a signed and sealed deed to address the required socio-economic mitigation that would be provided by the transitional business support scheme as it is not comparable to matters currently contained on the face of the DCO.

## **10 SUMMARY OF FINDINGS AND CONCLUSIONS**

### **10.1 SUMMARY OF FINDINGS AND CONCLUSIONS**

- 10.1.1 At paragraph 3.3.11 we conclude that this application falls to be considered under the provisions of s104 of the Planning Act 2008 (PA2008) as the National Policy Statement for National Networks (NPSNN) has effect.

#### **Conformity with the NPSNN**

#### ***The need for development of the national networks and the Government's policy, wider Government policy on the national networks and General principles of assessment including consideration of alternatives***

- 10.1.2 At paragraph 4.6.6 of this report, we concluded that the draft Development Consent Order (dDCO) is addressing the key issues in the NPSNN that are relevant to the Proposed Development and that assessment of conformity with the NPSNN should have regard to the '*compelling need*' for the development of the national networks as referred to in paragraphs 2.10 and 2.22 of the NPSNN. We conclude specifically that the dDCO is in conformity with NPSNN policies in relation to congestion, supporting growth and economic development, resilience and connectivity in paragraphs 4.6.7 to 4.6.9 of this report. We therefore concluded at paragraph 7.5.2 of this report that there is a compelling case for the Proposed Development under the terms of paragraph 2.10 of the NPSNN.
- 10.1.3 Paragraph 4.2 of the NPSNN refers to there being a presumption of in favour of granting development consent where need is established in terms of the NPSNN, subject to the details, policies and protections in the NPSNN and the legal constraints set out in the PA2008. We have not identified any policies within the NPSNN that the dDCO is not in conformity with. Consequently the presumption is applicable in relation to this application for development consent.

#### ***Support from the development plan and statutory transport plan***

- 10.1.4 The NPSNN refers to the development plan as being important and relevant in establishing the need for the development where it is subject to a s35 Direction and also that consistency with the development plan and relevant statutory transport strategies and plans should be demonstrated where road user charges are proposed<sup>126</sup>.
- 10.1.5 We have set out the relevant details of the development plan and the Mayor's Transport Strategy May 2010 (MTS) in section 4.4 of this

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<sup>126</sup> Paragraphs 1.3 and 3.27

report. At paragraph 4.6.1, we accept that they provide support for the need for the DCO scheme and that the principle of proposing user charges is consistent with those documents.

### ***Assessment of alternatives***

10.1.6 At paragraph 4.6.37 of this report, notwithstanding some views to the contrary, we conclude that given the long history of this project detailed in Chapter 4 of this report, we are satisfied that there has been sufficient assessment of alternatives to satisfy the terms of paragraph 4.27 of the NPSNN. We are also satisfied that the assessment of alternatives complied with the Environment Impact Assessment Regulations<sup>127</sup> (and the tests applicable to compulsory acquisition).

10.1.7 The panel considered issues relating to sustainable transport, the economic case for the DCO scheme and the functionality and fitness of for purpose of the Proposed Development in paragraphs 4.6.38 to 4.6.56 of this report. In relation to these matters, we concluded that the DCO scheme is consistent with paragraphs 4.5, 3.15-3.17 and paragraphs 4.4 (and 4.33) of the NPSNN. Thus, we were able to conclude at 4.6.62 of this report that, subject to our detailed consideration in relation to weighing the balance of any adverse impacts against benefits in, that we are satisfied that the Proposed Development is in conformity with the policy set out in Chapters 1-3 and the first part of Chapter 4 of the NPSNN. We consider the specific assessment tests of the NPSNN in Chapter 5 of this report. A similar conclusion is reached in paragraph 4.7.9 in relation to the Marine Policy Statement (MPS).

### ***The Planning Balance***

10.1.8 The Panel has concluded on the various potential adverse effects of the Proposed Development during construction and operation of the Proposed Development in Chapter 5 of this report. It has given careful consideration to the potential for impacts in relation to:

- Traffic and transport (5.2)
- Air quality (5.3)
- Noise and vibration (5.4)
- Other construction impacts(5.5)
- Health (5.6)
- Contaminated land (5.7)
- Flood risk 95.8)
- Dredging and navigation (5.9)
- Climate change (5.10)
- Resources and waste arisings (5.11)
- Hazardous substances (5.12)
- Socio-economic impacts (5.13)

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<sup>127</sup> Paragraph 4.8.1 of this report

- Industrial and commercial impacts (5.14)
- Biodiversity, ecology and geological conservation (5.15)
- Landscape and visual matters (5.16)
- Good design (5.17)
- The historic environment (5.18), and
- Security (5.19)

We have weighed the potential adverse effects of the Proposed Development against the benefits of the development as required by s104(7) of the PA2008 and also given particular attention to compliance with the assessment tests set out in the latter part of the NPSNN as required by s104(2)(a) and s104(3).

- 10.1.9 We have considered the potential impacts of the Proposed Development and the concerns raised by Interested Parties (IP) and others who made representations and have had regard to matters raised in Local Impact Reports (LIR) in accordance with s104(2)(b).
- 10.1.10 Our conclusions are that there would be some harmful effects, during construction, but these would not be at a significant level and would in any event be capable of substantial mitigation, primarily through the Code of Construction Practice (CoCP).
- 10.1.11 We considered the operational impacts upon sensitive receptors in detail in Chapter 5 of our report, the key issues arising being summarised in section 7.3 of this report. We conclude that impacts in relation to traffic and transport, air quality and noise during the operational phase would be mitigated through controls secured in the recommended DCO (rDCO) and related schemes, plans and certified documents.
- 10.1.12 Specifically in relation to air quality within Air Quality Management Areas (AQMA), including the possible need for an extension to encompass the Hoola building, we are prepared to accept the Applicant's conclusion that there would be no significant effect on air quality overall, on the basis of the input data that was used to provide the air quality assessments so long as the traffic levels in the assessed case reflect the situation when the Proposed Development is operational. The monitoring and mitigation requirements provided through the rDCO, particularly through Requirement (R)7 and the related Monitoring and Mitigation Strategy (MMS) certified document are essential to secure this conclusion and we have made a specific recommendation to address the potential for harm in relation to apartments within the Hoola Building. Subject to these safeguards, the Panel is satisfied that the Proposed Development would not give rise to any harmful impacts upon human health.
- 10.1.13 Through the improved mitigation secured through the Examination process and further recommended in the DCO that we have set out at Appendix D to this report, most of the matters identified in LIRs have been addressed as is evidenced in the final submissions from the host boroughs [REP7-001, REP7-004 and REP7-011]. Nevertheless, the

changes made to the face of the DCO and to documents to be certified and the anticipated further recommendations or conclusions of the Panel have not led all the authorities who submitted LIRs to be able to be in support of the principle of making the DCO in its amended form. We need to note that the London Borough of Lewisham (LBL) remained opposed to the making of the Order in its final submission [REP7-014, referring back also to REP6-025] for a number of detailed reasons.

- 10.1.14 We do not regard these matters or any similar points that remain outstanding from LIRs of the host boroughs, or others such as those from the London Borough of Southwark (LBS) as noted in their final submission [REP7-018], either individually or collectively as being grounds for concluding otherwise than that the amended DCO should be made. Some of the points concerning the DCO itself are addressed in the detailed recommendations that we make for further changes to the DCO as listed in Chapter 9 and embodied in the rDCO set out as Appendix D to this report. Other outstanding concerns refer to detail within certified documents, in particular the MMS [REP7-049] and the Charging Policies and Procedures [REP6-060]. While we cannot recommend further changes to these documents, we are satisfied that the DCO requires involvement of the boroughs concerned in the implementation of the specified procedures.
- 10.1.15 Finally, in paragraph 7.5.8 of this report we summarise concerns over the impact of the proposed user-charges on lower income groups who are resident in the vicinity of the tunnels and the ways in which these adverse socio-economic impacts may be mitigated. These issues were raised in the LIRs of the host boroughs and neighbouring authorities and pursued throughout the Examination. We addressed these issues in section 5.13 of our report. We are satisfied that mitigation to address these legitimate concerns in the manner that the NPSNN encourages would be possible through a number of mechanisms. It would partly be achieved through R13 in Schedule 2 as strengthened in our rDCO at Appendix D and through the related Bus Strategy certified document. This would secure the Assessed Case level of new bus services through the tunnels with concessionary fares for qualifying local residents. The Charging Policies and Procedures certified document that is secured through Article (A) 54 would also provide for concessions in relation to road user-charges through the tunnels for low income local residents.
- 10.1.16 Additional mitigation would be provided through legal agreements intended to be signed with each of the host boroughs [REP7-042 to REP7-044]. These would secure improved river crossing facilities for cyclists and pedestrians and transitional support for local small businesses to off-set the initial effects of user-charging. Provided that signed and sealed agreements are submitted to the Secretary of State embodying these provisions, we consider that sufficient mitigation would be achieved to offset the great majority of adverse effects on low income groups in the vicinity of the DCO scheme.

- 10.1.17 We do note, however, in section 5.13 that further mitigation against the effects on low income groups would be achieved if motorcycles were to be exempted from the user-charging proposals, when these come to be set under the processes set out in the Charging Policies and Procedures certified document. We consider that this would be consistent with the approach taken in the central Congestion Charging Zone and at the Dartford Crossing and would not undermine the objectives and environmental safeguards of the scheme.
- 10.1.18 As with environmental impacts we are satisfied that the socio-economic benefits outweigh any adverse impacts that cannot be fully mitigated.

***Conclusions as to the grant of development consent***

- 10.1.19 We therefore conclude that, for the reasons set out, and incorporating the changes proposed, that development consent should be granted in the form set out in the Panel's rDCO which is set out in Appendix D as to grant consent would be in conformity with the provisions of the NPSNN and the requirements of s104 of the PA2008.

***Compulsory acquisition and temporary possession***

- 10.1.20 In Chapter 8, we considered in detail the cases against the grant of Compulsory Acquisition (CA) powers or temporary possession in relation to all the parcels of land detailed in the Book of Reference, in Schedules 4, 6 and 7 to the dDCO and shown on the Land Plans. Having had regard to the availability of funds and having considered the application of relevant human rights, in almost every case we consider that a compelling case in the public interest for CA has been made out as the public benefit should clearly outweigh any private losses. Compensation provisions, including their application where rights only are sought or imposed as set out in Schedule 5 to the dDCO, ensure that interference with private rights is proportionate. In this context land agreements have been signed between the Applicant and the main land interests or are in prospect as detailed in Chapter 8.
- 10.1.21 Provision is also made in the rDCO for payments to be made to land interests for periods of temporary possession together with reinstatement so that we also consider that in almost every case the areas for temporary possession are also justified and the interference with private rights proportionate.
- 10.1.22 The exceptions relates to plots that were specified to provide a replacement fire escape for premises known as Studio 338, which were seriously damaged by fire but previously operated as a night club. Since the planning status of the premises remains under consideration by the Royal Borough of Greenwich (RBG) and alternative possibilities to provide access compatible with the DCO scheme are available as detailed in Chapter 8, we do not consider that a compelling case in the public interest has been made to grant the CA



powers sought by the Applicant over adjoining private property, nor that related temporary possession of adjoining land is justified.

- 10.1.23 Protective Provisions are set out in Schedule 13 to the rDCO that we recommend at Appendix D. Save for the details to secure maintenance and enhancement of the river walls to the statutory flood level, over which we have recommended in favour of the provision sought by Environment Agency (EA), these are agreed by the Applicant with the relevant statutory undertakers and local authorities. Consequently we see no reason under either s127 or s138 of the PA2008, why the DCO should not be made.

#### **Other consents required**

- 10.1.24 In section 1.9 of this report we referred to the other consents that appear necessary to implement the Proposed Development. We note that need for protected species licences is not anticipated. Environmental permits will be required from the EA for discharges, mobile plant, temporary stockpiling, treatment and disposal of waste and consents from the LAs under s61 of the Control of Pollution Act 1974 (CoPA) together with construction consents under the 1980 Act. Permits under the London Permits Scheme and licenses for abnormal loads will also be required. However, all these matters are common for major construction schemes in London and we do see any likely impediment in the need for such permits to the implementation of the Proposed Development.

#### **Overall conclusions**

- 10.1.25 In paragraph 3.3.11 of this report, having considered arguments to the contrary, we concluded that this application should be determined in relation to s104 because the NPSNN has effect and where a s35 Direction has been made, the NPSNN indicates that it should be applied in relation to applications for development consent.
- 10.1.26 In reaching our conclusions on the case for the Proposed Development, we have therefore had regard to the NPSNN and, as required by that National Policy Statement, also to the development plan and where appropriate to the National Planning Policy Framework as well as to the LIRs and all other matters which we consider to be both important and relevant to the Secretary of State's decision. We are satisfied that the case for the DCO scheme is consistent with the NPSNN and that in relation to the specific assessment tests set out in that policy statement, that there are no matters that arise where adverse impacts cannot be adequately mitigated. Thus we also consider that the benefits of the DCO scheme outweigh any adverse impacts.
- 10.1.27 We have further considered whether the determination of this application would lead the United Kingdom to be in breach of any of its European obligations, where relevant, and have not found that any such breach would be likely. We have therefore complied with these

duties. If the Secretary of State decides to make the Order, in the form recommended by the Panel in Appendix D, the Panel finds that there would not be a breach of any European obligations, or of any other duty imposed on the Secretary of State by any other enactment.

- 10.1.28 Before finally setting out our recommendations, we would direct the Secretary of State's attention to paragraphs 5.3.16 and 5.3.22 of this report in which we refer to the need for the Secretary of State to be satisfied on the up to date position with regard to the Air Quality Plan at the time of decision. We also direct the Secretary of State's attention to paragraph 5.12.38 in which we suggest that the most up to date position in relation to the application to the RBG to modify the Brenntag HSC should be ascertained at the time of decision.

## **10.2 RECOMMENDATION**

- 10.2.1 For all of the above reasons and in the light of the Panel's findings and conclusions on important and relevant matters set out in our report, the Panel under the powers in section 74(2)(b)(ii) of the PA2008, recommends that the Secretary of State should make the Silvertown Tunnel Order 2017 in the form set out at Appendix D.
- 10.2.2 The foregoing recommendation is made on the assumption that there are no material changes in circumstances relating to the AQP or HSCs referred to in paragraph 10.1.28 above during the decision period.
- 10.2.3 The foregoing recommendation is also made on the basis that the Secretary of State will have received signed and sealed agreements that cover the matters referred to in paragraphs 9.10.14 of this report. If that is not the case, our recommendation is that the making of the Order should be withheld until such signed and sealed agreements have been received or until the Secretary of State is satisfied that all necessary mitigation has been secured, if necessary by other means.
- 10.2.4 It may be that some agreements will have been received and that some of the matters referred to have been addressed in signed and sealed obligations, but not covering all of the matters that we considered should be secured. In which case the Secretary of State may consider that sufficient mitigation could be achieved by making the additional amendments to the rDCO that are referred to in paragraphs 9.10.20 to 9.10.22 of this report. In such a context we commend these additional suggested amendments to the Secretary of State.
- 10.2.5 The only matter that would not then be secured if any or all of the agreements were not to be entered into would be the fund for small business transitional relief. While the absence of that mitigation would be regrettable, we do not consider that it would be a sufficient reason to withhold consent for the making of the DCO.

## APPENDICES

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## **APPENDIX A: EVENTS IN THE EXAMINATION**

**EVENTS IN THE EXAMINATION**

The table below lists the main events occurring during the examination and the main procedural decisions taken by the Examining Authority.

<b>Item</b>	<b>Matters</b>	<b>Due Dates</b>
1	Preliminary Meeting	Tuesday 11 October 2016
2	Unaccompanied Site Inspection	Tuesday 11 October 2016
3	Issue Specific Hearing (ISH) on the draft Development Consent Order (dDCO)	Wednesday 12 October 2016
4	Open Floor Hearing (OFH) (daytime) OFH (evening)	Thursday 13 October 2016
5	Rule 8 Letter Issue by ExA of: <ul style="list-style-type: none"> <li>• Examination timetable</li> <li>• First Written Questions (FWQ)</li> <li>• Notification of hearings and Accompanied Site Inspection (ASI) to be held in December</li> </ul>	Tuesday 18 October 2016
6	Rule 17 Letter: Notification of request for further information	Wednesday 9 November 2016
7	<b>Deadline 1</b> Deadline for receipt by the ExA of: <ul style="list-style-type: none"> <li>• Comments on Relevant Representations</li> <li>• Written representations (WRs) by all Interested Parties</li> <li>• Local Impact Reports (LIRs) from any Local Authorities</li> <li>• Statements of Common Ground (SoCG) requested by the ExA</li> <li>• Responses to ExA's FWQ</li> <li>• Comments on any revised application documents</li> <li>• Notification of wish to make oral representations at ISHs</li> <li>• Notification of wish to make oral representations at subsequent OFHs</li> <li>• Notification of wish to make oral representations at a Compulsory Acquisition Hearing (CAH)</li> <li>• Notification of wish to attend an ASI, suggested locations and justifications</li> <li>• Notification by statutory parties of wish to be considered an Interested Party</li> <li>• Any revised dDCO</li> <li>• Any other information requested by the ExA</li> </ul>	Tuesday 15 November 2016
8	Publication by ExA of: <ul style="list-style-type: none"> <li>• Agendas for ISH and Compulsory Acquisition Hearings (CAH), and</li> </ul>	Wednesday 30 November 2016

**Appendix A: Events in the Examination  
Silvertown Tunnel**

	<ul style="list-style-type: none"> <li>• Itinerary for ASI</li> </ul>	
9	Unaccompanied Site Inspection	Monday 5 December 2016
10	ASI	Tuesday 6 December 2016
11	ISH on traffic/transport modelling	Wednesday 7 December 2016
12	CAH	Thursday 8 December 2016
13	<p><b>Deadline 2</b></p> <p>Deadline for receipt by the ExA of:</p> <ul style="list-style-type: none"> <li>• Comments on WRs</li> <li>• Comments on LIRs</li> <li>• Comments on responses to ExA's FWQ</li> <li>• Comments on responses to any revised Application Documents</li> <li>• Revised dDCO if required</li> <li>• Post-hearing submissions including written submissions of oral cases</li> <li>• Any other information requested by the ExA</li> <li>• Comments on any further information previously requested by the ExA</li> <li>• Further updated information from the Applicant</li> </ul>	Wednesday 14 December 2016
14	<p>Issue by ExA of:</p> <ul style="list-style-type: none"> <li>• Notifications of hearings to be held in January</li> </ul>	Monday 19 December 2016
15	<p>Publication by ExA of:</p> <ul style="list-style-type: none"> <li>• Agendas for ISHs and CAH, and</li> <li>• Itinerary for Compulsory Acquisition ASI</li> </ul>	Tuesday 10 January 2017
16	Unaccompanied Site Inspection	Monday 16 January 2017
17	ISH on Traffic/Transport Modelling, Forecasting and User Charging and Economic Issues	Tuesday 17 January 2017
18	ISH on Air Quality, Noise and Other Environmental Issues	Wednesday 18 January 2017
19	ISH on the dDCO	Thursday 19 January 2017
20	CAH (morning)	Friday 20 January 2017
21	Compulsory Acquisition ASI (afternoon)	Friday 20 January 2017
22	<p><b>Deadline 3</b></p> <p>Deadline for receipt by the ExA of:</p> <ul style="list-style-type: none"> <li>• Post-hearing submissions including written submissions of oral case</li> <li>• Comments on revised application documents</li> <li>• Any further information requested by the ExA</li> <li>• Comments on any further information previously requested by the ExA and/or submitted by the Applicant</li> <li>• Any revised dDCO</li> </ul>	Friday 27 January 2017

**Appendix A: Events in the Examination  
Silvertown Tunnel**

23	<p>Issue by ExA of:</p> <ul style="list-style-type: none"> <li>• Procedural Decision regarding the applicant's proposed changes to the application</li> <li>• Second Written Questions (SWQ), and</li> <li>• Notification of hearings to be held in March 2017</li> </ul>	On or before Friday 10 February 2017
24	<p><b>Deadline 4</b></p> <p>Deadline for receipt by the ExA of:</p> <ul style="list-style-type: none"> <li>• Responses to ExA's SWQ</li> <li>• Response to any further information requested by the ExA for this deadline</li> <li>• Comments on any further information previously requested by the ExA including non-material change of application documents dated 12 January and 3 February 2017 by Applicant)</li> <li>• Any updated dDCO</li> </ul>	Monday 6 March 2017*
25	<p><b>Deadline 5</b></p> <p>Deadline for receipt by the ExA of:</p> <ul style="list-style-type: none"> <li>• Comments on responses to ExA's SWQ</li> <li>• Comments on any further information previously requested by the ExA</li> <li>• Applicant's report/summary of responses to notification on non-material changes to application documents dated 12 January and 3 February 2017 together with copies of the responses received by the Applicant</li> <li>• Applicants response to comments received by Deadline 4 on non-material change to application documents, dated 12 January and 3 February 2017</li> <li>• Response to any further information requested by the ExA for this deadline</li> </ul> <p>Issue by ExA of:</p> <ul style="list-style-type: none"> <li>• Report on the Implications for European Sites (RIES)</li> <li>• ExA's dDCO</li> </ul> <p>Publication by ExA of:</p> <ul style="list-style-type: none"> <li>• Agenda for ISH, and</li> <li>• Agenda for OFH/CAH</li> </ul>	Monday 20 March 2017
26	Unaccompanied Site Inspection	Monday 27 March 2017
27	ISH on Any Other Outstanding Issues including Environmental Matters	Tuesday 28 March 2017
28	OFH (early evening)	Tuesday 28 March 2017
29	CAH (morning)	Wednesday 29 March 2017
30	ISH on dDCO and Other Matters of Legal Drafting (afternoon)	Wednesday 29 March 2017



**Appendix A: Events in the Examination  
Silvertown Tunnel**

31	<p><b>Deadline 6</b>          Deadline for receipt by the ExA of:</p> <ul style="list-style-type: none"> <li>• Comments on the RIES</li> <li>• Comments on ExA's dDCO</li> <li>• Comments on Deadline 5 submissions received by the Applicant on non-material changes to application documents, including report/summary of responses to consultation</li> <li>• Post-hearing submissions including written submissions of oral cases</li> <li>• Response to any further information requested by the ExA for this deadline</li> </ul>	Wednesday 5 April 2017
32	Rule 17 Letter: Notification of request for further information	Friday 7 April 2017
33	<p><b>Deadline 7</b></p> <ul style="list-style-type: none"> <li>• Final deadline for submission of any responses/comments on information requested by the ExA for this deadline</li> <li>• Applicant's final dDCO</li> </ul>	Monday 10 April 2017
34	Close of Examination	Tuesday 11 April 2017

\* Variation of Examination Timetable, consequently made by the Panel to their original Examination Timetable issued on 10 February 2017

## **APPENDIX B: EXAMINATION LIBRARY INCLUDING RIES**

<b>Silvertown Tunnel – TR010021</b>	
<b>Examination Library - Index</b>	
<b>Category</b>	<b>Reference</b>
<u>Application Documents</u>  As submitted and amended version received before the PM. Any amended version received during the Examination stage to be saved under the Deadline received	APP-xxx
<u>Adequacy of Consultation responses</u>	AoC-xxx
<u>Relevant Representations</u>	RR-xxx
<u>Procedural Decisions and Notifications from the Examining Authority</u>  Includes Examining Authority’s questions, s55, and post acceptance s51	PD-xxx
<u>Additional Submissions</u>  Includes anything accepted at the Preliminary Meeting and correspondence that is either relevant to a procedural decision or contains factual information pertaining to the examination	AS-xxx
<u>Events and Hearings</u>  Includes agendas for hearings and site inspections, audio recordings, responses to notifications, applicant’s hearing notices, and responses to Rule 6 and Rule 8 letters	EV-xxx
<b><u>Representations – by Deadline</u></b>	
<u>Deadline 1</u>	REP1-xxx
<u>Deadline 2</u>	REP2-xxx
<u>Deadline 3</u>	REP3-xxx
<u>Deadline 4</u>	REP4-xxx

**Appendix B: Examination Library  
Silvertown Tunnel**

<u>Deadline 5</u>	REP5-xxx
<u>Deadline 6</u>	REP6-xxx
<u>Deadline 7</u>	REP7-xxx
<u>Other Documents</u>  Includes s127/131/138 information, s56, s58 and s59 certificates, and transboundary documents	OD-xxx

**Appendix B: Examination Library  
Silvertown Tunnel**

<b>Silvertown Tunnel – TR010021</b>	
<b>Examination Library</b>	
<b>Application Documents</b>	
APP-001	<a href="#"><u>1.1 Covering Letter and Section 55 Checklist</u></a>
APP-002	<a href="#"><u>1.2 Application Form</u></a>
APP-003	<a href="#"><u>1.3 Guide to the Application</u></a>
APP-004	<a href="#"><u>2.1 Tunnels Location and Operational Boundaries Plans</u></a>
APP-005	<a href="#"><u>2.2 General Arrangement Plans</u></a>
APP-006	<a href="#"><u>2.3 Land Plans</u></a>
APP-007	<a href="#"><u>2.4 Special Category Land Plan(s)</u></a>
APP-008	<a href="#"><u>2.5 Work Plans</u></a>
APP-009	<a href="#"><u>2.6 Rights of Way and Access Plans</u></a>
APP-010	<a href="#"><u>2.7 Classification of Roads Plan</u></a>
APP-011	<a href="#"><u>2.8 Engineering Section Drawings and Plan</u></a>
APP-012	<a href="#"><u>2.9 Traffic Regulation Measures Plans</u></a>
APP-013	<a href="#"><u>3.1 Draft Development Consent Order</u></a>
APP-014	<a href="#"><u>3.2 Explanatory Memorandum to Draft Development Consent Order</u></a>
APP-015	<a href="#"><u>4.1 Statement of Reasons</u></a>
APP-016	<a href="#"><u>4.2 Funding Statement</u></a>
APP-017	<a href="#"><u>4.3 Book of Reference</u></a>
APP-018	<a href="#"><u>5.1 Consultation Report</u></a>
APP-019	<a href="#"><u>5.2 Consultation Report Appendix A</u></a>
APP-020	<a href="#"><u>5.2 Consultation Report Appendix B</u></a>
APP-021	<a href="#"><u>5.2 Consultation Report Appendix C</u></a>
APP-022	<a href="#"><u>5.2 Consultation Report Appendix D</u></a>
APP-023	<a href="#"><u>5.2 Consultation Report Appendix E</u></a>
APP-024	<a href="#"><u>5.2 Consultation Report Appendix F</u></a>
APP-025	<a href="#"><u>5.2 Consultation Report Appendix G</u></a>

**Appendix B: Examination Library**  
**Silvertown Tunnel**

APP-026	<a href="#">5.2 Consultation Report Appendix H</a>
APP-027	<a href="#">5.2 Consultation Report Appendix I</a>
APP-028	<a href="#">5.2 Consultation Report Appendix J to S</a>
APP-029	<a href="#">5.2 Consultation Report Appendix T1-T4</a>
APP-030	<a href="#">5.2 Consultation Report Appendix T5-T9</a>
APP-031	<a href="#">6.1 Environmental Statement</a>
APP-032	<a href="#">6.2 ES Figures Drawings 4.1 6.1-6.2</a>
APP-033	<a href="#">6.2 ES Figures Drawings 6.3 - 6.4</a>
APP-034	<a href="#">6.2 ES Figures Drawings 6.5 - 6.6</a>
APP-035	<a href="#">6.2 ES Figures Drawings 6.7 - 6.8</a>
APP-036	<a href="#">6.2 ES Figures Drawings 6.9 - 6.10</a>
APP-037	<a href="#">6.2 ES Figures Drawings 7.1 - 11.2</a>
APP-038	<a href="#">6.2 ES Figures Drawings 14.1 - 14.5</a>
APP-039	<a href="#">6.2 ES Figures Drawings 14.6 - 14.8</a>
APP-040	<a href="#">6.2 ES Figures Drawings 15.1 - 15.2</a>
APP-041	<a href="#">6.2 ES Figures Drawings 16.1 - 16.5</a>
APP-042	<a href="#">6.2 ES Figures Drawings 16.6 - 16.10</a>
APP-043	<a href="#">6.2 ES Figures Drawings 17.1 - 17.2</a>
APP-044	<a href="#">6.3 ES Appendix 1.A</a> National Policy Statement for National Networks Compliance
APP-045	<a href="#">6.3 ES Appendix 3.A</a> Options Summary Table
APP-046	<a href="#">6.3 ES Appendix 4.A</a> Construction Method Statement
APP-047	<a href="#">6.3 ES Appendix 4.B</a> Indicative Lighting Drawings
APP-048	<a href="#">6.3 ES Appendix 5.A</a> Scoping Opinion Response Table
APP-049	<a href="#">6.3 ES Appendix 6.A</a> Construction Dust Assessment
APP-050	<a href="#">6.3 ES Appendix 6.B</a>

**Appendix B: Examination Library**  
**Silvertown Tunnel**

	Model Verification
APP-051	<a href="#">6.3 ES Appendix 6.C</a> Local Authority Automatic Monitoring Data 2012-2015
APP-052	<a href="#">6.3 ES Appendix 6.D</a> Environmental Traffic Data
APP-053	<a href="#">6.3 ES Appendix 6.E</a> Model Parameters
APP-054	<a href="#">6.3 ES Appendix 7.A</a> Navigational Risk Assessment
APP-055	<a href="#">6.3 ES Appendix 8.A</a> Heritage Asset Gazetter
APP-056	<a href="#">6.3 ES Appendix 8.B</a> Geoarchaeological Model
APP-057	<a href="#">6.3 ES Appendix 8.C</a> Archaeological Foreshore Survey
APP-058	<a href="#">6.3 ES Appendix 9.A</a> Extended Phase 1 Habitat Survey (2015)
APP-059	<a href="#">6.3 ES Appendix 9.B</a> Bat Activity Survey
APP-060	<a href="#">6.3 ES Appendix 9.C</a> Invertebrate Survey
APP-061	<a href="#">6.3 ES Appendix 9.D</a> Arboricultural Survey
APP-062	<a href="#">6.3 ES Appendix 9.E</a> Arboricultural Impact Assessment
APP-063	<a href="#">6.3 ES Appendix 9.F</a> Dedicated Species Assessments for Reptiles and Black Redstarts
APP-064	<a href="#">6.3 ES Appendix 9.G</a> Habitat Regulations Assessments
APP-065	<a href="#">6.3 ES Appendix 9.H</a> Biodiversity Action Plan and Mitigation Strategy
APP-066	<a href="#">6.3 ES Appendix 10.A</a> Water Framework Directive Assessment
APP-067	<a href="#">6.3 ES Appendix 10.B</a> Marine Ecology Survey Report
APP-068	<a href="#">6.3 ES Appendix 10.C</a> Underwater Noise Assessment

**Appendix B: Examination Library**  
**Silvertown Tunnel**

APP-069	<a href="#">6.3 ES Appendix 12.A</a> GIR Borehole Location Plan and Geological Long Sections
APP-070	<a href="#">6.3 ES Appendix 12.B</a> Settlement Assessment Report
APP-071	<a href="#">6.3 ES Appendix 14.A</a> Construction Noise
APP-072	<a href="#">6.3 ES Appendix 14.B</a> Noise Survey Data
APP-073	<a href="#">6.3 ES Appendix 14.C</a> Assessment of Ground-borne Noise and Vibration and Underwater Noise from the Tunnel Boring Machine
APP-074	<a href="#">6.3 ES Appendix 14.D</a> Tunnel Ventilation Noise Assessment- Northern Portal
APP-075	<a href="#">6.3 ES Appendix 14.E</a> Tunnel Ventilation Noise Assessment- Southern Portal
APP-076	<a href="#">6.3 ES Appendix 15.A</a> Photomontages
APP-077	<a href="#">6.3 ES Appendix 16.A</a> Flood Risk Assessment
APP-078	<a href="#">6.3 ES Appendix 16.B</a> Hydrodynamics Modelling
APP-079	<a href="#">6.3 ES Appendix 16.C</a> Flood Warning and Evacuation Plan
APP-080	<a href="#">6.3 ES Appendix 16.D</a> River Wall Structural Condition Survey
APP-081	<a href="#">6.3 ES Appendix 16.E</a> Off Site River Sediment Chemistry Data
APP-082	<a href="#">6.3 ES Appendix 16.F</a> On Site Survey Factual Report and Information
APP-083	<a href="#">6.3 ES Appendix 16.G</a> Water Framework Directive River Basin Management Plan Second Cycle Waterbody Data
APP-084	<a href="#">6.3 ES Appendix 17.A</a> Cumulative Developments
APP-085	<a href="#">6.4 Environmental Statement Non Technical Summary</a>
APP-086	<a href="#">6.5 Transport Assessment</a>
APP-087	<a href="#">6.5 Transport Assessment Appendices</a>



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APP-088	<a href="#">6.6 Statement in Respect of Statutory Nuisance</a>
APP-089	<a href="#">6.7 Energy and Carbon Statement</a>
APP-090	<a href="#">6.8 Health and Equalities Impact Assessment</a>
APP-091	<a href="#">6.9 Sustainability Statement</a>
APP-092	<a href="#">6.10 Code of Construction Practice</a>
APP-093	<a href="#">7.1 Case for the Scheme</a>
APP-094	<a href="#">7.2 Planning Policy Compliance Statement</a>
APP-095	<a href="#">7.3 Design and Access Statement</a>
APP-096	<a href="#">7.4 Design Principles</a>
APP-097	<a href="#">7.5 Charging Statement</a>
APP-098	<a href="#">7.6 Monitoring Strategy</a>
APP-099	<a href="#">7.7 Traffic Impacts Mitigation Strategy</a>
APP-100	<a href="#">7.8 Outline Business Case</a>
APP-101	<a href="#">7.8.1 Economic Assessment Report</a>
APP-102	<a href="#">7.8.2 Regeneration and Development Impact Assessment</a>
APP-103	<a href="#">7.8.3 Social Impacts Appraisal</a>
APP-104	<a href="#">7.8.4 Distributional Impacts Appraisal</a>
APP-105	<a href="#">7.9 Traffic Forecasting Report - Sensitivity Testing</a>
APP-106	<a href="#">7.10 Consent and Agreements Position Statement</a>
APP-107	<a href="#">7.11 Charging Policy</a>
APP-108	<a href="#">7.12 Mitigation Route Map</a>
<b>Adequacy of Consultation Responses</b>	
AoC-001	<a href="#">Royal Borough of Greenwich</a> Adequacy of Consultation Representation
AoC-002	<a href="#">London Borough of Waltham Forest</a> Adequacy of Consultation Representation
AoC-003	<a href="#">London Borough of Redbridge</a> Adequacy of Consultation Representation
AoC-004	<a href="#">London Borough of Newham</a> Adequacy of Consultation Representation

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AoC-005	<u>London Borough of Lewisham</u> Adequacy of Consultation Representation
AoC-006	<u>London Borough of Bexley</u> Adequacy of Consultation Representation
AoC-007	<u>London Borough Tower Hamlets</u> Adequacy of Consultation Representation
AoC-008	<u>Greater London Authority</u> Adequacy of Consultation Representation
<b>Relevant Representations</b>	
RR-001	<u>Thomas Greenwood</u>
RR-002	<u>Dr Mary Mills</u>
RR-003	<u>Neil Smith</u>
RR-004	<u>Jan King</u>
RR-005	<u>John Zhang</u>
RR-006	<u>Mohammed Akthar Hussain</u>
RR-007	<u>Rebecca McCullough</u>
RR-008	<u>Pamela Winders</u>
RR-009	<u>Stewart Walker</u>
RR-010	<u>Marcio Da Silva</u>
RR-011	<u>Robert Hicks</u>
RR-012	<u>Ann Galloway</u>
RR-013	<u>Yonatan Higgsmith</u>
RR-014	<u>Corporation of Trinity House</u>
RR-015	<u>Elizabeth Green</u>
RR-016	<u>Damian Aune</u>
RR-017	<u>Tom Kirk</u>
RR-018	<u>Katherine Wass</u>
RR-019	<u>Simon Antoine</u>
RR-020	<u>Leslie Clark</u>
RR-021	<u>Jam Anderson Mulcare</u>

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RR-022	<u>Mr Joseph Francis Mc Clory</u>
RR-023	<u>Richard Allen</u>
RR-024	<u>Stephen Boatright</u>
RR-025	<u>Anna-Frevisse Dearsley-Hitchcock</u>
RR-026	<u>Robbie Moore</u>
RR-027	<u>Roger Tester</u>
RR-028	<u>Ian James Seale</u>
RR-029	<u>Michael Park</u>
RR-030	<u>Johnathan Phan</u>
RR-031	<u>Zvi Sobel</u>
RR-032	<u>Nick Raynsford</u>
RR-033	<u>South East London Chamber of Commerce</u>
RR-034	<u>Richard Speller</u>
RR-035	<u>Tom Killick</u>
RR-036	<u>Adam Deal</u>
RR-037	<u>RPS Planning and Development Limited on behalf of Lidoka Estates Limited</u>
RR-038	<u>Maurice Patry</u>
RR-039	<u>Michael Byrne</u>
RR-040	<u>Martin Watts</u>
RR-041	<u>Rajiv Rankan</u>
RR-042	<u>Peter Brown</u>
RR-043	<u>Stephen Tribble</u>
RR-044	<u>Richard JS Bucknall</u>
RR-045	<u>David McLaren</u>
RR-046	<u>Peter Cope</u>
RR-047	<u>Gasworks Dock Partnership</u>
RR-048	<u>Duncan Galloway</u>
RR-049	<u>Katharine Ford</u>

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RR-050	<a href="#">Eric Manners</a>
RR-051	<a href="#">Paul Humphrey</a>
RR-052	<a href="#">S.A. Wood</a>
RR-053	<a href="#">Landscape Architects Association</a>
RR-054	<a href="#">Clare Ensing</a>
RR-055	<a href="#">Charlie Finch</a>
RR-056	<a href="#">Stephen Brundish</a>
RR-057	<a href="#">Naz Islam</a>
RR-058	<a href="#">Miles Delap</a>
RR-059	<a href="#">Nick Eastwell</a>
RR-060	<a href="#">Jane Burch</a>
RR-061	<a href="#">Matthew Pettitt</a>
RR-062	<a href="#">Marcus Relton</a>
RR-063	<a href="#">Hamed Shahbakhti</a>
RR-064	<a href="#">David Barrett</a>
RR-065	<a href="#">Wilson Ma</a>
RR-066	<a href="#">Charlton Rail Users' Group</a>
RR-067	<a href="#">Selima Rollins</a>
RR-068	<a href="#">Rob Hunter</a>
RR-069	<a href="#">Michael Walsh</a>
RR-070	<a href="#">Shawm Kreitzman</a>
RR-071	<a href="#">Stanley Ginsburg JP</a>
RR-072	<a href="#">GES</a>
RR-073	<a href="#">Mladen Stariha</a>
RR-074	<a href="#">Matthew Meylan</a>
RR-075	<a href="#">Christopher Dyson</a>
RR-076	<a href="#">Nick Ely</a>
RR-077	<a href="#">Centre for Sports Technology</a>

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RR-078	<a href="#">Peter Lewis</a>
RR-079	<a href="#">Brian Wharf</a>
RR-080	<a href="#">Daniel Wilson</a>
RR-081	<a href="#">Victoria Rance</a>
RR-082	<a href="#">Tanvir Tayab</a>
RR-083	<a href="#">Rob McCracken</a>
RR-084	<a href="#">Dr Valerie Wilson Trower</a>
RR-085	<a href="#">Elizabeth Angela Guyver</a>
RR-086	<a href="#">Susan Boner</a>
RR-087	<a href="#">Sally Hughes</a>
RR-088	<a href="#">Dartforce Limited</a>
RR-089	<a href="#">Sarah Poole</a>
RR-090	<a href="#">Michael King</a>
RR-091	<a href="#">William Lee</a>
RR-092	<a href="#">Gordon Aitchison</a>
RR-093	<a href="#">Warren Hoskins</a>
RR-094	<a href="#">Lyn Juniper-Solley</a>
RR-095	<a href="#">David Crafter</a>
RR-096	<a href="#">Andrew Beswetherick</a>
RR-097	<a href="#">Anum Arif</a>
RR-098	<a href="#">Andrea Carey Fuller</a>
RR-099	<a href="#">Mark Barnes</a>
RR-100	<a href="#">Fiza Khan</a>
RR-101	<a href="#">Thomas Turrell</a>
RR-102	<a href="#">Peter Ritchie</a>
RR-103	<a href="#">Chris Hale</a>
RR-104	<a href="#">Eric Huntington</a>
RR-105	<a href="#">Gurvinder Singh</a>

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RR-106	<u>Gowtham Dev Kallempudi</u>
RR-107	<u>Ardra Kilaparti</u>
RR-108	<u>Jean Cole</u>
RR-109	<u>Joel Roberts</u>
RR-110	<u>Richard Dinkeldein</u>
RR-111	<u>Tom Royal</u>
RR-112	<u>Maria Ruggiero</u>
RR-113	<u>Philip Hennessy</u>
RR-114	<u>Laurence Pinturault</u>
RR-115	<u>Diane Barnwell</u>
RR-116	<u>Paul David Lukes</u>
RR-117	<u>Nita Gologorsky</u>
RR-118	<u>David J Oxspring</u>
RR-119	<u>Daniel Margetts</u>
RR-120	<u>John Pipal</u>
RR-121	<u>William A H Hamilton</u>
RR-122	<u>Nicholas Joyner</u>
RR-123	<u>Claire Yarborough</u>
RR-124	<u>Gordon Joly</u>
RR-125	<u>Valerie Gordon-Walker</u>
RR-126	<u>Edmund Wroblewski</u>
RR-127	<u>Cygnets Hospital Beckton</u>
RR-128	<u>Matchbox Day Nursery Ltd</u>
RR-129	<u>Nic Vine</u>
RR-130	<u>John Jappy</u>
RR-131	<u>Peter Heath</u>
RR-132	<u>Ben</u>
RR-133	<u>Martin Arnold Ltd</u>

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RR-134	<u>Thames Clippers</u>
RR-135	<u>John Baker</u>
RR-136	<u>Chris Todd</u>
RR-137	<u>Alan Findlay</u>
RR-138	<u>Russell Cooke LLP on behalf of GLE Property Developments Limited and Waterfront Studios Limited</u>
RR-139	<u>Kate Brian</u>
RR-140	<u>Jane Lawson</u>
RR-141	<u>Jane Pawley</u>
RR-142	<u>Woolwich and District Antiquarian Society</u>
RR-143	<u>David Harris</u>
RR-144	<u>Matthew Sparkes</u>
RR-145	<u>Barbara Moss</u>
RR-146	<u>William Kerr</u>
RR-147	<u>Jude Taylor</u>
RR-148	<u>Dominic Leggett</u>
RR-149	<u>Rajinder Pal</u>
RR-150	<u>David Taskis</u>
RR-151	<u>Margaret Jones</u>
RR-152	<u>Alan Clarke</u>
RR-153	<u>Ian Stephen</u>
RR-154	<u>David Such</u>
RR-155	<u>Motorcycle Action Group (MAG)</u>
RR-156	<u>Tatjana Simjanovic</u>
RR-157	<u>John Bain</u>
RR-158	<u>David Westburgh</u>
RR-159	<u>Katy Delahay</u>
RR-160	<u>Licensed Taxi Drivers association (LTDA)</u>

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RR-161	<a href="#"><u>Richard Andrew</u></a>
RR-162	<a href="#"><u>Peter Liam Jones</u></a>
RR-163	<a href="#"><u>Reto Fisher</u></a>
RR-164	<a href="#"><u>John Deakins</u></a>
RR-165	<a href="#"><u>Steve Chambers</u></a>
RR-166	<a href="#"><u>Tim Butcher</u></a>
RR-167	<a href="#"><u>Wei Du</u></a>
RR-168	<a href="#"><u>Gary Sargent</u></a>
RR-169	<a href="#"><u>Mrs M White</u></a>
RR-170	<a href="#"><u>Nathan Modell</u></a>
RR-171	<a href="#"><u>Mike Shallcross</u></a>
RR-172	<a href="#"><u>David S Garfield</u></a>
RR-173	<a href="#"><u>B Bajwe</u></a>
RR-174	<a href="#"><u>Arnold Ridout</u></a>
RR-175	<a href="#"><u>Glyn Ellis</u></a>
RR-176	<a href="#"><u>Wyndham Resources UK Limited</u></a>
RR-177	<a href="#"><u>Heather Scott</u></a>
RR-178	<a href="#"><u>Mark Morris</u></a>
RR-179	<a href="#"><u>Muhammad Uddin</u></a>
RR-180	<a href="#"><u>Alliance of British Drivers</u></a>
RR-181	<a href="#"><u>Mayflower Hygiene Supplies</u></a>
RR-182	<a href="#"><u>BNP Paribas Real Estate on behalf of Royal Mail Group Limited</u></a>
RR-183	<a href="#"><u>Simon Robinson</u></a>
RR-184	<a href="#"><u>Gerri Grogan</u></a>
RR-185	<a href="#"><u>Nathaniel Lichfield &amp; Partners</u></a>
RR-186	<a href="#"><u>Ralph Hardwick</u></a>
RR-187	<a href="#"><u>Matthew O</u></a>
RR-188	<a href="#"><u>GoAhead, Docklands Buses</u></a>



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RR-189	<a href="#">Howard Wynne</a>
RR-190	<a href="#">Southwark Council</a>
RR-191	<a href="#">Paul Mitcheson</a>
RR-192	<a href="#">Matthews &amp; Son LLP on behalf of Tarmac Limited</a>
RR-193	<a href="#">No to Silvertown Tunnel</a>
RR-194	<a href="#">Laura Grainger</a>
RR-195	<a href="#">Michael Beach</a>
RR-196	<a href="#">David Jackson</a>
RR-197	<a href="#">Andrew Slavin</a>
RR-198	<a href="#">Shirley Broughton</a>
RR-199	<a href="#">Ian Blore</a>
RR-200	<a href="#">Louise Blore</a>
RR-201	<a href="#">Campaign for Better Transport</a>
RR-202	<a href="#">Alan Bradley</a>
RR-203	<a href="#">Mike Smith</a>
RR-204	<a href="#">Susan Jenkins</a>
RR-205	<a href="#">Richard Stow</a>
RR-206	<a href="#">Myles Bartoli</a>
RR-207	<a href="#">Bruce Jamieson</a>
RR-208	<a href="#">Richard Sylvester</a>
RR-209	<a href="#">Marissa Ryan-Hernandez</a>
RR-210	<a href="#">Lalit Gulhane</a>
RR-211	<a href="#">Joan Sakkas</a>
RR-212	<a href="#">Patricia Taylor</a>
RR-213	<a href="#">Ben Page</a>
RR-214	<a href="#">Tristan Alexander</a>
RR-215	<a href="#">Ingrid</a>
RR-216	<a href="#">Shoosmiths LLP on behalf of Brenntag UK Limited (company registration no. 05262170)</a>

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RR-217	<u>Helen Hutchinson and Duncan Marley</u>
RR-218	<u>Carmel Durkin</u>
RR-219	<u>Frank Jennings</u>
RR-220	<u>Metin Calim</u>
RR-221	<u>London Borough of Redbridge</u>
RR-222	<u>Nicholas Pouyiouros</u>
RR-223	<u>Iris Dove</u>
RR-224	<u>Meirion Jones</u>
RR-225	<u>Matthew Field</u>
RR-226	<u>Justin Sylvester</u>
RR-227	<u>Richard Smith</u>
RR-228	<u>Peter Underwood</u>
RR-229	<u>Nicholas Marks</u>
RR-230	<u>Phil Buckley</u>
RR-231	<u>Mr R Poldermans</u>
RR-232	<u>Andrew Riley</u>
RR-233	<u>Federation of Small Businesses</u>
RR-234	<u>Joel Kosminsky</u>
RR-235	<u>Steven Baldwin</u>
RR-236	<u>Kevin Groom</u>
RR-237	<u>Maritime Academy Trust/Millennium Primary School</u>
RR-238	<u>Greenwich Millennium Village Association</u>
RR-239	<u>Tiffany Beck</u>
RR-240	<u>TNT</u>
RR-241	<u>Philip Marsden</u>
RR-242	<u>East Sussex Healthcare Trust/Eastbourne district general hospital</u>
RR-243	<u>Freight Transport Association</u>
RR-244	<u>Lime Logistics Ltd</u>

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RR-245	<a href="#">Friends of the Earth Hackney &amp; Tower Hamlets</a>
RR-246	<a href="#">Nita Humphreys</a>
RR-247	<a href="#">HaulTech Ltd</a>
RR-248	<a href="#">Confederation of Passenger Transport</a>
RR-249	<a href="#">Daniel O'Loughlen</a>
RR-250	<a href="#">Paul McQuillen</a>
RR-251	<a href="#">Sophie O'Loughlen-Vidot</a>
RR-252	<a href="#">Dermot McLaughlin</a>
RR-253	<a href="#">Ozan Ibrahim</a>
RR-254	<a href="#">Kapila Perera</a>
RR-255	<a href="#">Protem HGV Ltd</a>
RR-256	<a href="#">DHL</a>
RR-257	<a href="#">Colin Espiner</a>
RR-258	<a href="#">Essex County Council</a>
RR-259	<a href="#">Bilfinger GVA on behalf of London Borough of Lewisham</a>
RR-260	<a href="#">Knight Dragon</a>
RR-261	<a href="#">DLA PIPER UK LLP on behalf of The Waterfront Limited Partnership</a>
RR-262	<a href="#">DLA PIPER UK LLP on behalf of AnSCO Arena Limited</a>
RR-263	<a href="#">Road Haulage Association</a>
RR-264	<a href="#">John Lewis Partnership</a>
RR-265	<a href="#">Rosalind Readhead</a>
RR-266	<a href="#">Caroline Sefton</a>
RR-267	<a href="#">Anders Tingsgård Bone</a>
RR-268	<a href="#">Susan Younghouse</a>
RR-269	<a href="#">Richard Lufkin</a>
RR-270	<a href="#">Wincanton</a>
RR-271	<a href="#">Paul West</a>
RR-272	<a href="#">Jill Austen</a>

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RR-273	<u>John Booth</u>
RR-274	<u>Anne Robbins</u>
RR-275	<u>Laura Sessions</u>
RR-276	<u>Anne Richards</u>
RR-277	<u>Ray King</u>
RR-278	<u>Royal Borough of Greenwich</u>
RR-279	<u>Sanne Baaij</u>
RR-280	<u>Charlotte Baker</u>
RR-281	<u>Hedley Shaw</u>
RR-282	<u>J Currie</u>
RR-283	<u>Maria Knight</u>
RR-284	<u>Britannia Village (One) Resident Management Company</u>
RR-285	<u>Winckworth Sherwood LLP on behalf of Port of London Authority</u>
RR-286	<u>Emily and Mike Norton</u>
RR-287	<u>London Borough of Waltham Forest</u>
RR-288	<u>JLL on behalf of ASD Limited</u>
RR-289	<u>Public Health England (PHE)</u>
RR-290	<u>London First</u>
RR-291	<u>Gerald Eve on behalf of Morden College</u>
RR-292	<u>London Borough Of Bexley</u>
RR-293	<u>Matthew Pennycook MP</u>
RR-294	<u>Vectos on behalf of London City Airport (Rachel Ness)</u>
RR-295	<u>Caroline Russell AM</u>
RR-296	<u>Berwin Leighton Paisner LLP on behalf of Thames Water Utilities Limited</u>
RR-297	<u>Anna Mars</u>
RR-298	<u>Health and Safety Executive</u>
RR-299	<u>Environment Agency</u>
RR-300	<u>Alan Haughton</u>

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RR-301	<u>City of London Corporation</u>
RR-302	<u>Stewart Christie</u>
RR-303	<u>London Chamber of Commerce and Industry</u>
RR-304	<u>Kevin Godby</u>
RR-305	<u>Mills &amp; Reeve LLP on behalf of Trinity (D) Limited</u>
RR-306	<u>London Fire and Emergency Planning Authority</u>
RR-307	<u>Bruton Knowles on behalf of London Borough of Newham</u>
RR-308	<u>Greenwich Borough Liberal Democrats</u>
RR-309	<u>Margaret Gravelle</u>
RR-310	<u>Robbie Gordon</u>
RR-311	<u>Chris Gallant</u>
RR-312	<u>Merida Mathen</u>
RR-313	<u>Barbara</u>
RR-314	<u>Alessandro Sansone</u>
RR-315	<u>Rosalind Francis</u>
RR-316	<u>Britannia Village General Management Company</u>
RR-317	<u>Anne James</u>
RR-318	<u>Isabelle Anderson</u>
RR-319	<u>Simon Short</u>
RR-320	<u>National Grid</u>
RR-321	<u>Duncan Alexander</u>
RR-322	<u>Bazalgette Tunnel Limited (Tideway)</u>
RR-323	<u>Canary Wharf Group plc</u>
RR-324	<u>Daniel Blaney</u>
RR-325	<u>Greenwich Society</u>
RR-326	<u>Ruth Cracknell</u>
RR-327	<u>Newham Friends of the Earth on behalf of Newham Friends of the Earth</u>
RR-328	<u>JLL on behalf of Railway Pension Nominees Ltd</u>

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RR-329	<u>Winckworth Sherwood LLP on behalf of Quintain Limited</u>
RR-330	<u>JLL on behalf of ExCeL London Limited</u>
RR-331	<u>Colin Tweed</u>
RR-332	<u>King &amp; Wood Mallesons LLP on behalf of British Land</u>
RR-333	<u>Carrie Thompson</u>
RR-334	<u>London Borough of Tower Hamlets</u>
RR-335	<u>Marine Management Organisation on behalf of Marine Management Organisation</u>
RR-336	<u>Clare Griffiths</u>
RR-337	<u>Olawale Ajibola</u>
RR-338	<u>London Borough of Hackney</u>
RR-339	<u>Tim Castro</u>
RR-340	<u>Greater London Authority</u>
RR-341	<u>RRS London Waste Paper Ltd</u>
RR-342	<u>Elizabeth Winder</u>
RR-343	<u>Friends of the Earth</u>
RR-344	<u>Purnendu Roy</u>
RR-345	<u>Newham Green Party</u>
RR-346	<u>Greenwich Green Party</u>
RR-347	<u>Philip Tyler</u>
RR-348	<u>Westcombe Society Environment Committee</u>
RR-349	<u>John Rastall</u>
RR-350	<u>R.J.Allard</u>
RR-351	<u>Vijay Pankhania</u>
RR-352	<u>Ian Gibson</u>
RR-353	<u>Hallam Wiltshire</u>
RR-354	<u>Simon Hopper</u>
RR-355	<u>Jo Lawbuary</u>

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RR-356	<a href="#">Nina Parmar</a>
RR-357	<a href="#">Clem Riches</a>
RR-358	<a href="#">Agnes Vivier</a>
RR-359	<a href="#">James Clay Harris</a>
RR-360	<a href="#">Ben Morrin</a>
RR-361	<a href="#">Greenwich Friends of The Earth</a>
RR-362	<a href="#">Cesare Maschi</a>
RR-363	<a href="#">L. James</a>
RR-364	<a href="#">Athena Maschi</a>
RR-365	<a href="#">Citizens UK</a>
RR-366	<a href="#">Darryl Chamberlain</a>
RR-367	<a href="#">Deborah O</a>
RR-368	<a href="#">Hackney Cycling Campaign</a>
RR-369	<a href="#">Huw Nicholls</a>
RR-370	<a href="#">Kenneth Law</a>
RR-371	<a href="#">Amelia Anderson</a>
RR-372	<a href="#">Andrew Pettitt</a>
RR-373	<a href="#">Alex Ingram</a>
RR-374	<a href="#">Paul Speller</a>
RR-375	<a href="#">Richard Green</a>
RR-376	<a href="#">Michael Jemmeson</a>
RR-377	<a href="#">Samantha White</a>
RR-378	<a href="#">Elisabeth Whitebread</a>
RR-379	<a href="#">Sian Berry</a>
RR-380	<a href="#">Edith Speller</a>
RR-381	<a href="#">Jacqueline Smith</a>
RR-382	<a href="#">Brooks Jackson</a>
RR-383	<a href="#">Historic England</a>

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<b>Procedural Decisions and Notifications from the Examining Authority</b>	
PD-001	<a href="#">Notification of Decision to Accept Application</a>
PD-002	<a href="#">Section 55 Checklist</a>
PD-003	<a href="#">Rule 4 Appointment of Panel</a>
PD-004	<a href="#">Rule 6 Letter</a>
PD-005	<a href="#">Rule 8 Letter</a>
PD-006	<a href="#">Examining Authority First Written Questions</a>
PD-007	<a href="#">Rule 17 Letter - 9 November 2016</a>
PD-008	<a href="#">Notification of hearings and accompanied site inspection to be held in January 2017</a>
PD-009	<a href="#">Pins Response to applicant's letter of 21 December 2016</a> Response to applicant's letter of 21 December 2016. The letter can be found at AS-044.
PD-010	<a href="#">ExA notification to the Applicant regarding the proposed changes to the application</a> Letter dated 1 February 2017
PD-011	<a href="#">Procedural Decision Letter</a> Notification of procedural decisions regarding the applicant's proposed changes to the application, publication of second written questions, notification of hearings and amendments to the timetable for the Examination. Published on 10 February 2017
PD-012	<a href="#">Examining Authority Second Written Questions</a>
PD-013	<a href="#">Silvertown Tunnel ExA's preferred DCO</a> Panel's revised draft Development Consent Order issued on 20 March 2017
PD-014	<a href="#">Report on the Implications for European Sites (RIES)</a> Issued by the Panel on 20 March 2017
PD-015	<a href="#">ExA Decision on the acceptance of the 5 proposed NMCs</a> Panels Procedural Decision to Accept the Applicants Non-Material Changes dated 12 January and 3 February 2017
PD-016	<a href="#">Rule 17 Letter</a> Notification of Request for Further Information (the Applicant) published on 7 April 2017
PD-017	<a href="#">S99 Notification Letter</a> Notification of Completion of Examination
<b>Additional Submissions</b>	



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<b>Published on 6 September 2016</b>	
AS-001	<a href="#">Transport for London</a> Silvertown Tunnel s58, s59 and EIA Regulation 13 certificates
AS-002	<a href="#">Transport for London</a> Updated book of reference (document ref. 4.3, revision 1) referred to in paragraph (c) of the s. 59 notice. This document was submitted with the s. 58, s. 59 and EIA Regulation 13 certificates
AS-003	<a href="#">Transport for London</a> Tracked changes version of the updated book or reference, showing the changes made against the version submitted with the application (revision 0). This document was submitted with the s. 58, s. 59 and EIA Regulation 13 certificates
AS-004	<a href="#">Transport for London</a> A letter of response to the Section 51 advice issued by the Planning Inspectorate on 15 June 2016. This letter also includes information about a report containing updated information which the Applicant intends to submit before the preliminary meeting
<b>Published on 13 and 14 September 2016</b>	
AS-005	<a href="#">Transport for London</a> Updated Waterbodies and Watercourses Thames River Basin District plan
AS-006	<a href="#">Transport for London</a> The London Plan
AS-007	<a href="#">Transport for London</a> Mayor's Transport Strategy
AS-008	<a href="#">Transport for London</a> Connecting the Capital - Our plan for new river crossings for London
<b>Published on 5 October 2016</b>	
AS-021	<a href="#">Transport for London</a> Update Report October 2016
AS-017	<a href="#">Transport for London</a> 6.10 Code of Construction Practice
AS-018	<a href="#">Transport for London</a> Drawing 6.10 Local NO2 Results
AS-019	<a href="#">Transport for London</a> 6.3 ES Appendix 16.A FRA
AS-020	<a href="#">Transport for London</a> Updated ES Drawing 14.6
AS-022	<a href="#">Transport for London</a> Chapter 6 Air Quality

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AS-023	<u>Transport for London</u> Chapter 6 Air Quality - Tracked change version
AS-024	<u>Transport for London</u> ES Appendix 6B Model Verification V2
AS-025	<u>Transport for London</u> ES Appendix 6B Model Verification V2 -Tracked Change version
<b>Responses to Rule 6 – Published on 5 October 2016</b>	
AS-009	<u>Health and Safety Executive</u> Response to Rule 6
AS-010	<u>Southern Gas Networks</u> Response to Rule 6
AS-011	<u>Birch Sites Limited</u> Response to Rule 6
AS-012	<u>No to SilvertownTunnel</u> Response to Rule 6
AS-013	<u>Quintain Limited</u> Response to Rule 6
AS-014	<u>London Borough of Newham</u> Response to Rule 6
AS-015	<u>Lidoka Estates</u> Response to Rule 6
AS-016	<u>Transport for London</u> Response to Rule 6
<b>Published on 5 December 2016</b>	
AS-026	<u>Transport for London</u> Applicants letter of response to Hearing agendas - accepted at the discretion of the Examining Authority in advance of the Hearings scheduled for December 2016
AS-027	<u>Transport for London</u> Response to First Written Question AQ22 - accepted at the discretion of the Examining Authority in advance of the Hearings scheduled for December 2016
AS-028	<u>Transport for London</u> 4.1 Statement of Reasons Revision 1 (Tracked changes). This version supersedes the version submitted for Deadline 1 - accepted at the discretion of the Examining Authority in advance of the Hearings scheduled for December 2016
AS-029	<u>Transport for London</u> Revised version of Schedule 7 of the draft DCO - accepted at the

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	discretion of the Examining Authority in advance of the Hearings scheduled for December 2016
AS-030	<u>Transport for London</u> Revised version of Schedule 7 of the draft DCO (Tracked changes) - accepted at the discretion of the Examining Authority in advance of the Hearings scheduled for December 2016
<b>Published between 5 and 20 January 2017 in advance of January Hearings</b>	
AS-031	<u>Glenny LLP on behalf of Newable Property Developments</u> Comments accepted at the discretion of the Examining Authority in advance of the Hearings scheduled for January 2017
AS-032	<u>Southern Gas Networks and Birch Sites Limited</u> Comments accepted at the discretion of the Examining Authority in advance of the Hearings scheduled for January 2017
AS-033	<u>Health and Safety Executive</u> Comments accepted at the discretion of the Examining Authority in advance of the Hearings scheduled for January 2017
AS-034	<u>Brenntag UK Limited</u> Comments accepted at the discretion of the Examining Authority in advance of the Hearings scheduled for January 2017
AS-035	<u>Port of London Authority</u> Comments accepted at the discretion of the Examining Authority in advance of the Hearings scheduled for January 2017
AS-036	<u>Rik Andrew</u> Comments accepted at the discretion of the Examining Authority in advance of the Hearings scheduled for January 2017
AS-037	<u>BL CW Holdings Ltd</u> Additional Submission accepted at the discretion of the Examining Authority
AS-038	<u>AnSCO Arena Limited and The Waterfront Limited Partnership</u> Additional Submission accepted at the discretion of the Examining Authority
AS-039	<u>Nathaniel Lichfield and Partners on behalf of U and I Group Plc</u> Comments accepted at the discretion of the Examining Authority in advance of the Hearings scheduled for January 2017
AS-040	<u>Freysporne Limited</u> Additional Submission accepted at the discretion of the Examining Authority
AS-041	<u>Knight Dragon Developments Limited</u> Additional Submission accepted at the discretion of the Examining Authority
AS-042	<u>Trinity (D) Limited</u>

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	Additional Submission accepted at the discretion of the Examining Authority
AS-043	<u>Southern Gas Networks &amp; Birch Sites Limited</u> Additional Submission accepted at the discretion of the Examining Authority
<b>Published on 12 January 2017</b>	
AS-044	<u>Transport for London</u> Letter sent to ExA on 21 December 2016 relating to issue specific hearing on traffic modelling. The response can be found at PD-009.
<b>Proposed Change Request published on 13 January 2017 and Addendum to Proposed Change Request published on 3 February 2017</b>	
AS-045	<u>Transport for London</u> Cover letter for Proposed change request not as yet accepted by the ExA
AS-046	<u>Transport for London</u> Proposed change request not as yet accepted by the ExA
AS-047	<u>Transport for London</u> 8.78 Addendum to proposed change request
AS-048	<u>Transport for London</u> 8.79 Cover Letter for Addendum to proposed change request
<b>Published on 24 March 2017</b>	
AS-049	<u>Transport for London</u> Revised draft DCO (Clean) - Accepted at the discretion of the Examining Authority in advance of the DCO ISH scheduled for 29 March 2017
AS-050	<u>Transport for London</u> Revised draft DCO (Track Change) - Accepted at the discretion of the Examining Authority in advance of the DCO ISH scheduled for 29 March 2017
AS-051	<u>Transport for London</u> Interim dDCO Explanatory Document - Accepted at the discretion of the Examining Authority in advance of the DCO ISH scheduled for 29 March 2017
<b>Published on 28 and 29 March 2017</b>	
AS-052	<u>Natural England</u> Additional Submission accepted at the discretion of the Examining Authority in advance of the ISH scheduled for 28 March 2017
AS-053	<u>Southern Gas Networks plc and Birch Sites Limited</u> Additional Submission accepted at the discretion of the Examining Authority in advance of the CAH scheduled for 29 March 2017
AS-054	<u>IOD Skip Hire Ltd</u>

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	Additional Submission accepted at the discretion of the Examining Authority
<b>Published on 7 April 2017</b>	
AS-055	<a href="#">Transport for London</a> Post Hearing submission Document (Compulsory Acquisition). Copies of letters of withdrawal (see page 6 of Doc Ref REP6-074)
AS-056	<a href="#">Transport for London</a> Post Hearing submission Document (Compulsory Acquisition). Mayor's response to RBGs consultation on Studio 338 planning application (see page 10 of Doc Ref REP6-074)
AS-057	<a href="#">Transport for London</a> Post Hearing submission Document (Compulsory Acquisition). Plan showing land ownerships at Thames Wharf and at the Carlsberg Tetley site, with safeguarded wharf boundary overlaid (see page 14 of Doc Ref REP6-074)
<b>Events and Hearings</b>	
<b>Preliminary Meeting 11 October 2016</b>	
EV-001	<a href="#">Direction to Preliminary Meeting</a> Directions to the CentrEd room at the ExCel
EV-002	<a href="#">Audio Recording of the Preliminary Meeting on 11 October 2016</a>
EV-003	<a href="#">Note of the Preliminary Meeting</a>
<b>Issue Specific Hearing 12 October 2016 and Open Floor Hearings 13 October 2016 and Unaccompanied Site Inspection 11 October 2016</b>	
EV-004	<a href="#">Agenda for Issue Specific Hearing on the Draft Development Consent Order 12 October 2016</a>
EV-005	<a href="#">Agenda for Open Floor Hearings 13 October 2016</a>
EV-006	<a href="#">Audio Recording of the Issue Specific Hearing on the Draft DCO on 12 October 2016</a>
EV-007	<a href="#">Audio Recording of the 10am Open Floor Hearing on 13 October 2016</a>
EV-008	<a href="#">Audio Recording of the 7pm Open Floor Hearing on 13 October 2016</a>
EV-009	<a href="#">Note of Unaccompanied Site Inspection on 11 October 2016</a>
<b>Unaccompanied Site Inspection 5 December 2016 and Accompanied Site Inspection 6 December 2016</b>	
EV-010	<a href="#">Note of Unaccompanied Site Inspection on 5 December 2016</a>
EV-011	<a href="#">Accompanied Site Inspection</a> Itinerary and Map outlining the accompanied site inspection with the

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	Panel scheduled for 6 December 2016
EV-012	<u>Accompanied Site Inspection Action Points List</u> Action Points arising from the Accompanied Site Inspection (ASI) held on 06.12.2016
<b>Issue Specific Hearing 7 December 2016 and Compulsory Acquisition Hearing 8 December 2016</b>	
EV-013	<u>Traffic and Transport Modelling Agenda</u> Agenda for the Issue Specific Hearing on Traffic and Transport Modelling scheduled for 7 December 2016
EV-014	<u>Compulsory Acquisition Hearing Agenda</u> Agenda for the Compulsory Acquisition Hearing scheduled for 8 December 2016
EV-015	<u>ISH Action Points - Traffic &amp; Transport Modelling</u> Action Points arising from the Issue Specific Hearing (ISH) into Traffic & Transport Modelling held on 07.12.2016
EV-016	<u>Compulsory Acquisition Hearing Action Points</u> Action Points arising from the Compulsory Acquisition Hearing held on 08.12.2016
EV-017	<u>Audio Recording - ISH - 7 December 2016</u> Issue Specific Hearing into Traffic and Transport Modelling - Part 1
EV-018	<u>Audio Recording - ISH - 7 December 2016</u> Issue Specific Hearing into Traffic and Transport Modelling - Part 2
EV-019	<u>Audio Recording - ISH - 7 December 2016</u> Issue Specific Hearing into Traffic and Transport Modelling - Part 3
EV-020	<u>Audio Recording - ISH - 7 December 2016</u> Issue Specific Hearing into Traffic and Transport Modelling - Part 4
EV-021	<u>Audio Recording - CAH - 8 December 2016</u> Compulsory Acquisition Hearing - Part 1
EV-022	<u>Audio Recording - CAH - 8 December 2016</u> Compulsory Acquisition Hearing - Part 2
<b>Issue Specific Hearings 17 - 19 January 2017 and Compulsory Acquisition Hearing and Accompanied Site Inspection 20 January 2017</b>	
EV-023	<u>Transport for London</u> Applicant notice of hearings in January 2017
EV-024	<u>Traffic and Transport Modelling Hearing Agenda</u> Agenda for the Issue Specific Hearing scheduled for 17 January 2017
EV-025	<u>Air Quality, Noise and Other Environmental Issues Hearing Agenda</u> Agenda for Issue Specific Hearing on 18 January 2017

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EV-026	<a href="#">Draft Development Consent Order Hearing Agenda</a> Agenda for Issue Specific Hearing on 19 January 2017
EV-027	<a href="#">Compulsory Acquisition Hearing Agenda</a> Agenda for the Compulsory Acquisition Hearing scheduled for 20 January 2017
EV-028	<a href="#">Compulsory Acquisition Accompanied Site Inspection Itinerary</a> Itinerary outlining the accompanied site inspection with the Panel scheduled for 20 January 2017
EV-029	<a href="#">Issue Specific Hearing Action Points</a> Action Points arising from the Issue Specific Hearing (ISH) on Traffic Transport Modelling, Forecasting and User Charging & Economic Issues held on 17 January 2017
EV-030	<a href="#">Issue Specific Hearing Action Points</a> Action Points arising from the Issue Specific Hearing (ISH) on Noise, Air Quality and other Environmental Issues held on 18 January 2017
EV-031	<a href="#">Issue Specific Hearing Action Points</a> Action Points arising from the Issue Specific Hearing (ISH) on Development Consent Order held on 19 January 2017
EV-032	<a href="#">Compulsory Acquisition Hearing Action Points</a> Action Points arising from the Compulsory Acquisition Hearing held on 20 January 2017
EV-033	<a href="#">Audio Recording of the ISH on 17 January 2017 - Part 1</a> Issue Specific Hearing on Traffic/Transport Modelling, Forecasting and User Charging and Economic Issues
EV-034	<a href="#">Audio Recording of the ISH on 17 January 2017 - Part 2</a> Issue Specific Hearing on Traffic/Transport Modelling, Forecasting and User Charging and Economic Issues
EV-035	<a href="#">Audio Recording of the ISH on 18 January 2017 - Part 1</a> Issue Specific Hearing on Air Quality, Noise and Other Environmental Issues
EV-036	<a href="#">Audio Recording of the ISH on 18 January 2017 - Part 2</a> Issue Specific Hearing on Air Quality, Noise and Other Environmental Issues
EV-037	<a href="#">Audio Recording of the ISH on 18 January 2017 - Part 3</a> Issue Specific Hearing on Air Quality, Noise and Other Environmental Issues
EV-038	<a href="#">Audio Recording of the ISH on 18 January 2017 - Part 4</a> Issue Specific Hearing on Air Quality, Noise and Other Environmental Issues
EV-039	<a href="#">Audio Recording of the ISH on 19 January 2017 - Part 1</a> Issue Specific Hearing on Development Consent Order
EV-040	<a href="#">Audio Recording of the ISH on 19 January 2017 - Part 2</a>

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	Issue Specific Hearing on Development Consent Order
EV-041	<a href="#">Audio Recording of the ISH on 19 January 2017 - Part 3</a> Issue Specific Hearing on Development Consent Order
EV-042	<a href="#">Audio Recording of the ISH on 19 January 2017 - Part 4</a> Issue Specific Hearing on Development Consent Order
EV-043	<a href="#">Audio Recording of the CAH on 20 January 2017</a> Audio Recording of the Compulsory Acquisition Hearing
<b>Unaccompanied Site Inspection 16 January 2017</b>	
EV-045	<a href="#">Note of Unaccompanied Site Inspection on 16 January 2017</a>
<b>Issue Specific Hearings 28 and 29 March 2017 and Open Floor Hearing and Compulsory Acquisition Hearing on 28 and 29 March 2017</b>	
EV-044	<a href="#">Directions to Intercontinental London</a> Venue for the Hearings in March 2017
EV-046	<a href="#">Outstanding Issues including Environmental Matters Hearing Agenda</a> Agenda for Issue Specific Hearing on 28 March 2017
EV-047	<a href="#">Agenda for Open Floor Hearing</a> Agenda for Open Floor Hearing on 28 March 2017
EV-048	<a href="#">Compulsory Acquisition Hearing Agenda</a> Agenda for the Compulsory Acquisition Hearing on 29 March 2017
EV-049	<a href="#">Draft Development Consent Order Hearing Agenda</a> Agenda for the Issue Specific Hearing on 29 March 2017
EV-050	<a href="#">Issue Specific Hearing Action Points</a> Action Points arising from the Issue Specific Hearing (ISH) on any other outstanding issues including Environmental Matters held on 28 March 2017
EV-051	<a href="#">Open Floor Hearing Action Points</a> Action Points arising from the Open Floor Hearing held on 28 March 2017
EV-052	<a href="#">Audio Recording of the Issue Specific Hearing on 28 March 2017 - Part 1</a> Issue Specific Hearing on any other outstanding issues including Environmental Matters
EV-053	<a href="#">Audio Recording of the Issue Specific Hearing on 28 March 2017 - Part 2</a> Issue Specific Hearing on any other outstanding issues including Environmental Matters
EV-054	<a href="#">Audio Recording of the Open Floor Hearing on 28 March 2017</a>
EV-055	<a href="#">Audio Recording of the Compulsory Acquisition Hearing on 29 March 2017</a>



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EV-056	<a href="#">Audio Recording of the Issue Specific Hearing on 29 March 2017</a> Issue Specific Hearing on the draft Development Consent Order, and Other Matters of Legal Drafting
<b>Unaccompanied Site Inspection 27 March 2017</b>	
EV-057	<a href="#">Note of Unaccompanied Site Inspection on 27 March 2017</a>
<b>Representations</b>	
<b>Deadline 1 – 15 November 2016</b>	
<ul style="list-style-type: none"> <li>• Written Representations</li> <li>• Comments on Relevant Representations</li> <li>• Responses to ExA’s first written Questions</li> <li>• Local Impact Reports</li> <li>• Statements of Common Ground</li> <li>• Comments on any revised application documents</li> <li>• Notification of wish to make oral representations at Hearings</li> <li>• Notification of wish to attend ASI</li> <li>• Any revised dDCO</li> <li>• Any other information</li> </ul>	
REP1-001	<a href="#">Royal Borough of Greenwich</a> Written Representation
REP1-002	<a href="#">Royal Borough of Greenwich</a> Local Impact Report
REP1-003	<a href="#">Royal Borough of Greenwich</a> Response to ExA's First Written Questions
REP1-004	<a href="#">London Borough of Tower Hamlets</a> Written Representation
REP1-005	<a href="#">London Borough of Tower Hamlets</a> Local Impact Report
REP1-006	<a href="#">London Borough of Tower Hamlets</a> Response to ExA's First Written Questions
REP1-007	<a href="#">London Borough of Southwark</a> Covering Email
REP1-008	<a href="#">London Borough of Southwark</a> Written Representation
REP1-009	<a href="#">London Borough of Southwark</a> Local Impact Report
REP1-010	<a href="#">London Borough of Southwark</a> Response to ExA's First Written Questions
REP1-011	<a href="#">London Borough of Southwark</a> Response to Rule 17
REP1-012	<a href="#">London Borough of Newham</a> Covering Email and Letter

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REP1-013	<u>London Borough of Newham</u> Written Representation
REP1-014	<u>London Borough of Newham</u> Local Impact Report
REP1-015	<u>London Borough of Newham</u> Response to ExA's First Written Questions
REP1-016	<u>London Borough of Bexley</u> Written Representation and comments on revised Applicant documents
REP1-017	<u>London Borough of Bexley</u> Local Impact Report
REP1-018	<u>London Borough of Hackney</u> Covering Email and Response to Rule 17
REP1-019	<u>London Borough of Hackney</u> Written Representation
REP1-020	<u>London Borough of Hackney</u> Local Impact Report
REP1-021	<u>London Borough of Hackney</u> Response to ExA's First Written Questions
REP1-022	<u>London Borough of Lewisham</u> Covering Email
REP1-023	<u>London Borough of Lewisham</u> Written Representation
REP1-024	<u>London Borough of Lewisham</u> Local Impact Report
REP1-025	<u>London Borough of Lewisham</u> Response to ExA's First Written Questions
REP1-026	<u>London Borough of Lewisham</u> Response to Rule 17
REP1-027	<u>London Borough of Lewisham</u> Comments on Relevant Representations
REP1-028	<u>London Borough of Redbridge</u> Local Impact Report
REP1-029	<u>Greater London Authority</u> Local Impact Report and Response to ExA's First Written Questions
REP1-030	<u>Affordable Architects Limited on behalf of Tary Holdings</u> Written Representation
REP1-031	<u>ASD Limited (Kloeckner Metals UK)</u>

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	Written Representation
REP1-032	<u>Glenny LLP on behalf of Newable Property Developments Limited and Waterfront Studios Limited</u> Written Representation
REP1-033	<u>Greenwich Society</u> Written Representation
REP1-034	<u>Morden College</u> Written Representation
REP1-035	<u>Emily and Mike Norton</u> Written Representation
REP1-036	<u>Helen Hutchinson and Duncan Marley</u> Written Representation
REP1-037	<u>Brenntag UK Limited</u> Written Representation
REP1-038	<u>ExCeL London Ltd</u> Written Representation
REP1-039	<u>Quintain Limited</u> Written Representation
REP1-040	<u>Quintain Limited</u> Further Written Representation
REP1-041	<u>Bazalgette Tunnel Limited (BTL)</u> Written Representation
REP1-042	<u>Thames Water Utilities Limited</u> Written Representation
REP1-043	<u>Nathaniel Lichfield and Partners on behalf of U and I Group Plc</u> Written Representation
REP1-044	<u>Nathaniel Lichfield and Partners on behalf of U and I Group Plc</u> Written Representation Attachment
REP1-045	<u>Nathaniel Lichfield &amp; Partners on behalf of U and I Group PLC</u> Original objection to TfL
REP1-046	<u>Marine Management Organisation</u> Written Representation and Response to ExA's First Written Questions
REP1-047	<u>Westcombe Society</u> Written Representation
REP1-048	<u>Westcombe Society</u> Further Written Representation
REP1-049	<u>Nick Raynsford</u> Written Representation

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REP1-050	<u>Campaign for Better Transport</u> Written Representation, Response to ExA's First Written Questions and Response to Rule 17
REP1-051	<u>City of London Corporation</u> Written Representation
REP1-052	<u>Alliance of British Drivers</u> Written Representation
REP1-053	<u>Port of London Authority</u> Written Representation
REP1-054	<u>Port of London Authority</u> Response to ExA's First Written Questions
REP1-055	<u>Network Rail</u> Written Representation
REP1-056	<u>Trinity (D) Limited</u> Written Representation
REP1-057	<u>Colin Espiner</u> Written Representation
REP1-058	<u>Darryl Chamberlain</u> Written Representation
REP1-059	<u>No to Silvertown Tunnel</u> Written Representation and Response to Rule 17
REP1-060	<u>Environment Agency</u> Written Representation
REP1-061	<u>Environment Agency</u> Response to ExA's First Written Questions
REP1-062	<u>Natural England</u> Written Representation and Further Response to ExA's First Written Questions
REP1-063	<u>Natural England</u> Response to ExA's First Written Questions
REP1-064	<u>Knight Dragon</u> Written Representation and Response to ExA's First Written Questions
REP1-065	<u>Royal Mail Group Limited</u> Written Representation
REP1-066	<u>King and Wood Mallesons LLP on behalf of BL CW Holdings Limited</u> Written Representation
REP1-067	<u>East Greenwich Residents Association (EGRA)</u> Written Representation

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REP1-068	<a href="#">Motorcycle Action Group</a> Written Representation
REP1-069	<a href="#">Simon Robinson</a> Written Representation
REP1-070	<a href="#">Sally Hughes</a> Written Representation
REP1-071	<a href="#">Rebecca Moore</a> Written Representation
REP1-072	<a href="#">N J Marks</a> Written Representation
REP1-073	<a href="#">Rik Andrew</a> Written Representation
REP1-074	<a href="#">Public Health England</a> Response to ExA's First Written Questions
REP1-075	<a href="#">Public Health England</a> Statement of Common Ground
REP1-076	<a href="#">AnSCO Limited</a> Response to ExA's First Written Questions
REP1-077	<a href="#">Birch Sites Limited</a> Response to ExA's First Written Questions
REP1-078	<a href="#">Southern Gas Networks</a> Response to ExA's First Written Questions
REP1-079	<a href="#">National Grid Electricity Transmission plc and National Grid Gas plc</a> Written Representation and Response to ExA's First Written Questions
REP1-080	<a href="#">Health and Safety Executive</a> Summary of Written Representation, Written Representation and Response to ExA's First Written Questions
REP1-081	<a href="#">Health and Safety Executive</a> Appendix 1 of Written Representation
REP1-082	<a href="#">Health and Safety Executive</a> Appendix 2 of Written Representation
REP1-083	<a href="#">Health and Safety Executive</a> Appendix 3 of Written Representation
REP1-084	<a href="#">Health and Safety Executive</a> Appendix 4 to 7 of Written Representation
REP1-085	<a href="#">Health and Safety Executive</a> Appendix 8 of Written Representation

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REP1-086	<u>Health and Safety Executive</u> Appendix 9 to 12 of Written Representation
REP1-087	<u>Hackney and Tower Hamlets Friends of the Earth</u> Written Representation and Response to Rule 17
REP1-088	<u>Friends of the Earth England Wales and Northern Ireland</u> Response to Rule 17
REP1-089	<u>Lidoka Estates Ltd</u> Comments regarding accompanied site inspection
REP1-090	<u>Matthews and Son LLP on behalf of Tarmac Limited</u> Written Representation
REP1-091	<u>Matthews and Son LLP on behalf of Tarmac Limited</u> Comments regarding accompanied site inspection
REP1-092	<u>Transport for London</u> 8.1 Deadline 1 Cover Letter
REP1-093	<u>Transport for London</u> Rule 17 RFI Response
REP1-094	<u>Transport for London</u> 2.4 Special Category Land Plan(s) R1
REP1-095	<u>Transport for London</u> 3.1 Draft DCO Revision 1
REP1-096	<u>Transport for London</u> 3.1 Draft DCO Revision 1 (Tracked changes)
REP1-097	<u>Transport for London</u> 3.2 Explanatory Memorandum to DCO Revision 1
REP1-098	<u>Transport for London</u> 3.2 Explanatory Memorandum to DCO Revision 1 (Tracked changes)
REP1-099	<u>Transport for London</u> 4.1 Statement of Reasons Revision 1
REP1-100	<u>Transport for London</u> 4.1 Statement of Reasons Revision 1 (Tracked changes)
REP1-101	<u>Transport for London</u> 6.1.8 ES CH8 Cultural Heritage Revision 1
REP1-102	<u>Transport for London</u> 6.1.8 ES CH8 Cultural Heritage Revision 1 (Tracked changes)
REP1-103	<u>Transport for London</u> 6.1.10 ES CH10 Marine Ecology Revision 1
REP1-104	<u>Transport for London</u> 6.1.10 ES CH10 Marine Ecology Revision 1 (Tracked changes)

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REP1-105	<a href="#">Transport for London</a> 6.1.12 ES CH12 Geology and Soils Revision 1
REP1-106	<a href="#">Transport for London</a> 6.1.12 ES CH12 Geology and Soils Revision 1 (Tracked changes)
REP1-107	<a href="#">Transport for London</a> 6.1.13 ES CH13 Materials and Waste Revision 1
REP1-108	<a href="#">Transport for London</a> 6.1.13 ES CH13 Materials and Waste Revision 1 (Tracked changes)
REP1-109	<a href="#">Transport for London</a> 6.1.16 ES CH16 Water Quality Revision 1
REP1-110	<a href="#">Transport for London</a> 6.1.16 ES CH16 Water Quality Revision 1 (Tracked changes)
REP1-111	<a href="#">Transport for London</a> ES Drawing 8.1 Revision 1
REP1-112	<a href="#">Transport for London</a> ES Drawing 10.1 Revision 1
REP1-113	<a href="#">Transport for London</a> 6.3.8.1 ES Appendix 8A Heritage Asset Gazetteer Revision 1
REP1-114	<a href="#">Transport for London</a> 6.3.8.1 ES Appendix 8A Heritage Asset Gazetteer Revision 1 (Tracked changes)
REP1-115	<a href="#">Transport for London</a> 6.3.9.7 ES Appendix 9G HRA Revision 1
REP1-116	<a href="#">Transport for London</a> 6.3.9.7 ES Appendix 9G HRA Revision 1 (Tracked changes)
REP1-117	<a href="#">Transport for London</a> 6.3.10.1 ES Appendix 10A WFD Revision 1
REP1-118	<a href="#">Transport for London</a> 6.3.10.1 ES Appendix 10A WFD Revision 1 (Tracked changes)
REP1-119	<a href="#">Transport for London</a> 6.10 Code of Construction Practice Revision 1
REP1-120	<a href="#">Transport for London</a> 6.10 Code of Construction Practice Revision 1 (Tracked changes)
REP1-121	<a href="#">Transport for London</a> 7.6 Monitoring Strategy Revision 1
REP1-122	<a href="#">Transport for London</a> 7.6 Monitoring Strategy Revision 1 (Tracked changes)

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**Silvertown Tunnel**

REP1-123	<a href="#">Transport for London</a> 7.11 Charging Policies and Procedures Revision 1
REP1-124	<a href="#">Transport for London</a> 7.11 Charging Policies and Procedures Revision 1 (Tracked changes)
REP1-125	<a href="#">Transport for London</a> 7.12 Mitigation Route Map Revision 1
REP1-126	<a href="#">Transport for London</a> 7.12 Mitigation Route Map Revision 1 (Tracked changes)
REP1-127	<a href="#">Transport for London</a> 8.3 Statements of Common Ground Report
REP1-128	<a href="#">Transport for London</a> SoCG001 Statement of Common Ground with Natural England
REP1-129	<a href="#">Transport for London</a> SoCG003 Statement of Common Ground with London Borough of Barking and Dagenham
REP1-130	<a href="#">Transport for London</a> SoCG005 Statement of Common Ground with Environment Agency
REP1-131	<a href="#">Transport for London</a> SoCG007 Statement of Common Ground with City of London Corporation
REP1-132	<a href="#">Transport for London</a> SoCG008 Statement of Common Ground with Essex County Council
REP1-133	<a href="#">Transport for London</a> SoCG010 Statement of Common Ground with London Borough of Bexley
REP1-134	<a href="#">Transport for London</a> SoCG011 Statement of Common Ground with London Borough of Hackney
REP1-135	<a href="#">Transport for London</a> SoCG012 Statement of Common Ground with London Borough of Lewisham
REP1-136	<a href="#">Transport for London</a> SoCG014 Statement of Common Ground with London Borough of Redbridge
REP1-137	<a href="#">Transport for London</a> SoCG015 Statement of Common Ground with London Borough of Southwark
REP1-138	<a href="#">Transport for London</a> SoCG017 Statement of Common Ground with London Borough of Waltham Forest
REP1-139	<a href="#">Transport for London</a> SoCG019 Statement of Common Ground with Historic England



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**Silvertown Tunnel**

REP1-140	<a href="#">Transport for London</a> SoCG021 Statement of Common Ground with Port of London Authority
REP1-141	<a href="#">Transport for London</a> SoCG023 Statement of Common Ground with Health and Safety Executive
REP1-142	<a href="#">Transport for London</a> SoCG024 Statement of Common Ground with BL CW Holdings Limited
REP1-143	<a href="#">Transport for London</a> SoCG028 Statement of Common Ground with Brenntag
REP1-144	<a href="#">Transport for London</a> SoCG029 Statement of Common Ground with Greater London Authority (land)
REP1-145	<a href="#">Transport for London</a> SoCG030 Statement of Common Ground with Quintain
REP1-146	<a href="#">Transport for London</a> SoCG031 Statement of Common Ground with Knight Dragon
REP1-147	<a href="#">Transport for London</a> SoCG032 Statement of Common Ground with Lidoka
REP1-148	<a href="#">Transport for London</a> SoCG034 Statement of Common Ground with National Grid
REP1-149	<a href="#">Transport for London</a> SoCG040 Statement of Common Ground with Thames Water
REP1-150	<a href="#">Transport for London</a> SoCG044 Statement of Common Ground with 'Host Boroughs' and Tower Hamlets
REP1-151	<a href="#">Transport for London</a> 8.4 FWQ Air Quality AQ Report
REP1-152	<a href="#">Transport for London</a> 8.5 FWQ Marine Ecology ME Report
REP1-153	<a href="#">Transport for London</a> 8.6 FWQ Terrestrial Ecology TE Report
REP1-154	<a href="#">Transport for London</a> 8.7 FWQ Surface Water SW Report
REP1-155	<a href="#">Transport for London</a> 8.8 FWQ Geology GS Report
REP1-156	<a href="#">Transport for London</a> 8.8.1 GS Appendices A-B
REP1-157	<a href="#">Transport for London</a>

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	8.8.2 GS Appendix C
REP1-158	<a href="#">Transport for London</a> 8.8.3 GS Appendix D
REP1-159	<a href="#">Transport for London</a> 8.8.4 GS Appendix E
REP1-160	<a href="#">Transport for London</a> 8.8.5 GS Appendix F
REP1-161	<a href="#">Transport for London</a> 8.8.6 GS Appendix G
REP1-162	<a href="#">Transport for London</a> 8.8.7 GS Appendix H
REP1-163	<a href="#">Transport for London</a> 8.8.8 GS Appendix I
REP1-164	<a href="#">Transport for London</a> 8.8.9 GS Appendices J-AA
REP1-165	<a href="#">Transport for London</a> 8.8.10 GS Appendices BB-EE
REP1-166	<a href="#">Transport for London</a> 8.9 FWQ Noise NV Report
REP1-167	<a href="#">Transport for London</a> 8.9.1 NV Appendix D
REP1-168	<a href="#">Transport for London</a> 8.10 FWQ Habitats regulation HRA Report
REP1-169	<a href="#">Transport for London</a> 8.11 FWQ Dredging and Navigation DN Report
REP1-170	<a href="#">Transport for London</a> 8.12 FWQ Construction CL Report
REP1-171	<a href="#">Transport for London</a> 8.13 FWQ Health HSS Report
REP1-172	<a href="#">Transport for London</a> 8.14 FWQ Lighting LI Report
REP1-173	<a href="#">Transport for London</a> 8.15 FWQ Material Resources MR Report
REP1-174	<a href="#">Transport for London</a> 8.16 FWQ Traffic and Transport TT Report
REP1-175	<a href="#">Transport for London</a> 8.17 FWQ Heritage HT Report

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REP1-176	<a href="#">Transport for London</a> 8.18 FWQ Socio-Economic SE Report
REP1-177	<a href="#">Transport for London</a> 8.19 FWQ DCO DC Report
REP1-178	<a href="#">Transport for London</a> 8.20 FWQ Principles PN Report
REP1-179	<a href="#">Transport for London</a> 8.21 FWQ Compulsory Acquisition CA Report
REP1-180	<a href="#">Transport for London</a> 8.22 FWQ General GA Report
REP1-181	<a href="#">Transport for London</a> 8.2 Document Explaining DCO Amendments
REP1-182	<a href="#">Transport for London</a> Update Report - clarification letter
<b>Late Submissions for Deadline 1</b>	
REP1-183	<a href="#">Public Health England</a> Response to Rule 17. Late Submission for Deadline 1 accepted at the discretion of the Examining Authority
REP1-184	<a href="#">Port of London Authority</a> Summary of Written Representation. Late Submission for Deadline 1 accepted at the discretion of the Examining Authority
REP1-185	<a href="#">Ralph Hardwick</a> Late Submission for Deadline 1 accepted at the discretion of the Examining Authority
REP1-186	<a href="#">Port of London Authority</a> Further Late Submission for Deadline 1 accepted at the discretion of the Examining Authority
<b>Deadline 2 – 14 December 2016</b>	
<ul style="list-style-type: none"> <li>• Comments on Written Representations</li> <li>• Comments on responses to ExA's first written Questions</li> <li>• Comments on responses to any revised application documents</li> <li>• Comments on Local Impact Reports</li> <li>• Post-hearing submissions including written submissions of oral cases</li> <li>• Revised dDCO if required</li> <li>• Comments on any further information</li> </ul>	
REP2-001	<a href="#">Thames Water Utilities Limited</a> Post Hearing Submission
REP2-002	<a href="#">Affordable Architects Limited</a> Post Hearing Submission
REP2-003	<a href="#">Nathaniel Lichfield and Partners on behalf of U and I Group Plc</a> Post Hearing Submission

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REP2-004	<u>Public Health England</u> Correspondence with Applicant
REP2-005	<u>Public Health England</u> Draft Statement of Common Ground
REP2-006	<u>Friends of the Earth</u> Submission for Deadline 2
REP2-007	<u>AnSCO Arena</u> Submission for Deadline 2
REP2-008	<u>No to Silvertown Tunnel</u> Submission for Deadline 2
REP2-009	<u>Health and Safety Executive</u> Submission for Deadline 2
REP2-010	<u>London Borough of Tower Hamlets</u> Submission for Deadline 2
REP2-011	<u>London Borough of Newham</u> Submission for Deadline 2
REP2-012	<u>London Borough of Lewisham</u> Submission for Deadline 2
REP2-013	<u>London Borough of Southwark</u> Submission for Deadline 2
REP2-014	<u>London Borough of Hackney</u> Comments on Responses to ExA's First Written Questions and wording of the DCO
REP2-015	<u>Royal Borough of Greenwich</u> Post Hearing Submission
REP2-016	<u>Royal Borough of Greenwich</u> Response to Action Points Part 1
REP2-017	<u>Royal Borough of Greenwich</u> Response to Action Points Part 2
REP2-018	<u>Royal Borough of Greenwich</u> Response to Action Points Part 3
REP2-019	<u>Royal Borough of Greenwich</u> Response to Action Points Part 4
REP2-020	<u>Transport for London</u> 8.24 Deadline 2 Cover Letter
REP2-021	<u>Transport for London</u> 3.1 Draft DCO Revision 2

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REP2-022	<a href="#">Transport for London</a> 3.1 Draft DCO Revision 2 (Tracked changes)
REP2-023	<a href="#">Transport for London</a> 3.2 Explanatory Memorandum to DCO Revision 2
REP2-024	<a href="#">Transport for London</a> 3.2 Explanatory Memorandum to DCO (Tracked changes)
REP2-025	<a href="#">Transport for London</a> 6.3.10.2 ES Appendix 10B Marine Ecology Survey Report Revision 1
REP2-026	<a href="#">Transport for London</a> 6.3.10.2 ES Appendix 10B Marine Ecology Survey Report Revision 1 (Tracked changes)
REP2-027	<a href="#">Transport for London</a> 6.10 Code of Construction Practice Revision 2
REP2-028	<a href="#">Transport for London</a> 6.10 Code of Construction Practice Revision 2 (Tracked changes)
REP2-029	<a href="#">Transport for London</a> 7.4 Design Principles Revision 1
REP2-030	<a href="#">Transport for London</a> 7.4 Design Principles Revision 1 (Tracked changes)
REP2-031	<a href="#">Transport for London</a> 7.7 Traffic Impacts Mitigation Strategy Revision 1
REP2-032	<a href="#">Transport for London</a> 7.7 Traffic Impacts Mitigation Strategy Revision 1 (Tracked changes)
REP2-033	<a href="#">Transport for London</a> 8.25 Document Explaining DCO Amendments
REP2-034	<a href="#">Transport for London</a> 8.26 Comments on Responses to ExA's First Written Questions
REP2-035	<a href="#">Transport for London</a> 8.27 Comments on Borough LIRs and WRs
REP2-036	<a href="#">Transport for London</a> 8.28 Appendices to Comments on Borough LIRs and WRs
REP2-037	<a href="#">Transport for London</a> 8.29 Written Summary for Traffic and Transport Modelling ISH on 7 December 2016
REP2-038	<a href="#">Transport for London</a> 8.30 Written Summary for CAH on 8 December 2016
REP2-039	<a href="#">Transport for London</a> 8.31 Update on discussions with Public Health England

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REP2-040	<a href="#">Transport for London</a> 8.32 Details of Proposed Noise Barriers at Siebert Road
REP2-041	<a href="#">Transport for London</a> 8.33 Updated Air Quality and Health Assessment
REP2-042	<a href="#">Transport for London</a> 8.34 Distribution of User Benefits
REP2-043	<a href="#">Transport for London</a> 8.35 Outline Business Case Correction
REP2-044	<a href="#">Transport for London</a> 8.36 Comments on Written Representations - Statutory Bodies
REP2-045	<a href="#">Transport for London</a> 8.37 Comments on Written Representations - Land Interests Part 1
REP2-046	<a href="#">Transport for London</a> 8.38 Comments on Written Representations - Land Interests Part 2
REP2-047	<a href="#">Transport for London</a> 8.39 Comments on Written Representations - Community
REP2-048	<a href="#">Transport for London</a> 8.40 Comments on Written Representations - Other
REP2-049	<a href="#">Transport for London</a> 8.41 Adjacent River Crossings
REP2-050	<a href="#">Transport for London</a> 8.42 Commentary on Interface between Strategic and Local Modelling
REP2-051	<a href="#">Transport for London</a> 8.43 Silvertown Modelling - Model Responsiveness
REP2-052	<a href="#">Transport for London</a> 8.44 Silvertown Modelling - Value of Time Discussion Note
REP2-053	<a href="#">Transport for London</a> 8.45 Thames Gateway Bridge VoT Study - Modelling Report
REP2-054	<a href="#">Transport for London</a> 8.46 Silvertown Crossing - Summary of Data Collection
REP2-055	<a href="#">Transport for London</a> 8.47 River Crossings - Behavioural Surveys Final Report
REP2-056	<a href="#">Transport for London</a> 8.48 Growth Assumptions
REP2-057	<a href="#">Transport for London</a> 8.49 RSI Data and Matrix Development
REP2-058	<a href="#">Transport for London</a> 8.50 Steer Davies Gleave Memo

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REP2-059	<u>Transport for London</u> 8.51 Woolwich Ferry Waiting Area Improvement Study
REP2-060	<u>Transport for London</u> 8.52 Silvertown Modelling - Changes in Cross-River PT Travel
REP2-061	<u>Transport for London</u> 8.53 TfL Engagement with LB Southwark
REP2-062	<u>Transport for London</u> 8.54 Corrected Answer to TT6
REP2-063	<u>Transport for London</u> 8.55 Response to Action Points 8 and 9 from TT ISH
REP2-064	<u>Transport for London</u> SoCG004 Statement of Common Ground with Marine Management Organisation
REP2-065	<u>Transport for London</u> SoCG008 Statement of Common Ground with Essex County Council
REP2-066	<u>Transport for London</u> ES Drawing 10.3 Revision 1
REP2-067	<u>Transport for London</u> ES Drawing 17.2 Revision 1
REP2-068	<u>Transport for London</u> CAH Appendix 1 - tracked change mark up of Table 1
REP2-069	<u>Transport for London</u> CAH Appendix 2 - clean version of Table 1
REP2-070	<u>Transport for London</u> CAH Appendix 3
REP2-071	<u>Trinity (D) Limited</u> Submission for Deadline 2
REP2-072	<u>Greenwich Society</u> Submission for Deadline 2
REP2-073	<u>Port of London Authority</u> Comments submitted prior to Deadline 2
REP2-074	<u>Port of London Authority</u> Submission for Deadline 2
REP2-075	<u>Port of London Authority</u> Further Submission for Deadline 2
REP2-076	<u>Brenntag UK Limited</u> Submission for Deadline 2

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REP2-077	<u>Valerie Viehoff</u> Submission for Deadline 2
REP2-078	<u>W Humphrey and K Humphrey</u> Submission for Deadline 2
REP2-079	<u>Rebecca Moore</u> Submission for Deadline 2
REP2-080	<u>Chris Bentley and Sharon Brokenshire</u> Submission for Deadline 2
REP2-081	<u>Dr Kat Warren</u> Submission for Deadline 2
<b>Late Submission for Deadline 2</b>	
REP2-082	<u>Health and Safety Executive</u> Late Submission for Deadline 2 accepted at the discretion of the Examining Authority
<b>Deadline 3 – 27 January 2017</b>	
<ul style="list-style-type: none"> <li>• Post-hearing submissions including written submissions of oral cases</li> <li>• Comments on revised application documents</li> <li>• Any further information requested by the ExA</li> <li>• Comments on any further information previously requested by the ExA and/or submitted by the Applicant</li> <li>• Any revised dDCO</li> </ul>	
REP3-001	<u>Transport for London</u> 8.58 Deadline 3 Cover Letter
REP3-002	<u>Transport for London</u> 2.5 Work Plans Revision 1
REP3-003	<u>Transport for London</u> 3.1 Draft DCO Revision 3
REP3-004	<u>Transport for London</u> 3.1 Draft DCO Revision 3 (Tracked changes)
REP3-005	<u>Transport for London</u> 3.2 Explanatory Memorandum to DCO Revision 3
REP3-006	<u>Transport for London</u> 3.2 Explanatory Memorandum to DCO Revision 3 (Tracked changes)
REP3-007	<u>Transport for London</u> 7.10 Consent and Agreements Position Statement Revision 1
REP3-008	<u>Transport for London</u> 7.10 Consent and Agreements Position Statement Revision 1 (Tracked changes)
REP3-009	<u>Transport for London</u> SoCG001 Statement of Common Ground with Natural England



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REP3-010	<a href="#">Transport for London</a> SoCG002 Statement of Common Ground with Highways England
REP3-011	<a href="#">Transport for London</a> SoCG005 Statement of Common Ground with Environment Agency
REP3-012	<a href="#">Transport for London</a> SoCG019 Statement of Common Ground with Historic England
REP3-013	<a href="#">Transport for London</a> SoCG023 Statement of Common Ground with Health and Safety Executive
REP3-014	<a href="#">Transport for London</a> 8.59 Applicant's Update Note
REP3-015	<a href="#">Transport for London</a> 8.60 Written Summary for Traffic and Transport Modelling ISH on 17 January 2017
REP3-016	<a href="#">Transport for London</a> 8.61 Written Summary for Air Quality, Noise and other Environmental Issues ISH on 18 January 2017
REP3-017	<a href="#">Transport for London</a> 8.62 Written Summary for dDCO ISH on 19 January 2017
REP3-018	<a href="#">Transport for London</a> 8.63 Written Summary for CAH on 20 January 2017
REP3-019	<a href="#">Transport for London</a> 8.64 Document Explaining DCO Amendments
REP3-020	<a href="#">Transport for London</a> 8.65 Environmental Appraisal of Precast Concrete (PCC) Segment Manufacturing Plant
REP3-021	<a href="#">Transport for London</a> 8.66 Slurry Tunnel Boring Machine (TBM) and Treatment Plant Environmental Appraisal
REP3-022	<a href="#">Transport for London</a> 8.67 Application and Examination Document Tracker
REP3-023	<a href="#">Transport for London</a> 8.68 Environmental Documents Structure Diagram
REP3-024	<a href="#">Transport for London</a> 8.69 Impact of the Scheme on Low Income Residents
REP3-025	<a href="#">Transport for London</a> 8.70 Response to Action Points 1 and 2 from the ISH on 17 January 2017
REP3-026	<a href="#">Transport for London</a>

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	8.71 Response to Action Point 3 from the ISH on 17 January 2017
REP3-027	<u>Transport for London</u> 8.72 Response to Action Point 6, 7 and 8.1 from the ISH on 17 January 2017
REP3-028	<u>Transport for London</u> 8.73 Response to Action Point 8.2 from the ISH on 17 January 2017
REP3-029	<u>Transport for London</u> 8.74 Response to Action Points 12 and 13 from the ISH on 17 January 2017
REP3-030	<u>Transport for London</u> 8.75 Response to Action Point 14 from the ISH on 17 January 2017
REP3-031	<u>Transport for London</u> 8.76 Appendices 1-6 to Written Summary for Environmental ISH of 18 January 2017
REP3-032	<u>Transport for London</u> 8.77 Appendices 7-13 to Written Summary for Environmental ISH 18 January 2017
REP3-033	<u>Royal Borough of Greenwich</u> Post Hearing Submission
REP3-034	<u>London Borough of Tower Hamlets</u> Post Hearing Submission
REP3-035	<u>London Borough of Newham</u> Post Hearing Submission
REP3-036	<u>London Borough of Southwark</u> Post Hearing Submission
REP3-037	<u>London Borough of Lewisham</u> Post Hearing Submission
REP3-038	<u>London Borough of Hackney</u> Post Hearing Submission
REP3-039	<u>Port of London Authority</u> Post Hearing Submission
REP3-040	<u>Rebecca Moore</u> Post Hearing Submission
REP3-041	<u>Dominic Leggett</u> Post Hearing Submission
REP3-042	<u>Mark Barnes</u> Post Hearing Submission
REP3-043	<u>Tarmac Trading Limited</u> Post Hearing Submission

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REP3-044	<u>Friends of the Earth</u> Post Hearing Submission
REP3-045	<u>Marine Management Organisation</u> Post Hearing Submission
REP3-046	<u>Public Health England</u> Post Hearing Submission
REP3-047	<u>No to Silvertown Tunnel</u> Post Hearing Submission
REP3-048	<u>Lidoka Estates Ltd</u> Post Hearing Submission
REP3-049	<u>Brenntag UK Limited</u> Post Hearing Submission
REP3-050	<u>Environment Agency</u> Post Hearing Submission
REP3-051	<u>Thames Water</u> Post Hearing Submission
REP3-052	<u>Health and Safety Executive</u> Post Hearing Submission
REP3-053	<u>Westcombe Society</u> Post Hearing Submission
REP3-054	<u>Emily and Mike Norton</u> Post Hearing Submission
REP3-055	<u>London City Airport</u> Post Hearing Submission
REP3-056	<u>London City Airport</u> Further Post Hearing Submission
REP3-057	<u>Darryl Chamberlain</u> Submission for Deadline 3
REP3-058	<u>Southern Gas Networks and Birch Sites Limited</u> Submission for Deadline 3
REP3-059	<u>Royal Mail Group Limited</u> Correspondence with Applicant
REP3-060	<u>Transport for London</u> Email regarding non material change consultation publicity
<b>Late Submission for Deadline 3</b>	
REP3-061	<u>Transport for London</u> Further email regarding non material change consultation publicity. Late

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	submission for Deadline 3 accepted at the discretion of the Examining Authority
<b>Deadline 4 – 6 March 2017</b>	
<ul style="list-style-type: none"> <li>• Responses to ExA’s SWQ</li> <li>• Response to any further information requested by the ExA for this deadline</li> <li>• Any updated dDCO</li> <li>• Comments on any further information previously requested by the ExA (including non-material change of application documents dated 12 January and 3 February 2017 by Applicant)</li> </ul>	
REP4-001	<u>Environment Agency</u> Response to ExA’s Second Written Questions and other comments
REP4-002	<u>Health and Safety Executive</u> Response to ExA’s Second Written Questions and other comments
REP4-003	<u>Health and Safety Executive</u> Submission for Deadline 4
REP4-004	<u>ASD Limited (Kloeckner Metals UK)</u> Submission for Deadline 4
REP4-005	<u>Dominic Leggett</u> Submission for Deadline 4
REP4-006	<u>Nathaniel Lichfield and Partners on behalf of U and I Group Plc</u> Submission for Deadline 4
REP4-007	<u>Silvertown Homes Limited (formerly known as Quintain Limited)</u> Submission for Deadline 4
REP4-008	<u>ExCeL London</u> Submission for Deadline 4
REP4-009	<u>Thames Water</u> Response to ExA’s Second Written Questions
REP4-010	<u>Marine Management Organisation</u> Response to ExA’s Second Written Questions
REP4-011	<u>Natural England</u> Response to ExA’s Second Written Questions
REP4-012	<u>London Borough of Newham</u> Response to ExA’s Second Written Questions and other comments
REP4-013	<u>London Borough of Bexley</u> Response to ExA’s Second Written Questions and other comments
REP4-014	<u>Royal Borough of Greenwich</u> Response to ExA’s Second Written Questions and other comments
REP4-015	<u>London Borough of Tower Hamlets</u> Response to ExA’s Second Written Questions

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REP4-016	<a href="#">London Borough of Tower Hamlets</a> Further submission for Deadline 4
REP4-017	<a href="#">London Borough of Southwark</a> Response to ExA's Second Written Questions
REP4-018	<a href="#">London Borough of Southwark</a> Update and comments on the updated draft Development Consent Order
REP4-019	<a href="#">London Borough of Hackney</a> Response to ExA's Second Written Questions
REP4-020	<a href="#">London Borough of Hackney</a> Update and comments on the updated draft Development Consent Order
REP4-021	<a href="#">London Borough of Lewisham</a> Response to ExA's Second Written Questions
REP4-022	<a href="#">Transport for London</a> 8.80 Deadline 4 Cover Letter
REP4-023	<a href="#">Transport for London</a> 2.3 Land Plans Revision 1
REP4-024	<a href="#">Transport for London</a> 2.4 Special Category Land Plan(s) Revision 2
REP4-025	<a href="#">Transport for London</a> 3.1 Draft DCO Revision 4
REP4-026	<a href="#">Transport for London</a> 3.1 Draft DCO Revision 4 (Tracked changes)
REP4-027	<a href="#">Transport for London</a> 3.2 Explanatory Memorandum to DCO Revision 4
REP4-028	<a href="#">Transport for London</a> 3.2 Explanatory Memorandum to DCO Revision 4 (Tracked changes)
REP4-029	<a href="#">Transport for London</a> 4.1 Statement of Reasons Revision 2
REP4-030	<a href="#">Transport for London</a> 4.1 Statement of Reasons Revision 2 (Tracked changes)
REP4-031	<a href="#">Transport for London</a> 4.3 Book of Reference Revision 2
REP4-032	<a href="#">Transport for London</a> 4.3 Book of Reference Revision 2 (Tracked changes)
REP4-033	<a href="#">Transport for London</a> 6.3.9.8 ES Appendix 9H Revision 1
REP4-034	<a href="#">Transport for London</a> 6.3.9.8 ES Appendix 9H Revision 1 (Tracked changes)

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REP4-035	<a href="#">Transport for London</a> 6.10 Code of Construction Practice Revision 3
REP4-036	<a href="#">Transport for London</a> 6.10 Code of Construction Practice Revision 3 (Tracked changes)
REP4-037	<a href="#">Transport for London</a> 7.4 Design Principles Revision 2
REP4-038	<a href="#">Transport for London</a> 7.4 Design Principles Revision 2 (tracked changes)
REP4-039	<a href="#">Transport for London</a> 7.11 Charging Policies and Procedures Revision 2
REP4-040	<a href="#">Transport for London</a> 7.11 Charging Policies and Procedures Revision 2 (Tracked changes)
REP4-041	<a href="#">Transport for London</a> 7.12 Mitigation Route Map Revision 2
REP4-042	<a href="#">Transport for London</a> 7.12 Mitigation Route Map Revision 2 (Tracked changes)
REP4-043	<a href="#">Transport for London</a> 8.81 Document Explaining DCO Amendments
REP4-044	<a href="#">Transport for London</a> 8.82 Bus Strategy
REP4-045	<a href="#">Transport for London</a> 8.83 Design and Access Statement Addendum
REP4-046	<a href="#">Transport for London</a> 8.84 Monitoring and Mitigation Strategy
REP4-047	<a href="#">Transport for London</a> 8.85 520 Over-Height Vehicles (OHV) Scenario Noise Impacts
REP4-048	<a href="#">Transport for London</a> 8.86 Wharves Access Impact Technical Note
REP4-049	<a href="#">Transport for London</a> 8.88 Landscaping Plan
REP4-050	<a href="#">Transport for London</a> 8.89 SWQ Compulsory Acquisition CA Report
REP4-051	<a href="#">Transport for London</a> 8.90 SWQ General GA Report
REP4-052	<a href="#">Transport for London</a> 8.91 SWQ DCO Wording DC Report
REP4-053	<a href="#">Transport for London</a>

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	8.92 SWQ Terrestrial Ecology TE Report
REP4-054	<a href="#">Transport for London</a> 8.93 SWQ Construction on Land CL Report
REP4-055	<a href="#">Transport for London</a> 8.94 SWQ Traffic and Transportation TT Report
REP4-056	<a href="#">Transport for London</a> 8.95 SWQ Air Quality AQ Report
REP4-057	<a href="#">Transport for London</a> 8.96 SWQ Geology, Soils and Contaminated Land GS Report
REP4-058	<a href="#">Transport for London</a> 8.97 SWQ Noise and Vibration NV Report
REP4-059	<a href="#">Transport for London</a> 8.98 SWQ Health, Safety and Security HSS Report
REP4-060	<a href="#">Transport for London</a> 8.99 SWQ Heritage HT Report
REP4-061	<a href="#">Transport for London</a> 8.100 SWQ Marine Ecology ME Report
REP4-062	<a href="#">Transport for London</a> 8.101 SWQ Surface Water, Flood Risk Assessment SW Report
REP4-063	<a href="#">Transport for London</a> SoCG001 - Statement of Common Ground with Natural England (Revision 2)
REP4-064	<a href="#">Brenntag UK Limited</a> Response to ExA's Second Written Questions and other comments
REP4-065	<a href="#">Lidoka Estates Ltd</a> Submission for Deadline 4
REP4-066	<a href="#">Historic England</a> Response to ExA's Second Written Questions
REP4-067	<a href="#">Motorcycle Action Group</a> Submission for Deadline 4
REP4-068	<a href="#">Southern Gas Networks and Birch Sites Limited</a> Response to ExA's Second Written Questions
REP4-069	<a href="#">Port of London Authority</a> Response to ExA's Second Written Questions
REP4-070	<a href="#">Port of London Authority</a> Further submission for Deadline 4
REP4-071	<a href="#">Royal Mail Group Limited</a> Email confirming withdrawal of objection

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REP4-072	<u>Friends of the Earth</u> Submission for Deadline 4
<b>Deadline 5 – 20 March 2017</b>	
<ul style="list-style-type: none"> <li>• Comments on Responses to ExA’s SWQ</li> <li>• Comments on any further information requested by the ExA</li> <li>• Applicant’s report/summary of responses to notification on non-material changes to application documents dated 12 January and 3 February 2017 together with copies of the responses received by the Applicant</li> <li>• Applicants response to comments received by Deadline 4 on non-material change to application documents, dated 12 January and 3 February 2017</li> <li>• Response to any further information requested by the ExA for this deadline</li> </ul>	
REP5-001	<u>Transport for London</u> 8.102 Deadline 5 Cover Letter
REP5-002	<u>Transport for London</u> 8.103 Buses Minimum Opening Year Scenario Analysis
REP5-003	<u>Transport for London</u> 8.104 Summary of Responses to Consultation on Proposed Non-Material Changes to Scheme
REP5-004	<u>Transport for London</u> 8.105 Applicant's Update Note
REP5-005	<u>Transport for London</u> SoCG001 - Statement of Common Ground with Natural England - Deadline 5 update
REP5-006	<u>Transport for London</u> SoCG004 - Statement of Common Ground with Marine Management Organisation - Deadline 5 update
REP5-007	<u>London Borough of Hackney</u> Comments on Responses to ExA's Second Written Questions and other comments
REP5-008	<u>London Borough of Lewisham</u> Comments on Responses to ExA's Second Written Questions and other comments
REP5-009	<u>London Borough of Southwark</u> Comments on Responses to ExA's Second Written Questions and other comments
REP5-010	<u>London Borough of Newham</u> Submission for Deadline 5
REP5-011	<u>Royal Borough of Greenwich</u> Submission for Deadline 5



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REP5-012	<u>London Borough of Tower Hamlets</u> Late Submission for Deadline 5. This document has replaced a previous version which was submitted in error
REP5-013	<u>Port of London Authority</u> Comments on Responses to ExA's Second Written Questions and other comments
REP5-014	<u>Tarmac Trading Limited</u> Comments on Responses to ExA's Second Written Questions and other comments
REP5-015	<u>Health and Safety Executive</u> Comments on Responses to ExA's Second Written Questions
REP5-016	<u>AnSCO Arena Limited</u> Submission for Deadline 5
REP5-017	<u>Waterfront Limited Partnership</u> Submission for Deadline 5
REP5-018	<u>Trinity (D) Limited</u> Submission for Deadline 5
REP5-019	<u>Brenntag UK Limited</u> Submission for Deadline 5
REP5-020	<u>No to Silvertown Tunnel</u> Submission for Deadline 5
REP5-021	<u>Rebecca Moore</u> Submission for Deadline 5
REP5-022	<u>A Arthur</u> Submission for Deadline 5
REP5-023	<u>Lichfields on behalf of U and I Group Plc</u> Submission for Deadline 5
REP5-024	<u>Knight Dragon Developments Limited</u> Submission for Deadline 5
REP5-025	<u>Southern Gas Networks and Birch Sites Limited</u> Submission for Deadline 5
REP5-026	<u>Environment Agency</u> Submission for Deadline 5
REP5-027	<u>London City Airport</u> Submission for Deadline 5
<b>Late Submissions for Deadline 5</b>	
REP5-028	<u>ExCeL London Ltd</u> Statement of Common Ground with Transport for London. Late submission for Deadline 5 accepted at the discretion of the Examining

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	Authority
REP5-029	<u>Greater London Authority</u> Late Submission for Deadline 5 accepted at the discretion of the Examining Authority
REP5-030	<u>Ralph Hardwick</u> Late Submission for Deadline 5 accepted at the discretion of the Examining Authority
REP5-031	<u>Helen Hutchinson and Duncan Marley</u> Late Submission for Deadline 5 accepted at the discretion of the Examining Authority
REP5-032	<u>Silvertown Homes Limited (formerly known as Quintain Limited)</u> Late Submission for Deadline 5 accepted at the discretion of the Examining Authority
<p><b>Deadline 6 – 5 April 2017</b></p> <ul style="list-style-type: none"> <li>• Comments on the RIES</li> <li>• Comments on Deadline 5 submissions received by the Applicant on non-material changes to application documents, including report/summary of responses to consultation</li> <li>• Comments on ExA’s dDCO</li> <li>• Post-hearing submissions including written submissions of oral cases</li> <li>• Response to any further information requested by the ExA for this deadline</li> </ul>	
REP6-001	<u>Birch Sites Limited</u> Withdrawal of Representations
REP6-002	<u>Southern Gas Networks plc</u> Withdrawal of Representations
REP6-003	<u>Silvertown Homes Limited</u> Post Hearing Submission
REP6-004	<u>Marine Management Organisation</u> Post Hearing Submission
REP6-005	<u>No to Silvertown Tunnel</u> Post Hearing Submission
REP6-006	<u>No to Silvertown Tunnel</u> Further Post Hearing Submission
REP6-007	<u>Health and Safety Executive</u> Post Hearing Submission (including correction email)
REP6-008	<u>Friends of the Earth</u> Post Hearing Submission
REP6-009	<u>Westcombe Society</u> Post Hearing Submission
REP6-010	<u>Brenntag UK Limited</u>

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	Post Hearing Submission
REP6-011	<u>Grant Shepherd</u> Post Hearing Submission
REP6-012	<u>Rebecca Moore</u> Post Hearing Submission
REP6-013	<u>Helen Hutchinson</u> Post Hearing Submission
REP6-014	<u>Darcy de Sade</u> Post Hearing Submission
REP6-015	<u>East Greenwich Residents Association (EGRA)</u> Post Hearing Submission
REP6-016	<u>Lichfields on behalf of U and I Group Plc</u> Post Hearing Submission
REP6-017	<u>Motorcycle Action Group</u> Post Hearing Submission
REP6-018	<u>Greater London Motorcycle Action Group</u> Post Hearing Submission
REP6-019	<u>Campaign for Better Transport</u> Post Hearing Submission
REP6-020	<u>Thames Water</u> Post Hearing Submission
REP6-021	<u>Environment Agency</u> Post Hearing Submission
REP6-022	<u>Environment Agency</u> Preferred Protective Provisions (Clean and Tracked change versions)
REP6-023	<u>London Borough of Newham</u> Post Hearing Submission
REP6-024	<u>London Borough of Southwark</u> Post Hearing Submission
REP6-025	<u>London Borough of Lewisham</u> Post Hearing Submission
REP6-026	<u>London Borough of Hackney</u> Post Hearing Submission
REP6-027	<u>London Borough of Tower Hamlets</u> Submission for Deadline 6
REP6-028	<u>Royal Borough of Greenwich</u> Submission for Deadline 6

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REP6-029	<u>Port of London Authority</u> Submission for Deadline 6
REP6-030	<u>Darryl Chamberlain</u> Submission for Deadline 6
REP6-031	<u>Transport for London</u> 8.106 Deadline 6 Cover Letter
REP6-032	<u>Transport for London</u> 2.1 Tunnels Location and Operational Boundaries Plans Revision 1
REP6-033	<u>Transport for London</u> 2.5 Works Plans Revision 1
REP6-034	<u>Transport for London</u> 2.6 Rights of Way and Access Plans Revision 1
REP6-035	<u>Transport for London</u> 2.7 Classification of Roads Plan Revision 1
REP6-036	<u>Transport for London</u> 2.9 Traffic Regulation Measures Plans Revision 1
REP6-037	<u>Transport for London</u> 2.10 River Restrictions Plans
REP6-038	<u>Transport for London</u> 3.1 Draft DCO Revision 5
REP6-039	<u>Transport for London</u> 3.1 Draft DCO Revision 5 (Tracked changes)
REP6-040	<u>Transport for London</u> 3.2 Explanatory Memorandum to DCO Revision 5
REP6-041	<u>Transport for London</u> 3.2 Explanatory Memorandum to DCO Revision 5 (Tracked changes)
REP6-042	<u>Transport for London</u> 6.2 ES Figures - Drawings 4.1 - 6.1-6.2 Revision 1
REP6-043	<u>Transport for London</u> 6.2 ES Figures - Drawings 6.3-6.4 Revision 1
REP6-044	<u>Transport for London</u> 6.2 ES Figures - Drawings 6.5-6.6 Revision 1
REP6-045	<u>Transport for London</u> 6.2 ES Figures - Drawings 6.7-6.8 Revision 1
REP6-046	<u>Transport for London</u> 6.2 ES Figures - Drawings 6.9-6.10 Revision 1
REP6-047	<u>Transport for London</u> 6.2 ES Figures - Drawings 7.1-11.2 Revision 1

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REP6-048	<u>Transport for London</u> 6.2 ES Figures - Drawings 14.1-14.5 Revision 1
REP6-049	<u>Transport for London</u> 6.2 ES Figures - Drawings 14.6-14.8 Revision 1
REP6-050	<u>Transport for London</u> 6.2 ES Figures - Drawings 15.1-15.2 Revision 1
REP6-051	<u>Transport for London</u> 6.2 ES Figures - Drawings 16.1-16.5 Revision 1
REP6-052	<u>Transport for London</u> 6.2 ES Figures - Drawings 16.6-16.10 Revision 1
REP6-053	<u>Transport for London</u> 6.2 ES Figures - Drawings 17.1-17.2 Revision 1
REP6-054	<u>Transport for London</u> 6.3.4.1 ES Appendix 4A Construction Method Statement
REP6-055	<u>Transport for London</u> 6.3.4.1 ES Appendix 4A Construction Method Statement (Tracked changes)
REP6-056	<u>Transport for London</u> 6.10 Code of Construction Practice Revision 4
REP6-057	<u>Transport for London</u> 6.10 Code of Construction Practice Revision 4 (Tracked changes)
REP6-058	<u>Transport for London</u> 7.4 Design Principles Revision 3
REP6-059	<u>Transport for London</u> 7.4 Design Principles Revision 3 (Tracked changes)
REP6-060	<u>Transport for London</u> 7.11 Charging Policies and Procedures Revision 3
REP6-061	<u>Transport for London</u> 7.11 Charging Policies and Procedures Revision 3 (Tracked changes)
REP6-062	<u>Transport for London</u> 7.12 Mitigation Route Map Revision 3
REP6-063	<u>Transport for London</u> 7.12 Mitigation Route Map Revision 3 (Tracked changes)
REP6-064	<u>Transport for London</u> 8.67 Application and Examination Document Tracker Revision 1
REP6-065	<u>Transport for London</u> 8.68 Environmental Documents Structure Diagram Revision 1

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REP6-066	<a href="#">Transport for London</a> 8.82 Bus Strategy Revision 1
REP6-067	<a href="#">Transport for London</a> 8.82 Bus Strategy Revision 1 (Tracked changes)
REP6-068	<a href="#">Transport for London</a> 8.84 Monitoring and Mitigation Strategy Revision 1
REP6-069	<a href="#">Transport for London</a> 8.84 Monitoring and Mitigation Strategy Revision 1(Tracked changes)
REP6-070	<a href="#">Transport for London</a> 8.88 Landscaping Plan Revision 1
REP6-071	<a href="#">Transport for London</a> 8.107 Document Explaining DCO Amendments
REP6-072	<a href="#">Transport for London</a> 8.108 Explanatory Note on Updated Certified Documents
REP6-073	<a href="#">Transport for London</a> 8.109 Post-hearing Submission Document (Outstanding Issues)
REP6-074	<a href="#">Transport for London</a> 8.110 Post-hearing Submission Document (Compulsory Acquisition)
REP6-075	<a href="#">Transport for London</a> 8.111 Post-hearing Submission Document (DCO)
REP6-076	<a href="#">Transport for London</a> 8.112 Response to Action Point 1 from the OFH on 28 March 2017
REP6-077	<a href="#">Transport for London</a> 8.113 Response to Silvertown Homes Ltd Deadline 5 Representation
REP6-078	<a href="#">Transport for London</a> 8.114 Marine Policy Compliance Statement
REP6-079	<a href="#">Transport for London</a> 8.115 Assessment of Risk and Changes to Exposure Levels
REP6-080	<a href="#">Transport for London</a> 8.116 Schedule of Compliance with the National Policy Statement
REP6-081	<a href="#">Transport for London</a> 8.117 Sketch Plan Appraising Feasibility of Bus Stop
REP6-082	<a href="#">Transport for London</a> 8.118 Response to Bus Issues Raised at dDCO ISH 29 March 2017
REP6-083	<a href="#">Transport for London</a> 8.119 Response on Option Appraisal (Five Case) from ISH 28 March 2017
REP6-084	<a href="#">Transport for London</a>

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	SoCG001 - Statement of Common Ground with Natural England at Deadline 6
<b>Late Submissions for Deadline 6</b>	
REP6-085	<u>Transport for London</u> 2.2 General Arrangement Plans Revision 1. Late Submission for Deadline 6 accepted at the discretion of the Examining Authority
REP6-086	<u>Transport for London</u> 2.8 Engineering Section Drawings and Plans Revision 1. Late Submission for Deadline 6 accepted at the discretion of the Examining Authority
REP6-087	<u>AnSCO Arena</u> Late Submission for Deadline 6 accepted at the discretion of the Examining Authority
REP6-088	<u>The Waterfront Limited Partnership</u> Late Submission for Deadline 6 accepted at the discretion of the Examining Authority
REP6-089	<u>Dominic Leggett</u> Late Submission for Deadline 6 accepted at the discretion of the Examining Authority
<b>Deadline 7 – 10 April 2017</b>	
<ul style="list-style-type: none"> <li>• Final deadline for submission of any responses/comments on information requested by the ExA for this deadline</li> <li>• Applicant's final dDCO</li> </ul>	
REP7-001	<u>London Borough of Tower Hamlets</u> Submission for Deadline 7
REP7-002	<u>No to Silvertown Tunnel</u> Submission for Deadline 7
REP7-003	<u>London Borough of Newham</u> Covering Letter for Deadline 7
REP7-004	<u>London Borough of Newham</u> Deadline 7 Final Position Statement
REP7-005	<u>London Borough of Newham</u> Draft s106 Agreement
REP7-006	<u>London Borough of Newham</u> s106 Heads of Terms
REP7-007	<u>London Borough of Newham</u> Updated Legal Position Statement
REP7-008	<u>Thames Water</u> Joint statement between the Applicant and Thames Water
REP7-009	<u>HSE</u> Submission for Deadline 7

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REP7-010	<u>Motorcycle Action Group</u> Submission for Deadline 7
REP7-011	<u>Royal Borough of Greenwich</u> Submission for Deadline 7
REP7-012	<u>Brenntag UK Limited</u> Submission for Deadline 7
REP7-013	<u>Silvertown Homes Limited</u> Submission for Deadline 7
REP7-014	<u>London Borough of Lewisham</u> Submission for Deadline 7
REP7-015	<u>Environment Agency</u> Submission for Deadline 7
REP7-016	<u>Marine Management Organisation</u> Submission for Deadline 7
REP7-018	<u>London Borough of Southwark</u> Submission for Deadline 7
REP7-019	<u>Port of London Authority</u> Submission for Deadline 7
REP7-020	<u>Friends of the Earth</u> Submission for Deadline 7
REP7-021	<u>The East Greenwich Residents Association</u> Response on Monitoring and Mitigation Strategy
REP7-022	<u>Transport for London</u> 8.120 Deadline 7 Cover Letter
REP7-023	<u>Transport for London</u> 2.10 River Restrictions Plans Revision 1
REP7-024	<u>Transport for London</u> Bus Strategy Revision 2
REP7-025	<u>Transport for London</u> Bus Strategy Revision 2 Track Changed
REP7-026	<u>Transport for London</u> 3.1 Draft DCO Revision 6
REP7-027	<u>Transport for London</u> 3.1 Draft DCO Revision 6 Track Changed
REP7-028	<u>Transport for London</u> 3.1 Draft DCO Revision 6 Track Changed from Original
REP7-029	<u>Transport for London</u>



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	3.2 Explanatory Memorandum to DCO Revision 6
REP7-030	<a href="#">Transport for London</a> 3.2 Explanatory Memorandum to DCO Revision 6 Track Changed
REP7-031	<a href="#">Transport for London</a> 4.3 Book of Reference Revision 3
REP7-032	<a href="#">Transport for London</a> 4.3 Book of Reference Revision 3 Track Changed
REP7-017	<a href="#">Transport for London</a> Statement of Common Ground between Transport for London and Lidoka submitted at D7 (Revision 1)
REP7-033	<a href="#">Transport for London</a> Statement of Common Ground between Transport for London and Morden College
REP7-034	<a href="#">Transport for London</a> 8.121 Document Explaining DCO Amendments
REP7-035	<a href="#">Transport for London</a> 8.122 Closing Statement
REP7-036	<a href="#">Transport for London</a> 8.123 Comments on Deadline 6 Submissions
REP7-037	<a href="#">Transport for London</a> 8.124 Response to ExA's Notification of Request for Further Information (Rule 17)
REP7-038	<a href="#">Transport for London</a> 8.125 ULEZ Consultation Webpage
REP7-039	<a href="#">Transport for London</a> 8.126 ULEZ Consultation and Information Document
REP7-040	<a href="#">Transport for London</a> 8.127 ULEZ Integrated Impact Assessment
REP7-041	<a href="#">Transport for London</a> 8.128 ULEZ Variation Order
REP7-042	<a href="#">Transport for London</a> 8.129 Legal Agreement Position Statement - LB Tower Hamlets
REP7-043	<a href="#">Transport for London</a> 8.130 Legal Agreement Position Statement - LB Newham
REP7-044	<a href="#">Transport for London</a> 8.131 Legal Agreement Position Statement - RB Greenwich
REP7-045	<a href="#">Transport for London</a> 8.132 Compulsory Acquisition Update
REP7-046	<a href="#">Transport for London</a>

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	8.133 Keystone Silvertown Homes Limited Position Statement
REP7-047	<u>Transport for London</u> 8.134 PLA Position Statement
REP7-048	<u>Transport for London</u> 8.67 Application and Examination Document Tracker Revision 2
REP7-049	<u>Transport for London</u> 8.84 Monitoring and Mitigation Strategy Revision 2
REP7-050	<u>Transport for London</u> 8.84 Monitoring and Mitigation Strategy Revision 2 Track Changed
<b>Late Submissions for Deadline 7</b>	
REP7-051	<u>Morden College</u> Late Submission for Deadline 7 accepted at the discretion of the Examining Authority
REP7-052	<u>ASD Limited</u> Late Submission for Deadline 7 accepted at the discretion of the Examining Authority
<b>Other Documents</b>	
OD-001	<u>Transboundary Screening Matrix</u>

## **APPENDIX C: LIST OF ABBREVIATIONS**

### **LIST OF ABBREVIATIONS**

<b>Abbreviation or usage</b>	<b>Reference</b>
A	Article
AADT	Annual Average Daily Traffic
AAWT	Annual Average Weekday Traffic
ADMS	Advanced Dispersion Model Software
AOD	above ordnance datum
AoS	Appraisal of Sustainability
AP	Affected Person
APFP Regulations	Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009
AQAP	Air Quality Action Plan
AQD	Air Quality Directive
AQFA	Air Quality Focus Area
AQMA	Air Quality Management Areas
AQMP	Air Quality Management Plan
AQP	Air Quality Plan
AQS	Air Quality Strategy
AQSR	Air Quality Standard Regulations 2010
ARN	affected road network
ASD	ASD Limited (trading as Kloeckner Metals UK)
ASI	Accompanied Site Inspection
BAPMS	Biodiversity Action Plan and Mitigation Strategy
BCR	Benefit Cost Ratio
BoR	Book of Reference
BT	British Telecom
CA	Compulsory Acquisition
CAH	Compulsory Acquisition Hearing
CDE	Construction, Demolition and Excavation
Cefas	Centre for Environment, Fisheries and Agriculture Science
CEMP	Construction Environmental Management Plan
CfBT	Campaign for Better Transport
CIEEM	Chartered Institute of Ecology and Environmental Management
CMS	Construction Method Statement
CoCP	Code of Construction Practice
COMAH	Control of Major Accidents Hazards
CoPA	Control of Pollution Act 1974
CO2	Carbon Dioxide
CTMP	Construction Traffic Management Plan
D	Deadline
DAS	Design and Access Statement
dB	Decibel
DCLG	Department for Communities and Local Government
DCO	Development Consent Order
dDCO	Draft Development Consent Order
Defra	Department for Environment, Food and Rural Affairs
DLR	Docklands Light Railway
DML	Deemed Marine License

**Appendix C: List of Abbreviation  
Silvertown Tunnel**

<b>Abbreviation or usage</b>	<b>Reference</b>
DMRB	Design Manual for Roads and Bridges
DRP	Design Review Panel
EA	Environment Agency
EAR	Economic Assessment Report
ECS	energy and carbon statement
EEA	European Economic Area
EFT	Emission Factor Toolkit
EGGS	East Greenwich Gasholder Station
EIA	Environmental Impact Assessment
EIA Regulations	The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 as amended by the Infrastructure Planning (EIA) (Amendment) Regulations 2012
ELs	Effect Levels
EMP	Ecology Management Plan
EMS	Environmental Method Statement
EPA	Environmental Protection Act
EPUK	Environmental Protection United Kingdom
ES	Environmental Statement
ESR	East and South East Sub-Region of London
EU	European Union
EU Air Quality Directive	Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe
EWC	European Waste Code
ExA	Examining Authority
FoE	Friends of the Earth
FRA	Flood Risk Assessment
FWQ	first written question
GLA	Greater London Authority
GLAA	Greater London Authority Act 1999
GLA SPG	Greater London Authority Supplementary Planning Guidance
GM	General and Marine
GLAP	GLA Land and Properties Limited
GLVIA	Guidelines for Landscape and Visual Impact Assessment
HDV	Heavy Duty Vehicle
HE	Highways England
HEqIA	Health and Equalities Impact Assessment
HGV	Heavy Goods Vehicle
HRA	Habitats Regulations Assessment
HSC	Hazardous Substances Consent
HSE	Health and Safety Executive
IAN	Interim Advice Note
IAPI	Initial Assessment of Principal Issues
IAQM	Institute of Air Quality Management
IP	Interested Party
ISH	Issue Specific Hearing
JV	Joint Venture
kg	kilograms

**Appendix C: List of Abbreviation  
Silvertown Tunnel**

<b>Abbreviation or usage</b>	<b>Reference</b>
km	kilometre
kph	Kilometres per hour
LAeq	Equivalent Continuous Level
LAQM	Local Air Quality Management Technical Guidance
LBB	London Borough of Bexley
LBBB	London Borough of Barking and Dagenham
LBH	London Borough of Hackney
LBL	London Borough of Lewisham
LBN	London Borough of Newham
LBR	London Borough of Redbridge
LBS	London Borough of Southwark
LBTH	London Borough of Tower Hamlets
LBWF	London Borough of Waltham Forest
LCY	London City Airport
LDV	Light Duty Vehicle
LEZ	Low Emission Zone
LGV	Large Goods Vehicle
LIR	Local Impact Report
LOAEL	Lowest Observed Adverse Effect Level
LoRDM	London Regional Demand Model
LPA	Local Planning Authority
LSE	Likely Significant Effects
LV	Limit Values
m	metre
mph	Miles per hour
MAG	Motorcycle Action Group
MCA	Marine and Coastal Access Act 2009
MCZ	Marine Conservation Zone
MGWHS	Maritime Greenwich World Heritage Site
MMO	Marine Management Organisation
MMS	Monitoring and Mitigation Strategy
MPA	Marine Protected Area
MPS	Marine Policy Statement
MTS	Mayor's Transport Strategy May 2010
NAABSA	Not Always Afloat but Safely Aground
NAQO	National Air Quality Objectives
NDR	Northern Norwich Distributor Road
NE	Natural England
NGET	National Grid Electricity Transmission
NGG	National Grid Gas plc
NIPRA	navigational issues and preliminary risk assessment
NMC	Non Material Change
NO <sub>2</sub>	Nitrogen Dioxide
NOx	Nitrogen Oxide
NOEL	No Observed Effect Level
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NPSNN	National Networks National Policy Statement

**Appendix C: List of Abbreviation  
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<b>Abbreviation or usage</b>	<b>Reference</b>
NPV	Net Present Value
NSIP	Nationally Significant Infrastructure Project
NVMP	Noise and Vibration Management Plan
OAPF	Opportunity Area Planning Framework
OBC	Outline Business Case
OFH	Open Floor Hearing
OHV	over-height vehicles
PA2008	Planning Act 2008 (as amended)
PINS	The Planning Inspectorate
PLA	Port of London Authority
PM	Preliminary Meeting
PM10	Particulate Matter smaller than 10 microns
PM2.5	Particulate Matter smaller than 2.5 microns
PP	Protective Provisions
PPG	Planning Policy Guidance
PSED	Public Sector Equality Duty
QUADRO	Queues and Delays at Roadworks
R	Requirement
RBG	Royal Borough of Greenwich
rDCO	recommended Development Consent Order
rMCZ	recommended Marine Conservation Zone
RIES	Report on the Implications for European Sites
RR	Relevant Representation
RRS	RRS London Waste Paper Ltd
RXHAM	River Crossings Highway Assignment Model
s	section
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SGN	Southern Gas Networks plc
SHL	Silvertown Homes Limited
SINC	Sites of Interest for Nature Conservation
SO <sub>2</sub>	Sulphur Dioxide
SOAEL	Significant Observed Adverse Effect Level
SoCG	Statement of Common Ground
SoR	Statement of Reasons
SoS	Secretary of State
SPA	Special Protection Area
SPD	Supplementary Planning Documents
SS	Sustainability Statement
SSSI	Site of Special Scientific Interest
STIG	Silvertown Tunnel Implementation Group
SWQ	second written question
TAG	Transport Advisory Guidance
TBM	Tunnel Boring Machine
TBT	Tributyltin
TCPA1990	Town and County Planning Act 1990
TE2100	Thames Estuary 2100 Plan
TEE	Transport Economic Efficiency

**Appendix C: List of Abbreviation  
Silvertown Tunnel**

<b>Abbreviation or usage</b>	<b>Reference</b>
TfL	Transport for London
TIMS	Traffic Impacts Mitigation Strategy
TWA	Transport and Works Act
TWUL	Thames Water Utilities Limited
UK	United Kingdom
UKPN	United Kingdom Power Networks
ULEZ	Ultra Low Emission Zone
USI	Unaccompanied Site Inspection
UXO	Unexploded Ordnance
VCR	Volume Capacity Ratios
VFM	Value for Money
VoT	Values of Time
WFD	Water Framework Directive
WHS	World Heritage Site
WLP	Waterfront Limited Partnership
WR	Written Representation
WSI	Written Scheme of Investigation



## **APPENDIX D: RECOMMENDED DCO**

**2017 No.**

**INFRASTRUCTURE PLANNING**

**Silvertown Tunnel Order 2017**

*Made* - - - - \*\*\*

*Coming into force* - - \*\*\*

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An application has been made to the Secretary of State, under section 37 of the Planning Act 2008(a) (“the 2008 Act”) in accordance with the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009(b) for an Order granting development consent.

The application was examined by a Panel of three members (“the Panel”) pursuant to Chapter 2 of Part 6 of the 2008 Act and carried out in accordance with Chapter 4 of Part 6 of the 2008 Act, and the Infrastructure Planning (Examination Procedure) Rules 2010(c).

The Panel, having examined the application with the documents that accompanied the application, and the representations made and not withdrawn, has, in accordance with section 83(1) of the 2008 Act, made a report and recommendation to the Secretary of State.

The Secretary of State, having considered the representations made and not withdrawn, and the report of the Panel, has decided to make an Order granting development consent for the development described in the application with modifications which in the opinion of the Secretary of State do not make any substantial changes to the proposals comprised in the application.

[In accordance with section 132(3) of the 2008 Act, the Secretary of State is satisfied, having considered the report and recommendation of the Panel, that the parcels of open space comprised within the Order land, when burdened with a new right created under this Order, will be no less advantageous than they were before the making of this Order to the following persons: (a) the persons in whom it is vested; (b) other persons, if any, entitled to rights of common or other rights; and (c) the public.]

The Secretary of State, in exercise of the powers conferred by sections 114, 115, 120, 122, 123 and 149A of the 2008 Act, makes the following Order—

## PART 1 PRELIMINARY

### **Citation and commencement**

**1.**—(1) This Order may be cited as the Silvertown Tunnel Order 2017 and comes into force on [ ] 2017.

(2) This is subject to article 39 (application of Part 4).

### **Interpretation**

**2.**—(1) In this Order, unless otherwise stated—

“the 1961 Act” means the Land Compensation Act 1961(d);

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(a) 2008 c.29. Parts 1 to 7 were amended by Chapter 6 of Part 6 of the Localism Act 2011 (c.20).

(b) S.I. 2009/2264, amended by S.I. 2010/439, S.I. 2010/602, S.I. 2012/635, S.I. 2012/2654, S.I. 2012/2732, S.I. 2013/522 and S.I. 2013/755.

(c) S.I. 2010/103, amended by S.I. 2012/635.

(d) 1961 c.33. Section 2(2) was amended by section 193 of, and paragraph 5 of Schedule 33 to, the Local Government, Planning and Land Act 1980 (c.65). There are other amendments to the 1980 Act which are not relevant to this Order.

“the 1965 Act” means the Compulsory Purchase Act 1965(a);

“the 1968 Act” means the Port of London Act 1968(b);

“the 1980 Act” means the Highways Act 1980(c);

“the 1981 Act” means the Compulsory Purchase (Vesting Declarations) Act 1981(d);

“the 1984 Act” means the Road Traffic Regulation Act 1984(e);

“the 1990 Act” means the Town and Country Planning Act 1990(f);

“the 1991 Act” means the New Roads and Street Works Act 1991(g);

“the 1999 Act” means the Greater London Authority Act 1999(h);

“the 2004 Act” means the Traffic Management Act 2004(i);

“the 2008 Act” means the Planning Act 2008(j);

“the 2009 Act” means the Marine and Coastal Access Act 2009(k);

“address” includes any number or address for the purposes of electronic transmission;

“apparatus” has the same meaning as in Part 3 of the 1991 Act;

“the authorised development” means the development described in Schedule 1 (authorised development);

“authorised person” means—

- 
- (a) 1965 c.56. Section 3 was amended by section 70 of, and paragraph 3 of Schedule 15 to, the Planning and Compensation Act 1991 (c.34). Section 4 was amended by section 3 of, and Part 1 of Schedule 1 to, the Housing (Consequential Provisions) Act 1985 (c.71). Section 5 was amended by sections 67 and 80 of, and Part 2 of Schedule 18 to, the Planning and Compensation Act 1991 (c.34). Section 11(1) and sections 3, 31 and 32 were amended by section 34(1) of, and Schedule 4 to, the Acquisition of Land Act 1981 (c.67) and by section 14 of, and paragraph 12(1) of Schedule 5 to, the Church of England (Miscellaneous Provisions) Measure 2006 (2006 No.1). Section 12 was amended by section 56(2) of, and Part 1 to Schedule 9 to, the Courts Act 1971 (c.23). Section 13 was amended by section 139 of the Tribunals, Courts and Enforcement Act 2007 (c.15). Section 20 was amended by section 70 of, and paragraph 14 of Schedule 15 to, the Planning and Compensation Act 1991 (c.34). Sections 9, 25 and 29 were amended by the Statute Law (Repeals) Act 1973 (c.39). Section 31 was also amended by section 70 of, and paragraph 19 of Schedule 15 to, the Planning and Compensation Act 1991 (c.34) and by section 14 of, and paragraph 12(2) of Schedule 5 to, the Church of England (Miscellaneous Provisions) Measure 2006 (2006 No.1). There are other amendments to the 1965 Act which are not relevant to this Order.
- (b) 1968 c.xxxii.
- (c) 1980 c.66. Section 1(1) was amended by section 21(2) of the New Roads and Street Works Act 1991 (c.22); sections 1(2), (3) and (4) were amended by section 8 of, and paragraph (1) of Schedule 4 to, the Local Government Act 1985 (c.51); section 1(2A) was inserted by, and section 1(3) was amended by, section 259 (1), (2) and (3) of the Greater London Authority Act 1999 (c.29); sections 1(3A) and 1(5) were inserted by section 22(1) of, and paragraph 1 of Schedule 7 to, the Local Government (Wales) Act 1994 (c.19). Section 36(2) was amended by section 4(1) of, and paragraphs 47 (a) and (b) of Schedule 2 to, the Housing (Consequential Provisions) Act 1985 (c.71), by S.I. 2006/1177, by section 4 of and paragraph 45(3) of Schedule 2 to, the Planning (Consequential Provisions) Act 1990 (c.11), by section 64(1) (2) and (3) of the Transport and Works Act 1992 (c.42) and by section 57 of, and paragraph 5 of Part 1 of Schedule 6 to, the Countryside and Rights of Way Act 2000 (c.37); section 36(3A) was inserted by section 64(4) of the Transport and Works Act 1992 and was amended by S.I. 2006/1177; section 36(6) was amended by section 8 of, and paragraph 7 of Schedule 4 to, the Local Government Act 1985 (c.51); and section 36(7) was inserted by section 22(1) of, and paragraph 4 of Schedule 7 to, the Local Government (Wales) Act 1994 (c.19). Section 329 was amended by section 112(4) of, and Schedule 18 to, the Electricity Act 1989 (c.29) and by section 190(3) of, and Part 1 of Schedule 27 to, the Water Act 1989 (c.15). There are other amendments to the 1980 Act which are not relevant to this Order.
- (d) 1981 c.66. Sections 2(3), 6(2) and 11(6) were amended by section 4 of, and paragraph 52 of Schedule 2 to, the Planning (Consequential Provisions) Act 1990 (c.11). Section 15 was amended by sections 56 and 321(1) of, and Schedules 8 and 16 to, the Housing and Regeneration Act 2008 (c.17). Paragraph 1 of Schedule 2 was amended by section 76 of, and Part 2 of Schedule 9 to, the Housing Act 1988 (c.50); section 161(4) of, and Schedule 19 to, the Leasehold Reform, Housing and Urban Development Act 1993 (c.28); and sections 56 and 321(1) of, and Schedule 8 to, the Housing and Regeneration Act 2008. Paragraph 3 of Schedule 2 was amended by section 76 of, and Schedule 9 to, the Housing Act 1988 and section 56 of, and Schedule 8 to, the Housing and Regeneration Act 2008. Paragraph 2 of Schedule 3 was repealed by section 277 of, and Schedule 9 to, the Inheritance Tax Act 1984 (c.51). There are amendments to the 1981 Act which are not relevant to this Order.
- (e) 1984 c.27.
- (f) 1990 c.8. Section 206(1) was amended by section 192(8) to, and paragraphs 7 and 11 of Schedule 8 to, the Planning Act 2008 (c.29) (date in force to be appointed see section 241(3), (4)(a),(c) of the 2008 Act). There are other amendments to the 1990 Act which are not relevant to this Order.
- (g) 1991 c.22. Section 48(3A) was inserted by section 124 of the Local Transport Act 2008 (c.26). Sections 79(4), 80(4), and 83(4) were amended by section 40 of, and Schedule 1 to, the Traffic Management Act 2004 (c.18).
- (h) 1999 c.29.
- (i) 2004 c.18.
- (j) 2008 c.29. Parts 1 to 7 were amended by Chapter 6 of Part 6 of the Localism Act 2011 (c.20).
- (k) 2009 c.23.

- (a) a person acting in the course of that person’s duties who—
  - (i) is an employee, agent, contractor or sub-contractor of TfL; or
  - (ii) is authorised by TfL to exercise one or more of its functions under this Order; or
- (b) a constable, Police Community Support Officer, an officer of the Driver and Vehicle Standards Agency, an officer of the Health and Safety Executive, person authorised for the purposes of section 44 (powers of fire-fighters etc in an emergency etc) of the Fire Services Act 2004 or a person accredited by or under section 41 (accreditation under community safety accreditation schemes) of the Police Reform Act 2002, acting in the execution of that person’s duties within the tunnels;

“the Blackwall Tunnel” means the existing twin bore road tunnel under the river Thames between Blackwall and the Greenwich Peninsula and forming part of the A102 road, which is a GLA road, as shown by solid green lines on the tunnels location and operational boundaries plans;

“the Blackwall Tunnel approaches” means the northern and southern approaches to the Blackwall Tunnel, the linear extent of which is shown by dashed green lines on the tunnels location and operational boundaries plans;

“the Blackwall Tunnel area” means the extent of the public highway comprised in and along the Blackwall Tunnel and the Blackwall Tunnel approaches;

“the book of reference” means the document of that description set out in Schedule 14 certified by the Secretary of State as the book of reference for the purposes of this Order;

“building” includes any structure or erection or any part of a building, structure or erection;

“business day” means a day other than a Saturday or Sunday, a bank holiday in England, Good Friday or Christmas Day;

“carriageway” has the same meaning as in the 1980 Act;

“the charging policy” means the document described as the charging policies and procedures set out in Schedule 14 certified by the Secretary of State as the charging policies and procedures for the purposes of this Order, or any revision of that document approved by the Mayor of London under article 54 (the charging policy);

“the classification of roads (classification) plans” means the plans of that description set out in Schedule 14 certified by the Secretary of State as the classification of roads (classification) plans for the purposes of this Order;

“the classification of roads (designation) plans” means the plans of that description set out in Schedule 14 certified by the Secretary of State as the classification of roads (designation) plans for the purposes of this Order;

“commence” means beginning to carry out any material operation (as defined in section 56(4) of the 1990 Act) forming part of the authorised development other than operations consisting of environmental surveys and monitoring, investigations for the purpose of assessing ground conditions, receipt and erection of construction plant and equipment, erection of any temporary means of enclosure, the temporary display of site notices or advertisements, and “commencement” is to be construed accordingly;

“construct” includes execution, placing, altering, replacing, relaying and removal and “construction” is to be construed accordingly;

“cycle track” has the same meaning as in section 329(1) (further provisions as to interpretation) of the 1980 Act<sup>(a)</sup>;

“dangerous goods” means a substance or article of which the international carriage by road is prohibited, or authorised on certain conditions, by Annex A of the European Agreement Concerning the International Carriage of Dangerous Goods by Road as from time to time amended;

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(a) The definition of “cycle track” was amended by section 1 of the Cycle Tracks Act 1984 (c.38) and paragraph 21(2) of Schedule 3 to the Road Traffic (Consequential Provisions) Act 1988 (c.54).



“electronic transmission” means a communication transmitted—

- (a) by means of an electronic communications network; or
- (b) by other means but while in electronic form;

“the engineering section drawings and plans” means the documents of that description set out in Schedule 14 certified by the Secretary of State as the engineering section drawings and plans for the purposes of this Order;

“the environmental statement” means the documents of that description set out in Schedule 14 certified by the Secretary of State as the environmental statement for the purposes of this Order;

“flood risk activity” has the same meaning as in the Environmental Permitting (England and Wales) Regulations 2016(a);

“footpath” and “footway” have the same meaning as in the 1980 Act;

“the general arrangement plans” means the plans of that description set out in Schedule 14 certified by the Secretary of State as the general arrangement plans for the purposes of this Order;

“the GLA” means the Greater London Authority;

“GLA Road” has the same meaning as in the 1980 Act;

“highway”, “highway authority” and “local highway authority” have the same meaning as in the 1980 Act;

“Highways England” means Highways England Company Limited (Company No. 9346363);

“the land plans” means the plans of that description set out in Schedule 14 certified by the Secretary of State as the land plans for the purposes of this Order;

“the limits of deviation” means the limits of deviation referred to in article 5 (limits of deviation);

“maintain” and any of its derivatives include inspect, repair, adjust, alter, remove or reconstruct and any derivative of “maintain” is to be construed accordingly;

“Mayoral development corporation” means a corporation established under section 198 of the Localism Act 2011(b);

“the MMO” means the Marine Management Organisation;

“the monitoring and mitigation strategy” means the document of that description set out in Schedule 14 certified by the Secretary of State as the monitoring and mitigation strategy for the purposes of this Order and which in particular contains commitments in respect of—

- (a) traffic monitoring;
- (b) air quality monitoring;
- (c) noise monitoring;
- (d) socio-economic monitoring; and
- (e) the implementation of mitigation;

“motor vehicle” means a mechanically propelled vehicle intended or adapted for use on roads and a vehicle (including a horse box) designed or adapted to be towed by a motor vehicle;

“the Order land” means the land shown coloured pink and the land shown coloured blue on the land plans and described in the book of reference;

“the Order limits” means the Order limits shown on the works plans;

“owner”, in relation to land, has the same meaning as in section 7 of the Acquisition of Land Act 1981(c) (interpretation);

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(a) S.I. 2016/1154.  
(b) 2011 c.20.  
(c) 1981 c.67.

“the PLA” means the Port of London Authority;

“the relevant planning authority” means the local planning authority for the land in question, being the Council of the Royal Borough of Greenwich or the Council of the London Borough of Newham, as the case may be, or any successor to either of those councils as planning authority;

“the rights of way and access plans” means the plans of that description set out in Schedule 14 certified by the Secretary of State as the rights of way and access plans for the purposes of this Order;

“the Silvertown Tunnel” means the twin bore road tunnel to be constructed as Work No. 1, and as shown by solid blue lines on the tunnels location and operational boundaries plans;

“the Silvertown Tunnel approaches” means the northern and southern approaches to the Silvertown Tunnel, the linear extent of which is shown by dashed blue lines on the tunnels location and operational boundaries plans;

“the Silvertown Tunnel area” means the extent of the public highway to be comprised in and along the Silvertown Tunnel and the Silvertown Tunnel approaches;

“the special category land plan” means the plan of that description set out in Schedule 14 certified by the Secretary of State as the special category land plan for the purposes of this Order;

“statutory undertaker” means any statutory undertaker for the purposes of section 127(8) (statutory undertakers’ land) of the 2008 Act;

“STIG” means the Silvertown Tunnel Implementation Group, the consultative body established by article 67;

“street” means a street within the meaning of section 48 of the 1991 Act (streets, street works and undertakers), together with land on the verge of a street or between two carriageways, and includes part of a street;

“street authority”, in relation to a street, has the same meaning as in Part 3 of the 1991 Act;

“TfL” means Transport for London, the body corporate established under section 154 of the 1999 Act, of Windsor House, 42 Victoria Street, London, SW1H 0TL;

“traffic authority” has the same meaning as in section 121A of the 1984 Act;

“the traffic regulation measures (speed limits and restricted roads) plans” means the plans of that description set out in Schedule 14 certified by the Secretary of State as the traffic regulation measures (speed limits and restricted roads) plans for the purposes of this Order;

“the traffic regulation measures (clearways and prohibitions) plans” means the plans of that description set out in Schedule 14 certified by the Secretary of State as the traffic regulation measures (clearways and prohibitions) plans for the purposes of this Order;

“the tribunal” means the Lands Chamber of the Upper Tribunal;

“tunnel services building” means a building constructed for the purpose of housing any plant and equipment, office, control centre or welfare facilities associated with the operation of the Silvertown Tunnel;

“the tunnels areas” means the Blackwall Tunnel area and the Silvertown Tunnel area;

“the tunnels” means the Blackwall Tunnel and the Silvertown Tunnel;

“the tunnels location and operational boundaries plans” means the plans of that description set out in Schedule 14 certified by the Secretary of State as the tunnels location and operational boundaries plans for the purposes of this Order;

“watercourse” includes all rivers, streams, ditches, drains, canals, cuts, culverts, dykes, sluices, sewers and passages through which water flows except a public sewer or drain; and

“the works plans” means the plans of that description set out in Schedule 14 certified by the Secretary of State as the works plans for the purposes of this Order.

(2) References in this Order to TfL include any wholly-owned subsidiary (as defined in section 1159 of the Companies Act 2006) of TfL.

(3) References in this Order to rights over land include references to rights to do or to place and maintain, anything in, on or under land or in the airspace above its surface and references in this Order to the imposition of restrictive covenants are references to the creation of rights over land which interfere with the enjoyment of interests or rights and are for the benefit of land which is acquired under this Order or is otherwise comprised in the Order land.

(4) All distances, directions and lengths referred to in this Order are approximate and distances between points on a work comprised in the authorised development are taken to be measured along that work.

(5) For the purposes of this Order, all areas described in square metres in the book of reference are approximate.

(6) References in this Order to points identified by letters or numbers are to be construed as references to points so lettered or numbered on the plan to which the reference applies.

(7) References in this Order to numbered works are references to the works as numbered in Schedule 1 (authorised development).

## PART 2

### WORKS PROVISIONS

#### *Principal powers*

#### **Disapplication of legislation, etc.**

**3.—**(1) The following provisions do not apply in relation to the construction of any work or the carrying out of any operation required for the purpose of, or in connection with, the construction of the authorised development and, within any maintenance period defined in article 30(14), any maintenance of any part of the authorised development—

- (a) Metropolis Management (Thames River Prevention of Floods) Amendment Act 1879(a), subject to paragraph (3);
- (b) Metropolitan Board of Works (Various Powers) Act 1882(b);
- (c) London County Council (General Powers) Act 1907(c);
- (d) London Overground Wires &c. Act 1933(d);
- (e) London County Council (General Powers) Act 1957(e);
- (f) London County Council (General Powers) Act 1961(f);
- (g) London County Council (General Powers) Act 1962(g);
- (h) sections 66 to 75 of the 1968 Act;
- (i) Greater London Council (General Powers) Act 1970(h);
- (j) Thames Barrier and Flood Prevention Act 1972(i);
- (k) Thames Water Authority Land Drainage Byelaws 1981(j);
- (l) Greater London Council (General Powers) Act 1986(k);
- (m) section 24 (restrictions on abstraction) of the Water Resources Act 1991(a);

- 
- (a) 1879 c.cxcvii.
  - (b) 1882 c.lvi.
  - (c) 1907 c.clxxv.
  - (d) 1933 c.xliv.
  - (e) 1957 c.xxxv.
  - (f) 1961 c.xliii.
  - (g) 1962 c.xlv.
  - (h) 1970 c.lxxvi.
  - (i) 1972 c.xl.
  - (j) 1981.
  - (k) 1986 c.iv.

- (n) the provisions of any byelaws made under, or having effect as if made under, paragraphs 5, 6 or 6A of Schedule 25 to the Water Resources Act 1991;
- (o) regulation 12 (requirement for environmental permit) of the Environmental Permitting (England and Wales) Regulations 2016<sup>(b)</sup> in respect of a flood risk activity only; and
- (p) the provisions of the Neighbourhood Planning Act 2017<sup>(c)</sup> insofar as they relate to temporary possession of land under articles 29 and 30 of this Order.

(2) Despite the provisions of section 208 of the 2008 Act, for the purposes of regulation 6 of the Community Infrastructure Levy Regulations 2010<sup>(d)</sup> any building comprised in the authorised development is deemed to be—

- (a) a building into which people do not normally go; or
- (b) a building into which people go only intermittently for the purpose of inspecting or maintaining fixed plant or machinery.

(3) The disapplication of the Metropolis Management (Thames River Prevention of Floods) Amendment Act 1879 by paragraph (1)(a) does not affect the Environment Agency’s ability to use the powers vested in it under that Act against any person, other than TfL and any other person exercising a power under this Order, provided that the use of those powers vested in the Agency does not interfere with the construction of the authorised development.

(4) Following the expiry of any maintenance period defined in article 30(14), the requirement under section 70 of the 1968 Act to obtain a works licence under section 66 of that Act does not apply to anything done within any structure forming part of the authorised development in connection with its operation or maintenance or any other function of TfL.

#### **Development consent granted by the Order**

4.—(1) Subject to the provisions of this Order, including the requirements in Schedule 2 (requirements), TfL is granted development consent for the authorised development.

(2) Any enactment applying to land within, adjoining or sharing a common boundary with the Order limits (other than land comprising part of the river Thames outside of the Order limits) has effect subject to the provisions of this Order.

#### **Limits of deviation**

5.—(1) Subject to paragraph (2), TfL must construct the authorised development within the Order limits and, so far as all non-linear works comprised in the authorised development are concerned, within the limits of deviation for those works shown on the works plans.

(2) In constructing or maintaining the authorised development, TfL may deviate—

- (a) laterally within the Order limits in the case of any linear work comprised in the authorised development, so that the centre line of that work may be situated up to 3 metres either side of the centre line of that work shown on the works plans; and
- (b) vertically from the levels shown on the engineering section drawings and plans—
  - (i) to any extent upwards not exceeding 0.5 metres except in relation to the parts of the authorised development referred to in column (1) of the table below, where the extent of permitted deviation for each such part is set out in column (2) of that table; and
  - (ii) to any extent downwards as may be found to be necessary or convenient.

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(a) 1991 c.57.  
 (b) S.I. 2016/1154.  
 (c) 2017 c.[ ].  
 (d) S.I. 2010/948.

<i>(1)</i> <i>Part of authorised development</i>	<i>(2)</i> <i>Upwards vertical deviation limit</i>
Work Nos. 1(a), 1(b), 1(c) and 1(e)	<p>(1) Where any part of the authorised development referred to in column (1) is located below the bed of the river Thames, to any extent not exceeding 1.5 metres provided that the deviation would not result in the level of the bed within the navigable channel of the river Thames being above 5.80 metres below chart datum.</p> <p>(2) Where any part of the authorised development referred to in column (1) is located elsewhere, to any extent not exceeding 3 metres.</p>

(3) Without limitation on the scope of paragraph (1), in constructing or maintaining the authorised development TfL may—

- (a) deviate by up to 3 metres from the points of commencement and termination of any linear work comprised in the authorised development shown on the works plans; and
- (b) deviate from the design of any tunnel or tunnel structure and vary the number of tunnel cross-passages shown on the engineering section drawings and plans.

(4) In this article, reference to—

- (a) a “linear work” is a reference to any work shown on the works plans by way of a centre line; and
- (b) a “non-linear work” is a reference to any other work shown on the works plans.

### *Streets*

#### **Street works**

6.—(1) TfL may, for the purposes of the authorised development, enter on so much of any street and may—

- (a) break up or open the street, or any sewer, drain or tunnel under it;
- (b) tunnel or bore under the street;
- (c) place apparatus in the street;
- (d) maintain apparatus in the street or change its position; and
- (e) execute any works required for or incidental to any works referred to in sub-paragraphs (a), (b), (c) and (d).

(2) The authority given by paragraph (1) is a statutory right for the purposes of sections 48(3) (streets, street works and undertakers) and 51(1) of the 1991 Act (prohibition of unauthorised street works).

(3) TfL must not carry out works to any street under paragraph (1) for which it is not the street authority without the consent of the street authority, which may attach reasonable conditions to any consent.

## Application of the 1991 Act

7.—(1) Works executed under this Order in relation to a highway which consists of or includes a carriageway are to be treated for the purposes of Part 3 (street works in England and Wales) of the 1991 Act as major highway works if—

- (a) they are of a description mentioned in any of paragraphs (a), (c) to (e), (g) and (h) of section 86(3) (which defines what highway authority works are major highway works) of that Act; or
- (b) they are works which, had they been executed by the highway authority, might have been carried out in exercise of the powers conferred by section 64 (dual carriageways and roundabouts) of the 1980 Act or section 184 (vehicle crossings) of that Act.

(2) In Part 3 of the 1991 Act references, in relation to major highway works, to the highway authority concerned are, in relation to works which are major highway works by virtue of paragraph (1), to be construed as references to TfL.

(3) The following provisions of the 1991 Act do not apply in relation to any works executed under the powers of this Order—

- section 56 (directions as to timing);
- section 56A (power to give directions as to placing of apparatus);
- section 58 (restrictions following substantial road works);
- section 58A (restriction on works following substantial street works);
- section 73A (power to require undertaker to re-surface street);
- section 73B (power to specify timing etc. of re-surfacing);
- section 73C (materials, workmanship and standard of re-surfacing);
- section 78A (contributions to costs of re-surfacing by undertaker); and
- Schedule 3A (restriction on works following substantial street works).

(4) The provisions of the 1991 Act mentioned in paragraph (5) (which, together with other provisions of that Act, apply in relation to the execution of street works) and any regulations made, or code of practice issued or approved under, those provisions apply (with the necessary modifications) in relation to any stopping up, alteration or diversion of a street of a temporary nature by TfL under the powers conferred by article 10 (temporary stopping up and restriction of use of streets) whether or not the stopping up, alteration or diversion constitutes street works within the meaning of that Act.

(5) The provisions of the 1991 Act (a) referred to in paragraph (4) are—

- section 54(b) (advance notice of certain works), subject to paragraph (6);
- section 55(c) (notice of starting date of works), subject to paragraph (6);
- section 57(d) (notice of emergency works);
- section 59(e) (general duty of street authority to co-ordinate works);
- section 60 (general duty of undertakers to co-operate);
- section 68 (facilities to be afforded to street authority);
- section 69 (works likely to affect other apparatus in the street);
- section 75 (inspection fees);
- section 76 (liability for cost of temporary traffic regulation); and
- section 77 (liability for cost of use of alternative route),

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(a) Sections 54, 55, 57, 60, 68 and 69 were amended by section 40(1) and (2) of, and Schedule 1 to, the Traffic Management Act 2004 (c.18).

(b) As also amended by section 49(1) of the Traffic Management Act 2004.

(c) As also amended by section 49(2) and 51(9) of the Traffic Management Act 2004.

(d) As also amended by section 52(3) of the Traffic Management Act 2004.

(e) As amended by section 42 of the Traffic Management Act 2004.

and all such other provisions as apply for the purposes of the provisions mentioned above.

(6) Sections 54 and 55 of the 1991 Act as applied by paragraph (4) have effect as if references in section 57 of that Act to emergency works were a reference to a stopping up, alteration or diversion (as the case may be) required in a case of emergency.

(7) Nothing in article 8 (construction and maintenance of new, altered or diverted streets)—

- (a) affects the operation of section 87 (prospectively maintainable highways) of the 1991 Act, and TfL is not by reason of any duty under that article to maintain a street to be taken to be the street authority in relation to that street for the purposes of Part 3 of that Act; or
- (b) has effect in relation to street works as respects which the provisions of Part 3 of the 1991 Act apply.

### **Construction and maintenance of new, altered or diverted streets**

**8.—**(1) Any street (other than a GLA Road) constructed under this Order must be completed to the reasonable satisfaction of the street authority and, unless otherwise agreed in writing with the street authority, must be maintained by and at the expense of TfL for a period of 12 months from its completion and thereafter by the street authority.

(2) Where a street (other than a GLA Road) is altered or diverted under this Order, the altered or diverted part of the street must be completed to the reasonable satisfaction of the street authority and, unless otherwise agreed in writing with the street authority, that part of the street must be maintained by and at the expense of TfL for a period of 12 months from its completion and thereafter by the street authority.

(3) Where land not previously part of the public highway comes to form part of the public highway by virtue of the construction, diversion or alteration of a street under this Order, unless otherwise agreed with the street authority the land is deemed to have been dedicated as public highway on the expiry of a period of 12 months from completion of the street that has been constructed, altered or diverted.

(4) In any action against TfL in respect of loss or damage resulting from any failure by TfL to maintain a street under this article, it is a defence (without prejudice to any other defence or the application of the law relating to contributory negligence) to prove that TfL had taken such care as in all the circumstances was reasonably required to secure that the part of the street to which the action relates was not dangerous to traffic.

(5) For the purposes of a defence under paragraph (4), the court must in particular have regard to the following matters—

- (a) the character of the street and the traffic which was reasonably to be expected to use it;
- (b) the standard of maintenance appropriate for a street of that character and used by such traffic;
- (c) the state of repair in which a reasonable person would have expected to find the street;
- (d) whether TfL knew, or could reasonably have been expected to know, that the condition of the part of the street to which the action relates was likely to cause danger to users of the street; and
- (e) where TfL could not reasonably have been expected to repair that part of the street before the cause of action arose, what warning notices of its condition had been displayed,

but for the purposes of such a defence it is not relevant to prove that TfL had arranged for a competent person to carry out or supervise the maintenance of the part of the street to which the action relates unless it is also proved that TfL had given the competent person proper instructions with regard to the maintenance of the street and that the competent person had carried out those instructions.

(6) The date of completion of any works referred to in paragraphs (1) and (2) is to be agreed between TfL and the street authority, acting reasonably.

### **Permanent stopping up of streets and private means of access**

9.—(1) Subject to the provisions of this article, TfL may, in connection with the carrying out of the authorised development, stop up each of the streets and private means of access specified in columns (1) and (2) of Parts 1, 2, 3 and 4 of Schedule 3 (permanent stopping up of highways and private means of access) to the extent specified and described in column (3) of those Parts of that Schedule.

(2) No street or private means of access specified in columns (1) and (2) of Parts 1 and 3 of Schedule 3 (being a street to be stopped up for which a substitute is to be provided) is to be wholly or partly stopped up under this article unless—

- (a) the new street or private means of access to be constructed and substituted for it, which is specified in column (4) of that Part of that Schedule, has been completed to the reasonable satisfaction of the street authority and is open for use; or
- (b) a temporary alternative route for the passage of such traffic as could have used the street or private means of access to be stopped up is first provided and subsequently maintained by TfL, to the reasonable satisfaction of the street authority, between the commencement and termination points for the stopping up of the street or private means of access until the completion and opening of the new street or private means of access in accordance with sub-paragraph (a).

(3) No street or private means of access specified in columns (1) and (2) of Parts 2 and 4 of Schedule 3 (being a street or private access to be stopped up for which no substitute is to be provided) is to be wholly or partly stopped up under this article unless the condition specified in paragraph (4) is satisfied in relation to all of the land which abuts on either side of the street or private means of access to be stopped up.

(4) The condition referred to in paragraph (3) is that—

- (a) TfL is in possession of the land;
- (b) there is no right of access to the land from the street or private means of access concerned;
- (c) there is reasonably convenient access to the land otherwise than from the street or private means of access concerned; or
- (d) the owners and occupiers of the land have agreed to the stopping up.

(5) Prior to the whole or part stopping up of each of the public rights of way identified in columns 1 to 3 of Parts 1 and 2 of Schedule 3 and shown on the rights of way and access plans TfL must erect a site notice at each end of the rights of way to be extinguished no less than 28 days prior to the extinguishment of that right of way.

(6) Where a street or private means of access has been stopped up under this article—

- (a) all rights of way over or along the street or private means of access so stopped up are extinguished; and
- (b) TfL may appropriate and use for the purposes of the authorised development so much of the site of the street or private means of access as is bounded on both sides by land owned by TfL.

(7) Any person who suffers loss by the suspension or extinguishment of any private right of way under this article is entitled to compensation to be determined, in case of dispute, under Part 1 of the 1961 Act.

(8) This article is subject to article 32 (apparatus and rights of statutory undertakers in stopped up streets).

### **Temporary stopping up and restriction of use of streets**

10.—(1) TfL may, during and for the purposes of carrying out the authorised development, temporarily stop up, alter or divert any street and may for any reasonable time—

- (a) divert the traffic from the street; and



(b) subject to paragraph (3), prevent all persons from passing along the street.

(2) Without limitation on the scope of paragraph (1), TfL may use any street temporarily stopped up under the powers conferred by this article and lying within the Order limits as a temporary working site.

(3) TfL must provide reasonable access for pedestrians going to or from premises abutting a street affected by the temporary stopping up, alteration or diversion of a street under this article if there would otherwise be no such access.

(4) TfL must not temporarily stop up, alter or divert any street for which it is not the street authority without the consent of the street authority, which may attach reasonable conditions to any consent.

(5) Any person who suffers loss by the suspension of any private right of way under this article is entitled to compensation to be determined, in case of dispute, under Part 1 of the 1961 Act.

### **Access to works**

**11.** TfL may, for the purposes of the authorised development and with the consent of the street authority, form and lay out such other means of access or improve existing means of access, at such locations within the Order limits as TfL reasonably requires for the purposes of the authorised development.

### **Agreements with street authorities**

**12.—**(1) A street authority and TfL may enter into agreements with respect to—

- (a) the construction of any new street including any structure carrying the street, whether or not over or under any part of the authorised development;
- (b) the strengthening or improvement of any street under the powers conferred by this Order;
- (c) the maintenance of any street or of the structure of any bridge or tunnel carrying a street over or under the authorised development;
- (d) any stopping up, alteration or diversion of a street under the powers conferred by this Order;
- (e) the execution in the street of any of the authorised development; or
- (f) any such works as the parties may agree.

(2) Such an agreement may, without limitation on the scope of paragraph (1)—

- (a) provide for the street authority to carry out any function under this Order which relates to the street in question;
- (b) include an agreement between TfL and the street authority specifying a reasonable time for completion of the works;
- (c) provide for the dedication of any new street as public highway further to section 38 of the 1980 Act; and
- (d) contain such terms as to payment and otherwise as the parties consider appropriate.

### **Use of private roads for construction**

**13.—**(1) TfL may use any private road within the Order limits for the passage of persons or vehicles (with or without materials, plant and machinery) for the purposes of, or in connection with, the construction of the authorised development.

(2) TfL must compensate the person liable for the repair of a road to which paragraph (1) applies for any loss or damage which that person may suffer by reason of the exercise of the power conferred by paragraph (1).

(3) Any dispute as to a person's entitlement to compensation under paragraph (2), or as to the amount of such compensation, is to be determined under Part 1 of the 1961 Act.

## *Supplemental powers*

### **Discharge of water**

**14.**—(1) Subject to paragraphs (3) and (4), TfL may use any watercourse, public sewer or drain for the drainage of water in connection with the carrying out or maintenance of the authorised development and for that purpose may lay down, take up and alter pipes and may, on any land within the Order limits, make openings into, and connections with, the watercourse, public sewer or drain.

(2) Any dispute arising from the making of connections to or the use of a public sewer or drain by TfL under paragraph (1) is to be determined as if it were a dispute under section 106 (right to communicate with public sewers) of the Water Industry Act 1991 (right to communicate with public sewers) (**a**).

(3) TfL must not discharge any water into any watercourse, public sewer or drain except with the consent of the person to whom it belongs, whose consent may be given subject to such terms and conditions as that person may reasonably impose, but must not be unreasonably withheld or delayed.

(4) TfL must not make any opening into any public sewer or drain except—

- (a) in accordance with plans approved by the person to whom the sewer or drain belongs; and
- (b) where that person has been given the opportunity to supervise the making of the opening.

(5) TfL must take such steps as are reasonably practicable to secure that any water discharged into a watercourse or public sewer or drain under the powers conferred by this article is as free as may be practicable from gravel, soil or other solid substance, oil or matter in suspension.

(6) Nothing in this article overrides the requirement for an environmental permit under regulation 12(1)(b) (requirement for environmental permit) of the Environmental Permitting (England and Wales) Regulations 2016(**b**).

(7) In this article—

- (a) “public sewer or drain” means a sewer or drain which belongs to the GLA, the Homes and Communities Agency, the Environment Agency, an internal drainage board, a joint planning board, a local authority, a sewerage undertaker, a Mayoral development corporation or an urban development corporation; and
- (b) other expressions, excluding watercourse, used both in this article and in the Water Resources Act 1991(**c**), have the same meaning as in that Act.

### **Protective works to buildings**

**15.**—(1) Subject to the following provisions of this article, TfL may at its own expense and from time to time carry out such protective works to any building lying within the Order limits as TfL considers necessary or expedient.

(2) Protective works may be carried out—

- (a) at any time before or during the carrying out in the vicinity of the building of any part of the authorised development; or
- (b) after the completion of that part of the authorised development in the vicinity of the building at any time up to the end of the period of 5 years beginning with the day on which that part of the authorised development is first opened for use.

(3) Subject to paragraph (5), for the purpose of determining how the functions under this article are to be exercised TfL may enter and survey—

- (a) any building falling within paragraph (1) and any land within its curtilage; and

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(a) 1991 c.56.  
(b) S.I. 2016/1154.  
(c) 1991 c.57.

- (b) where necessary or expedient, land which is adjacent to the building falling within paragraph (1) but outside its curtilage (whether or not such adjacent land is inside or outside the Order limits),

and place on, leave on and remove from the land monitoring apparatus.

(4) For the purpose of carrying out protective works to a building under this article TfL may (subject to paragraphs (5) and (6))—

- (a) enter the building (and any land within its curtilage); and
- (b) where the works cannot be carried out reasonably conveniently without entering land which is adjacent to the building but outside its curtilage, enter the adjacent land (whether or not such adjacent land is inside or outside the Order limits) but not any building erected on it,

and in either case TfL may take exclusive possession of the building and land if this is reasonably required for the purpose of carrying out the protective works.

(5) Before exercising—

- (a) a right under paragraph (1) to carry out protective works to a building;
- (b) a right under paragraph (3) to enter a building (and land within its curtilage) or land;
- (c) a right under paragraph (4)(a) to enter and take possession of a building (and land within its curtilage); or
- (d) a right under paragraph (4)(b) to enter and take possession of land,

TfL must, except in the case of emergency, serve on the owners and occupiers of the building or land not less than 14 days' notice of its intention to exercise that right and, in a case falling within sub-paragraph (a) or (c), specifying the protective works proposed to be carried out.

(6) Where a notice is served under paragraph (5)(a), (5)(c) or (5)(d), the owner or occupier of the building or land concerned may, by serving a counter-notice within the period of 10 days beginning with the day on which the notice was served, require the question of whether it is necessary or expedient to carry out the protective works or to enter the building or land to be referred to arbitration under article 69 (arbitration).

(7) TfL must compensate the owners and occupiers of any building or land in relation to which rights under this article have been exercised for any loss or damage arising to them by reason of the exercise of those rights.

(8) Where—

- (a) protective works are carried out under this article to a building; and
- (b) within the period of 5 years beginning with the day on which the part of the authorised development carried out in the vicinity of the building is first opened for use it appears that the protective works are inadequate to protect the building against damage caused by the carrying out or use of that part of the authorised development,

TfL must compensate the owners and occupiers of the building for any loss or damage sustained by them.

(9) Without affecting article 38 (no double recovery), nothing in this article relieves TfL from any liability to pay compensation under section 152 of the 2008 Act (compensation in case where no right to claim in nuisance).

(10) Any compensation payable under paragraph (7) or (8) is to be determined, in case of dispute, under Part 1 of the 1961 Act (determination of questions of disputed compensation).

(11) Subject to paragraph 6, Section 13 (refusal to give possession to acquiring authority) of the 1965 Act applies to the entry onto, or possession of land under this article to the same extent as it applies to the compulsory acquisition of land under this Order by virtue of section 125 (application of compulsory acquisition provisions) of the 2008 Act.

(12) In this article “protective works” in relation to a building means—

- (a) underpinning, strengthening and any other works the purpose of which is to prevent damage which may be caused to the building by the carrying out, maintenance or use of the authorised development;
- (b) any works the purpose of which is to remedy any damage which has been caused to the building by the carrying out, maintenance or use of the authorised development; and
- (c) any works the purpose of which is to secure the safe operation of the authorised development or to prevent or minimise the risk of such operation being disrupted.

**Authority to survey and investigate land**

16.—(1) TfL may for the purposes of this Order enter on—

- (a) any land shown within the Order limits; and
- (b) where reasonably necessary, any land which is adjacent to but outside the Order limits,

and—

- (i) survey or investigate the land;
- (ii) without limitation to the scope of sub-paragraph (i), make trial holes in such positions on the land as TfL thinks fit to investigate the nature of the surface layer and subsoil and remove soil samples;
- (iii) without limitation to the scope of sub-paragraph (i), carry out ecological or archaeological investigations on such land, including making any excavations or trial holes on the land for such purposes;
- (iv) place on, leave on and remove from the land apparatus for use in connection with the survey and investigation of land and making of trial holes; and
- (v) enter on the land for the purpose of exercising any of the powers conferred by sub-paragraphs (i) to (iv).

(2) No land may be entered or equipment placed or left on or removed from the land under paragraph (1) unless at least 14 days' notice has been served on every owner and occupier of the land.

(3) Any person entering land under this article on behalf of TfL—

- (a) must, if so required, before or after entering the land, produce written evidence of their authority to do so; and
- (b) may take onto the land such vehicles and equipment as are necessary to carry out the survey or investigation or to make the trial holes.

(4) No trial holes are to be made under this article—

- (a) in land located within the highway boundary without the consent of the highway authority; or
- (b) in a private street without the consent of the street authority.

(5) TfL must compensate the owners and occupiers of the land for any loss or damage arising by reason of the exercise of the powers conferred by this article, such compensation to be determined, in case of dispute, under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(6) Section 13 (refusal to give possession to acquiring authority) of the 1965 Act applies to the entry onto land under this article to the same extent as it applies to the compulsory acquisition of land under this Order by virtue of section 125 (application of compulsory acquisition provisions) of the 2008 Act.

**Work in the river Thames: conditions**

17.—(1) Construction of the authorised development must be carried out so that—

- (a) at any time, the suspension of the public right of navigation under articles 29(3) or 30(3) applies to no more of the river than is necessary in the circumstances; and

- (b) if it becomes necessary for such suspension to relate to the whole width of the river within the Order limits, all reasonable steps are taken to secure that the period of suspension is kept to a minimum and that the minimum obstruction, delay or interference is caused to vessels or craft which may be using or intending to use the part where the public right of navigation is so suspended.

(2) Not later than 40 business days prior to the proposed commencement date of any suspension of the public right of navigation under article 29(3) or 30(3), TfL must give notice to the PLA, except in the case of an emergency when TfL must give such notice as is reasonably practicable.

(3) A notice given under paragraph (2) must provide details of the proposed suspension, including particulars of—

- (a) commencement date;
- (b) duration; and
- (c) the affected area,

and must include an explanation of the need for the proposed suspension.

(4) Any suspension of the public right of navigation under article 29(3) or 30(3) must not take place except in accordance with the approval in writing given by the PLA and any conditions imposed by the PLA under this article or determined in accordance with article 69 (arbitration).

(5) The PLA may in relation to any application for approval under this paragraph (4) impose reasonable conditions for any purpose described in paragraph (6).

(6) Conditions imposed under paragraph (5) may include conditions as to—

- (a) the limits of any area subject to a temporary suspension of the public right of navigation;
- (b) the duration of any temporary suspension;
- (c) the means of marking or otherwise providing warning in the river Thames of any area affected by a temporary suspension of the public right of navigation; and
- (d) the use by TfL of the area subject to any temporary suspension so as not to interfere with any other part of the river Thames or affect its use.

(7) Following an approval of any such suspension given by the PLA under paragraph (4) or determined in accordance with article 69, the PLA must issue a notice to mariners within 10 business days of the approval, giving the commencement date and other particulars of the suspension to which the approval relates, and that suspension will take effect on the date specified and as otherwise described in the notice.

(8) Subject to paragraph (9), an application for approval under this article is deemed to have been refused if it is neither given nor refused within 30 business days of the PLA receiving the notice under paragraph (2).

(9) An approval of the PLA under this article is not deemed to have been unreasonably withheld, and approval is not deemed to have been refused, if approval within the time limited by paragraph (8) has not been given pending the outcome of any consultation on the approval in question that the PLA is obliged to carry out in the proper exercise of its functions.

(10) Except in the case of an emergency, TfL must notify the owner of any mooring and the owner or master of any vessel or structure likely to be regularly affected by any proposal to exercise the powers conferred by this Order at least 35 days before the exercise of those powers.

(11) If—

- (a) by reason of the exercise of the powers conferred by this Order it is reasonably necessary for the owner of any mooring to incur costs in temporarily or permanently altering, removing, re-siting, repositioning or reinstating that mooring, or laying down and removing substituted moorings or buoys, or carrying out dredging operations for any such purpose, not being costs which it would have incurred for any other reason; and
- (b) the owner of the mooring in question gives to TfL not less than 28 days' notice of its intention to incur such costs, and acting reasonably takes into account any representations which TfL may make in response to the notice within 14 days of the receipt of the notice,

TfL must pay the costs reasonably so incurred by the owner of that mooring.

(12) A person may not without the consent in writing of TfL (which may be given subject to conditions)—

- (a) use, for the purpose of landing or embarking persons or landing or loading goods from or into any vessel, any work constructed or used in connection with the authorised development; or
- (b) remove, move or otherwise interfere with any work, machinery, apparatus, tools or other things in use or intended for use in constructing the authorised development.

### **Felling or lopping of trees**

**18.**—(1) TfL may fell or lop any tree or shrub within or overhanging land within the Order limits, or cut back its roots, if TfL reasonably believes it to be necessary to do so to prevent the tree or shrub—

- (a) from obstructing or interfering with the construction, maintenance or operation of the authorised development or any apparatus used in connection with the authorised development; or
- (b) from constituting a danger to persons using the authorised development.

(2) In carrying out any activity authorised by paragraph (1), TfL must do no unnecessary damage to any tree or shrub and must pay compensation to any person for any loss or damage arising from such activity.

(3) Any dispute as to a person's entitlement to compensation under paragraph (2), or as to the amount of compensation, is to be determined under Part 1 of the 1961 Act.

## **PART 3**

### **POWERS OF ACQUISITION AND POSSESSION OF LAND**

#### *Powers of acquisition*

#### **Compulsory acquisition of land**

**19.**—(1) TfL may acquire compulsorily so much of the Order land as is required for the authorised development, or to facilitate it, or as is incidental to it.

(2) This article is subject to article 22 (compulsory acquisition of rights), article 26 (acquisition of subsoil, etc., only) and Article 29 (Temporary use of land for carrying out the authorised development).

#### **Compulsory acquisition of land – incorporation of the minerals code**

**20.** Parts 2 and 3 of Schedule 2 (minerals) to the Acquisition of Land Act 1981 are incorporated into this Order subject to the modifications that—

- (a) paragraph 8(3) is not incorporated; and
- (b) for “the acquiring authority” there is substituted “TfL”.

#### **Time limit for exercise of powers to possess land temporarily or to acquire land compulsorily**

**21.**—(1) After the end of the period of 5 years beginning with the day on which this Order comes into force—

- (a) no notice to treat may be served under Part 1 of the 1965 Act; and

- (b) no declaration may be executed under section 4 (execution of declaration) of the 1981 Act as applied by article 25 (application of the Compulsory Purchase (Vesting Declarations) Act 1981),

in relation to any part of the Order land.

(2) The authority conferred by article 29 (temporary use of land for carrying out the authorised development) ceases at the end of the period referred to in paragraph (1), except that nothing in this paragraph prevents TfL from remaining in possession of land after the end of that period, if the land was entered and possession was taken before the end of that period.

### **Compulsory acquisition of rights**

**22.**—(1) Subject to paragraphs (2), (3) and (5), TfL may acquire such rights over the Order land or impose restrictive covenants affecting the land as may be required for any purpose for which that land may be acquired under article 19 (compulsory acquisition of land), by creating them as well as acquiring rights already in existence, instead of acquiring the whole of the land.

(2) In the case of the Order land specified in columns (1) and (2) of Schedule 4 (land in which only new rights etc., may be acquired) TfL's powers of compulsory acquisition under article 19 are limited to the acquisition of such wayleaves, easements, new rights in the land or the imposition of restrictive covenants as TfL may require for or in connection with the authorised development.

(3) Subject to section 8 (other provisions as to divided land) of the 1965 Act, where TfL acquires a right over land or the benefit of a restrictive covenant under paragraph (1) or (2), TfL is not required to acquire a greater interest in that land.

(4) Schedule 5 has effect for the purpose of modifying the enactments relating to compensation and the provisions of the 1965 Act in their application to the compulsory acquisition under this article of a right over land by the creation of a new right or the imposition of a restrictive covenant.

(5) TfL may not under paragraph (1) impose restrictive covenants affecting the land situated within any of the Regions mentioned in article 53.

### **Private rights over land**

**23.**—(1) Subject to the provisions of this article, all private rights over land subject to compulsory acquisition under this Order are extinguished—

- (a) from the date of acquisition of the land by TfL, whether compulsorily or by agreement; or
- (b) on the date of entry onto the land by TfL under section 11(1) (powers of entry) of the 1965 Act (power of entry),

whichever is the earlier.

(2) Subject to the provisions of this article, all private rights over land subject to the compulsory acquisition of rights or the imposition of restrictive covenants under this Order are extinguished in so far as their continuance would be inconsistent with the exercise of the right or burden of the restrictive covenant—

- (a) from the date of the acquisition of the right or the benefit of the restrictive covenant by TfL, whether compulsorily or by agreement; or
- (b) on the date of entry onto the land by TfL under section 11(1) of the 1965 Act (power of entry),

whichever is the earlier.

(3) Subject to the provisions of this article, all private rights over any part of the Order land that is vested in or acquired by TfL are extinguished on commencement of any activity authorised by this Order which interferes with or breaches those rights.

(4) Subject to the provisions of this article, all private rights over land of which TfL takes temporary possession under this Order are suspended and unenforceable for as long as TfL remains in lawful possession of the land.

(5) Any person who suffers loss by the extinguishment or suspension of any private right or by the imposition of any restrictive covenant under this article is entitled to compensation to be determined, in case of dispute, under Part 1 of the 1961 Act.

(6) This article does not apply in relation to any right to which section 138 of the 2008 Act (extinguishment of rights, and removal of apparatus, of statutory undertakers etc.) or article 31 (statutory undertakers) applies.

(7) Paragraphs (1) to (4) have effect subject to—

(a) any notice given by TfL before—

(i) the completion of the acquisition of the land or the acquisition of the rights or the imposition of restrictive covenants over or affecting the land;

(ii) TfL's appropriation of it;

(iii) TfL's entry onto it; or

(iv) TfL's taking temporary possession of it,

that any or all of those paragraphs do not apply to any right specified in the notice; and

(b) any agreement made at any time between TfL and the person in or to whom the right in question is vested or belongs.

(8) If any such agreement as is referred to in paragraph (7)(b)—

(a) is made with a person in or to whom the right is vested or belongs; and

(b) is expressed to have effect also for the benefit of those deriving title from or under that person,

it is effective in respect of the persons so deriving title, whether the title was derived before or after the making of the agreement.

(9) References in this article to private rights over land include any right of way, trust, incident, easement, liberty, privilege, right or advantage annexed to land and adversely affecting other land, including any natural right to support and include restrictions as to the user of land arising by virtue of a contract, agreement or undertaking having that effect.

### **Power to override easements and other rights**

**24.—**(1) Any authorised activity which takes place on land within the Order limits (whether the activity is undertaken by TfL or by any person deriving title from TfL or by any contractors, servants or agents of TfL) is authorised by this Order if it is done in accordance with the terms of this Order, notwithstanding that it involves—

(a) an interference with an interest or right to which this article applies; or

(b) a breach of a restriction as to the user of land arising by virtue of a contract.

(2) In this article “authorised activity” means—

(a) the erection, construction or maintenance of any part of the authorised development;

(b) the exercise of any power authorised by this Order; or

(c) the use of any land (including the temporary use of land).

(3) The interests and rights to which this article applies include any easement, liberty, privilege, right or advantage annexed to land and adversely affecting other land, including any natural right to support and include restrictions as to the user of land arising by the virtue of a contract.

(4) Where an interest, right or restriction is overridden by paragraph (1), compensation—

(a) is payable under section 7 (measure of compensation in case of severance) or 10 (further provision as to compensation for injurious affection) of the 1965 Act; and



- (b) is to be assessed in the same manner and subject to the same rules as in the case of other compensation under those sections where—
  - (i) the compensation is to be estimated in connection with a purchase under that Act; or
  - (ii) the injury arises from the execution of works on or use of land acquired under that Act.

(5) Where a person deriving title under TfL by whom the land in question was acquired—

- (a) is liable to pay compensation by virtue of paragraph (4); and
- (b) fails to discharge that liability,

the liability is enforceable against TfL.

(6) Nothing in this article shall be construed as authorising any act or omission on the part of any person which is actionable at the suit of any person on any grounds other than such an interference or breach as is mentioned in paragraph (1) of this article.

### **Application of the Compulsory Purchase (Vesting Declarations) Act 1981**

**25.**—(1) The 1981 Act applies as if this Order were a compulsory purchase order.

(2) The 1981 Act, as applied, has effect with the following modifications.

(3) In section 1 (application of act) for subsection (2) there is substituted—

“(2) This section applies to any Minister, any local or other public authority or any other body or person authorised to acquire land by means of a compulsory purchase order.”.

(4) Omit section 5 (earliest date for execution of declaration).

(5) Omit section 5A (time limit for general vesting declaration).

(6) In section 5B (extension of time limit during challenge)—

- (a) for “section 23 of the Acquisition of Land Act 1981 (application to High Court in respect of compulsory purchase order)” substitute “section 118 of the Planning Act 2008 (legal challenges relating to applications for orders granting development consent)”; and
- (b) for “the three year period mentioned in section 4” substitute “the five year period mentioned in article 21 of the Silvertown Tunnel Order 201[X]”.

(7) In section 6 (notices after execution of declaration) for subsection (1)(b) there is substituted—

“(1)(b) on every other person who has given information to the acquiring authority with respect to any of that land further to the invitation published and served under section 134 of the Planning Act 2008.”.

(8) In section 7 (constructive notice to treat) in subsection (1)(a), “(as modified by section 4 of the Acquisition of Land Act 1981)” is omitted.

(9) In Schedule A1 (counter-notice requiring purchase of land not in general vesting declaration), omit paragraph 1(2).

(10) References to the 1965 Act in the 1981 Act are to be construed as references to the 1965 Act as applied by section 125 (application of compulsory acquisition provisions) of the 2008 Act (as modified by article 27 (application of Part 1 of the Compulsory Purchase Act 1965) to the compulsory acquisition of land under this Order.

### **Acquisition of subsoil, etc., only**

**26.**—(1) TfL may acquire compulsorily so much of, or such rights over, the subsoil of and airspace over the land referred to in paragraph (1) of article 19 (compulsory acquisition of land) as may be required for any purpose for which that land may be acquired under that provision instead of acquiring the whole of the land.

(2) In the case of the Order land specified in columns (1) and (2) of Schedule 6 (land in which only subsoil or new rights above subsoil and surface may be acquired) TfL’s powers of compulsory acquisition under article 19 are limited to—

- (a) the acquisition of such subsoil; and
- (b) the acquisition of such easements or other new rights and the imposition of restrictive covenants in the remaining subsoil and the surface of the land,

as TfL may require for or in connection with the authorised development.

(3) Where TfL acquires any part of, or rights over, the subsoil or surface of or airspace over land referred to in paragraphs (1) or (2), TfL is not required to acquire an interest in any other part of the land.

(4) Paragraph (3) does not prevent Schedule 2A to the 1965 Act (as modified by article 27 (application of Part 1 of the Compulsory Purchase Act 1965) from applying where TfL acquires a cellar, vault, arch or other construction forming part of a house, building or manufactory.

(5) References in paragraph (2)(a) to subsoil are references to the subsoil lying at and below the depths specified in column (3) of Schedule 6 beneath the level of the surface of the land, and references to the remaining subsoil in paragraph (2)(b) are references to the part of the subsoil lying above the shallowest part of the subsoil acquired under paragraph (2)(a) but below the level of the surface of the land.

(6) For the purposes of paragraph (5) “the level of the surface of the land” means—

- (a) in the case of any land on which a building is erected, the level of the surface of the ground adjoining the building;
- (b) in the case of a river, dock, canal, navigation, watercourse or other water area, the level of the surface of the ground covered by water; or
- (c) in any other case, ground surface level,

at the time of this Order coming into force.

### **Application of Part 1 of the Compulsory Purchase Act 1965**

**27.**—(1) Part 1 of the 1965 Act, as applied to this Order by section 125 (application of compulsory acquisition provisions) of the 2008 Act, is modified as follows.

(2) In section 4A(1) (extension of time limit during challenge)—

- (a) for “section 23 of the Acquisition of Land Act 1981 (application to High Court in respect of compulsory purchase order)” substitute “section 118 of the Planning Act 2008 (legal challenges relating to applications for orders granting development consent)”; and
- (b) for “the three year period mentioned in section 4” substitute “the five year period mentioned in article 21 of the Silvertown Tunnel Order 201[X]”.

(3) In section 22(2) (expiry of time limit for exercise of compulsory purchase power not to affect acquisition of interests omitted from purchase), for “section 4 of this Act” substitute “article 21 of the Silvertown Tunnel Order 201[X]”.

(4) In Schedule 2A (counter-notice requiring purchase of land not in notice to treat)—

- (a) omit paragraph 1(2) and 14(2); and
- (b) at the end insert—

## **“PART 4**

### **INTERPRETATION**

**30.** In this Schedule, references to entering on and taking possession of land do not include doing so under article 15 (protective works to buildings), 29 (temporary use of land for carrying out the authorised development) or 30 (temporary use of land for maintaining the authorised development) of the Silvertown Tunnel Order 201[X].”.

### **Rights over or under streets**

**28.**—(1) TfL may enter on, appropriate and use so much of the subsoil of, or airspace over, any street within the Order limits as may be required for the purposes of the authorised development.

(2) Subject to paragraph (3), TfL may exercise any power conferred by paragraph (1) in relation to a street without being required to acquire any part of the street or any easement or right in the street.

(3) Paragraph (2) does not apply in relation to—

- (a) any subway or underground building; or
- (b) any cellar, vault, arch or other construction in, on or under a street which forms part of a building fronting onto the street.

(4) Subject to paragraph (5), any person who is an owner or occupier of land in respect of which the power of appropriation conferred by paragraph (1) is exercised without TfL acquiring any part of that person's interest in the land, and who suffers loss as a result, is entitled to compensation to be determined, in case of dispute, under Part 1 of the 1961 Act.

(5) Compensation is not payable under paragraph (4) to any person who is an undertaker to whom section 85 (sharing cost of necessary measures) of the 1991 Act applies in respect of measures of which the allowable costs are to be borne in accordance with that section.

### *Temporary possession of land*

### **Temporary use of land for carrying out the authorised development**

**29.**—(1) TfL may, in connection with the carrying out of the authorised development but subject to article 21(1) (time limit for exercise of powers to possess land temporarily or to acquire land compulsorily)—

(a) enter on and take temporary possession of—

- (i) the land specified in columns (1) and (2) of Schedule 7 (land of which only temporary possession may be taken) for the purpose specified in relation to that land in column (3) of that Schedule relating to the part of the authorised development specified in column (4) of that Schedule; and
- (ii) any of the Order land in respect of which no notice of entry has been served under section 11 (powers of entry) of the 1965 Act (other than in connection with the acquisition of rights only) and no declaration has been made under section 4 (expectation of declaration) of the 1981 Act;

- (b) remove any buildings and vegetation from that land;
- (c) construct temporary works (including the provision of means of access) and buildings on that land;
- (d) construct any works on that land as are mentioned in Schedule 1 (authorised development); and
- (e) provide any temporary car parking or storage facilities on that land for the benefit of landowners or occupiers temporarily displaced as a result of the carrying out of the authorised development.

(2) TfL's temporary possession of any part of the river Thames under paragraph (1) is limited to what is reasonably necessary for TfL safely to construct the authorised development but TfL is not permitted by this article to take temporary possession of the entire width of the river Thames within the Order limits except in an emergency.

(3) At times and places where TfL has taken temporary possession of any part of the river Thames under this article, on the coming into effect of a notice to mariners in accordance with article 17(7), the public right of navigation over that part of the river Thames is suspended and unenforceable against the PLA.

(4) Any person who suffers loss as a result of the suspension of any private right of navigation under this article is entitled to be paid compensation for such loss by TfL, to be determined, in case of dispute, under Part 1 of the 1961 Act.

(5) Not less than 14 days before entering on and taking temporary possession of land under this article TfL must serve notice of the intended entry on the owners and occupiers of the land and that notice must state the works, facilities or other purpose for which TfL intends to take possession of the land.

(6) TfL may not, without the agreement of the owners of the land, remain in possession of any land under this article—

- (a) in the case of any land specified in paragraph (1)(a)(i), after the end of the period of one year beginning with the date of completion of the part of the authorised development specified in relation to that land in column (4) of Schedule 7; or
- (b) in the case of any land referred to in paragraph (1)(a)(ii), after the end of the period of one year beginning with the date of completion of the works, use of facilities or other purpose for which temporary possession of the land was taken unless TfL has, by the end of that period, served a notice of entry under section 11 of the 1965 Act or made a declaration under section 4 of the 1981 Act in relation to that land.

(7) Before giving up possession of land of which temporary possession has been taken under this article, TfL must remove all temporary works and restore the land to the reasonable satisfaction of the owners of the land; but TfL is not required to—

- (a) replace a building removed under this article;
- (b) restore the land on which any permanent works have been constructed under paragraph (1)(d);
- (c) remove any ground strengthening works which have been placed on the land to facilitate construction of the authorised development; or
- (d) remove any measures installed over or around statutory undertakers' apparatus to protect that apparatus from the authorised development.

(8) TfL must pay compensation to the owners and occupiers of land of which temporary possession is taken under this article for any loss or damage arising from the exercise in relation to the land of the provisions of this article.

(9) Any dispute as to a person's entitlement to compensation under paragraph (8), or as to the amount of the compensation, is to be determined under Part 1 of the 1961 Act.

(10) Nothing in this article affects any liability to pay compensation under section 152 (compensation in case where no right to claim in nuisance) of the 2008 Act or under any other enactment in respect of loss or damage arising from the execution of any works, other than loss or damage for which compensation is payable under paragraph (8) and nothing in this article affects any liability to pay compensation to the PLA under paragraph 49 of Schedule 13 (protective provisions).

(11) Where TfL takes possession of land under this article, TfL is not required to acquire the land or any interest in it.

(12) Section 13 (refusal to give possession to acquiring authority) of the 1965 Act applies to the temporary use of land under this article to the same extent as it applies to the compulsory acquisition of land under this Order by virtue of section 125 (application of compulsory acquisition provisions) of the 2008 Act.

### **Temporary use of land for maintaining the authorised development**

**30.**—(1) Subject to paragraph (5), at any time during the maintenance period relating to any of the authorised development, TfL may—

- (a) enter upon and take temporary possession of any land within the Order limits if possession is reasonably required for the purpose of maintaining the authorised development;

- (b) enter on any land within the Order limits for the purpose of gaining such access as is reasonably required for the purpose of maintaining the authorised development; and
- (c) construct such temporary works (including the provision of means of access) and buildings on the land as may be reasonably necessary for that purpose.

(2) TfL's temporary possession of any part of the river Thames under paragraph (1) is limited to what is reasonably necessary for TfL safely to carry out any maintenance of the authorised development but TfL is not permitted by this article to take temporary possession of the entire width of the river Thames within the Order limits except in an emergency.

(3) At times and places where TfL has taken temporary possession of any part of the river Thames under this article, on the coming into effect of a notice to mariners in accordance with article 17(7) the public right of navigation over that part of the river Thames will be suspended and unenforceable against the PLA.

(4) Any person who suffers loss as a result of the suspension of any private right of navigation under this article is entitled to be paid compensation for such loss by TfL, to be determined, in case of dispute, under Part 1 of the 1961 Act.

(5) Paragraph (1) does not authorise TfL to take temporary possession of—

- (a) any house or garden belonging to a house; or
- (b) any building (other than a house) if it is for the time being occupied.

(6) Not less than 28 days before entering upon and taking temporary possession of land under this article TfL must serve notice of the intended entry on the owners and occupiers of the land and that notice must state the purpose for which TfL intends to take possession of the land including the particulars of the part of the authorised development for which possession is to be taken.

(7) TfL may only remain in possession of land under this article for so long as may be reasonably necessary to carry out the maintenance of the part of the authorised development for which possession of the land was taken.

(8) Before giving up possession of land of which temporary possession has been taken under this article, TfL must remove all temporary works and restore the land to the reasonable satisfaction of the owners of the land.

(9) TfL must pay compensation to the owners and occupiers of land of which temporary possession is taken under this article for any loss or damage arising from the exercise in relation to the land of the powers conferred by this article.

(10) Any dispute as to a person's entitlement to compensation under paragraph (9), or as to the amount of the compensation, is to be determined under Part 1 of the 1961 Act.

(11) Nothing in this article affects any liability to pay compensation under section 152 (compensation in case where no right to claim in nuisance) of the 2008 Act or under any other enactment in respect of loss or damage arising from the execution of any works, other than loss or damage for which compensation is payable under paragraph (9) and nothing in this article affects any liability to pay compensation to the PLA under paragraph 49 of Schedule 13 (protective provisions).

(12) Where TfL takes possession of land under this article, it is not required to acquire the land or any interest in it.

(13) Section 13 (refusal to give possession to the acquiring authority) of the 1965 Act applies to the temporary use of land under this article to the same extent as it applies to the compulsory acquisition of land under this Order by virtue of section 125 (application of compulsory acquisition provisions) of the 2008 Act.

(14) In this article "the maintenance period", in relation to any part of the authorised development, means the period of 5 years beginning with the date on which—

- (a) that part of the authorised development is first opened for public use (where that part of the authorised development is intended to be used by the public); or

- (b) in respect of any other part of the authorised development, that part is first brought into operational use by TfL.

*Supplementary*

**Statutory undertakers**

**31.**—(1) Subject to the provisions of article 22(2) (compulsory acquisition of rights), Schedule 13 (protective provisions) and paragraph (2), TfL may—

- (a) exercise the powers conferred by articles 19 (compulsory acquisition of land) and 22 (compulsory acquisition of rights) in relation to so much of the Order land as belongs to statutory undertakers; and
- (b) extinguish the rights of, remove or reposition the apparatus belonging to statutory undertakers over or within the Order land.

(2) Paragraph (1)(b) has no effect in relation to apparatus in respect of which the following provisions apply—

- (a) Part 3 (street works in England and Wales) of the 1991 Act; or
- (b) article 32 (apparatus and rights of statutory undertakers in stopped up streets).

**Apparatus and rights of statutory undertakers in stopped up streets**

**32.**—(1) Where a street is stopped up under article 9 (permanent stopping up of streets and private means of access), any statutory utility whose apparatus is under, in, on, along or across the street has the same powers and rights in respect of that apparatus, subject to the provisions of this article, as if this Order had not been made.

(2) Where a street is stopped up under article 9 any statutory utility whose apparatus is under, in, on, over, along or across the street may, and if reasonably requested to do so by TfL must—

- (a) remove the apparatus and place it or other apparatus provided in substitution for it in such other position as the utility may reasonably determine and have power to place it; or
- (b) provide other apparatus in substitution for the existing apparatus and place it in such position as described in sub-paragraph (a).

(3) Subject to the following provisions of this article, TfL must pay to any statutory utility an amount equal to the cost reasonably incurred by the utility in or in connection with—

- (a) the execution of the relocation works required in consequence of the stopping up of the street; and
- (b) the doing of any other work or thing rendered necessary by the execution of the relocation works.

(4) If in the course of the execution of relocation works under paragraph (2)—

- (a) apparatus of a better type, of greater capacity or of greater dimensions is placed in substitution for existing apparatus; or
- (b) apparatus (whether existing apparatus or apparatus substituted for existing apparatus) is placed at a depth greater than the depth at which the existing apparatus was,

and the placing of apparatus of that type or capacity or of those dimensions or the placing of apparatus at that depth, as the case may be, is not agreed by TfL, or, in default of agreement, is not determined by arbitration to be necessary, then, if it involves cost in the execution of the relocation works exceeding that which would have been involved if the apparatus placed had been of the existing type, capacity or dimensions, or at the existing depth, as the case may be, the amount which, apart from this paragraph, would be payable to the statutory utility by virtue of paragraph (3) is to be reduced by the amount of that excess.

(5) For the purposes of paragraph (4)—

- (a) an extension of apparatus to a length greater than the length of existing apparatus is not to be treated as a placing of apparatus of greater dimensions than those of the existing apparatus; and
- (b) where the provision of a joint in a cable is agreed, or is determined to be necessary, the consequential provision of a jointing chamber or of a manhole is to be treated as if it also had been agreed or had been so determined.

(6) An amount which, apart from this paragraph, would be payable to a statutory utility in respect of works by virtue of paragraph (3) (and having regard, where relevant, to paragraph (4)) must, if the works include the placing of apparatus provided in substitution for apparatus placed more than 7 years and 6 months earlier so as to confer on the utility any financial benefit by deferment of the time for renewal of the apparatus in the ordinary course, be reduced by the amount which represents that benefit.

(7) Paragraphs (3) to (6) do not apply where the authorised development constitutes major highway works, major bridge works or major transport works for the purposes of Part 3 of the 1991 Act, but instead—

- (a) the allowable costs of the relocation works are to be determined in accordance with section 85 (sharing of cost of necessary measures) of that Act and any regulations for the time being having effect under that section; and
- (b) the allowable costs are to be borne by TfL and the statutory utility in such proportions as may be prescribed by any such regulations.

(8) In this article—

- “relocation works” means work executed, or apparatus provided, under paragraph (2); and
- “statutory utility” means a statutory undertaker for the purposes of the 1990 Act or a public communications provider as defined in section 151(1) of the Communications Act 2003(a).

### **Recovery of costs of new connection**

**33.**—(1) Where any apparatus of a public utility undertaker or of a public communications provider is removed under article 31 (statutory undertakers) any person who is the owner or occupier of premises to which a supply was given from that apparatus is entitled to recover from TfL compensation in respect of expenditure reasonably incurred by that person, in consequence of the removal, for the purpose of effecting a connection between the premises and any other apparatus from which a supply is given.

(2) Paragraph (1) does not apply in the case of the removal of a public sewer but where such a sewer is removed under article 31, any person who is—

- (a) the owner or occupier of premises the drains of which communicated with that sewer; or
- (b) the owner of a private sewer which communicated with that sewer,

is entitled to recover from TfL compensation in respect of expenditure reasonably incurred by that person, in consequence of the removal, for the purpose of making the drain or sewer belonging to that person communicate with any other public sewer or with a private sewerage disposal plant.

(3) This article does not have effect in relation to apparatus to which article 32 (apparatus and rights of statutory undertakers in stopped up streets) or Part 3 of the 1991 Act applies.

(4) In this article—

- “public communications provider” has the same meaning as in section 151(1) of the Communications Act 2003; and
- “public utility undertaker” means a gas, water, electricity or sewerage undertaker.

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(a) 2003 c.21.

### **Special category land**

**34.**—(1) On the exercise by TfL of the relevant Order powers, so much of the special category land as is required for the purposes of the exercise of those rights is discharged from all rights, trusts and incidents to which it was previously subject, so far as their continuance would be inconsistent with the exercise of the relevant Order powers.

(2) In this article—

“the relevant Order powers” means powers exercisable over the special category land by TfL under article 22 (compulsory acquisition of rights); and

“the special category land” means the land identified as forming open space and numbered 03-021, 03-029, 03-037, 03-037b and 03-037c in the book of reference and on the special category land plan.

### **Disposals by the Greater London Authority**

**35.**—(1) The following are not to be regarded as a disposal by the GLA for the purposes of section 333ZC of the 1999 Act—

- (a) the making of any agreement between TfL and the GLA before this Order comes into force in anticipation of the exercise of the powers of this Order by TfL;
- (b) the implementation of any such agreement; and
- (c) the exercise of the powers of this Order by TfL in accordance with that agreement.

(2) In this article the GLA includes a company or body through which the GLA exercises functions in relation to housing or regeneration.

(3) Paragraph (1)(a) does not apply to a subsequent variation of any agreement made between TfL and the GLA before this Order comes into force.

### *Compensation*

#### **Disregard of certain interests and improvements**

**36.**—(1) In assessing the compensation payable to any person on the acquisition from that person of any land or right over any land under this Order, the tribunal must not take into account—

- (a) any interest in land; or
- (b) any enhancement of the value of any interest in land by reason of any building erected, works executed or improvement or alteration made on relevant land,

if the tribunal is satisfied that the creation of the interest, the erection of the building, the execution of the works or the making of the improvement or alteration as part of the authorised development was not reasonably necessary and was undertaken with a view to obtaining compensation or increased compensation.

(2) In paragraph (1) “relevant land” means the land acquired from the person concerned or any other land with which that person is, or was at the time when the building was erected, the works executed or the improvement or alteration made as part of the authorised development, directly or indirectly concerned.

#### **Set-off for enhancement in value of retained land**

**37.**—(1) In assessing the compensation payable to any person in respect of the acquisition from that person under this Order of any land (including the subsoil) the tribunal must set off against the value of the land so acquired any increase in value of any contiguous or adjacent land belonging to that person in the same capacity which will accrue to that person by reason of the construction of the authorised development.



(2) In assessing the compensation payable to any person in respect of the acquisition from that person of any new rights over land (including the subsoil) under article 22 (compulsory acquisition of rights), the tribunal must set off against the value of the rights so acquired—

- (a) any increase in the value of the land over which the new rights are required; and
- (b) any increase in value of any contiguous or adjacent land belonging to that person in the same capacity,

which will accrue to that person by reason of the construction of the authorised development.

(3) The 1961 Act has effect, subject to paragraphs (1) and (2), as if this Order were a local enactment for the purposes of that Act.

#### **No double recovery**

**38.** Compensation is not payable in respect of the same matter both under this Order and under any other enactment, any contract or any rule of law, or under two or more different provisions of this Order.

## **PART 4**

### **OPERATIONAL PROVISIONS**

#### **Application of Part 4**

**39.**—(1) Articles 42 to 44 only apply and have effect from the date the Silvertown Tunnel is first open to the public.

(2) Articles 45 to 47, 49 and 50 only apply—

- (a) to the Blackwall Tunnel area on the date of the commencement of construction of the Silvertown Tunnel; and
- (b) to the Silvertown Tunnel area from the date the Silvertown Tunnel is first open to the public.

(3) For the purposes of this Part the date of commencement of construction of the Silvertown Tunnel is the date specified in a notice published by TfL in *The London Gazette*.

#### **Maintenance of the authorised development**

**40.**—(1) TfL may at any time maintain the authorised development.

(2) Paragraph (1) does not extend to any maintenance works which would give rise to any materially new or materially different environmental effects to those assessed in the environmental statement.

(3) On the expiry of any maintenance period defined in article 30(14) in respect of any part of the authorised development, but subject to article 3(4), sections 66 to 75 of the 1968 Act apply to the exercise of the powers of this article in relation to that part.

#### **Local legislation relating to the Blackwall Tunnel**

**41.** The provisions of the Thames Tunnel (Blackwall) Act 1887<sup>(a)</sup> and the London County Council (Tunnel and Improvements) Act 1938<sup>(b)</sup>, and any other local enactment relating to the Blackwall Tunnel area, have effect subject to the provisions of this Order.

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(a) 1887 c.clxxii.

(b) 1938 c.lxxxii.

### **Power to operate and use the tunnels**

42. TfL may operate and use the tunnels.

### **Protection of the tunnels, etc.**

43. A person may not, without the consent in writing of TfL—

- (a) interfere with any part of the tunnels; or
- (b) remove, move or otherwise interfere with any such work or any machinery, apparatus, tools or other things in use or intended for use in connection with the tunnels.

### **Closing the tunnels**

44.—(1) TfL may, whenever in its opinion it is necessary to do so, close either or both of the tunnels, whether wholly or partially.

(2) Where TfL proposes to close either or both of the tunnels, it must except in an emergency—

- (a) give not less than 7 days' notice in such manner as TfL considers appropriate; and
- (b) throughout the period of such closure display signs at convenient situations on the roads communicating with the tunnels giving warning of the closure.

(3) In this article “emergency” means any circumstance existing or imminent which TfL considers is likely to cause danger to—

- (a) persons or property, including the tunnels or any person in or using the tunnels; or
- (b) the environment.

### **Removal of motor vehicles**

45.—(1) If any obstruction is caused by a motor vehicle waiting, loading, unloading or breaking down in the tunnels areas, the person in charge of the motor vehicle must immediately remove it; and if that person fails to do so an authorised person may take all reasonable steps to remove the obstruction.

(2) An authorised person who removes a motor vehicle under paragraph (1) may do so by towing or driving the motor vehicle or in such other manner as the authorised person may think necessary and may take such measures in relation to the motor vehicle as the authorised person considers necessary to enable the motor vehicle to be removed.

(3) Where under paragraph (1), an authorised person requires a person to remove a motor vehicle and the authorised person determines that the manner of removal proposed by the person required to remove it may cause danger to other persons using the road, the authorised person may require the motor vehicle to be moved in such other manner as the authorised person considers safe or may remove or arrange for the removal of the motor vehicle if the person required to remove it refuses to remove it in the manner so required.

(4) A motor vehicle removed by an authorised person under this article—

- (a) may be returned immediately to the person in charge of that motor vehicle; or
- (b) where immediate return of that motor vehicle to the person in charge of it is not practicable or appropriate, must be delivered to TfL or to a person authorised by TfL to keep motor vehicles so removed (“the custodian” in either case).

(5) In a case where the owner of the motor vehicle has disclaimed all rights of ownership of the motor vehicle and its contents, the custodian may dispose of them in such manner as it sees fit at any time.

(6) In any case not falling within paragraph (5), a motor vehicle or its contents must not be disposed of before the end of the period of five weeks beginning with the date on which the motor vehicle was removed and until the custodian has, for the purpose of ascertaining the owner of the motor vehicle, taken such steps as are specified in paragraph (7) and either—

- (a) the custodian has failed to ascertain the name and address of the owner; or
- (b) the owner has failed to comply with a notice complying with paragraph (8) served on the owner by post.

(7) The steps referred to in paragraph (6) are—

- (a) if the motor vehicle carries a United Kingdom registration mark, the custodian must ascertain from the records kept by the Secretary of State under the Vehicle Excise and Registration Act 1994<sup>(a)</sup> the name and address of the person by whom the motor vehicle is kept; and
- (b) if the motor vehicle does not carry such a registration mark, the custodian must make such inquiries as appear to the custodian reasonably practicable to ascertain the owner of the motor vehicle.

(8) A notice under paragraph (6)(b) must be addressed to the owner which—

- (a) states—
  - (i) reasons for the removal of the motor vehicle;
  - (ii) the place to which the motor vehicle has been removed;
  - (iii) the registration mark and make of the motor vehicle;
  - (iv) the steps to be taken to obtain possession of the motor vehicle;
  - (v) the outstanding penalty charges payable in respect of the motor vehicle; and
  - (vi) that unless the motor vehicle is removed by the owner on or before the date specified in sub-paragraph (b), the custodian intends to dispose of it; and
- (b) requires the owner to remove the motor vehicle from the custody of the custodian within 21 days of the date on which the notice was served.

(9) The custodian is entitled to treat the registered keeper of the motor vehicle as the person entitled to its contents unless and to the extent that some other person satisfies the custodian of their claim to all or part of them.

(10) Where there is more than one claim to the motor vehicle or its contents, the custodian must determine which person is entitled to the motor vehicle or its contents on the basis of evidence provided to it.

(11) Where a motor vehicle has been removed and delivered into the custody of a custodian in accordance with paragraph (4), the custodian may (whether or not any claim is made under this article) recover from the person who was the owner of the motor vehicle when the motor vehicle was removed the charges applied by paragraph (13) for—

- (a) its removal and storage; and
- (b) if the motor vehicle has been disposed of, its disposal.

(12) Where, by virtue of paragraph (11)(a), any sum is recoverable in respect of a motor vehicle by a custodian, the custodian is entitled to retain custody of it until that sum is paid.

(13) Penalty charges set by regulations made under paragraph 27 of Schedule 23 to the 1999 Act in respect of the removal, storage and disposal of vehicles apply to the removal, storage and disposal of motor vehicles under this article as if the statement of charges published under article 55(5) (power to charge for use of the tunnels) is a charging scheme made by order under that Schedule and TfL is the charging authority.

(14) A person (“the claimant”) may take possession of a motor vehicle (with its contents) which has been removed and delivered to a custodian and has not been disposed of under this article, if the conditions specified in paragraph (15) are satisfied.

(15) The conditions are that—

- (a) the claimant satisfies the custodian that the claimant is the owner of the motor vehicle or that the claimant is authorised by the owner to take possession of the motor vehicle; and

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(a) 1994 c.22.

(b) all outstanding penalty charges applied by paragraph (13) are paid to TfL.

(16) On giving the claimant possession of a motor vehicle pursuant to this article, the custodian must give the claimant a statement of the right of the owner (or the person in charge of the motor vehicle when the motor vehicle was removed) to appeal, of the steps to be taken in order to appeal and of the address to which representations should be sent.

(17) Schedule 8 has effect in relation to appeals against the imposition of penalty charges and the service of penalty charge notices.

(18) An adjudicator appointed by the Lord Chancellor under paragraph 3 of the Road User Charging (Enforcement and Adjudication) (London) Regulations 2001<sup>(a)</sup> is an adjudicator for the purposes of hearing appeals under Schedule 8.

(19) If, after a motor vehicle has been disposed of by a custodian pursuant to this article, a person claims to have been the owner of the motor vehicle at the time when it was disposed of and the conditions specified in paragraph (20) are fulfilled, a sum calculated in accordance with paragraph (21) is payable by the custodian to the owner.

(20) The conditions are that—

- (a) the person claiming satisfies the custodian that the person so claiming was the owner of the motor vehicle at the time it was disposed of; and
- (b) the claim is made before the end of the period of one year beginning with the date on which the motor vehicle was disposed of.

(21) The sum payable under paragraph (19) is calculated by deducting from the proceeds of sale the sums that would have been payable under paragraph (20) had the motor vehicle been claimed by the owner immediately before its disposal together with such penalty charge as may be imposed in respect of the disposal of a motor vehicle.

(22) For the purposes of this article the owner of a motor vehicle is taken to be the person by whom the motor vehicle is kept; and in determining for those purposes who was the owner of the motor vehicle at any time, it is presumed (unless the contrary appears) that the owner was the person in whose name the motor vehicle was at that time registered under the Vehicle Excise and Registration Act 1994.

(23) For the purposes of this article “breaking down” includes by way of a mechanical defect, lack of fuel, oil, water or power required for the motor vehicle or any other circumstances in which a person in charge of the motor vehicle could not immediately, safely and without damage to the motor vehicle or its accessories drive it under its own power away from the tunnels areas.

### **Removal of other obstructions**

**46.—**(1) Where an obstruction or hazard is caused in the tunnels areas by a load falling from a motor vehicle and the person in charge of the motor vehicle fails to remove it, an authorised person may take all reasonable steps to remove the load.

(2) An authorised person—

- (a) may return a load which the authorised person has removed immediately to the person in charge of the motor vehicle from which it has fallen; or
- (b) where a return of the load which the authorised person has removed to the person in charge of the motor vehicle from which it has fallen is not practicable or appropriate, must deliver the load to TfL or to a person authorised by TfL to keep loads so removed (“the custodian” in either case).

(3) The custodian must take reasonable steps to ascertain the identity of the owner of the load.

(4) Where the custodian has been unable to ascertain contact details for the owner of the load, the custodian may dispose of or sell the load as the custodian thinks fit.

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(a) S.I. 2001/2313.

(5) Where the custodian has been able to ascertain contact details for the owner of the load, the custodian must notify such person that—

- (a) the load is in the possession of the custodian;
- (b) the owner must take possession of the load within five weeks of the date of the notice;
- (c) the owner may only take possession of the load on the payment of the custodian's expenses in removing and storing the load; and
- (d) if the owner fails to act in accordance with the requirements in the notice, title in the load vests in the custodian.

(6) The custodian may recover any expenses reasonably incurred in the removal and storage of a load from the owner of the load.

(7) Unless the owner of the load acts in accordance with the notice requirements, title in the load vests in the custodian on the date specified in the notice.

(8) Where a load consists of, or includes, liquids or semi-liquids or items which are loose or an aggregate, or noxious, perishable or otherwise hazardous or difficult to collect-up or remove, and the driver of the motor vehicle fails to remove it or the fallen load poses a hazard, paragraphs (2) to (7) do not apply and an authorised person or custodian (as the case may be) may, as it sees fit, immediately wash, clean or clear away or remove the fallen load or otherwise dispose of it or sell it.

### **Dangerous goods**

**47.**—(1) Charges imposed under article 55 (power to charge for use of the tunnels) may include provision for charges to be imposed for—

- (a) escorting motor vehicles carrying dangerous goods through the tunnels; and
- (b) the recovery of TfL's reasonable administrative costs incurred in granting applications for consent to taking such goods into the tunnels to the extent required by byelaws made under article 49 (byelaws relating to the Silvertown Tunnel area and the Blackwall tunnel area).

(2) TfL is to be treated as having in the tunnels areas the same enforcement powers as any body mentioned in regulation 32 of the Carriage of Dangerous Goods and the Use of Transportable Pressure Equipment Regulations 2009(a) in relation to roads and to the extent permitted by regulation 32.

(3) The exercise of the enforcement powers mentioned in paragraph (2) is subject to any limitation which applies to the Health and Safety Executive under the regulations.

(4) Nothing in this article prejudices or prevents a body mentioned in regulation 32 of the Carriage of Dangerous Goods and the Use of Transportable Pressure Equipment Regulations 2009 from exercising any power conferred on it by those regulations.

### **No apparatus in the Silvertown Tunnel area without consent**

**48.**—(1) Regardless of anything contained in any enactment, no person is to enter upon, break up or interfere with the Silvertown Tunnel area, or any part of it, for the purpose of placing or doing anything in or in relation to any sewer, drain, main, pipe, wire or other apparatus or executing any work except with the written consent of TfL and in accordance with such terms and conditions as TfL may determine, including as to payment, such consent not to be unreasonably withheld and any disputes as to failure to consent or over terms and conditions to be subject to the arbitration provisions in article 69.

(2) This article is subject to paragraph 50 of Schedule 13 (protective provisions).

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(a) S.I. 2009/1348.

## **Byelaws relating to the Silvertown Tunnel area and the Blackwall Tunnel area**

**49.**—(1) TfL may make byelaws regulating—

- (a) the efficient management and operation of the tunnels areas;
- (b) travel in the tunnels areas;
- (c) the maintenance of order in the tunnels areas; and
- (d) the conduct of persons in the tunnels areas.

(2) The byelaws contained in Schedule 9 have effect in relation to the Blackwall Tunnel area and the Silvertown Tunnel area until such time as they are amended or revoked by further byelaws made under paragraph (1) and in each case are to be treated as byelaws made by TfL under paragraph (1) and subsequently confirmed by the Secretary of State on the date this Order comes into force, to take effect on the date this article applies to the Blackwall Tunnel area or the Silvertown Tunnel area, as the case may be, by virtue of article 39 (application of Part 4).

(3) Subject to paragraph (4), the provisions of subsections 236(3) to (8), (10C) and (11) of the Local Government Act 1972(a) (procedure etc., for byelaws) apply in relation to byelaws made by TfL under paragraph (1), except that the application of section 236(10C) only requires TfL to send a copy of any byelaws made by it and subsequently confirmed to—

- (a) the Mayor of London;
- (b) the Council of the London Borough of Newham;
- (c) the Council of the London Borough of Tower Hamlets; and
- (d) the Council of the Royal Borough of Greenwich.

(4) TfL may make byelaws under paragraph (1) in accordance with the procedure in the Byelaws (Alternative Procedure) (England) Regulations 2016(b) as if those regulations applied to the making and revoking of byelaws under this article.

(5) Byelaws made under this article are enforceable by TfL and any authorised person.

(6) A person who breaches any byelaw made under this article commits an offence and is liable on summary conviction to a fine not exceeding level 3 on the standard scale.

(7) The Blackwall Tunnel By-laws 1968 are revoked as from the date of the commencement of construction of the Silvertown Tunnel.

## **Fixed penalty notices**

**50.**—(1) This article applies where it appears to an authorised person that a person has committed an offence under byelaws made under article 49 (byelaws relating to the Silvertown Tunnel area and the Blackwall Tunnel area).

(2) The authorised person may serve on that person a fixed penalty notice in respect of the offence.

(3) Where a person is given a fixed penalty notice under this article in respect of an offence—

- (a) no proceedings may be instituted for that offence before the expiration of 14 days after the date of the notice; and
- (b) that person may not be convicted of the offence if the fixed penalty is paid before the expiration of 14 days after the date of the notice.

(4) A fixed penalty notice must state—

- (a) the amount of the fixed penalty;
- (b) particulars of the circumstances alleged to constitute the offence as are necessary for giving reasonable information of the offence;

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(a) 1972 c.70.

(b) S.I. 2016/165.

- (c) the time by which and the manner (including the number to be used for payments by credit or debit card) in which the fixed penalty must be paid; and
  - (d) that proceedings may be instituted if payment is not made within the time specified in the fixed penalty notice.
- (5) The amount of the fixed penalty is—
- (a) one fifth of the maximum amount of the fine to which the person to whom the fixed penalty notice is issued would be liable on summary conviction provided that person pays the fixed penalty in full within 7 days of issue of the fixed penalty notice; or
  - (b) one half of the maximum amount of the fine to which the person to whom the fixed penalty notice is issued would be liable on summary conviction.
- (6) An authorised person may require a person to whom this article applies to pay a deposit of one tenth of the maximum amount of the fine to which a person may be liable under level 3 on the standard scale on accepting a fixed penalty notice if that person fails to provide, when requested, a residential address in the United Kingdom.
- (7) Payment of the deposit must be made—
- (a) in person to the authorised person by cash, credit or debit card, if the authorised person has the necessary means to accept payment in that manner;
  - (b) by telephone by credit or debit card to the number stipulated in the fixed penalty notice for making payments; or
  - (c) by App.
- (8) TfL must apply the deposit towards payment of the fixed penalty.
- (9) In any proceedings a certificate which—
- (a) purports to be signed on behalf of the chief finance officer of TfL; and
  - (b) states that payment of a fixed penalty was or was not received by a date specified in the certificate,

is evidence of the facts stated.

- (10) In this article—

“App” means a software application for use on an electronic device which provides for payment by credit or debit card and which is provided by TfL for that purpose;

“credit card” means a card or similar thing issued to any person, use of which enables the holder to defer payment of the deposit;

“debit card” means a card or similar thing issued by any person, use of which causes the deposit to be paid by the electronic transfer of funds from any current account of the holder at a bank or other institution providing banking facilities; and

“fixed penalty notice” means a notice offering the opportunity of the discharge of liability to conviction of an offence under byelaws made under article 49.

### **Classification of roads, etc.**

**51.—**(1) The roads described in paragraphs 1 to 3 and 19 to 22 of Part 1 of Schedule 10 are to be classified as the A12 from such day as TfL may determine, as if such classification had been made under section 12(3) (general provision as to principal and classified roads) of the 1980 Act.

(2) The roads described in paragraphs 6 to 18 of Part 1 of Schedule 10 are to be classified as the A102 from such day as TfL may determine, as if such classification had been made under section 12(3) of the 1980 Act.

(3) The roads described in paragraphs 4 to 18 of Part 1 of Schedule 10 shall become GLA roads on such day as TfL may determine, as if from that day they were the subject of an order directing the same under section 14B (orders of the authority changing what are GLA roads) of the 1980 Act.

(4) The road described in Part 2 of Schedule 10 shall cease to be a GLA road on such day as TfL may determine, as if from that day it was the subject of an order directing the same under section 14B of the 1980 Act.

(5) TfL must publish a notice in *The London Gazette* on each occasion that it exercises the powers of this article.

### **Operational land for purposes of the 1990 Act**

**52.** Development consent granted by this Order is to be treated as specific planning permission for the purposes of section 264(3)(a) (cases in which land is to be treated as operational land for the purposes of that Act) of the 1990 Act.

### **Restrictions on other works in the river Thames**

**53.—(1)** For the purposes of ensuring the protection of the Silvertown Tunnel, the PLA must not carry out the following activities within the part of the river Thames that is situated within the Order limits without the consent of TfL, which must not be unreasonably withheld or delayed—

- (a) in Regions 1, 3 and 4 (subject to paragraph (2))—
  - (i) any dredging below the lines shown on the river restrictions section;
  - (ii) the installation of a mooring or other structure where its foundation would be at a depth exceeding 1 metre below the bed of the river Thames;
  - (iii) any piling activities; or
  - (iv) any designation of any anchorage; and
- (b) in Region 2—
  - (i) any dredging which would result (either during the course of the dredging or on completion of the dredging) in the surface of the bed of the river Thames lying at a depth exceeding 5.80 metres below chart datum; or
  - (ii) any other activity which might reasonably be expected to result in any part of the bed of the river Thames lying at a depth exceeding 5.80 metres below chart datum,

subject, in relation to dredging (sub-paragraphs (a)(i) and (b)(i)) or any activity within sub-paragraph (b)(ii), to the addition of any ‘over-dredge’ of 0.5 metres where this occurs in the course of a standard dredging methodology being employed.

(2) In the event that the navigable channel of the river Thames has moved such that any part of it lies within Region 4, the PLA must give notice in writing to TfL as soon as reasonably practicable, and in any event before carrying out any dredging or other activity which as the result of the move requires TfL’s consent under paragraph (1).

(3) A notice given under paragraph (2) has the effect that the restrictions applicable to Region 2 apply to that part of Region 4 within which any part of the navigable channel of the river Thames lies.

(4) Subject to paragraph (5), the PLA must not grant a river works licence under section 66 of the 1968 Act or a dredging licence under section 73 of that Act—

- (a) in respect of any Region, licensing any activity mentioned in paragraph (1)(a) or (1)(b); or
- (b) within any new part of the river Thames, licensing any activity,

without the consent of TfL, which must not be unreasonably withheld or delayed.

(5) Paragraph (4) does not have effect until TfL has notified the PLA of a designation under paragraph (9)(a)(ii).

(6) If TfL receives an application for consent under paragraph (4) and fails to notify the PLA of its decision before the end of the period of 28 days beginning on the day on which the application was received, TfL is deemed to have refused its consent.



(7) If the PLA contravenes the provisions of paragraph (1), or if any activity is carried out by any other person but the provisions of paragraph (4) have not been complied with in relation to the activity, TfL may by notice in writing require the PLA, or the person who is carrying out or has carried out the activity concerned, to remove or abate any works to which the contravention relates (in accordance with the reasonable requirements of TfL) within a reasonable time specified in the notice and to restore the part of the river Thames concerned to its former condition. If the person to whom the notice is given fails to comply with the notice, TfL may carry out the work required by the notice and recover the reasonable costs of so doing from that person.

(8) After receiving from TfL as built drawings under paragraph 36 of Schedule 13, the PLA must as soon as reasonably practicable update its navigation charts to illustrate the position of the Silvertown Tunnel.

(9) TfL must—

(a) designate—

(i) the person to whom notice should be given under paragraph (2); and

(ii) the person to whom an application for consent should be made under paragraph (4),

(and may from time to time alter any such designation); and

(b) give the PLA written notification of any such designation.

(10) For the purposes of this article any reference to a Region is a reference to the corresponding Region shown on the river restrictions plan and the grid coordinates of each Region are set out below and also shown on the river restrictions plan—

	<i>Point reference</i>	<i>Easting</i>	<i>Northing</i>
<i>Region 1</i>	1	539864.6015	180232.1903
	2	539847.9342	180191.5763
	3	539824.5778	180151.609
	4	539803.7353	180122.9387
	34	539861.0333	180050.4348
	35	539866.7186	180056.4268
	36	539902.0684	180100.2796
	37	539929.491	180145.2861
<i>Region 2</i>	5	539795.0307	180110.7227
	6	539763.774	180079.5465
	7	539726.8623	180046.611
	8	539693.5971	180012.3733
	9	539661.4484	179985.9174
	10	539660.3067	179984.9779
	26	539715.2125	179913.7872
	27	539721.437	179922.604
	28	539734.3574	179934.3838
	29	539747.3322	179946.2132
	30	539760.2525	179957.6318
	31	539789.1704	179980.5417
	32	539828.1578	180015.7859
	33	539850.7088	180039.5534
<i>Region 3</i>	11	539648.3561	179975.9124
	12	539614.2705	179951.6187
	13	539610.4355	179951.6816
	14	539592.3566	179937.4617
	15	539578.0493	179928.2188
	16	539571.9822	179924.3817
	17	539568.9903	179922.7014

	18	539559.0454	179917.192
	19	539550.5843	179913.8412
	20	539548.9716	179914.0205
	21	539541.4966	179912.8632
	22	539604.3438	179829.269
	23	539673.1334	179877.5185
	24	539704.0919	179903.7208
<i>Region 4 north</i>	4	539803.7353	180122.9387
	5	539795.0307	180110.7227
	33	539850.7088	180039.5534
	34	539861.0333	180050.4348
<i>Region 4 south</i>	10	539660.3067	179984.9779
	11	539648.3561	179975.9124
	24	539704.0919	179903.7208
	25	539714.0652	179912.162
	26	539715.2125	179913.7872

(11) In this article—

“new part of the river Thames” means any part of the river Thames within the Order limits (not shown on the river restrictions plan and the river restrictions section) that is created as a result of the river walls shown on that plan and section being repaired or replaced so that the width of the river Thames is increased;

“the river restrictions section” means the document of that description listed in Schedule 14 certified by the Secretary of State as the river restrictions section for the purposes of this Order;

“the river restrictions plan” means the document of that description listed in Schedule 14 certified by the Secretary of State as the river restrictions plan for the purposes of this Order; and

“the river Thames” means so much of the river Thames including streams, creeks and watercourses as is below mean high water level.

(12) Any dispute arising between TfL and the PLA under this article is to be determined as provided in article 69 (arbitration).

## PART 5 USER CHARGING

### **The charging policy**

**54.—**(1) TfL must exercise its functions under this Part in accordance with the policies and procedures set out in the charging policy.

(2) TfL may revise the charging policy but only after it has—

(a) consulted in relation to the proposed changes to the charging policy—

- (i) organisations it considers representative of regular users of the tunnels; and
- (ii) the members of STIG;

(b) had regard to the responses to the consultation carried out under sub-paragraph (a); and

(c) submitted the proposed revised charging policy to the Mayor of London for approval.

(3) Any revised charging policy proposed by TfL will only have effect if it is approved by the Mayor of London, who may approve it with or without modifications.

(4) If the Mayor of London intends to approve a revised charging policy with material modifications, the Mayor of London must consult—

- (a) organisations the Mayor considers representative of regular users of the tunnels; and
- (b) the members of STIG,

on the proposed modifications and must have regard to any responses to the consultation received when deciding whether to approve a revised charging policy.

### **Power to charge for use of the tunnels**

**55.**—(1) Subject to and in accordance with the provisions of this Part, from the date when the Silvertown Tunnel is first opened for use by the public, TfL may levy charges in respect of motor vehicles using either of the tunnels.

(2) The charge payable to TfL for use of the tunnels by any motor vehicle is at such a level for that class of vehicle as TfL may from time to time determine.

(3) TfL may determine different charges (including a nil charge)—

- (a) as between the tunnels;
- (b) for different classes of motor vehicles;
- (c) for different times of the day;
- (d) for different days of the week;
- (e) for different directions of travel; and
- (f) for different methods or means of recording, administering, collecting or paying the charge.

(4) Any charge payable to TfL under this article may be waived, suspended, reduced, compounded or discounted by TfL at any time.

(5) TfL must publish the charges determined under paragraph (3) in a statement of charges in such manner as TfL considers appropriate not later than 56 days before the charges are intended to take effect.

(6) The statement of charges published under paragraph (5) must set out, amongst other things—

- (a) the tunnels in respect of which the charges apply;
- (b) the classification of motor vehicles for the purposes of determining the charge payable by any motor vehicle;
- (c) the times at and days on which the charges will be payable;
- (d) the amount of the charges payable;
- (e) exemptions from charges;
- (f) discounts from charges;
- (g) any documents or equipment specified by TfL under article 56(3);
- (h) payment means or methods;
- (i) a summary of the applicable enforcement provisions; and
- (j) any matter related to the provisions applied by article 57(3).

(7) Where any motor vehicle falls within the definition of more than one class of vehicles it is deemed to fall in the class of vehicle bearing the highest charge.

(8) References in this Part to classes of motor vehicles are references to the classes defined or described by reference to any characteristics of the motor vehicles or to any other circumstances.

### **Payment and recovery of charges and penalty charges**

**56.**—(1) The person liable to pay any charge payable under this Part, and any penalty charge imposed in connection with this Part, is the registered keeper of the motor vehicle concerned.

(2) The charge, and any penalty charge, must be paid by such methods or means as may be specified in the statement of charges published under article 55(5) (power to charge for use of the tunnels).

(3) To enable the collection of charges by a particular method or means of payment TfL may specify in the statement of charges—

- (a) documents required to be displayed by, or
- (b) equipment required to be carried on board,

any motor vehicle in respect of which the charge is to be paid using that method or means of payment.

(4) TfL may enter into an agreement with any person (“an advance payment agreement”) under which, on such terms as may be provided by the agreement, charges for a motor vehicle to be used in the Blackwall Tunnel or the Silvertown Tunnel may be paid in advance.

(5) An advance payment agreement may relate to such use of the Blackwall Tunnel or the Silvertown Tunnel, on such number of occasions or during such period, as may be provided by it, may provide for a reduction in the charges payable and may make any other necessary provision including in relation to payment of an administration charge.

(6) Where any charge payable under this Part, and any penalty charge imposed in connection with this Part, remains unpaid after it has become due for payment, TfL may recover from the person liable to pay the charge the amount of the charge together with all other reasonable costs and expenses including administrative expenses, enforcement expenses and interest arising out of any such failure to pay.

(7) TfL may appoint any person to collect as its agent any charge payable under this Part and any penalty charge imposed in connection with this Part.

#### **Penalty charges, examination of motor vehicles, etc.**

**57.**—(1) Regulations made under paragraph 12 (penalty charges) of Schedule 23 to the 1999 Act have effect in relation to the tunnels as if the statement of charges published under article 55(5) (power to charge for use of the tunnels) is a charging scheme made by order under that Schedule, TfL is the charging authority and the tunnels are the charging area.

(2) The following paragraphs of Schedule 23 to the 1999 Act, and any regulations made under them, have effect in relation to the tunnels as if the statement of charges published under article 55(5) is a charging scheme made by order under that Schedule, TfL is the charging authority and the tunnels are the charging area—

- (a) paragraph 14 (installation of equipment on roads or elsewhere);
- (b) paragraph 25 (offences);
- (c) paragraph 26 (examination of motor vehicles, etc.); and
- (d) paragraph 27 (removal or immobilisation of motor vehicles).

(3) Sections 5, 6 and 8 of the Transport for London Act 2008(a) apply to the tunnels as if the statement of charges published under article 55(5) is a TfL scheme within the meaning of that Act.

#### **Application by TfL of charges levied**

**58.** The charges payable under this Part, and any penalty charges imposed in connection with this Part, may be applied by TfL in—

- (a) paying the costs and expenses incurred in planning, consenting, designing, constructing, managing, operating and maintaining the Silvertown Tunnel (including in relation to the implementation of necessary mitigation) and any costs associated with financing any of the same;

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(a) 2008 c.i.

- (b) paying the costs and expenses incurred in managing, operating and maintaining the Blackwall Tunnel and any costs associated with financing any of the same;
- (c) providing such funds as are, or are likely to be, necessary to discharge TfL's obligations contained in any agreement entered into by TfL under article 60 (transfer of benefit of Order, etc.);
- (d) making payment into any maintenance or reserve fund kept in respect of the Silvertown Tunnel or the Blackwall Tunnel; and
- (e) making payments to TfL's general fund.

## PART 6

### MISCELLANEOUS AND GENERAL

#### **Benefit of Order**

**59.**—(1) Subject to article 60 (transfer of benefit of Order, etc.) and paragraph (2), the provisions of this Order conferring functions on TfL have effect solely for the benefit of TfL.

(2) Paragraph (1) does not apply to the works for which the consent is granted by this Order for the express protection, benefit or accommodation of owners and occupiers of land, statutory undertakers and other persons affected by the authorised development.

#### **Transfer of benefit of Order, etc.**

**60.**—(1) TfL may, regardless of any provision in any enactment, enter into agreements—

- (a) to transfer, charge or otherwise dispose of to another person (“the transferee”) any interest of TfL in the authorised development or TfL's right to construct, maintain, use or operate the authorised development; or
- (b) to grant to another person (“the grantee”) for a period agreed between TfL and the grantee any interest of TfL in the authorised development or TfL's right to construct, maintain, use or operate the authorised development; and
- (c) that are connected with or consequential on any agreement entered into under subparagraph (a) or (b),

and, with the consent of the Mayor of London, TfL may provide for the transferee, the grantee or another person to exercise or be responsible for any functions of TfL relevant to those agreements, including any of its functions under this Order, either exclusively or concurrently with TfL or any other person.

(2) Any agreement referred to in paragraph (1) may provide (to the extent TfL considers necessary in connection with the design, construction, financing, funding, maintenance, use or operation of the authorised development) for—

- (a) any matters that are connected with the matters referred to in that paragraph or are consequential on them;
- (b) the financing or defraying of, or the making of contributions by TfL or by any other person towards, the cost of designing, constructing, maintaining, using or operating the authorised development;
- (c) TfL to provide services and facilities to the transferee, grantee or any other person on such terms (including as to payment) as the parties think fit; and
- (d) TfL or the transferee, grantee or any other person to provide guarantees, indemnities or any other form of security.

(3) Where an agreement has been made under paragraph (1), references in this Order, or in any document certified under article 66, to TfL are to be read as including references to the transferee, the grantee or any other person who may exercise, enjoy or be responsible for any functions of TfL pursuant to that agreement.

(4) Paragraph (3) does not apply to—

- (a) the code of construction practice mentioned in paragraph 5 of Schedule 2 (requirements); and
- (b) references to “the TfL Board” in Procedure 1 and Procedure 2 of the charging policy.

(5) The exercise by any person further to any agreement made under paragraph (1), of the functions conferred by or under this Order or any other enactment, is subject to the same restrictions, liabilities and obligations as would apply by or under this Order if those powers were exercised by TfL.

(6) Subject to paragraph (7), any consent given by the Mayor of London under paragraph (1) may be given subject to such reasonable terms and conditions as the Mayor considers appropriate in the circumstances.

(7) The Mayor of London must not give consent under paragraph (1) to any proposal for the transfer of any compulsory acquisition or temporary possession function unless the Secretary of State has certified in writing that the Secretary of State is satisfied that the person proposed to exercise or be responsible for that function has sufficient resources to discharge all associated compensation liabilities.

(8) TfL must within 10 business days after entering into an agreement under paragraph (1) in relation to which any functions of TfL in respect of the deemed marine licence granted by article 63 are transferred to another party, notify the MMO in writing, and the notice must include particulars of the other party to the agreement under paragraph (1) and details of the extent, nature and scope of the functions transferred or otherwise dealt with which relate to the deemed marine licence granted under article 63.

(9) In this article—

- (a) “compulsory acquisition or temporary possession function” means any function of TfL under articles 19, 22, 23, 26, 28, 29 and 30;
- (b) “functions” means statutory and other powers, duties, rights, interests and obligations;
- (c) references to the authorised development include references to any land held in connection with the authorised development; and
- (d) references to the authorised development include references to the provisions of this Order relating to the use and operation of the Blackwall Tunnel.

#### **Application of landlord and tenant law**

**61.—**(1) This article applies to any agreement entered into by TfL under article 60 (transfer of benefit of Order, etc.) so far as it relates to the terms on which any land is subject to a lease granted by or under that agreement.

(2) No enactment or rule of law regulating the rights and obligations of landlords and tenants prejudices the operation of any agreement to which this article applies.

(3) No enactment or rule of law to which paragraph (2) applies is to apply in relation to the rights and obligations of the parties to any lease granted by or under any such agreement so as to—

- (a) exclude or in any respect modify any of the rights and obligations of those parties under the terms of the lease, whether with respect to the termination of the tenancy or any other matter;
- (b) confer or impose on any such party any right or obligation arising out of or connected with anything done or omitted on or in relation to land which is the subject of the lease, in addition to any such right or obligation provided for by the terms of the lease; or
- (c) restrict the enforcement (whether by action for damages or otherwise) by any party to the lease of any obligation of any other party under the lease.

## Traffic regulation measures

**62.**—(1) Subject to the provisions of this article, TfL may, for the purposes of the authorised development—

- (a) make provision, in respect of those roads specified in column (2) of Part 1 of Schedule 11 (traffic regulation measures, etc.), as to the speed limit and restricted road status of those roads as specified in column (3) of that Part of that Schedule;
- (b) make provision, in respect of those roads specified in column (2) of Part 2 of Schedule 11, as to the clearway status of, and the application of other prohibitions to, those roads as specified in column (3) of that Part of that Schedule;
- (c) make provision, in respect of those roads specified in column (2) of Part 3 of Schedule 11, as to prescribed routes to apply to those roads as specified in column (3) of that Part of that Schedule;
- (d) in respect of those roads specified in column (2) of Part 4 of Schedule 11, revoke or vary the orders specified in column (3) of that Part of that Schedule in the manner specified in column (4) of that Part of that Schedule;
- (e) vary the orders specified in column (2) of Part 5 of Schedule 11 in the manner specified in column (3) of that Part of that Schedule; and
- (f) revoke, amend or suspend in whole or in part any order made, or having effect as if made, under the 1984 Act in so far as it is inconsistent with any prohibition, restriction or other provision made by TfL under this paragraph.

(2) No speed limit imposed by or under this Order applies to vehicles falling within regulation 3(4) of the Road Traffic Exemptions (Special Forces) (Variation and Amendment) Regulations 2011(a) when used in accordance with regulation 3(5) of those regulations.

(3) Without limiting the scope of the specific powers conferred by paragraph (1) but subject to the provisions of this article and the consent of the traffic authority in whose area the road concerned is situated, TfL may, in so far as necessary or expedient for the purposes of, in connection with, or in consequence of the construction, maintenance and operation of the authorised development—

- (a) revoke, amend or suspend in whole or in part any order made, or having effect as if made, under the 1984 Act;
- (b) permit, prohibit or restrict the stopping, waiting, loading or unloading of vehicles on any road;
- (c) authorise the use as a parking place of any road;
- (d) make provision as to the direction or priority of vehicular traffic on any road; and
- (e) permit or prohibit vehicular access to any road,

either at all times or at times, on days or during such periods as may be specified by TfL.

(4) The power conferred by paragraph (3) may be exercised at any time prior to the expiry of 24 months from the opening of the Silvertown Tunnel for public use but subject to paragraph (7) any prohibition, restriction or other provision made under paragraph (3) may have effect both before and after the expiry of that period.

(5) TfL must not exercise the powers conferred by paragraph (1) or (3) unless TfL has—

- (a) given not less than—
  - (i) 12 weeks' notice in writing of TfL's intention so to do in the case of a prohibition, restriction or other provision intended to have effect permanently; or
  - (ii) 4 weeks' notice in writing of TfL's intention so to do in the case of a prohibition, restriction or other provision intended to have effect temporarily,

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(a) 2004 c.18.

to the chief officer of police and to the traffic authority in whose area the road is situated and that notice must include the time periods within which the traffic authority may specify the manner in which, under sub-paragraph (b), TfL must advertise its intention to exercise the powers conferred by paragraph (1) or (3); and

(b) advertised TfL's intention in such manner as the traffic authority may specify in writing within 28 days of its receipt of notice of TfL's intention in the case of sub-paragraph (a)(i), or within 7 days of its receipt of notice of TfL's intention in the case of sub-paragraph (a)(ii).

(6) Any prohibition, restriction or other provision made by TfL under paragraph (1) or (3)—

(a) has effect as if duly made by, as the case may be—

(i) the traffic authority in whose area the road is situated, as a traffic regulation order under the 1984 Act; or

(ii) the local authority in whose area the road is situated, as an order under section 32 (power of local authorities to provide parking spaces) of the 1984 Act, and the instrument by which it is effected may specify savings and exemptions to which the prohibition, restriction or other provision is subject;

(b) is deemed to be a traffic order for the purposes of, as the case may be—

(i) Schedule 7 (road traffic contraventions subject to civil enforcement) to the 2004 Act; or

(ii) Part 2 (bus lanes) to the London Local Authorities Act 1996(a); and

(c) must be advertised in the same manner as TfL's intention to make the prohibition, restriction or other provision was under paragraph (5)(b).

(7) Any prohibition, restriction or other provision made under this article may be suspended, varied or revoked by TfL from time to time by subsequent exercise of the powers conferred by paragraph (1) or (3) within a period of 24 months from the opening of the Silvertown Tunnel for public use.

(8) Before exercising the powers conferred by paragraphs (1) or (3) TfL must consult such persons as TfL considers necessary and appropriate and have regard to the representations made to TfL by any such person.

(9) In the case of Saffron Avenue as identified in Part 2 of Schedule 11 (and shown on sheet 4 of the traffic regulation measures (clearways and prohibitions) plans), the powers conferred by this article cannot be exercised by TfL without the consent of the owner of that road.

(10) Expressions used in this article and in the 1984 Act have the same meaning in this article as in that Act.

### **Deemed marine licence**

63. TfL is granted a deemed marine licence under Part 4 (marine licensing) of the 2009 Act to carry out the activities specified in Part 1 of Schedule 12 (deemed marine licence), subject to the licence conditions set out in Part 2 of that Schedule.

### **Defence to proceedings in respect of statutory nuisance**

64.—(1) Where proceedings are brought under section 82(1) (summary proceedings by person aggrieved by statutory nuisance) of the Environmental Protection Act 1990(b) in relation to a nuisance falling within paragraph (g) of section 79(1) (noise emitted from premises so as to be prejudicial to health or a nuisance) of that Act no order is to be made, and no fine may be imposed, under section 82(2) of that Act if—

(a) the defendant shows that the nuisance—

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(a) 1996 c.ix.

(b) 1990 c.43; there are amendments that are not relevant to this Order.



- (i) relates to premises used by TfL for the purposes of or in connection with the construction or maintenance of the authorised development and that the nuisance is attributable to the carrying out of the authorised development in accordance with a notice served under section 60 (control of noise on construction site), or a consent given under section 61 (prior consent for work on construction site) of the Control of Pollution Act 1974(a);
  - (ii) is a consequence of the construction or maintenance of the authorised development and that it cannot reasonably be avoided; or
- (b) the defendant shows that the nuisance is a consequence of the use of the authorised development and that it cannot reasonably be avoided.
- (2) Section 61(9) of the Control of Pollution Act 1974 does not apply where the consent relates to the use of premises by TfL for the purposes of or in connection with the construction or maintenance of the authorised development.

### **Protective provisions**

65. Schedule 13 (protective provisions) has effect.

### **Certification of documents**

66.—(1) As soon as practicable after the making of this Order, TfL must submit copies of each of the plans and documents set out in Schedule 14 to the Secretary of State for certification as true copies of those plans and documents.

(2) Where any plan or document set out in Schedule 14 requires to be amended to reflect the terms of the Secretary of State’s decision to make this Order, that plan or document in the form amended to the Secretary of State’s satisfaction is the version of the document required to be submitted for certification under paragraph (1).

(3) A plan or document so certified is admissible in any proceedings as evidence of the contents of the document of which it is a copy.

(4) TfL must, following certification of the plans and documents in accordance with paragraph (1), make those plans and documents available in electronic form for inspection by members of the public.

### **Silvertown Tunnel Implementation Group**

67.—(1) TfL must establish and fund the reasonable secretarial and administrative costs of a consultative body to be known as the Silvertown Tunnel Implementation Group (in this Order referred to as “STIG”).

(2) STIG will comprise one representative of each of the following bodies—

- (a) TfL;
- (b) the GLA;
- (c) the Council of the London Borough of Barking and Dagenham;
- (d) the Council of the London Borough of Bexley;
- (e) the Council of the London Borough of Bromley;
- (f) the City of London Corporation;
- (g) the Council of the Royal Borough of Greenwich;
- (h) the Council of the London Borough of Hackney;
- (i) the Council of the London Borough of Lewisham;

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(a) 1974 c.40. Sections 61(9) and 65(8) were amended by section 162 of, and paragraph 15 of Schedule 3 to, the Environmental Protection Act 1990, c.25. There are other amendments to the 1974 Act which are not relevant to this Order.

- (j) the Council of the London Borough of Newham;
- (k) the Council of the London Borough of Redbridge;
- (l) the Council of the London Borough of Southwark;
- (m) the Council of the London Borough of Tower Hamlets;
- (n) the Council of the London Borough of Waltham Forest; and
- (o) Highways England, or any other person which in place of Highways England—
  - (i) is for the time being the traffic authority for the Dartford river crossings between Dartford, Kent and Thurrock, Essex; or
  - (ii) is for the time being the traffic authority for the proposed new river crossing known as the Lower Thames Crossing east of Gravesend, Kent and Tilbury, Essex, if the crossing is granted development consent under the 2008 Act.

(3) Each body mentioned in paragraph (2)(b) to (2)(o) above must notify TfL of the identity of its nominated representative.

(4) If any person nominated under paragraph (3) cannot attend a STIG meeting, the nominating body may nominate a person (on an occasional or standing basis, as it determines) to act as the nominating body's substitute representative at the meeting.

(5) TfL must consult the other members of STIG on the following matters relating to implementation of the authorised development—

- (a) the extent, nature and duration of monitoring to be implemented in accordance with the monitoring and mitigation strategy;
- (b) the proposals for the initial bus services that will operate through the tunnels when the Silvertown Tunnel opens for public use;
- (c) the monitoring reports produced in accordance with the monitoring and mitigation strategy;
- (d) any proposed revisions to the charging policy under article 54; and
- (e) the level of charges required to be paid for use of the tunnels under article 55 and any exemptions and discounts.

(6) In taking any decision in respect of any of the matters set out in paragraph (5), TfL must have regard to any recommendations or representations made by a member of STIG in response to the consultation carried out under that paragraph.

(7) Unless otherwise agreed by STIG, TfL must convene a meeting of STIG, chaired by a representative elected by the members of STIG, at least twice a year on a date to be determined by TfL, including on each occasion that TfL publishes a monitoring report in accordance with the monitoring and mitigation strategy.

(8) The first meeting of STIG must be held not less than three years before the date on which the Silvertown Tunnel is expected to open for public use.

(9) Part VA of the Local Government Act 1972 (Access to meetings and documents of certain authorities, committees and sub-committees) and the Public Bodies (Admission to Meetings) Act 1960 do not apply to STIG or to its meetings or proceedings.

(10) TfL must publish on its website agendas, reports, minutes and other relevant documents relating to the operation of STIG as soon as reasonably practicable after they become available.

### **Service of notices**

**68.**—(1) A notice or other document required or authorised to be served for the purposes of this Order may be served—

- (a) by post;
- (b) by delivering it to the person on whom it is to be served or to whom it is to be given or supplied; or

(c) with the consent of the recipient and subject to paragraphs (5) to (8) by electronic transmission.

(2) Where the person on whom a notice or other document to be served for the purposes of this Order is a body corporate, the notice or document is duly served if it is served on the secretary or clerk of that body.

(3) For the purposes of section 7 (references to service by post) of the Interpretation Act 1978(a) as it applies for the purposes of this article, the proper address of any person in relation to the service on that person of a notice or document under paragraph (1) is, if that person has given an address for service, that address, and otherwise—

(a) in the case of the secretary or clerk of a body corporate, the registered or principal office of that body; and

(b) in any other case, the last known address of that person at the time of service.

(4) Where for the purposes of this Order a notice or other document is required or authorised to be served on a person as having any interest in, or as the occupier of, land and the name or address of that person cannot be ascertained after reasonable enquiry, the notice may be served by—

(a) addressing it to that person by name or by the description of “owner”, or as the case may be “occupier”, of the land (describing it); and

(b) either leaving it in the hands of a person who is or appears to be resident or employed on the land or leaving it conspicuously affixed to some building or object on or near the land.

(5) Where a notice or other document required to be served or sent for the purposes of this Order is served or sent by electronic transmission the requirement is taken to be fulfilled only where—

(a) the recipient of the notice or other document to be transmitted has given consent to the use of electronic transmission in writing or by electronic transmission;

(b) the notice or document is capable of being accessed by the recipient;

(c) the notice or document is legible in all material respects; and

(d) the notice or document is in a form sufficiently permanent to be used for subsequent reference.

(6) Where the recipient of a notice or other document served or sent by electronic transmission notifies the sender within 7 days of receipt that the recipient requires a paper copy of all or part of that notice or other document the sender must provide such a copy as soon as reasonably practicable.

(7) Any consent to the use of electronic communication given by a person may be revoked by that person in accordance with paragraph (8).

(8) Where a person is no longer willing to accept the use of electronic transmission for any of the purposes of this Order—

(a) that person must give notice in writing or by electronic transmission revoking any consent given by that person for that purpose; and

(b) such revocation is final and takes effect on a date specified by the person in the notice but that date must not be less than 7 days after the date on which the notice is given.

(9) This article must not be taken to exclude the employment of any method of service not expressly provided for by it.

(10) In this article “legible in all material respects” means that the information contained in the notice or document is available to that person to no lesser extent than it would be if served, given or supplied by means of a notice or document in printed form.

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(a) 1978 c.30.

## Arbitration

69. Except where otherwise expressly provided for in this Order and unless otherwise agreed in writing between the parties, any difference under any provision of this Order (other than a difference which falls to be determined by the tribunal) must be referred to and settled by a single arbitrator to be agreed between the parties or, failing agreement, to be appointed on the application of either party (after giving notice in writing to the other) by the President of the Institution of Civil Engineers.

## Consents, agreements and approvals

70.—(1) Where any application is made to a relevant authority, the consent, agreement or approval concerned must, if given, be given in writing and is not to be unreasonably withheld or delayed.

(2) If a relevant authority which has received an application fails to notify TfL of its decision before the end of the period of 28 days beginning with the date on which the application was received, the relevant authority is deemed to have given its consent, agreement or approval, as the case may be.

(3) Any application to which this article applies must include a written statement that the provisions of paragraph (2) apply to that application.

(4) In this article—

“application” means an application or request for any consent, agreement or approval required or contemplated by articles 6 (street works), 8 (construction and maintenance of new, altered or diverted streets), 10 (temporary stopping up and restriction of use of streets), 11 (access to works), 16 (authority to survey and investigate land) and 62 (traffic regulation measures); and

“relevant authority” means a planning authority, a traffic authority, a highway authority or a street authority.

Signed by authority of the Secretary of State for Transport

Address  
Date

*Name*  
Title  
Department for Transport

# SCHEDULES

## SCHEDULE 1

Articles 2 and 4

### AUTHORISED DEVELOPMENT

In—

the Royal Borough of Greenwich in respect of part of Work No. 1 and the whole of Work Nos. 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 and 14; and

in the London Borough of Newham in respect of part of Work No. 1 and the whole of Work Nos. 15, 16, 17, 18, 19, 20A and 20B,

a development which, in accordance with a direction made by the Secretary of State for Transport on 25 June 2012 under section 35 of the 2008 Act, is development for which development consent is required, and associated development within the meaning of section 115(2) of the 2008 Act, comprising—

**Work No. 1** – shown on sheets 1, 2 and 3 of the works plans and being the construction of a twin bore highway tunnel for a length of approximately 1,440 metres from a portal on the Greenwich peninsula in the Royal Borough of Greenwich, and passing beneath the river Thames, to a portal in Silvertown in the London Borough of Newham, to include—

- (a) the construction of a section of cut and cover tunnel, between its portal on the Greenwich peninsula (the South Portal) and the tunnel-boring machine launch chamber located on the Greenwich peninsula, and comprising either a cellular tunnel or two tunnels, one for northbound traffic and one for southbound traffic with two-lane carriageways in each direction, and including the south portal and cross-passages connecting the two tunnels;
- (b) the construction of a section of bored tunnel, comprising two tunnels, one for northbound traffic and one for southbound traffic, with two-lane carriageways in each direction, between the tunnel-boring machine launch chamber located in Silvertown and the tunnel-boring machine launch chamber located on the Greenwich peninsula, including cross-passages connecting the two tunnels;
- (c) the construction of a section of cut and cover tunnel between its portal in Silvertown (the North Portal) and the tunnel-boring machine launch chamber located in Silvertown, and comprising either a single cellular tunnel or two tunnels, one for northbound traffic and one for southbound traffic with two-lane carriageways in each direction, and including the north portal and cross-passages connecting the two tunnels;
- (d) the construction of an anti-recirculation wall at the South Portal;
- (e) the construction of two tunnel-boring machine launch chambers, one in the London Borough of Newham (Silvertown) and one in the Royal Borough of Greenwich (Greenwich peninsula); and
- (f) the construction (and subsequent removal on completion of construction of the authorised development) of a temporary decked car park situated on land lying between West Parkside and Millennium Way, and being required in consequence of the construction of Work Nos. 1 (a) and (d) (Greenwich peninsula) to provide replacement car parking facilities for the O2 Arena during construction of the authorised development.

**Work No. 2** – shown on sheet 1 of the works plans and being the improvement of the existing two-lane A102 Blackwall Tunnel Southern Approach southbound carriageway over a length of approximately 595 metres from a point approximately 260 metres south of the existing Blackwall Tunnel Southbound South Portal to a point approximately 20 metres south of the existing gantry on the existing slip road leading to Millennium Way, to include—

- (a) the improvement of the existing A102 Blackwall Tunnel Southern Approach southbound two-lane carriageway;
- (b) the construction of retaining walls of varying heights in highway verges to retain the A102 Blackwall Tunnel Southern Approach southbound carriageway;
- (c) the construction of a new overbridge to carry the realigned A102 Blackwall Tunnel Southern Approach southbound two-lane carriageway over the proposed Silvertown Tunnel Southern Approach northbound carriageway (Work No. 5);
- (d) the widening of the existing A102 Blackwall Tunnel Southern Approach southbound carriageway to create new two lanes and a weaving section between the Silvertown Tunnel Southern Approach southbound carriageway (Work No. 6) and the existing diverge slip road leading to Millennium Way (Work No. 7);
- (e) the improvement of the central reservation between the improved A102 Blackwall Tunnel Southern Approach northbound and southbound carriageways;
- (f) the construction of new cross-over facilities in the central reservation;
- (g) the construction of new overhead signage and traffic management equipment gantries;
- (h) the construction of new access and egress for premises known as Studio 338, as shown on sheet 1 of the rights of way and access plans;
- (i) the provision of improved non-motorised user route alongside the improved A102 Blackwall Tunnel Southern Approach southbound carriageway;
- (j) the provision of planting and landscaping;
- (k) the removal of an existing gas pressure reduction station; and
- (l) the removal of redundant existing gantries.

**Work No. 3** – shown on sheet 1 of the works plans and being the improvement of the existing two-lane A102 Blackwall Tunnel Southern Approach northbound carriageway over a length of approximately 500 metres from a point level with the existing gantry on the existing southbound diverge slip road leading to Millennium Way to its tie-in with the existing carriageway at a point approximately 65 metres north of the existing Blackwall Tunnel Gatehouse, to include—

- (a) the improvement of the existing two-lane A102 Blackwall Tunnel Southern Approach northbound carriageway;
- (b) the widening of the existing A102 Blackwall Tunnel Southern Approach northbound carriageway to accommodate a new two-lane diverge slip road to the northbound carriageway of the proposed Silvertown Tunnel Southern Approach northbound (Work No. 5);
- (c) works associated with the improvement of the central reservation between the improved A102 Blackwall Tunnel Southern Approach northbound and southbound carriageways (Work No. 2(e));
- (d) works associated with the construction of new cross-over facilities in the central reservation (Work No. 2(f));
- (e) works associated with the construction of new overhead signage and traffic management equipment gantries (Work No. 2(g));
- (f) the provision of planting and landscaping; and
- (g) the removal of redundant existing gantries.

**Work No. 4** – shown on sheet 1 of the works plans and being the works required for the improvement of the existing Tunnel Avenue from a point approximately 65 metres south of a point level with the junction of the existing Tunnel Avenue with Morden Wharf Road, to a point adjacent to the location of the existing Blackwall Tunnel Gatehouse, to include—

- (a) works to improve the alignment of the existing Tunnel Avenue to provide a segregated and independent local two-way carriageway over a length of approximately 485 metres;

- (b) the construction of new (replacement) private means of access to local business premises as shown on sheet 1 of the rights of way and access plans, and replacement car parking;
- (c) the construction of an improved bus-only access to, and operational egress from, the A102 Blackwall Tunnel Southern Approach northbound carriageway (Work No. 3);
- (d) the construction of a new hardened verge between the improved Tunnel Avenue and the A102 Blackwall Tunnel Southern Approach northbound carriageway (Work No. 3);
- (e) the construction of new overhead signage and traffic management equipment gantries;
- (f) the removal of redundant existing gantries; and
- (g) the provision of improved non-motorised user route alongside the improved Tunnel Avenue.

**Work No. 5** – shown on sheet 1 of the works plans and being the construction of a new two-lane carriageway over a length of approximately 150 metres, forming the proposed Silvertown Tunnel Southern Approach northbound carriageway from the proposed diverge nosing (from Work No. 3) to the proposed South Portal of the Silvertown Tunnel (Greenwich), to include—

- (a) the construction of a two-lane open-cut carriageway, with a retaining wall of varied height in the western verge, passing under the new overbridge carrying the improved A102 Blackwall Tunnel Southern Approach southbound carriageway (Work No. 2);
- (b) the construction of a ground slab beneath the carriageway; and
- (c) the construction of a new cross-over facility in the central reservation.

**Work No. 6** – shown on sheet 1 of the works plans and being the construction of a new two-lane carriageway over a length of approximately 160 metres, forming the proposed Silvertown Tunnel Southern Approach southbound carriageway from the proposed South Portal of the Silvertown Tunnel (Greenwich) to the proposed merge nosing with the improved A102 Blackwall Tunnel Southern Approach southbound carriageway (Work No. 2), to include—

- (a) the construction of a two-lane open-cut carriageway with a retaining wall of varied height in the eastern verge and maintenance access;
- (b) the construction of a ground slab beneath the carriageway; and
- (c) the construction of a new cross-over facility in the central reservation.

**Work No. 7** – shown on sheet 1 of the works plans and being the improvement of approximately 45 metres of the A102 Blackwall Tunnel Southern Approach southbound carriageway two-lane diverge slip road leading to the existing Millennium Way, to include works to tie in the improved highway with the existing highway.

**Work No. 8** – shown on sheet 1 of the works plans and being the construction of a new cross-over between the northbound and southbound carriageways of the improved A102 Blackwall Tunnel Southern Approach (Work Nos. 2 and 3).

**Work No. 9** – shown on sheet 1 of the works plans and being the construction of a new bus-only carriageway, with a combined length of approximately 185 metres, linking the existing A102 Blackwall Tunnel Southern Approach southbound carriageway with the existing northbound carriageway of Millennium Way and linking to the new bus-only carriageway (Work No. 10), including—

- (a) the construction of diverge bus-only access carriageway from the existing A102 Blackwall Tunnel Southern Approach southbound carriageway (to the north of Work No. 2);
- (b) the construction of a new bus-only carriageway with a length of approximately 35 metres providing a direct link between the new bus-only diverge from the southbound A102 Blackwall Tunnel Southern Approach carriageway (Work No. 9(a)) and the new bus-only merge to the northbound Silvertown Tunnel Southern Approach (Work No. 10); and
- (c) the construction of a new junction for a bus-only egress onto the existing northbound carriageway of Millennium Way.

**Work No. 10** – shown on sheet 1 of the works plans and being the improvement of the existing Pavilion Lane to provide a new bus-only carriageway, over a length of approximately 215 metres linking the existing northbound carriageway of Millennium Way with the northbound carriageway of the proposed Silvertown Tunnel Southern Approach (Work No. 5), to include—

- (a) the construction of a new bus-only junction to provide access from the existing northbound carriageway of Millennium Way;
- (b) the construction of a new carriageway and a retaining wall of varied height in the eastern verge with maintenance access;
- (c) the construction of a new bus-only junction to provide access to the proposed Silvertown Tunnel Southern Approach northbound carriageway (Work No. 5);
- (d) the construction of a ground slab beneath the carriageway;
- (e) the construction of a drainage attenuation tank and associated infrastructure; and
- (f) the construction of a replacement private means of access to an existing electricity substation, from the northbound carriageway of the existing Millennium Way, as shown on sheet 1 of the rights of way and access plans.

**Work No. 11** – shown on sheet 1 of the works plans and being the construction of a new Boord Street foot and cycle bridge to provide access for non-motorised users across the A102 Blackwall Tunnel Southern Approach and Tunnel Avenue in the vicinity of the western end of Boord Street, to include—

- (a) works to remove the existing Boord Street footbridge;
- (b) the construction of a new bridge deck and parapets spanning over the improved A102 Blackwall Tunnel Southern Approach southbound and northbound carriageways (Work Nos. 2 and 3) and Tunnel Avenue (Work No. 4);
- (c) the construction of ramps and staircases to serve the new foot and cycle bridge; and
- (d) the construction of a non-motorised user route across the proposed new Boord Street foot and cycle bridge as shown on sheet 1 of the rights of way and access plans.

**Work No. 12** – shown on sheet 1 of the works plans and being the works associated with the construction of a Silvertown Tunnel services compound in the vicinity of the South Portal (Greenwich), to include—

- (a) the construction of tunnel services buildings;
- (b) the construction of a new private means of access to the tunnel services compound from the existing northbound carriageway of Millennium Way, as shown on sheet 1 of the rights of way and access plans;
- (c) the construction of internal access roads and operational parking facilities;
- (d) the construction of replacement private means of access to land surrounding the existing gasholder, from the existing northbound carriageway of Millennium Way, as shown on sheet 1 of the rights of way and access plans;
- (e) the provision of security fencing and bollards; and
- (f) the provision of landscaping.

**Work No. 13** – shown on sheet 1 of the works plans and being the construction of a replacement gas pressure reduction station (PRS) (removed under Work No. 2) at a location to the west of the existing northbound carriageway of Millennium Way, including a new private means of access as shown on sheet 1 of the rights of way and access plans.

**Work No. 14** – shown on sheet 1 of the works plans and being the permanent diversion of statutory undertakers' apparatus and works associated with such diversions, located in Boord Street and Millennium Way.

**Work No. 15** – shown on sheet 3 of the works plans and being the construction of the new Silvertown Tunnel Northern Approach, to include—



- (a) the improvement of a length of approximately 140 metres of the existing northbound and southbound two-lane standard carriageways of the A1020 Lower Lea Crossing from the point at which it crosses the DLR to its junction with the improved Tidal Basin Roundabout (Work No. 16);
- (b) the construction of a two-lane carriageway over a length of approximately 70 metres forming the new southbound carriageway of the Silvertown Tunnel Northern Approach, crossing through the improved Tidal Basin Roundabout (Work No. 16);
- (c) the construction of a new open-cut highway over a length of approximately 220 metres with two-lane carriageways in each direction from the junction with the improved Tidal Basin Roundabout (Work No. 16) to the proposed North Portal of the Silvertown Tunnel (Silvertown) (Work No. 1) and with retaining walls of varied height in both verges;
- (d) the construction of an anti-recirculation wall at the North portal;
- (e) the construction of a ground slab beneath the carriageway;
- (f) the construction of a new central reservation between the northbound and southbound carriageways of the new Silvertown Tunnel Northern Approach, including a new cross-over facility;
- (g) the construction of a new overhead signage and traffic management equipment gantry;
- (h) the construction of an improved non-motorised user route along the improved A1020 Lower Lea Crossing with crossing points;
- (i) the construction of a new slip road from the southbound carriageway of the improved A1020 Lower Lea Crossing linking to the improved Tidal Basin Roundabout (Work No. 16);
- (j) the construction of a new slip road between the existing A1020 Silvertown Way northbound off-slip and the new Silvertown Tunnel Northern Approach southbound carriageway; and
- (k) the construction of drainage attenuation tanks and associated infrastructure behind the retaining walls of the open cut section of the new Silvertown Tunnel Northern Approach.

**Work No. 16** – shown on sheet 3 of the works plans and being the improvement of the existing Tidal Basin Roundabout for a length of approximately 415 metres, to include—

- (a) the construction of an improved, signalised three-lane roundabout gyratory section;
- (b) the construction of an improved private means of access to the DLR assets, as shown on sheet 3 of the rights of way and access plans;
- (c) the construction of an improved private means of access to existing statutory undertakers' apparatus, as shown on sheet 3 of the rights of way and access plans;
- (d) the construction of an improved and signal-controlled non-motorised user route around and across the improved Tidal Basin Roundabout; and
- (e) the construction of a drainage attenuation tank and associated infrastructure within the improved Tidal Basin Roundabout.

**Work No. 17** – shown on sheet 3 of the works plans and being the works associated with the construction of a Silvertown tunnel services compound in the vicinity of the North Portal (Silvertown), to include—

- (a) the construction of tunnel services buildings;
- (b) the construction of a new private means of access to the tunnel services compound from the realigned Dock Road (Work No. 18) as shown on sheet 3 of the rights of way and access plans;
- (c) the construction of internal access roads and operational parking facilities;
- (d) the construction of a drainage attenuation tank and associated infrastructure to the west of the proposed Silvertown Tunnel Northern Approach (Work No, 15);
- (e) the provision of security fencing and bollards; and

- (f) the provision of landscaping.

**Work No. 18** – shown on sheet 3 of the works plans and being the construction of Dock Road on a new alignment, for a length of approximately 430 metres, to include—

- (a) the construction of a new two-lane highway with a single carriageway in each direction, from a point adjacent to the existing stairs from Dock Road to Silvertown Way, to a junction with the improved Tidal Basin Roundabout (Work No. 16), and including a length of new highway leading to the new private means of access to the tunnel services compound (Work No. 17(b));
- (b) the construction of new non-motorised user routes including pedestrian and cyclist crossings;
- (c) the construction of replacement private means of accesses to local business premises, as shown on sheet 3 of the rights of way and access plans;
- (d) the construction of a new junction with Scarab Close as shown on sheet 3 of the rights of way and access plans including a new retaining wall of varying height to support the existing DLR embankment; and
- (e) the construction of a drainage attenuation tank and associated infrastructure to the west of the proposed Silvertown Tunnel Northern Approach (Work No. 15) including a new drainage outfall connecting to the existing drainage culvert passing beneath the existing DLR embankment.

**Work No. 19** – shown on sheet 3 of the works plans and being the improvement to the existing Tidal Basin Road for a length of approximately 280 metres, to include resurfacing works to the existing Tidal Basin Road from the junction with the improved Tidal Basin Roundabout (Work No. 16) to the existing junction with the A1011/A1020 Silvertown Way southbound carriageway.

**Work No. 20A** – shown on sheet 3 of the works plans and being the construction (and subsequent removal on completion of construction of the authorised development) of a temporary jetty for the transportation of materials associated with the construction of the authorised development, adjacent to the existing Royal Victoria Dock outfall on the north bank of the river Thames in the area known as Thames Wharf, comprising—

- (a) the jetty; and
- (b) related dredging works and construction operations (including piling and scour preventative and remedial works) within the river Thames,

and associated works required for strengthening of the existing river wall; all such works and operations to be within the area delineated in relation to Work No. 20A and shown on sheet 3 of the works plans.

**Works No. 20B** – shown on sheet 3 of the works plans and comprising—

- (a) dredging works and construction operations (including piling and scour preventative and remedial works) within the river Thames;
- (b) the placing of any mooring buoy, or any buoy for navigation or other purposes;
- (c) associated works required for strengthening of the existing river wall related to Work No. 20B; and
- (d) the alteration, cleaning, modification and refurbishment of the existing NAABSA berth to enable it to be used in connection with the construction of the authorised development,

all such works and operations to be within the area delineated in relation to Work No. 20B and shown on sheet 3 of the works plans.

And for the purposes of or in connection with the construction of any of the works and other development mentioned above, ancillary or related development consisting of—

works within highways, including—

- (a) alteration of the layout of any street permanently or temporarily, including increasing the width of the carriageway of any street by reducing the width of any kerb, footway, cycleway, or verge within the street; and altering the level or increasing the width of any such kerb, footway, cycleway or verge within the street, works for the strengthening, improvement, repair, maintenance or reconstruction of any street;
- (b) street works, including breaking up or opening a street, or any sewer, drain or tunnel under it, and tunnelling or boring under a street;
- (c) relocation or provision of new road traffic signs, signals, street lighting and carriageway lane markings; and
- (d) works to place, alter, remove or maintain street furniture or apparatus (including statutory undertakers' apparatus) in, under or above a street, including mains, sewers, drains, pipes, cables, cofferdams, lights, fencing and other boundary treatments;

works within the river Thames (to the extent that they are situated within the Order limits) to—

- (e) alter, clean, modify, dismantle, refurbish, reconstruct, remove, relocate or replace any work or structure (including river walls);
- (f) carry out excavations and clearance, deepening, scouring, cleansing, dumping and pumping operations;
- (g) carry out dredging, which may include such dredging works as may be required to provide side slopes or otherwise secure the dredged area against situation, scouring or collapse;
- (h) use, appropriate, sell, deposit or otherwise dispose of any materials (including liquids but excluding any wreck within the meaning of the Merchant Shipping Act 1995(a)) obtained in carrying out any such operations;
- (i) remove or relocate any mooring (including NAABSAs (Not Always Afloat But Safely Aground) being berths in tidal waters, which are exposed at low water);
- (j) remove and relocate any vessel or structure sunk, stranded, abandoned, moored or left (whether lawfully or not);
- (k) temporarily remove, alter, strengthen, interfere with, occupy and use the banks, bed, foreshore, waters and walls of the river, and in the event that the level of any part of the bed of the river is of a depth exceeding 5.80 metres below chart datum, re-establish the affected part of the bed of the river to that level in accordance with approval given by the PLA under paragraph 34 of Schedule 13 (protective provisions); and
- (l) construct, place and maintain works and structures including piled fenders, protection piles and cofferdams; and

other works and development—

- (m) for the strengthening, alteration or demolition of any building;
- (n) to place, alter, divert, relocate, protect, remove or maintain services, plant and other apparatus and equipment belonging to statutory undertakers, utility companies and others in, under or above land, including mains, sewers, drains, pipes, cables, lights, cofferdams, fencing and other boundary treatments including bollards;
- (o) ramps, steps, footpaths, footways, cycle tracks, cycleways, bridleways, equestrian tracks, non-motorised user routes or links, byways open to all traffic and crossing facilities;
- (p) embankments, viaducts, bridges, aprons, abutments, shafts, foundations, retaining walls, drainage works, outfalls, pollution control devices, pumping stations, culverts, wing walls, fire suppression system water tanks and associated plant and equipment, highway lighting and fencing;

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(a) 1995 c.21.

- (q) settlement mitigation measures for the benefit or protection of, or in relation to, any land, building or structure, including monitoring and safeguarding of existing infrastructure, utilities and services affected by the authorised development;
- (r) to alter the course of, or otherwise interfere with, navigable or non-navigable watercourses;
- (s) landscaping, noise barriers, works associated with the provision of ecological mitigation, and other works to mitigate any adverse effects of the construction, operation or maintenance of the authorised development;
- (t) areas of hard or soft landscaping works, or public realm, at various locations adjacent to the proposed highway and associated works;
- (u) site preparation works, site clearance (including fencing and other boundary treatments, vegetation removal, works of demolition, including demolition of existing structures, and the creation of alternative highways or footpaths) and earthworks (including soil stripping and storage and site levelling);
- (v) construction compounds and working sites, temporary structures, storage areas (including storage of spoil and other materials), temporary vehicle parking, construction fencing, perimeter enclosure, security fencing, construction-related buildings, temporary worker accommodation facilities, welfare facilities, office facilities, other ancillary accommodation, construction lighting, haulage roads and other buildings, machinery, apparatus, works and conveniences;
- (w) service compounds, plant and equipment rooms, offices, staff mess rooms, welfare facilities, and other ancillary and administrative accommodation;
- (x) for the benefit or protection of the authorised development; and
- (y) of whatever nature, as may be necessary or expedient for the purposes of, or for purposes associated with or ancillary to, the construction, operation or maintenance of the authorised development which do not give rise to any materially new or materially different environmental effects to those assessed in the environmental statement.

## SCHEDULE 2 REQUIREMENTS

Article 4

### PART 1 REQUIREMENTS

#### **Interpretation**

**1. In this Part of this Schedule—**

“the biodiversity action plan and mitigation strategy” means the biodiversity action plan and mitigation strategy contained in appendix 9.H of the environmental statement;

“the bus strategy” means the document of that description set out in Schedule 14 certified by the Secretary of State as the bus strategy for the purposes of this Order;

“the code of construction practice” means the document of that description set out in Schedule 14 certified by the Secretary of State as the code of construction practice for the purposes of this Order and which sets a framework to control impacts arising from construction of the authorised development;

“the design principles” means the document of that description set out in Schedule 14 certified by the Secretary of State as the design principles for the purposes of this Order and which set out the principles for the detailed design of the authorised development;

“the flood risk assessment” means the revised flood risk assessment contained in substituted appendix 16.A of the environmental statement;

“the landscaping plan” means the plan of that description set out in Schedule 14 certified by the Secretary of State as the landscaping plan for the purposes of this Order and which set out the proposed landscaping to be implemented as part of the authorised development;

“the Silvertown Tunnel Design Review Panel” means the panel set up and administered by Urban Design London to provide design assurance throughout the detailed design process for the authorised development, whose terms of reference are attached to the design principles; and

“the Silvertown Tunnel Stakeholder Design Consultation Group” means the group set up and administered by TfL to provide stakeholders with an opportunity to comment on the external appearance of the above ground elements of the authorised development throughout the detailed design process for the authorised development, whose terms of reference are attached to the design principles.

#### **Time limit for commencement of the authorised development**

**2.** The authorised development must commence within 5 years of the date on which this Order comes into force.

#### **Design principles and design review panel**

**3.—(1)** The authorised development must be designed and implemented—

- (a) in accordance with the design principles; and
- (b) in general accordance with the general arrangement plans.

**(2)** TfL must consult with—

- (a) the Silvertown Tunnel Design Review Panel; and
- (b) the Silvertown Tunnel Stakeholder Design Consultation Group,

during the detailed design of the authorised development and in the manner provided for by the design principles and have regard to the responses received.

#### Detailed design of above ground buildings and structures

4.—(1) Construction of each part of the authorised development specified in column (1) of the table below must not commence until the details of the elements specified in relation to that part in column (2) of that table have been submitted to and approved in writing by the relevant planning authority.

<i>(1)</i> <i>Part of the authorised development</i>	<i>(2)</i> <i>Elements to be approved</i>
Work No. 1(d)	External appearance
Work No. 5(a)	External appearance of the retaining wall
Work No. 6(a)	External appearance of the retaining wall
Work No. 10(b)	External appearance of the retaining wall
Work No. 11(b)	Siting, design and external appearance
Work No. 11(c)	Siting, design and external appearance
Work No. 12(a)	Siting, design and external appearance
Work No. 12(c)	Siting, design and external appearance of the operational parking facilities
Work No. 12(e)	Siting, design and external appearance
Work No. 13	Siting, design and external appearance
Work No. 15(c)	External appearance of the retaining walls
Work No. 15(d)	External appearance
Work No. 17(a)	Siting, design and external appearance
Work No. 17(c)	Siting, design and external appearance of the operational parking facilities
Work No. 17(e)	Siting, design and external appearance
Work No.18(d)	External appearance of the retaining wall
Any above ground permanent work constructed as ancillary or related development under paragraphs (m) to (x) of Schedule 1 which constitutes a viaduct, bridge, retaining wall or wing wall, or under paragraph (y) of Schedule 1 which constitutes a permanent above ground building or structure, and ordinarily would not benefit from planning permission granted under article 3 of the Town and Country Planning (General Permitted Development) (England) Order 2015(a), unless otherwise agreed in writing between the relevant planning authority and TfL.	External appearance

(2) The authorised development must be carried out in accordance with details approved by the relevant planning authority under sub-paragraph (1).

#### Code of construction practice and related plans and strategies

5.—(1) The authorised development must be carried out in accordance with the code of construction practice.

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(a) S.I. 2015/596.

(2) No part of the authorised development may be commenced until the following plans and strategies, required by the code of construction practice, have been prepared for that part of the authorised development—

- (a) Construction Site River Strategy: to be prepared in consultation with the relevant planning authority and the PLA;
- (b) Emergency Plan: to be prepared in consultation with the local emergency services and the relevant planning authority;
- (c) Fire Plan: to be prepared in consultation with the London Fire and Emergency Planning Authority;
- (d) Lighting Management Plan: to be prepared in consultation with the relevant planning authority, the PLA and the Environment Agency; and
- (e) Site Waste Management Plan: to be prepared in consultation with the relevant planning authority and the Environment Agency.

(3) No part of the authorised development may be commenced until the following plans and strategies, required by the code of construction practice, have been prepared for that part of the authorised development and approved by the relevant planning authority, the Environment Agency or the PLA (as the case may be)—

- (a) Air Quality Management Plan: to be approved by the relevant planning authority including in the London Borough of Newham, such scheme of ventilation at the Hoola building as necessary to reduce the exposure of first floor residential accommodation to nitrogen oxide to acceptable levels;
- (b) Archaeological Written Scheme of Investigation: to be prepared in consultation with Historic England and, in respect of any elements within the river Thames, the PLA and the MMO, and approved by the relevant planning authority;
- (c) Community Engagement Plan: to be approved by the relevant planning authority;
- (d) Construction Materials Management Plan incorporating commitments to river transport: to be approved by the relevant planning authority;
- (e) Construction Traffic Management Plan: to be approved by the relevant planning authority, in consultation with the relevant highway authority;
- (f) Ecology Management Plan: to be prepared in consultation with Natural England and approved by the relevant planning authority;
- (g) Flood Warning and Evacuation Plan (which forms part of the Emergency Plan to be prepared under sub-paragraph (2)(b)): to be approved by the relevant planning authority, in consultation with the Environment Agency;
- (h) Groundwater Monitoring and Verification Plan: to be approved by the Environment Agency;
- (i) Noise and Vibration Management Plan: to be approved by the relevant planning authority;
- (j) Passage Plan: to be approved by the PLA; and
- (k) Construction Environmental Management Plan: to be approved in consultation with the relevant planning authority and the PLA

(4) The relevant highway authority for the purposes of sub-paragraph (3)(e) is each highway authority for the highways affected by the Construction Traffic Management Plan.

(5) The authorised development must be carried out in accordance with the plans and strategies prepared or approved under sub-paragraphs (2) and (3).

(6) TfL must make the plans and strategies prepared or approved under sub-paragraphs (2) and (3) available in an electronic form suitable for inspection by members of the public until the authorised development has been opened for public use.

## **Landscaping scheme**

6.—(1) No part of the authorised development may commence until a written landscaping scheme for that part has been submitted to and approved in writing by the relevant planning authority.

(2) A landscaping scheme prepared under sub-paragraph (1) must be in accordance with the landscaping plan and include details of hard and soft landscaping works, including—

- (a) location, number, species, size and planting density of any proposed planting;
- (b) cultivation, importing of materials and other operations to ensure plant establishment;
- (c) the location and specification of routes for non-motorised users including provision of a bus stop to serve southbound buses in the re-aligned Tunnel avenue;
- (d) proposed finished ground levels;
- (e) hard surfacing materials;
- (f) details of existing trees to be retained, with measures for their protection during the construction period; and
- (g) implementation timetables for all landscaping works.

(3) Each part of the authorised development must be carried out in accordance with the relevant landscaping schemes approved under sub-paragraph (1).

(4) All landscaping works must be carried out to a reasonable standard in accordance with the relevant recommendations of appropriate British Standards or other recognised codes of good practice.

(5) Any tree or shrub planted as part of a landscaping scheme that, within a period of 5 years after planting, is removed, dies or becomes, in the opinion of the relevant planning authority, seriously damaged or diseased, must be replaced in the first available planting season with a specimen of the same species and size as that originally planted.

## **Monitoring and mitigation strategy**

### *Pre-opening traffic measures*

7.—(1) Before the Silvertown Tunnel opens for public use TfL must carry out an updated assessment of the likely impacts of the authorised development on the performance of the highway network and must consult the members of STIG on a proposed scheme of mitigation which identifies—

- (a) the locations on the highway network where the assessment demonstrates there is likely to be a material worsening of traffic conditions as a result of the operation of the authorised development;
- (b) the measures which TfL proposes to mitigate the impacts of such a worsening of traffic conditions; and
- (c) the proposed programme for implementation of those measures.

(2) TfL must have regard to any consultation responses received from STIG members and before finalising the scheme of mitigation must liaise further with the council of any London Borough on the detail of mitigation measures which it proposes to implement on roads in that Borough. TfL must then submit the scheme of mitigation to the Secretary of State for Transport for approval.

(3) The scheme of mitigation submitted to the Secretary of State for approval must include—

- (a) details and locations of the proposed mitigation measures;
- (b) responses to the consultation and further liaison carried out under sub-paragraphs (1) and (2);
- (c) the estimated cost of implementing each measure; and
- (d) the proposed programme for the implementation of those measures.



(4) The Silvertown Tunnel must not open for public use until the scheme of mitigation has been approved by the Secretary of State. If the Secretary of State proposes to approve the scheme of mitigation with material modifications, the Secretary of State must consult the members of STIG on the proposed modifications and have regard to any responses received when deciding whether to approve the scheme.

(5) TfL must implement or secure the implementation of the measures approved by the Secretary of State in accordance with the approved programme.

#### *Post-opening monitoring and mitigation*

(6) For the duration of the monitoring period, TfL must—

- (a) implement a monitoring programme in consultation with the members of STIG;
- (b) prepare—
  - (i) quarterly monitoring reports for a period of one year from the Silvertown Tunnel opening for public use; and
  - (ii) annual monitoring reports thereafter, derived from that monitoring, and submit them for consideration by the members of STIG;
- (c) identify in consultation with the members of STIG appropriate thresholds for changes on the highway network which require TfL to investigate whether mitigation measures are necessary;
- (d) develop in consultation with the relevant highway authority any measures which are necessary to mitigate adverse impacts on the highway network which are attributable to the operation of the authorised development; and
- (e) implement or secure the implementation of the necessary mitigation measures.

(7) In sub-paragraph (6) “the monitoring period” means a period commencing not less than three years before the Silvertown Tunnel is expected to open for public use and continuing for not less than three years after the Silvertown Tunnel opens for public use.

#### *Air quality monitoring and mitigation*

(8) Not less than three years before the Silvertown Tunnel is expected to open for public use TfL must install Nitrogen Dioxide (“NO<sub>2</sub>”) monitors at locations determined in accordance with paragraph 3.7.4 of the monitoring and mitigation strategy.

(9) The NO<sub>2</sub> monitors must remain in place for the period specified in paragraph 3.7.5 of the monitoring and mitigation strategy.

(10) The monitoring data within each annual monitoring report referred to in sub-paragraph (6) must be reviewed as soon as reasonably practicable by a firm of independent air quality experts appointed by TfL in consultation with the members of STIG. The annual review undertaken by the firm of experts must determine in accordance with the criteria set out in the monitoring and mitigation strategy whether or not there has been a material worsening of air quality as a result of the authorised development beyond the likely impacts reported within the environmental statement at locations where there are exceedances of national air quality objectives.

(11) If the review demonstrates in the opinion of the appointed firm of experts that the authorised development has materially worsened air quality in the manner described in sub-paragraph (10), TfL must—

- (a) within three months of the conclusion of the expert review consult any relevant air quality authority on a preliminary scheme of mitigation including a programme for its implementation; and
- (b) following that consultation submit a detailed scheme of mitigation to the Mayor of London for approval.

(12) Before considering whether to approve the scheme of mitigation, the Mayor of London must consult any relevant air quality authority and take into consideration any responses received.

(13) TfL must implement or secure the implementation of the scheme of mitigation approved by the Mayor of London in accordance with the programme contained in the approved scheme of mitigation.

#### *General*

(14) The provisions of this requirement must be carried out in accordance with the monitoring and mitigation strategy and TfL must otherwise comply with the obligations set out in that document.

(15) If the statutory powers vested in TfL in relation to highways and road traffic in Greater London are not sufficient to enable TfL to implement any mitigation measure which it is obliged to implement under this requirement, TfL must either—

- (a) seek to agree with the council of the relevant London borough that TfL may implement that measure on behalf of the council; or
- (b) if such an agreement cannot be reached, pay to that council a sum equivalent to—
  - (i) the estimated cost of the council implementing that measure, which the council must use for that purpose; or
  - (ii) the costs reasonably incurred by the council in implementing an alternative measure in the same location which the council determines will mitigate the adverse impact attributable to the authorised development,

whichever is less.

(16) In this paragraph, “relevant air quality authority” means the council of a London Borough for an area in relation to which the expert review carried out under sub-paragraph (10) concludes that the authorised development has materially worsened air quality.

#### **Surface water drainage details**

**8.—(1)** No part of the authorised development which comprises any part of a surface water drainage system must commence until written details of that surface water drainage system have been submitted to and approved by the relevant planning authority.

(2) The surface water drainage system for the relevant part of the authorised development must be constructed in accordance with the details approved under sub-paragraph (1).

#### **External lighting details**

**9.—(1)** No part of the authorised development is to be opened for public use until written details of any external lighting to be installed in connection with the operation of any building or other structure forming part of the authorised development have been submitted to and approved by the relevant planning authority.

(2) Each part of the authorised development must be carried out in accordance with the relevant details of the external lighting approved under sub-paragraph (1).

#### **Signage strategy**

**10.—(1)** No part of the authorised development is to be opened for public use until a strategy for any highway signage to be installed on that part has been submitted to and approved by the relevant highway authority.

(2) The relevant highway authority for the purposes of sub-paragraph (1) is, in each case, the highway authority for the highway in relation to which the highway signage is to be installed.

(3) Each part of the authorised development must be carried out in accordance with the relevant strategy approved under sub-paragraph (1).

### **Flood risk assessment**

11. The authorised development must be carried out in accordance with the flood risk assessment.

### **Operational noise mitigation measures**

12.—(1) No part of the authorised development may open for public use until a written scheme of proposed noise mitigation measures in respect of the use and operation of that part has been submitted to and approved in writing by the relevant planning authority following consultation with the relevant highway authority.

(2) The proposed measures submitted for approval under sub-paragraph (1) must provide—

- (a) details of the noise barriers proposed;
- (b) that any highway constructed or resurfaced as part of the authorised development will be surfaced with low noise surfacing to a TSCS standard or better, with the exception of the sections of highway within the Silvertown Tunnel and on the Silvertown Tunnel approaches where retaining walls of 1.8 metres or higher are located on either side of the carriageway, together with any other sections of highway which are recommended by a road safety audit to have an alternative surface; and
- (c) details of the proposals for the retention and maintenance of the proposed noise mitigation measures.

(3) The approved noise mitigation measures must be implemented prior to the opening of the relevant part of the authorised development for public use and must be retained and maintained in accordance with the approved scheme.

(4) The relevant highway authority for the purposes of sub-paragraph (1) is, in each case, the highway authority for the highway in relation to which the noise mitigation is to be installed.

(5) The written details referred to in sub-paragraph (1) must either reflect the mitigation measures included in the environmental statement or, where the mitigation proposed materially differs from the mitigation identified in the environmental statement, TfL must provide evidence with the written details submitted that with the mitigation proposed, the authorised development would not give rise to any materially new or materially different environmental effects to those assessed in the environmental statement taking into account the mitigation identified in it.

(6) In this paragraph “TSCS” means thin surface course systems as defined by clause 942 of the Manual of Contract Documents for Highway Works, Volume 1 Specification for Highway Works.

### **Cross-river bus services**

13.—(1) TfL must secure a cross-river bus service provision using the tunnels which delivers the same or greater levels of public transport benefits (as quantified in the pre-Scheme Refreshed Case modelling) as those identified in the Assessed Case without any reduction in any other user benefits generated by the scheme and in any event the provision of not less than 20 buses per hour during peak periods in each direction through the tunnels for the duration of the monitoring period and thereafter must keep under review and secure the provision of bus services through the tunnels in accordance with the bus strategy and the objectives set out in that document.

(2) TfL must provide funding for concessionary bus travel to residents of the London Boroughs of Newham and Tower Hamlets and the Royal Borough of Greenwich in accordance with the bus strategy after the Silvertown Tunnel opens for public use.

(3) TfL must ensure that any bus ordinarily using the Silvertown Tunnel as part of a London local service must comply with the Euro VI emissions limits or with equivalent emissions standards.

(4) In this paragraph—

“bus” means a public service vehicle designed and constructed for the carriage of both seated and standing passengers;

“Euro VI emissions limits” means the emissions limits for heavy duty vehicles set out in Annex I to Regulation (EC) No 595/2009 of the European Parliament and of the Council (as amended by Annex XV of Commission Regulation (EU) No 582/2011);

“London local service” means a London local service which TfL has determined as being required under section 181 of the 1999 Act; and

“the monitoring period” means a period of not less than three years commencing on the date the Silvertown Tunnel opens for public use, which may be extended by TfL for up to two years if this is deemed necessary following consultation with the members of STIG in accordance with section 3.4 of the monitoring and mitigation strategy.

### **Biodiversity action plan and mitigation strategy**

14. The authorised development must be carried out in accordance with the biodiversity action plan and mitigation strategy.

### **Contaminated land**

15.—(1) No part of the authorised development may commence until a site investigation and risk assessment has been carried out to assess the nature and extent of contamination within any land on which intrusive groundworks in connection with that part of the authorised development are to be carried out.

(2) The site investigation and risk assessment carried out under sub-paragraph (1) must be—

- (a) based on the preliminary risk assessment of contaminant sources, pathways and receptors contained in the environmental statement;
- (b) carried out in accordance with the Department for Environment, Food and Rural Affairs’ and the Environment Agency’s “Model Procedures for the Management of Land Contamination” Contaminated Land Report 11 document, and shall include—
  - (i) a survey of the nature, extent and scale of contamination within the relevant area;
  - (ii) an assessment of the potential risks to human health, property and other relevant receptors; and
  - (iii) an appraisal of remediation options and proposal of the preferred option where the site investigation and risk assessment indicates, in the reasonable opinion of TfL, that remediation is required as a result of the proposed intrusive groundworks in order for the relevant area of land not to meet the definition of “contaminated land” under Part 2A of the Environmental Protection Act 1990; and
- (c) supplied to the relevant planning authority as soon as reasonably practicable following its completion.

(3) Where the site investigation and risk assessment carried out under sub-paragraph (1) contains an appraisal of remediation options and proposal of the preferred option as required by sub-paragraph (2)(b)(iii), a remediation strategy must be submitted to and approved in writing by the relevant planning authority which must include—

- (a) remediation measures required as a result of the proposed intrusive groundworks to ensure that the site will not meet the definition of “contaminated land” under Part 2A of the Environmental Protection Act 1990 in relation to the intended use of the land following remediation; and
- (b) a verification plan, providing details of the data to be collected in order to demonstrate that the works set out in the remediation scheme submitted for approval under this sub-paragraph are complete.

(4) The remediation strategy approved under sub-paragraph (3) must be implemented as part of the authorised development.

(5) Following the implementation of the remediation strategy approved under sub-paragraph (3), a verification report, based on the data collected as part of the remediation strategy and

demonstrating the completion of the remediation measures must be produced and supplied to the relevant planning authority.

(6) Where the verification report produced under sub-paragraph (5) does not demonstrate the completion of the remediation measures, a statement as to how any outstanding remediation measures will be addressed must be supplied to the relevant planning authority at the same time as the verification report.

(7) The outstanding remediation measures must be completed to the reasonable satisfaction of the relevant planning authority by the date agreed with that authority.

## **Hazardous substances**

### *East Greenwich Gasholder Site*

**16.**—(1) The Silvertown Tunnel must not open for public use and the tunnel services buildings at the South Portal comprised in Work No. 12 must not be occupied after their practical completion until—

- (a) the hazardous substances consent for the East Greenwich Gasholder Station site has been revoked or modified in accordance with the Planning (Hazardous Substances) Act 1990(a), and in the case of a modification details of the relevant modifications have been submitted to the Health and Safety Executive, and the Health and Safety Executive has advised the Secretary of State in writing that it does not advise against the authorised development; or
- (b) TfL has submitted to the Secretary of State an assessment of whether opening the authorised development for public use and occupying the tunnel services building would increase the number of people at risk from existing hazards at the East Greenwich Gasholder Station site with the potential to impact on local populations including fire or explosion following loss of containment of natural gas, and, on the basis of that risk assessment and following consultation with the Health and Safety Executive and the Hazardous Substances Authority, the Secretary of State has confirmed in writing that the Silvertown Tunnel may open to public use and that the tunnel services buildings at the South Portal comprised in Work No 12 may be occupied.

### *Brenntag Chemicals Site*

(2) The Silvertown Tunnel must not be opened for use by the public and the tunnel services buildings at the South Portal comprised in Work No. 12 must not be occupied after their practical completion until—

- (a) the hazardous substances consent for the Brenntag Inorganic Chemicals Ltd site has been revoked or modified in accordance with the Planning (Hazardous Substances) Act 1990, and in the case of a modification details of the relevant modifications have been submitted to the Health and Safety Executive, and the Health and Safety Executive has advised the Secretary of State in writing that it does not advise against the authorised development; or
- (b) TfL has submitted to the Secretary of State an assessment of whether opening the authorised development for public use and occupying the tunnel services building would increase the number of people at risk from existing hazards at the Brenntag Inorganic Chemicals Ltd site with the potential to impact on local populations, including loss of containment of hazardous substances and, on the basis of that risk assessment and following consultation with the Health and Safety Executive and the Hazardous Substances Authority, the Secretary of State has confirmed in writing that the Silvertown Tunnel may open to public use and that the tunnel services buildings at the South Portal comprised in Work No 12 may be occupied.

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(a) 1990 c.10.

### **'Re-use of excavated material on-site**

17. The works to implement the authorised development must be undertaken in a manner that will maximise the potential for re-use of suitable excavated material on site for the subsequent re-use of areas that will be subject to temporary possession. Prior to the commencement of development, details of the storage of suitable excavated material and of its subsequent re-use within or adjoining the Order limits must be submitted to and approved by the relevant local planning authority. The construction must be carried as approved.

## **PART 2**

### **PROCEDURE FOR DISCHARGE OF REQUIREMENTS**

#### **Interpretation**

18. In this Part of this Schedule, “discharging authority” means—

- (a) any body responsible for giving any consent, agreement or approval required by a requirement included in Part 1 of this Schedule, or for giving any consent, agreement or approval further to any document referred to in any such requirement; or
- (b) the local authority in the exercise of its functions set out in sections 60 and 61 of the Control of Pollution Act 1974(a).

#### **Applications made under requirements**

19.—(1) Where TfL proposes to make an application to a discharging authority for any consent, agreement or approval required by a requirement contained in Part 1 of this Schedule, no later than twenty eight days prior to submitting the application TfL must provide a draft of the proposed application to the discharging authority, unless otherwise agreed by the discharging authority.

(2) At the same time as submitting a draft of a proposed application to the Council of the London Borough of Newham under paragraph (1) in respect of—

- (a) any consent, agreement or approval required by paragraph 5(3) of Part 1 of this Schedule; or
- (b) any consent, agreement or approval required further to any document referred to in any such requirement,

TfL must consult the Council of the London Borough of Tower Hamlets about the draft of the proposed application and when finalising the contents of the application TfL must take into account any comments made by the Council of the London Borough of Tower Hamlets during that consultation.

(3) An application to the discharging authority for any consent, agreement or approval required by a requirement contained in Part 1 of this Schedule must be accompanied by a statement summarising how TfL considers it has complied with the obligations applicable to the requirement set out in Part 1 of this Schedule.

(4) Where an application has been made to the discharging authority for any consent, agreement or approval required by a requirement contained in Part 1 of this Schedule, or for any consent, agreement or approval further to any document referred to in any such requirement, the discharging authority must give notice to TfL of its decision on the application within a period of 8 weeks beginning with—

- (a) the day immediately following that on which the application is received by the discharging authority; or

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(a) 1974 c.40.

(b) where further information is requested under paragraph 20, the day immediately following that on which the further information has been supplied by TfL, or such longer period as may be agreed in writing by TfL and the discharging authority.

(5) Where an application has been made to the Council of the London Borough of Newham in respect of—

- (a) any consent, agreement or approval required by paragraph 5(3) of Part 1 of this Schedule; or
- (b) any consent, agreement or approval required further to any document referred to in any such requirement,

the Council of the London Borough of Newham must not give notice to TfL of its decision until the Council of the London Borough of Newham has consulted the Council of the London Borough of Tower Hamlets in respect of that application for a period of not less than 21 days, and considered any representations made by the Council of the London Borough of Tower Hamlets on the application received within that time.

(6) In determining any application made to the discharging authority for any consent, agreement or approval required by a requirement contained in Part 1 of this Schedule, the discharging authority may—

- (a) give or refuse its consent, agreement or approval; or
- (b) give its consent, agreement or approval subject to reasonable conditions,

and where consent, agreement or approval is refused or granted subject to conditions the discharging authority must provide its reasons for that decision with the notice of the decision.

#### **Further information regarding requirements**

**20.**—(1) In relation to any application referred to in paragraph 19, the discharging authority may request such further information from TfL as it considers necessary to enable it to consider the application.

(2) If the discharging authority considers that further information is necessary and the requirement concerned contained in Part 1 of this Schedule does not specify that consultation with a consultee is required, the discharging authority must, within 10 business days of receipt of the application, notify TfL in writing specifying the further information required.

(3) If the requirement concerned contained in Part 1 of this Schedule specifies that consultation with a consultee is required, the discharging authority must issue the application to the consultee within five business days of receipt of the application, and notify TfL in writing specifying any further information requested by the consultee within five business days of receipt of such a request.

(4) If the discharging authority does not give the notification within the period specified in subparagraph (2) or (3) it (and the consultee, as the case may be) is deemed to have sufficient information to consider the application and is not entitled to request further information without the prior agreement of TfL.

#### **Appeals**

**21.**—(1) Where a person (“the applicant”) makes an application to a discharging authority, the applicant may appeal to the Secretary of State in the event that—

- (a) the discharging authority refuses an application for any consent, agreement or approval required by—
  - (i) a requirement contained in Part 1 of this Schedule; or
  - (ii) a document referred to in any requirement contained in Part 1 of this Schedule;
- (b) the discharging authority does not determine such an application within the time period set out in paragraph 19(1), or grants it subject to conditions;

- (c) the discharging authority issues a notice further to sections 60 or 61 of the Control of Pollution Act 1974;
  - (d) on receipt of a request for further information pursuant to paragraph 20 of this Part of this Schedule, the applicant considers that either the whole or part of the specified information requested by the discharging authority is not necessary for consideration of the application; or
  - (e) on receipt of any further information requested, the discharging authority notifies the applicant that the information provided is inadequate and requests additional information which the applicant considers is not necessary for consideration of the application.
- (2) The appeal process is as follows—
- (a) any appeal by the applicant must be made within 42 days of the date of the notice of the decision or determination, or (where no determination has been made) the expiry of the time period set out in paragraph 19(1), giving rise to the appeal referred to in sub-paragraph (1);
  - (b) the applicant must submit the appeal documentation to the Secretary of State and must on the same day provide copies of the appeal documentation to the discharging authority and any consultee specified under the relevant requirement contained in Part 1 of this Schedule;
  - (c) as soon as is practicable after receiving the appeal documentation, the Secretary of State must appoint a person to consider the appeal (“the appointed person”) and must notify the appeal parties of the identity of the appointed person and the address to which all correspondence for the attention of the appointed person should be sent;
  - (d) the discharging authority and any consultee (if applicable) must submit their written representations together with any other representations to the appointed person in respect of the appeal within 10 business days of the start date specified by the appointed person and must ensure that copies of their written representations and any other representations as sent to the appointed person are sent to each other and to the applicant on the day on which they are submitted to the appointed person;
  - (e) the appeal parties must make any counter-submissions to the appointed person within 10 business days of receipt of written representations pursuant to sub-paragraph (c) above; and
  - (f) the appointed person must make a decision and notify it to the appeal parties, with reasons, as soon as reasonably practicable after the end of the 10 day period for counter-submissions under paragraph (e).
- (3) The appointment of the appointed person pursuant to sub-paragraph (2)(c) may be undertaken by a person appointed by the Secretary of State for this purpose instead of by the Secretary of State.
- (4) In the event that the appointed person considers that further information is necessary to enable the appointed person to consider the appeal the appointed person must as soon as practicable notify the appeal parties in writing specifying the further information required, the appeal party from whom the information is sought, and the date by which the information is to be submitted.
- (5) Any further information required pursuant to sub-paragraph (4) must be provided by the party from whom the information is sought to the appointed person and to the other appeal parties by the date specified by the appointed person. The appointed person must notify the appeal parties of the revised timetable for the appeal on or before that day. The revised timetable for the appeal must require submission of written representations to the appointed person within 10 business days of the date specified by the appointed person but must otherwise be in accordance with the process and time limits set out in sub-paragraph (2)(c)-(e).
- (6) On an appeal under this paragraph, the appointed person may—
- (a) allow or dismiss the appeal; or



(b) reverse or vary any part of the decision of the discharging authority (whether the appeal relates to that part of it or not),

and may deal with the application as if it had been made to the appointed person in the first instance.

(7) The appointed person may proceed to a decision on an appeal taking into account such written representations as have been sent within the relevant time limits and in the sole discretion of the appointed person such written representations as have been sent outside of the relevant time limits.

(8) The appointed person may proceed to a decision even though no written representations have been made within the relevant time limits, if it appears to the appointed person that there is sufficient material to enable a decision to be made on the merits of the case.

(9) The decision of the appointed person on an appeal is final and binding on the parties, and a court may entertain proceedings for questioning the decision only if the proceedings are brought by a claim for a judicial review.

(10) If an approval is given by the appointed person pursuant to this Part of this Schedule, it is deemed to be an approval for the purpose of Part 1 of this Schedule as if it had been given by the discharging authority. The discharging authority may confirm any determination given by the appointed person in identical form in writing but a failure to give such confirmation (or a failure to give it in identical form) is not to be taken to affect or invalidate the effect of the appointed person's determination.

(11) Save where a direction is given pursuant to sub-paragraph (12) requiring the costs of the appointed person to be paid by the discharging authority, the reasonable costs of the appointed person are to be met by the applicant.

(12) On application by the discharging authority or the applicant, the appointed person may give directions as to the costs of the appeal parties and as to the parties by whom the costs of the appeal are to be paid. In considering whether to make any such direction and the terms on which it is to be made, the appointed person must have regard to relevant guidance on the Planning Practice Guidance website or any official circular or guidance which may from time to time replace it.

SCHEDULE 3

Articles 8 and 9

PERMANENT STOPPING UP OF HIGHWAYS AND PRIVATE MEANS OF ACCESS

PART 1

HIGHWAYS TO BE STOPPED UP FOR WHICH A SUBSTITUTE IS TO BE PROVIDED AND NEW HIGHWAYS WHICH ARE OTHERWISE TO BE PROVIDED

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Highway to be stopped up</i>	<i>(3)</i> <i>Extent of stopping up</i>	<i>(4)</i> <i>New highway to be substituted/provided</i>
<i>The rights of way and access plans – sheet 1</i>			
In the administrative area of the Royal Borough of Greenwich; in the county of Greater London	Boord Street and Dreadnought Street	A length from a point on the existing Boord Street approximately 130m south-west of its junction with the existing Millennium Way to the existing Dreadnought Street, and then in a generally north westerly direction, for a total distance of approximately 90 metres.	Reference A  To be substituted by a length of new highway from a point on Boord Street approx. 130m south-west of its junction with the existing Millennium Way to the premises known as Studio 338, in a generally north westerly direction, for a distance of approximately 80 metres.
	Footbridge (including National Cycle Route No. 1 & Thames Path)	The whole footbridge.	Reference B  To be substituted by a length of new Boord Street foot and cycle bridge from a point on Boord Street approx. 140 m south-west of its junction with the existing Millennium Way, in a generally south westerly direction, to its junction with the improved Tunnel Avenue.

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Highway to be stopped up</i>	<i>(3)</i> <i>Extent of stopping up</i>	<i>(4)</i> <i>New highway to be substituted/provided</i>
	—	—	<p>Reference C</p> <p>Silvertown Tunnel Southbound. A length of new highway from the new Silvertown Tunnel South Portal, in a generally north-easterly direction to the new Silvertown Tunnel North Portal, for a distance of approximately 1425 metres.</p>
	—	—	<p>Reference D</p> <p>Silvertown Tunnel Northbound. A length of new highway from the new Silvertown Tunnel South Portal, in a generally south-westerly direction to the new Silvertown Tunnel North Portal, for a distance of approximately 1405 metres.</p>
	—	—	<p>Reference E</p> <p>Silvertown Tunnel Southern Approach Southbound. A length of new highway from the new South Portal of the Silvertown Tunnel, in a generally south easterly direction, for a distance of approximately 160 metres.</p>

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Highway to be stopped up</i>	<i>(3)</i> <i>Extent of stopping up</i>	<i>(4)</i> <i>New highway to be substituted/provided</i>
	—	—	<p>Reference F</p> <p>Silvertown Tunnel Southern Approach Northbound. A length of new highway from its junction with the existing A102 Blackwall Tunnel Southern Approach northbound, in a generally north-easterly direction to the new South Portal of the Silvertown Tunnel, for a distance of approximately 130 metres.</p>
	—	—	<p>Reference G</p> <p>Pavilion Lane (Realigned) A length of new highway from a point on the existing A102 Blackwall Tunnel Southern Approach Southbound 130m south of the existing Blackwall Tunnel Southbound South Portal, in a generally southerly direction then turning eastwards to its junction with the northbound carriageway of the existing Millennium Way, for a distance of approximately 150 metres.</p>

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Highway to be stopped up</i>	<i>(3)</i> <i>Extent of stopping up</i>	<i>(4)</i> <i>New highway to be substituted/provided</i>
	–	–	Reference H  Pavilion Lane (Realigned) A length of new highway from a point on the northbound carriageway of the existing Millennium Way 75 metres to the north west of its junction with the existing Edmund Halley Way, in a generally southerly direction to its junction with the Silvertown Tunnel Southern Approach Northbound, for a distance of approximately 215 metres.
<i>The rights of way and access plans – sheet 2</i>			
In the administrative areas of the Royal Borough of Greenwich and the London Borough of Newham; in the county of Greater London	–	–	Reference C – Refer to sheet 1
	–	–	Reference D – Refer to sheet 1
<i>The rights of way and access plans – sheet 3</i>			

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Highway to be stopped up</i>	<i>(3)</i> <i>Extent of stopping up</i>	<i>(4)</i> <i>New highway to be substituted/provided</i>
In the administrative area of the London Borough of Newham; in the county of Greater London	Dock Road (including National Cycle Route No. 13 (part))	A length from its junction with the existing Tidal Basin Roundabout, in a south westerly direction and then in a south easterly direction, for a total distance of approximately 395 metres.	Reference A  To be substituted by a length of new highway from a point approximately 110 metres west of the point where the existing A1020 Silvertown Way off-slip joins the Tidal Basin Roundabout, in a generally south-easterly direction, to a point where it joins the existing North Woolwich Road, for a distance of approximately 430 metres.
	Scarab Close (part)	A length from its junction with the existing Dock Road in a south westerly direction, for a distance of approximately 25 metres.	Reference A (part)  To be substituted in part by new highway (being part of the realigned Dock Road (Reference A)) from a point approximately 110 metres west of the existing A1020 Silvertown Way off-slip, in a generally southerly direction, to a point where it joins the existing Scarab Close, for a distance of approximately 55 metres.

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Highway to be stopped up</i>	<i>(3)</i> <i>Extent of stopping up</i>	<i>(4)</i> <i>New highway to be substituted/provided</i>
	—	—	<p>Reference B</p> <p>New left turn off-slip. A length of new highway from a point on the existing A1020 Silvertown Way off-slip approximately 40 metres south-east of the Tidal Basin Roundabout, initially in a north-westerly direction then turning in a southerly direction, to a point where it joins the Silvertown Tunnel Northern Approach Southbound, for a distance of approximately 95 metres.</p>
	—	—	Reference C – Refer to sheet 1
	—	—	Reference D – Refer to sheet 1
	—	—	<p>Reference E</p> <p>Silvertown Tunnel Northern Approach Southbound. A length of new highway from a point approximately 70 metres west of the point where the existing A1020 Silvertown Way off-slip joins the Tidal Basin Roundabout, in a generally south-easterly direction to the new North Portal of the Silvertown Tunnel, for a distance of approximately 205 metres.</p>

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Highway to be stopped up</i>	<i>(3)</i> <i>Extent of stopping up</i>	<i>(4)</i> <i>New highway to be substituted/provided</i>
	—	—	<p>Reference F</p> <p>Silvertown Tunnel Northern Approach Northbound.</p> <p>A length of new highway from the North Portal of the new Silvertown Tunnel, in a generally north-westerly direction to its junction with the new (part of the) Tidal Basin Roundabout, for a distance of approximately 210 metres.</p>
	—	—	<p>Reference G</p> <p>A length of new highway from a point on the new Dock Road (realigned), approximately 60 metres to the south-east of its tie-in with the North Woolwich Road, in a generally north westerly direction, for a distance of approximately 80 metres.</p>



<i>(1) Area</i>	<i>(2) Highway to be stopped up</i>	<i>(3) Extent of stopping up</i>	<i>(4) New highway to be substituted/provided</i>
	Tidal Basin Roundabout (part) (including National Cycle Route No. 13 (part))	A length from a point on the existing Tidal Basin Roundabout where the existing Tidal Basin Roundabout passes under the existing A1011 Silvertown Way on the northern side of the existing roundabout, in a generally south-easterly direction, and then in a southerly direction and then in an easterly direction, to a point where the existing Tidal Basin Roundabout passes under the existing A1011 Silvertown Way on the southern side of the existing roundabout.	Reference H (part)  To be substituted by a length of new highway from a point on the existing Tidal Basin Roundabout where the new Tidal Basin Roundabout passes under the existing A1011 Silvertown Way on the northern side of the existing roundabout, in a generally south-easterly direction, and then in a southerly direction and then in an easterly direction, to a point where the new Tidal Basin Roundabout passes under the existing A1011 Silvertown Way on the southern side of the existing roundabout, for a distance of approximately 270 metres.

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Highway to be stopped up</i>	<i>(3)</i> <i>Extent of stopping up</i>	<i>(4)</i> <i>New highway to be substituted/provided</i>
	—	—	<p>Reference H (part)</p> <p>A length of new highway within the central island of the new part of Tidal Basin Roundabout from a point on the new Tidal Basin Roundabout approximately 90 metres south west of the centre point of where the existing Tidal Basin Roundabout passes under the existing A1011 Silvertown Way, in a generally south-easterly direction for a distance of approximately 45 metres to a point where it joins the new Tidal Basin Roundabout at a point approximately 95 metres south west of the centre point of where the existing Tidal Basin Roundabout passes under the existing A1011 Silvertown Way.</p>

## PART 2

### HIGHWAYS TO BE STOPPED UP FOR WHICH NO SUBSTITUTE IS TO BE PROVIDED

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Highway to be stopped up</i>	<i>(3)</i> <i>Extent of stopping up</i>
<i>The rights of way and access plans – sheet 1</i>		
In the administrative area of the Royal Borough of Greenwich; in the county of Greater London	Pavilion Lane	A length from its junction with the existing Millennium Way in a generally southerly direction to the existing A102 Blackwall Tunnel Southern Approach Southbound, for a distance of approximately 180 metres.
<i>The rights of way and access plans – sheet 2</i>		
None	None	–
<i>The rights of way and access plans – sheet 3</i>		
In the administrative area of the London Borough of Newham; in the county of Greater London	Layby north of the existing A1020 Lower Lea Crossing, approximately 35 metres east of the existing overbridge, on which the A1020 Lower Lea Crossing passes over the Docklands Light Railway Woolwich Branch.	The whole layby.
	Area north of the Tidal Basin Roundabout.	Area of existing carriageway forming part of the existing A1020 Lower Lea Crossing approaching the existing Tidal Basin Roundabout.

### PART 3

#### PRIVATE MEANS OF ACCESS TO BE STOPPED UP FOR WHICH A SUBSTITUTE IS TO BE PROVIDED AND NEW PRIVATE MEANS OF ACCESS WHICH ARE OTHERWISE TO BE PROVIDED

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>PMA to be stopped up</i>	<i>(3)</i> <i>Extent of stopping up</i>	<i>(4)</i> <i>New PMA to be substituted/provided</i>
<i>The rights of way and access plans – sheet 1</i>			
In the administrative area of the Royal Borough of Greenwich; in the county of Greater London	–	–	Reference 1  New private means of access on the north side of the new Silvertown Tunnel South Portal, providing access to the new tunnel services compound from the south side of the existing Millennium Way.
	Reference a  Access to premises (occupied by Priority TM Limited and Southern Gas Networks plc) on the south side of the existing Millennium Way, approximately 50 metres south-east of its junction with the existing Edmund Halley Way.	A length from its junction with the existing Millennium Way south-eastward, for a distance of approximately 20 metres.	Reference 2  To be substituted by a new private means of access located to the east of the new Silvertown Tunnel, providing access from the south side of the existing Millennium Way.  Reference 10  To be substituted by a new private means of access located to the east of the new Silvertown Tunnel, providing access from the south side of the existing Millennium Way.

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>PMA to be stopped up</i>	<i>(3)</i> <i>Extent of stopping up</i>	<i>(4)</i> <i>New PMA to be substituted/provided</i>
	–	–	Reference 3  New private means of access located around the rear, east and west sides of the premises known as Studio 338, providing pedestrian access from the new highway (Reference A).
	Reference b  Access to premises (occupied by Brenntag UK Ltd) from the north side of the existing Morden Wharf Road approximately 20 metres to the east of the existing Tunnel Avenue.	A length from its junction with the existing Morden Wharf Road northwards, for a distance of approximately 5 metres.	Reference 8  To be substituted by a new private means of access located to the south-west of Tunnel Avenue, providing access from the south-west side of the improved Tunnel Avenue.
	Reference c  Access to premises (occupied by Brenntag UK Ltd) from the south-west side of the existing Tunnel Avenue, from a point immediately south of the existing footbridge.	A length from its junction with the existing Tunnel Avenue south-westwards for a distance of approximately 10 metres.	Reference 4  To be substituted by a new private means of access on the south-west side of the existing Tunnel Avenue, in the same location as the existing access to Brenntag UK Ltd, but repositioned at the new highway boundary of the improved Tunnel Avenue.

<i>(1) Area</i>	<i>(2) PMA to be stopped up</i>	<i>(3) Extent of stopping up</i>	<i>(4) New PMA to be substituted/provided</i>
	<p>Reference d</p> <p>Access to premises (occupied by London Power Networks plc) from the east side of the existing Pavilion Lane, approximately 50 metres south of its junction with the existing Millennium Way.</p>	<p>The whole hardened area in front of the existing electricity substations.</p>	<p>Reference 5</p> <p>To be substituted by a new private means of access located on the west side of the new Silvertown Tunnel, providing access from the west side of the existing Millennium Way.</p>
	<p>–</p>	<p>–</p>	<p>Reference 6</p> <p>New private means of access located on the east side of the Silvertown tunnel, providing access from the south side of the existing Millennium Way, to new pressure reduction station (PRS).</p>
	<p>Reference e</p> <p>Access to premises (occupied by O’Keefe) from the south-east side of the existing Boord Street approximately 155 metres to the south-west of the existing Millennium Way.</p>	<p>A length from its junction with the existing Boord Street, south-eastwards, for a distance of approximately 5 metres.</p>	<p>Reference 7</p> <p>To be substituted by a new private means of access located on the south-east side of the existing Boord Street, in the same location as the existing access to O’Keefe, but repositioned at the new highway boundary of the A102 Southbound and providing access for non-motorised users only.</p>

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>PMA to be stopped up</i>	<i>(3)</i> <i>Extent of stopping up</i>	<i>(4)</i> <i>New PMA to be substituted/provided</i>
	Reference f  Access (pedestrian) to premises (occupied by Brenntag UK Ltd) from the south-west side of the existing Tunnel Avenue, from a point immediately south of the existing footbridge.	A length from its junction with the existing Tunnel Avenue south-westwards for a distance of approximately 5 metres.	Reference 9  To be substituted by a new (pedestrian) access to premises on the south-west side of the existing Tunnel Avenue, repositioned at the new highway boundary of the south-west side of the improved Tunnel Avenue.
<i>The rights of way and access plans – sheet 2</i>			
None	None	–	None
<i>The rights of way and access plans – sheet 3</i>			
In the administrative area of the London Borough of Newham; in the county of Greater London	Reference b  Access to premises (occupied by Docklands Light Railway Limited) from the north-west side of the existing Scarab Close, approximately 45 metres to the west of the existing Dock Road.	A length from its junction with the existing Scarab Close, westwards for a distance of approximately 40 metres.	Reference 1  To be substituted by a new private means of access to Docklands Light Railway, on the west side of the new part of Tidal Basin Roundabout, from the circulatory carriageway of the roundabout.
	–	–	Reference 2  New private means of access to the new tunnel services compound on the east side of the Silvertown Tunnel from the new highway to be known as the Tunnel Services Compound Access Road (off the realigned Dock Road).

<i>(1) Area</i>	<i>(2) PMA to be stopped up</i>	<i>(3) Extent of stopping up</i>	<i>(4) New PMA to be substituted/provided</i>
	Reference h  Access to premises (occupied by Docklands Light Railway Limited and ASD Limited) from the south-west side of the existing Dock Road, approximately 235 metres south-east of the existing Scarab Close.	A length from its junction with the existing Dock Road south-westwards for a distance of approximately 105 metres.	Reference 3 (part)  To be substituted by a new private means of access from the south side of the new Dock Road (realigned).
	Reference i  Access to premises (occupied by Docklands Light Railway Limited and Quintain (No.8) Limited) from the south-west side of the existing Dock Road, 300m south-east of the existing Scarab Close.	A length from its junction with the existing Dock Road south-westwards for a distance of approximately 65 metres.	Reference 3 (part)  To be substituted by a new private means of access from the south side of the new Dock Road (realigned).
	Reference k (part)  Scarab Close (part)	A length from a point on the existing Scarab Close, approximately 75 metres south-west of its junction with the existing Dock Road, in a south-westerly direction, for a distance of approximately 5 metres.	Reference 4  To be substituted by a new private means of access from the west side of the new Dock Road (realigned).



<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>PMA to be stopped up</i>	<i>(3)</i> <i>Extent of stopping up</i>	<i>(4)</i> <i>New PMA to be substituted/provided</i>
	<p>Reference m</p> <p>Access to existing statutory undertakers' apparatus from the south-west side of the existing Tidal Basin Roundabout.</p>	<p>A length from its junction with the existing Tidal Basin Roundabout in a north-easterly direction, for a distance of approximately 15 metres.</p>	<p>Reference 5</p> <p>To be substituted by a new private means of access, in the same location as the existing access to statutory undertakers' apparatus, but repositioned from the edge of the new part of the Tidal Basin Roundabout.</p>

## PART 4

### PRIVATE MEANS OF ACCESS TO BE STOPPED UP FOR WHICH NO SUBSTITUTE IS TO BE PROVIDED

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>PMA to be stopped up</i>	<i>(3)</i> <i>Extent of stopping up</i>
<i>The rights of way and access plans – sheet 1</i>		
None	None	–
<i>The rights of way and access plans – sheet 2</i>		
None	None	–
<i>The rights of way and access plans – sheet 3</i>		
In the administrative area of the London Borough of Newham; in the county of Greater London	Reference a  Access to premises (occupied by Docklands Light Railway Limited) from the north of the existing A1020 Lower Lea Crossing, approximately 60 metres west of the existing Tidal Basin Roundabout.	A length from its junction with the existing A1020 Lower Lea Crossing in a northerly direction for a distance of approximately 15 metres.
	Reference c  Access to premises (occupied by McGee Group) from the south-east side of the existing Scarab Close, approximately 25 metres west of the existing Dock Road.	A length from its junction with the existing Scarab Close south-eastwards for a distance of approximately 10 metres.
	Reference d  Access to premises (occupied by McGee Group) from the south-east side of the existing Scarab Close, approximately 35 metres west of the existing Dock Road.	A length from its junction with the existing Scarab Close south-eastwards for a distance of approximately 10 metres.

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>PMA to be stopped up</i>	<i>(3)</i> <i>Extent of stopping up</i>
	<p>Reference e</p> <p>Access to premises (occupied by Hanson Quarry Products Europe Limited) from the north-west side of the existing Dock Road, approximately 70 metres south-east of the existing Scarab Close.</p>	<p>A length from its junction with the existing Dock Road, north-eastwards for a distance of approximately 10 metres.</p>
	<p>Reference f</p> <p>Access to premises (occupied by Hanson Quarry Products Europe Limited) from the north-west side of the existing Dock Road, approximately 125 metres south-east from the existing Scarab Close.</p>	<p>A length from its junction with the existing Dock Road north-eastwards for a distance of approximately. 5 metres.</p>
	<p>Reference g</p> <p>Access to premises (occupied by O'Connell Plant and Groundworks Limited) from the north-west side of the existing Dock Road, approximately 165 metres south-east of the existing Scarab Close.</p>	<p>A length from its junction with the existing Dock Road north-eastwards for a distance of approximately 5 metres.</p>
	<p>Reference j</p> <p>Access to premises (occupied by Docklands Light Railway Limited) from the south-west side of the existing Dock Road, approximately 330 metres south-east of the existing Scarab Close.</p>	<p>A length from its junction with the existing Dock Road south-westwards for a distance of approximately 10 metres.</p>
	<p>Reference k (part)</p> <p>Scarab Close (part)</p>	<p>A length from a point on the existing Scarab Close, approximately 25 metres south-west of its junction with the existing Dock Road, in a south-westerly direction, for a distance of approximately 50 metres.</p>

SCHEDULE 4

Article 22

LAND IN WHICH ONLY NEW RIGHTS MAY BE ACQUIRED

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Plot Reference Number(s) shown on land plans</i>
Royal Borough of Greenwich	01-036, 01-044a, 01-045a, 01-065, 01-066, 01-076, 01-088, 01-088a, 02-016a, 02-017a, 02-018a, 02-018b, 02-018c, 02-026a, 02-030, 02-033, 02-039, 02-041, 02-043, 02-046, 02-047a, 02-053, 02-053a, 02-062, 02-075, 02-088, 02-089, 03-001, 03-002a, 03-003a, 03-004a, 03-009, 03-017, 03-019, 03-020, 03-021, 03-026, 03-028, 03-030, 03-033, 03-035, 03-037, 03-037a, 03-037c, 03-038, 03-039, 03-042, 03-043, 03-047, 03-049, 03-050, 04-005, 04-006, 04-008, 04-010, 04-011, 04-015, 04-016, 04-016a, 04-018, 04-021, 04-022, 04-024, 04-025, 04-028, 04-030, 04-030a, 04-030b and 04-031
London Borough of Newham	04-032, 04-034, 04-036, 05-002, 05-005, 05-007, 05-010, 05-015, 05-022, 05-027, 05-029, 05-038, 05-038a, 05-044a, 05-045a, 05-046, 05-048a, 05-052, 05-057, 05-073, 05-087, 05-087a, 05-089, 05-092, 05-099, 05-105, 05-112, 05-117, 05-132, 06-016, 06-017a, 06-040, 06-063, 06-071, 06-072, 06-092, 06-092a, 06-098a, 07-005, 07-007b, 07-010, 07-011, 07-012, 07-016, 07-026, 07-027 and 07-028

## MODIFICATION OF COMPENSATION AND COMPULSORY PURCHASE ENACTMENTS FOR CREATION OF NEW RIGHTS

### Compensation enactments

1. The enactments for the time being in force with respect to compensation for the compulsory purchase of land apply, with the necessary modifications as respects compensation, in the case of a compulsory acquisition under this Order of a right by the creation of a new right or imposition of a restrictive covenant as they apply as respects compensation on the compulsory purchase of land and interests in land.

2.—(1) Without limitation on the scope of paragraph 1, the Land Compensation Act 1973(a) has effect subject to the modifications set out in sub-paragraph (2).

(2) In section 44(1) (compensation for injurious affection), as it applies to compensation for injurious affection under section 7 of the 1965 Act as substituted by paragraph 5—

- (a) for “land is acquired or taken from” substitute “a right or restrictive covenant over land is purchased from or imposed on”; and
- (b) for “acquired or taken from him” substitute “over which the right is exercisable or the restrictive covenant enforceable”.

3.—(1) Without limitation on the scope of paragraph 1, the Land Compensation Act 1961 has effect subject to the modification set out in sub-paragraph (2).

(2) For section 5A(5A) (relevant valuation date) of the 1961 Act, after “if” substitute—

- “(a) the acquiring authority enters on land for the purpose of exercising a right in pursuance of a notice of entry under section 11(1) of the 1965 Act;
  - (b) the acquiring authority is subsequently required by a determination under paragraph 13 of Schedule 2A to the 1965 Act (as substituted by paragraph 10 of Schedule 5 to the Silvertown Tunnel Order 201[X]) to acquire an interest in the land; and
  - (c) the acquiring authority enters on and takes possession of that land,
- the authority is deemed for the purposes of subsection (3)(a) to have entered on that land where it entered on that land for the purpose of exercising that right.”

### Application of the 1965 Act

4.—(1) The 1965 Act has effect with the modifications necessary to make it apply to the compulsory acquisition under this Order of a right by the creation of a new right, or to the imposition under this Order of a restrictive covenant, as it applies to the compulsory acquisition under this Order of land, so that, in appropriate contexts, references in that Act to land must be read (according to the Requirements of the particular context) as referring to, or as including references to—

- (a) the right acquired or to be acquired, or the restriction imposed or to be imposed; or
- (b) the land over which the right is or is to be exercisable, or the restriction is or is to be enforceable.

(2) Without limitation on the scope of sub-paragraph (1), Part 1 of the 1965 Act applies in relation to the compulsory acquisition under this Order of a right by the creation of a new right or,

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(a) 1973 c.26.

in relation to the imposition of a restriction, with the modifications specified in the following provisions of this Schedule.

**5.** For section 7 of the 1965 Act (measure of compensation) substitute—

“7. In assessing the compensation to be paid by the acquiring authority under this Act, regard must be had not only to the extent (if any) to which the value of the land over which the right is to be acquired or the restrictive covenant is to be imposed is depreciated by the acquisition of the right or the imposition of the covenant but also to the damage (if any) to be sustained by the owner of the land by reason of its severance from other land of the owner, or injuriously affecting that other land by the exercise of the powers conferred by this or the special Act.”.

**6.** The following provisions of the 1965 Act (which state the effect of a deed poll executed in various circumstances where there is no conveyance by persons with interests in the land), that is to say—

- (a) section 9(4) (failure by owners to convey);
- (b) paragraph 10(3) of Schedule 1 (owners under incapacity);
- (c) paragraph 2(3) of Schedule 2 (absent and untraced owners); and
- (d) paragraphs 2(3) and 7(2) of Schedule 4 (common land),

are modified to secure that, as against persons with interests in the land which are expressed to be overridden by the deed, the right which is to be compulsorily acquired or the restrictive covenant which is to be imposed is vested absolutely in the acquiring authority.

**7.** Section 11 of the 1965 Act (powers of entry) is modified to secure that, as from the date on which the acquiring authority has served notice to treat in respect of any right or restriction, it has power, exercisable in equivalent circumstances and subject to equivalent conditions, to enter for the purpose of exercising that right or enforcing that restrictive covenant (which is deemed for this purpose to have been created on the date of service of the notice); and sections 12 (penalty for unauthorised entry) and 13 (entry on warrant in the event of obstruction) of the 1965 Act are modified correspondingly.

**8.** Section 20 of the 1965 Act (protection for interests of tenants at will, etc.) applies with the modifications necessary to secure that persons with such interests in land as are mentioned in that section are compensated in a manner corresponding to that in which they would be compensated on a compulsory acquisition under this Order of that land, but taking into account only the extent (if any) of such interference with such an interest as is actually caused, or likely to be caused, by the exercise of the right or the enforcement of the restrictive covenant in question.

**9.** Section 22 (interests omitted from purchase) of the 1965 Act as modified by article 27(3) is also modified so as to enable the acquiring authority, in circumstances corresponding to those referred to in that section, to continue to be entitled to exercise the right acquired, subject to compliance with that section as respects compensation.

**10.** For Schedule 2A to the 1965 Act substitute—

## “SCHEDULE 2A

### COUNTER-NOTICE REQUIRING PURCHASE OF LAND

#### **Introduction**

**1.** This Schedule applies where an acquiring authority serve a notice to treat in respect of a right over, or restrictive covenant affecting, the whole or part of a house, building or factory and have not executed a general vesting declaration under section 4 of the 1981 Act as applied by article 25 (application of the Compulsory Purchase (Vesting Declarations) Act 1981) in respect of the land to which the notice to treat relates.

2. In this Schedule, “house” includes any park or garden belonging to a house.

### **Counter-notice requiring purchase of land**

3. A person who is able to sell the house, building or factory (“the owner”) may serve a counter-notice requiring the authority to purchase the owner’s interest in the house, building or factory.

4. A counter-notice under paragraph 3 must be served within the period of 28 days beginning with the day on which the notice to treat was served.

### **Response to counter-notice**

5. On receiving a counter-notice, the acquiring authority must decide whether to—

- (a) withdraw the notice to treat,
- (b) accept the counter-notice, or
- (c) refer the counter-notice to the Upper Tribunal.

6. The authority must serve notice of their decision on the owner within the period of 3 months beginning with the day on which the counter-notice is served (“the decision period”).

7. If the authority decide to refer the counter-notice to the Upper Tribunal they must do so within the decision period.

8. If the authority do not serve notice of a decision within the decision period they are to be treated as if they had served notice of a decision to withdraw the notice to treat at the end of that period.

9. If the authority serve notice of a decision to accept the counter-notice, the compulsory purchase order and the notice to treat are to have effect as if they included the owner’s interest in the house, building or factory.

### **Determination by Upper Tribunal**

10. On a referral under paragraph 7, the Upper Tribunal must determine whether the acquisition of the right or the imposition of the restrictive covenant would—

- (a) in the case of a house, building or factory, cause material detriment to the house, building or factory, or
- (b) in the case of a park or garden, seriously affect the amenity or convenience of the house to which the park or garden belongs.

11. In making its determination, the Upper Tribunal must take into account—

- (a) the effect of the acquisition of the right or the imposition of the covenant,
- (b) the use to be made of the right or covenant proposed to be acquired or imposed, and
- (c) if the right or covenant is proposed to be acquired or imposed for works or other purposes extending to other land, the effect of the whole of the works and the use of the other land.

12. If the Upper Tribunal determines that the acquisition of the right or the imposition of the covenant would have either of the consequences described in paragraph 10, it must determine how much of the house, building or factory the authority ought to be required to take.

**13.** If the Upper Tribunal determines that the authority ought to be required to take some or all of the house, building or factory, the compulsory purchase order and the notice to treat are to have effect as if they included the owner's interest in that land.

**14.—(1)** If the Upper Tribunal determines that the authority ought to be required to take some or all of the house, building or factory, the authority may at any time within the period of 6 weeks beginning with the day on which the Upper Tribunal makes its determination withdraw the notice to treat in relation to that land.

(2) If the acquiring authority withdraws the notice to treat under this paragraph they must pay the person on whom the notice was served compensation for any loss or expense caused by the giving and withdrawal of the notice.

(3) Any dispute as to the compensation is to be determined by the Upper Tribunal.”



SCHEDULE 6

Article 26

LAND IN WHICH ONLY SUBSOIL OR NEW RIGHTS ABOVE  
SUBSOIL AND SURFACE MAY BE ACQUIRED

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Plot Reference Number(s) shown on land plans</i>	<i>(3)</i> <i>Depth beneath the level of the surface of the land</i>
Royal Borough of Greenwich	03-024, 03-024a, 03-029, 03-031, 03-032, 03-37b, 04-017, 04-019, 04-020 and 04-23	0.5 metres
	03-040, 03-041, 03-045	2 metres
	04-014	3 metres
	03-046, 03-048	4 metres
	04-007, 04-009	5 metres
	04-012	6 metres
	04-013	7 metres
London Borough of Newham	04-033, 05-003, 05-008 and 05-011	0.5 metres
	05-009	2 metres
	–	3 metres
	–	4 metres
	–	5 metres
	–	6 metres
	–	7 metres

SCHEDULE 7

Article 29

LAND OF WHICH ONLY TEMPORARY POSSESSION MAY BE TAKEN

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Plot Reference Number(s) shown on land plans</i>	<i>(3)</i> <i>Purpose for which temporary possession may be taken</i>	<i>(4)</i> <i>Relevant part of the authorised development</i>
Royal Borough of Greenwich	01-007, 01-008, 01-011	Working space to facilitate removal of existing gantry.	Work No. 4
	01-022, 01-022a, 01-027, 01-027a, 01-050a, 01-057a, 01-057b	Working space to facilitate improvement of Tunnel Avenue and construction of new Boord Street foot and cycle bridge including accommodation works to provide replacement access and replacement car parking for adjacent premises.	Work Nos. 4 and 11
	01-044, 01-045	Access to works and working space to facilitate improvement of A102 Blackwall Tunnel Southern Approach, and construction of new Boord Street foot and cycle bridge and temporary diversion of Millennium Way.	Work Nos. 1, 2, 3, 11 and 14
	01-045b, 01-083, 01-084, 01-087, 01-087a, 01-090, 02-018, 02-021, 02-022, 02-022a, 02-026	Temporary diversion of Millennium Way and Edmund Halley Way, working space to facilitate construction of Silvertown Tunnel, provision of temporary replacement car parking and associated access and provision of private means of access to premises.	Work Nos. 1 and 12

<i>(1) Area</i>	<i>(2) Plot Reference Number(s) shown on land plans</i>	<i>(3) Purpose for which temporary possession may be taken</i>	<i>(4) Relevant part of the authorised development</i>
	01-047	Working space to facilitate construction of new Boord Street foot and cycle bridge; new access/egress to/from premises; and improvement of A102 Blackwall Tunnel Southern Approach.	Work Nos. 2 and 11
	01-061, 01-091, 02-045	Working space to facilitate construction of gantry.	Work Nos. 2 and 4
	01-077, 01-077a, 01-086, 02-015, 02-016, 02-017	Working space and construction compounds to facilitate construction of Silvertown Tunnel and its Southern Approach and services compound, and construction of new private means of access.	Work Nos.1, 2, 5, 6 and 12
	02-036, 02-051	Working space and construction compounds to facilitate construction of Silvertown Tunnel, new Pavilion Lane and access to statutory undertakers' apparatus.	Work Nos. 1, 5, 6, 10 and 12
	02-036b, 02-037, 02-041a, 02-047, 02-050, 02-052, 02-052b, 02-052c	Working space to facilitate construction of new Pavilion Lane and new access to statutory undertakers' apparatus.	Work No. 10
	02-043a	Working space and construction compounds to facilitate construction of the Silvertown Tunnel and new Pavilion Lane; and temporary diversion of Millennium Way and Edmund Halley Way.	Work Nos.1,10, 12

<i>(1) Area</i>	<i>(2) Plot Reference Number(s) shown on land plans</i>	<i>(3) Purpose for which temporary possession may be taken</i>	<i>(4) Relevant part of the authorised development</i>
	02-059, 02-062a, 02-075a	Working space and construction compounds to facilitate construction of Silvertown Tunnel; and temporary diversion of Millennium Way and Edmund Halley Way.	Work No. 1
	02-066, 02-067, 02-070, 02-081	Working space to facilitate construction of new Pavilion Lane.	Work No. 9
	02-072, 02-073	Working space to facilitate construction of new Pavilion Lane; and temporary diversion of Millennium Way.	Work Nos. 1 and 9
	02-078, 02-079, 02-080	Working space to facilitate temporary diversion of Millennium Way.	Work No. 1
	02-084, 02-087	Working space to facilitate improvement of the A102 Blackwall Tunnel Southern Approach and construction of new Pavilion Lane.	Work Nos. 2 and 9
	03-002, 03-002b, 03-003, 03-004, 03-005, 03-006	Working space to facilitate temporary diversion of Millennium Way.	Work Nos. 1 and 14
	03-007, 03-008, 03-017a, 03-019a, 03-020a, 03-021a, 03-026a, 03-028a, 03-030a, 03-037d, 03-037e, 03-037f	Working space and construction compounds to facilitate construction of Silvertown Tunnel; and temporary diversion of Edmund Halley Way.	Work No. 1
	03-007a, 03-007b, 03-008a, 03-008b, 03-013, 03-014	Provision of a temporary replacement car park and associated buildings and access.	Work No. 1
	03-034, 03-036, 03-044, 04-001, 04-002, 04-003, 04-004	Provision of a temporary replacement car park.	Work No. 1

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Plot Reference Number(s) shown on land plans</i>	<i>(3)</i> <i>Purpose for which temporary possession may be taken</i>	<i>(4)</i> <i>Relevant part of the authorised development</i>
	04-026, 04-027	Working space to facilitate river wall works.	Work No. 1
London Borough of Newham	04-035, 05-001, 05-004, 05-006, 06-001	Working space to facilitate construction of Silvertown Tunnel and construction of temporary jetty and transportation area, including related dredging works and operations, and the establishment of an exclusion zone for the jetty.	Work Nos. 1, 20A and 20B
	05-014, 05-018, 05-019, 05-024, 05-025, 05-026, 05-040, 05-041, 05-042, 05-043, 05-044, 05-045, 05-048, 05-048b, 05-049, 05-050, 05-051, 05-054, 05-060, 05-064, 05-075, 05-081, 05-084, 05-109, 05-111, 06-006, 06-008, 06-009, 06-019, 06-020, 06-032, 06-036, 06-037, 06-042, 06-044, 06-053, 06-054, 06-055	Working space and construction compounds to facilitate construction of Silvertown Tunnel and realigned Dock Road and temporary relocated car parking and access thereto.	Work Nos. 1, 17 and 18
	05-016, 05-023, 05-028, 05-032, 05-033, 05-035	Working space and construction compounds to facilitate construction of Silvertown Tunnel, realigned Dock Road and temporary jetty and temporary relocated car parking and access thereto.	Work Nos. 1, 17, 18, 20A and 20B

<i>(1) Area</i>	<i>(2) Plot Reference Number(s) shown on land plans</i>	<i>(3) Purpose for which temporary possession may be taken</i>	<i>(4) Relevant part of the authorised development</i>
	05-047, 06-002, 06-003, 06-004, 06-005, 06-007, 06-010, 06-011, 06-012, 06-013, 06-027, 06-033, 06-035, 06-057, 06-060	Working space and construction compounds to facilitate construction of Silvertown Tunnel and realigned Dock Road, and to provide a temporary storage area and related access, and temporary relocated car parking and access thereto.	Work Nos. 1, 17 and 18
	06-066, 06-068, 06-096, 06-098, 07-006, 07-007a, 07-007, 07-008, 07-009	Working space to facilitate improvement of the existing Tidal Basin Roundabout and Tidal Basin Road.	Work Nos. 16 and 19
	06-075, 06-078	Working space to facilitate improvement of the existing Tidal Basin Roundabout and Tidal Basin Road, and temporary relocated car parking and access thereto.	Work Nos. 16, 17 and 19
	06-093	Working space and construction compounds to facilitate construction of the Silvertown Tunnel and its Northern Approach and services compound, and temporary relocated car parking and access thereto.	Work Nos. 1, 15 and 17
	07-029	Working space and construction compounds to facilitate construction of the Silvertown Tunnel and its Northern Approach and services compound.	Work Nos. 1, 15 and 17

## SCHEDULE 8

Article 45(17)

# REMOVAL OF MOTOR VEHICLES AND RECOVERY OF PENALTY CHARGES

## PART 1

### PRELIMINARY

**1.—(1)** In this Schedule—

“the 1999 Act” means the Greater London Authority Act 1999;

“adjudicator” means a person specified in article 45(18);

“appeal” means an appeal under paragraph 4(1) or 9(1);

“appellant” means the person bringing the appeal;

“the charging scheme” means the statement of charges published under article 55(5) (power to charge for use of the tunnels) applying by virtue of article 45(13);

“hearing” means an oral hearing;

“hiring agreement” has the same meaning as in section 66 of the Road Traffic Offenders Act 1988(a);

“penalty charge notice” has the meaning given in paragraph 5;

“person liable” means the registered keeper of a motor vehicle; and

“vehicle-hire firm” has the same meaning as in section 66 of the Road Traffic Offenders Act 1988.

(2) In determining for the purposes of any provision of this Schedule whether a charge or penalty charge has been paid before the end of a particular period, it must be taken to be paid when it is received by TfL.

## PART 2

### REPRESENTATIONS AND APPEALS IN RELATION TO THE REMOVAL OF MOTOR VEHICLES

**Persons to whom Part 2 applies**

**2.** This part of this Schedule applies to a person (referred to as a “relevant person”) who—

- (a) pays or causes to be paid a penalty charge to recover a motor vehicle after it has been removed from the tunnels area in accordance with the charging scheme;
- (b) receives any sum after a motor vehicle has been sold or destroyed in accordance with the charging scheme; or
- (c) is informed that the proceeds of disposal of a motor vehicle do not exceed the amount of the penalty charges payable in respect of the motor vehicle in accordance with the charging scheme.

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(a) 1988 c.53.

### **Right to make representations**

3.—(1) A relevant person must, on the happening of an event such as is referred to in sub-paragraph (a), (b) or (c) of paragraph 2, immediately be informed by notice in writing, by or on behalf of TfL, of that person's right to make representations under this paragraph and that person's right of appeal under paragraph 4.

(2) A relevant person may make representations in writing to TfL on one or more of the grounds mentioned in sub-paragraph (3).

(3) The grounds are—

- (a) that the penalty charge paid to secure the release or recovery of the motor vehicle exceeded the amount applicable in the circumstances of the case;
- (b) in a case where the motor vehicle was removed and penalty charges were outstanding with respect to the motor vehicle, that—
  - (i) those penalty charges were all incurred before the person liable in relation to the motor vehicle at the time of its removal had become the person liable in relation to that motor vehicle; or
  - (ii) the number of penalty charges incurred after that person had become the person liable was fewer than such number as may be specified in the charging scheme; or
- (c) that the relevant person is a vehicle-hire firm and—
  - (i) the motor vehicle in question was at the time the motor vehicle was removed hired from that firm under a hiring agreement; and
  - (ii) the person hiring it had signed a statement of liability acknowledging that person's liability in respect of any penalty charge incurred in respect of the motor vehicle during the currency of the hiring agreement.

(4) TfL may disregard any representations received by it after the end of the period of 28 days beginning with the date on which the relevant person is informed in accordance with sub-paragraph (1) of that person's right to make representations.

(5) It is the duty of the person to whom representations are made under this paragraph, before the end of the period of 56 days beginning with the day on which it receives the representations—

- (a) to consider them and any supporting evidence which the person making them provides; and
- (b) to serve on that person a notice of its decision as to whether or not it accepts that the ground in question has been established.

(6) Where TfL serves notice under sub-paragraph (5)(b) that it accepts that a ground has been established it must (when serving that notice or as soon as practicable after it has done so) refund any penalty charge or charges—

- (a) paid to recover the motor vehicle after it had been removed from the tunnels area;
- (b) deducted from the proceeds of sale of the motor vehicle,

except to the extent (if any) to which those sums were properly paid or deducted.

(7) Where TfL serves notice under sub-paragraph (5)(b) that it does not accept that a ground has been established, that notice must—

- (a) inform the relevant person of that person's right to appeal to an adjudicator;
- (b) indicate the nature of the adjudicator's power to award costs against any person making a valid appeal;
- (c) describe in general terms the form and manner in which such an appeal is required to be made; and
- (d) provide such other information as TfL considers appropriate.

(8) Where TfL fails to comply with sub-paragraph (5) before the end of the period of 56 days there mentioned—



- (a) TfL is deemed to have accepted that the ground in question has been established and to have served notice to that effect under sub-paragraph (6); and
- (b) sub-paragraph (6) has effect as if it required any refund to be made immediately after the end of that period.

(9) Any notice required to be served under this paragraph may be served personally or by post or in such form as is agreed between TfL and the relevant person.

(10) Where the person on whom any document is required to be served by sub-paragraph (5) is a body corporate, the document is duly served if it is sent by post or any such form as is agreed to the secretary or clerk to that body.

### **Right to appeal to an adjudicator**

4.—(1) Where TfL serves notice under paragraph 3(5)(b) that it does not accept that a ground on which representations were made under that paragraph has been established, the person making those representations may appeal to an adjudicator against TfL’s decision, before—

- (a) the end of the period of 28 days beginning with the date of service of the notice; or
- (b) such longer period as an adjudicator may allow following consultation with TfL.

(2) An adjudicator may allow a longer period for an appeal under paragraph (1)(b) whether or not the period specified in paragraph (1)(a) has already expired.

(3) On an appeal under this paragraph, the adjudicator must consider the representations in question and any additional representations which are made by the appellant on any of the grounds mentioned in paragraph 3(3) and, if the adjudicator concludes—

- (a) that any of the representations are justified; and
- (b) that TfL would have been under the duty imposed by paragraph 3(6) to refund any sum if TfL had served notice that it accepted that the ground in question had been established,

the adjudicator must direct the authority to make the necessary refund.

(4) TfL must comply with a direction of the adjudicator.

## **PART 3**

### **RECOVERY OF PENALTY CHARGES**

#### **Penalty charge notices**

5.—(1) Where a charge with respect to a motor vehicle under the charging scheme has not been paid by the time by which it is required by the charging scheme to be paid and, in those circumstances, the scheme provides for the payment of a penalty charge, TfL may serve a notice (“a penalty charge notice”).

(2) A penalty charge notice must be served on the registered keeper of the motor vehicle.

(3) A penalty charge notice must state—

- (a) the amount of the penalty charge to which it relates;
- (b) the grounds on which TfL believes that the penalty charge is payable with respect to the motor vehicle;
- (c) the time, in accordance with the charging scheme under which it is imposed, and the manner in which the penalty charge must be paid;
- (d) the amount of the reduced penalty charge if it is duly paid in the time specified in the charging scheme;
- (e) the amount of the increased penalty charge if—
  - (i) the penalty charge is not paid; or
  - (ii) no representations are made under paragraph 6,

- before the end of the relevant period as defined by paragraph 10(3)(a);
- (f) the address to which payment of the penalty charge must be sent;
  - (g) that the person on whom the notice is served (“the recipient”) may be entitled to make representations under paragraph 10; and
  - (h) the effect of paragraph 9.

### **Representations against penalty charge notice**

6.—(1) Where it appears to the recipient that one or other of the grounds mentioned in sub-paragraph (3) are satisfied, the recipient may make representations in writing to that effect to TfL.

(2) TfL may disregard any such representations which are received by it after the end of the period of 28 days beginning with the date on which the penalty charge notice was served.

(3) The grounds are—

- (a) that the recipient—
  - (i) never was the registered keeper in relation to the motor vehicle in question;
  - (ii) had ceased to be the person liable before the date on which the motor vehicle was used in the tunnels; or
  - (iii) became the person liable after that date;
- (b) that the charge payable for the use or keeping of the motor vehicle on a road on the occasion in question was paid at the time and in the manner required by the charging scheme;
- (c) that no penalty charge is payable under the charging scheme;
- (d) that the motor vehicle had been used or kept, or permitted to be used or kept, on a road by a person who was in control of the motor vehicle without the consent of the registered keeper;
- (e) that the penalty charge exceeded the amount applicable in the circumstances of the case;
- (f) that the recipient is a vehicle-hire firm and—
  - (i) the motor vehicle in question was at the material time hired from that firm under a hiring agreement; and
  - (ii) the person hiring it had signed a statement of liability acknowledging liability in respect of any penalty charge notice imposed in relation to the motor vehicle during the currency of the hiring agreement.

(4) Where the ground mentioned in sub-paragraph (3)(a)(ii) is relied on in any representations made under this paragraph, those representations must include a statement of the name and address of the person to whom the motor vehicle was disposed of by the person making the representations (if that information is in that person’s possession).

(5) Where the ground mentioned in sub-paragraph (3)(a)(iii) is relied on in any representations made under this paragraph, those representations must include a statement of the name and address of the person from whom the motor vehicle was acquired by the person making the representations (if that information is in that person’s possession).

(6) Where representations are duly made under this paragraph to TfL it must—

- (a) consider them and any supporting evidence which the person making them provides; and
- (b) serve on that person notice of its decision as to whether or not it accepts that the ground in question has been established.

### **Cancellation of penalty charge notice**

7.—(1) Where representations are made under paragraph 6 and TfL accepts that the ground in question has been established it must—

- (a) cancel the penalty charge notice; and

- (b) state in the notice served under paragraph 6(6) that the penalty charge notice has been cancelled.

(2) The cancellation of a penalty charge notice under this paragraph is not to be taken to prevent TfL concerned from serving a fresh penalty charge notice on the same or another person.

### **Rejection of representations against penalty charge notice**

**8.**—(1) Where any representations are made under paragraph 6 but TfL does not accept that a ground has been established, the notice served under paragraph 6(6) (“the notice of rejection”) must—

- (a) state that a charge certificate may be served under paragraph 10 unless before the end of the period of 28 days beginning with the date of service of the notice of rejection—
  - (i) the penalty charge is paid; or
  - (ii) the person on whom the notice is served appeals to an adjudicator against the penalty charge;
- (b) indicate the nature of an adjudicator’s power to award costs against any person appealing to the adjudicator; and
- (c) describe in general terms the form and manner in which an appeal to an adjudicator must be made.

(2) A notice of rejection may contain such other information as TfL considers appropriate.

### **Adjudication by an adjudicator**

**9.**—(1) Where TfL serves notice under paragraph 6(6) that it does not accept that a ground on which representations were made under that paragraph has been established, the person making those representations may appeal to an adjudicator against TfL’s decision before—

- (a) the end of the period of 28 days beginning with the date of service of that notice; or
- (b) such longer period as an adjudicator may allow, following consultation with TfL.

(2) An adjudicator may allow a longer period for an appeal under sub-paragraph (1)(b) whether or not the period specified in sub-paragraph (1)(a) has already expired.

(3) On an appeal under this paragraph, the adjudicator must consider the representations in question and any additional representations which are made by the appellant on any of the grounds mentioned in paragraph 6(3) and may give TfL such directions as the adjudicator considers appropriate.

(4) TfL must comply with a direction of the adjudicator given under sub-paragraph (3).

### **Charge certificates**

**10.**—(1) Where a penalty charge notice is served on any person and the penalty charge to which it relates is not paid before the end of the relevant period, TfL may serve on that person a statement (a “charge certificate”) to the effect that the penalty charge in question is increased to the sum specified in the charging scheme under which it was incurred.

(2) Where TfL has served a charge certificate on any person it may cancel the charge certificate and serve or cancel such further charge certificates as it thinks fit.

(3) The relevant period, in relation to a penalty charge notice, is the period of 28 days beginning—

- (a) where no representations are made under paragraph 6, with the date on which the penalty charge notice is served;
- (b) where—
  - (i) such representations are made;
  - (ii) a notice of rejection is served by TfL; and

- (iii) no appeal against the notice of rejection is made, with the date on which the notice of rejection is served; or
- (c) where there has been an unsuccessful appeal against a notice of rejection, with the date on which notice of the adjudicator's decision is served on the appellant.

(4) Where an appeal against a notice of rejection is made but is withdrawn before the adjudicator gives notice of the adjudicator's decision, the relevant period in relation to a penalty charge notice is the period of 14 days beginning with the date on which the appeal is withdrawn.

### **Enforcement of charge certificate**

11. Where a charge certificate has been served on any person and the increased penalty charge provided for in the certificate is not paid before the end of the period of 14 days beginning with the date on which the certificate is served, TfL may, if a county court so orders, recover the increased charge as if it were payable under a county court order.

### **Invalid notices**

12.—(1) This paragraph applies where—

- (a) a county court makes an order under paragraph 11;
- (b) the person against whom it is made makes a statutory declaration complying with sub-paragraph (2); and
- (c) that declaration is, before the end of the period of 21 days beginning with the date on which notice of the county court's order is served on that person, served on the county court which made the order.

(2) The statutory declaration must state that the person making it—

- (a) did not receive the penalty charge notice in question;
- (b) made representations to TfL under paragraph 6 but did not receive a notice of rejection; or
- (c) appealed to an adjudicator under paragraph 9 against the rejection by TfL of representations made by that person under paragraph 6 but had no response to the appeal.

(3) Sub-paragraph (4) applies where it appears to a county court, on the application of a person on whom a charge certificate has been served, that it would be unreasonable in the circumstances of that person's case to insist on that person serving a statutory declaration within the period of 21 days allowed for by sub-paragraph (1).

(4) Where this sub-paragraph applies, the county court may allow such longer period for service of the statutory declaration as the county court considers appropriate.

(5) Where a statutory declaration is served under sub-paragraph (1)(c)—

- (a) the order of the court is deemed to have been revoked;
- (b) the charge certificate is deemed to have been cancelled;
- (c) in the case of a declaration under sub-paragraph (2)(a), the penalty charge notice to which the charge certificate relates is deemed to have been cancelled; and
- (d) the district judge must serve written notice of the effect of service of the declaration on the person making it and on TfL.

(6) Service of a declaration under sub-paragraph (2)(a) must not be taken to prevent TfL from serving a fresh penalty charge notice on the same or another person.

(7) Where a declaration has been served under sub-paragraph (2)(b) or (c), TfL must refer the case to the adjudicator who may give such directions as the adjudicator considers appropriate.

### **Enforcement by execution**

13.—(1) Subject to sub-paragraph (2)—

- (a) an unpaid penalty charge which is recoverable in accordance with paragraph 11 as if it were payable under a county court order; and
- (b) a sum to be paid by a person (other than TfL) under an adjudication of an adjudicator which is recoverable in accordance with paragraph 14 as if it were payable under a county court order,

is to be treated for purposes of enforcement by execution as if it was a specified debt in the Enforcement of Road Traffic Debts Order 1993 (“the 1993 Order”)(a).

(2) For the purposes of the enforcement of an unpaid penalty charge referred to in sub-paragraph (1)(a) or the enforcement of the payment of a sum referred to in sub-paragraph (1)(b)—

- (a) any reference in the 1993 Order to “the authority” is to be treated as a reference to TfL; and
- (b) the reference in article 3(1) of the 1993 Order to “the time for serving a statutory declaration” is to be treated as a reference to, as the case may be—
  - (i) the period of 21 days allowed by paragraph 12(1)(c); or
  - (ii) where a longer period has been allowed pursuant to paragraph 12(4), that period.

**14.** Any amount which is payable under an adjudication must, if a county court so rules, be recoverable by the person to whom the amount is payable, as if it were payable under a county court order.

#### **Service by post**

**15.** Any penalty charge notice, charge certificate or other notice under this Schedule may be served by post (or in such other form as is agreed between the person to be served and TfL) and, where the person on whom it is to be served is a body corporate, is duly served if it is sent by post to the secretary or clerk of that body.

#### **Procedure**

**16.** The procedure to be applied to proceedings under this Schedule is that which applies to adjudication proceedings in relation to road user charging under the Road User Charging (Enforcement and Adjudication) (London) Regulations 2001(b) as amended from time to time.

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(a) S.I. 1993/2073.  
(b) S.I. 2001/2313.

## BLACKWALL AND SILVERTOWN TUNNELS BYELAWS

## PART 1

## PRELIMINARY

**Citation and commencement**

1. These byelaws may be cited as the Blackwall and Silvertown Tunnels Byelaws 2017 and were made by Transport for London under article 49(1) of the Silvertown Tunnel Order 2017 and confirmed by the Secretary of State as provided for by article 49(2) of that Order.

**Interpretation**

2.—(1) In these byelaws unless the context otherwise requires—

“the approaches” means the Blackwall Tunnel approaches and the Silvertown Tunnel approaches”;

“authorised person” means—

(a) a person acting in the course of that person’s duties who—

(i) is an employee, agent, contractor or sub-contractor of TfL; or

(ii) is authorised by TfL; or

(b) a constable, Police Community Support Officer, an officer of the Driver and Vehicle Standards Agency, an officer of the Health and Safety Executive, person authorised for the purposes of section 44 (powers of fire-fighters etc in an emergency etc) of the Fire Services Act 2004 or a person accredited by or under section 41 (accreditation under community safety accreditation schemes) of the Police Reform Act 2002, acting in the execution of that person’s duties within the tunnels;

“the Blackwall Tunnel” means the twin bore road tunnel under the river Thames between Blackwall and the Greenwich Peninsula and forming part of the A102 road, which is a GLA road, as shown by solid green lines on the tunnels location and operational boundaries plans;

“the Blackwall Tunnel approaches” means the northern and southern approaches to the Blackwall Tunnel, the linear extent of which is shown by dashed green lines on the tunnels location and operational boundaries plans;

“the Blackwall Tunnel area” means the extent of the public highway comprised in and along the Blackwall Tunnel and the Blackwall Tunnel approaches;

“the byelaws” means these byelaws;

“dangerous goods” means a substance or article of which the international carriage by road is prohibited, or authorised on certain conditions, by Annex A of the European Agreement Concerning the International Carriage of Dangerous Goods by Road as from time to time amended;

“fixed penalty notice” is a notice issued under article 50 of the Silvertown Tunnel Order 2017;

“marshalling area” means an area (if any) provided for the marshalling of motor vehicles using, or intending to use, the tunnels;

“motor vehicle” means a mechanically propelled vehicle intended or adapted for use on roads;

“notice” includes a sign, signal and a digital or other display, and in appropriate circumstances, an audible announcement;

“the Silvertown Tunnel” means the twin bore road tunnel to be constructed as Work No. 1, and as shown by solid blue lines on the tunnels location and operational boundaries plans;

“the Silvertown Tunnel approaches” means the northern and southern approaches to the Silvertown Tunnel, the linear extent of which is shown by dashed blue lines on the tunnels location and operational boundaries plans;

“the Silvertown Tunnel area” means the extent of the public highway to be comprised in and along the Silvertown Tunnel and the Silvertown Tunnel approaches;

“TfL” means Transport for London, the body corporate established under section 154 of the 1999 Act, of Windsor House, 42 Victoria Street, London, SW1H 0TL;

“trailer” means a vehicle (including a horse box) designed or adapted to be towed by a motor vehicle;

“the tunnels” means the Blackwall Tunnel and the Silvertown Tunnel;

“the tunnels areas” means the Blackwall Tunnel area and the Silvertown Tunnel area;

“tunnel equipment” includes plant and machinery, and any emergency, safety or communications equipment;

“tunnel infrastructure” means the structure (including the carriageway) of the Blackwall Tunnel and the Silvertown Tunnel;

“the tunnels location and operational boundaries plans” means the plans of that description certified by the Secretary of State under article 66 of the Silvertown Tunnel Order 2017;

“vaporiser” means an electronic device that can be used to deliver nicotine or other substances to a person inhaling from the device; and

“Work No. 1” means the work of that description in Schedule 1 to the Silvertown Tunnel Order 2017.

(2) References in these byelaws to TfL include any wholly-owned subsidiary (as defined in section 1159 of the Companies Act 2006) of TfL.

(3) The Interpretation Act 1978 applies to the interpretation of these byelaws as it applies to the interpretation of an Act of Parliament.

## PART 2

### CONDUCT AND BEHAVIOUR

#### **Smoking etc.**

3. A person in the tunnels must not—

- (a) smoke or carry an item that is alight including a lit cigar, cigarette, cigarillo, match, pipe or lighter; or
- (b) use a vaporiser.

#### **Unacceptable behaviour**

4. A person must not—

- (a) climb upon, remove or damage (whether deliberately or negligently) any tunnel infrastructure or tunnel equipment;
- (b) remove, move or otherwise interfere with the tunnels or any machinery, apparatus, tools or other things in use or intended for use in connection with the tunnels;
- (c) post a bill, placard or notice on any tunnel infrastructure or tunnel equipment;
- (d) write, print, draw or paint on or cut, mark or stamp any tunnel infrastructure or tunnel equipment;
- (e) fix anything to any tunnel equipment or tunnel infrastructure;

- (f) spit, urinate or defecate in the tunnels areas;
- (g) leave litter or waste in the tunnels areas;
- (h) move, alter, deface or otherwise interfere with any notice belonging to TfL which is exhibited or placed in the tunnels areas; or
- (i) without prejudice to any other requirement of these byelaws, act in any way as to cause a nuisance in the tunnels areas.

## PART 3

### EQUIPMENT AND SAFETY

#### **General safety**

5.—(1) A person must not operate, obstruct, interfere with or stop any tunnel equipment except—

- (a) by means of any of the controls intended for use by that person; or
- (b) in an emergency and by means of equipment on or near which is a notice indicating that it is to be used in an emergency.

(2) A person must not place, throw, drop or trail anything which is capable of injuring or endangering any person or damaging any property in the tunnels areas.

(3) A person must not obstruct or in any way interfere with the tunnels areas.

(4) A person must not, without reasonable cause, activate, use or interfere with any emergency, safety or communications equipment within the tunnels areas.

## PART 4

### ACCESS AND TRAFFIC

#### **Unauthorised access and loitering**

6.—(1) A person must not enter, attempt to enter or remain in any part of the tunnels areas where there is a notice prohibiting or restricting access.

- (2) A person must not loiter in the tunnels areas if asked to leave by an authorised person.
- (3) A driver of a motor vehicle must not sleep within the tunnels areas.

#### **Traffic regulation**

7.—(1) A person (other than an authorised person) must not enter the tunnels on foot.

(2) A person (other than an authorised person) must not use or cause to be used within the tunnels areas a pedal cycle (whether electric or not), tricycle, barrow, cart, buggy, pedicab, rickshaw, vehicle used as a personal transporter, or human or animal drawn means of conveyance except if it is conveyed as the load or part of the load of a motor vehicle.

(3) A person must not take into the tunnels an animal unless the animal is enclosed in a motor vehicle or trailer.

(4) A person must not release an animal from a motor vehicle.

(5) A person must not enter the tunnels in a vehicle which has insufficient fuel or power for the journey to be completed in the tunnels without the need for additional fuel or power.

(6) A person must not abandon a motor vehicle in the tunnels areas except in an emergency as directed by an authorised person.



(7) A person must not operate a motor vehicle music or sound system at such volume as to cause nuisance to users of the tunnels.

(8) A person must not unnecessarily, inappropriately or excessively use a car horn, klaxon or lights (including car lamps) in the tunnels areas.

(9) A person must not take or cause to be taken into the tunnels areas a motor vehicle which by reason of its condition is likely to break down or is in such condition as is likely to injure persons or damage property.

(10) A person must not use or cause to be used a motor vehicle in the tunnels unless the load carried by the motor vehicle is at all times contained or secured (if necessary by physical restraint other than its own weight) and is in such a position that neither danger nor nuisance is caused or is likely to be caused to a person or property by reason of the load or any part of the load falling or being thrown from the motor vehicle.

(11) No driver of or passenger in a motor vehicle which has broken down may carry out repairs to or refuel a motor vehicle in the tunnels areas without the permission of an authorised person.

(12) A driver of a motor vehicle which has broken down in the tunnels areas must—

- (a) immediately notify an authorised person of the breakdown; and
- (b) switch on the motor vehicle's hazard lights.

(13) A driver of a motor vehicle which has shed its load in full or in part in the tunnels such that it has caused, or may cause, an obstruction or other hazard to users of the tunnels must—

- (a) not attempt to reclaim the load;
- (b) immediately inform an authorised person of the loss of the load and of its approximate location; and
- (c) immediately inform an authorised person of the identity of, and contact details for, the owner of the load.

(14) A person must not take into the Blackwall Tunnel a motor vehicle which has—

- (a) a weight of more than 44,000 kilograms;
- (b) an axle load of more than 10,000 kilograms for a single non-driving axle and 11,500 kilograms for a single driving axle;
- (c) a width of more than 2.9 metres; or
- (d) a rigid length of more than 18.65 metres.

(15) A person must not take into the Blackwall Tunnel a motor vehicle of a height greater than the heights set out in this table—

<i>Direction</i>	<i>Traffic lanes and maximum vehicle heights</i>
Northbound	Lane 1 (nearside): 4 metres or 13 feet Lane 2 (offside): 2.8 metres or 9 feet
Southbound	Both lanes: 4.7 metres or 15 feet and six inches

(16) A driver of a motor vehicle must not (unless directed by an authorised person) drive in the tunnels areas at a speed of less than ten miles per hour except where the driver is prevented from driving at or above ten miles per hour on account of the traffic flow.

(17) A driver of a motor vehicle must comply with any direction given by an authorised person or traffic notice, sign or signal at any time in terms of the traffic lanes to be used by motor vehicles or not to be used by motor vehicles.

## **Dangerous goods**

8.—(1) A person must not, except with the consent of TfL, take or cause or permit to be taken into the tunnels areas a motor vehicle carrying dangerous goods and must at all times when in the tunnels areas comply with the conditions imposed by paragraph (2) below.

(2) The consent of TfL, if granted, is subject to the following conditions—

- (a) no person may drive into the tunnels any motor vehicle to which paragraph (1) applies except with such escort as may be directed or required by an authorised person and the driver of every such motor vehicle must take and comply with such directions or precautionary measures as an authorised person considers expedient in the circumstances; and
- (b) a driver of a motor vehicle to which paragraph (1) applies must be accompanied by a person legally entitled to drive the motor vehicle who will be capable of stopping the motor vehicle in the event of sudden illness or incapacity overtaking the driver while in the tunnels.

(3) The driver of a motor vehicle to which paragraph (1) applies must stop on arriving at any marshalling area and must not proceed further into the tunnels without the consent of, or as directed by, an authorised person.

(4) The consent of TfL under this byelaw may be granted generally or specifically, including in respect of any category or description of dangerous goods.

(5) TfL must provide and maintain on its website a mechanism for potential tunnel users to obtain the consent required under paragraph (1) above or granted under paragraph (4).

(6) A driver of a motor vehicle in the tunnels areas must not prevent an authorised person from inspecting the motor vehicle for the purpose of ascertaining compliance with the requirements which apply at any time in respect of the carriage of dangerous goods.

## **PART 5**

### **ENFORCEMENT, ETC.**

#### **Name and address**

9.—(1) A person reasonably suspected by an authorised person of breaching or attempting to breach a byelaw must immediately give that person's name and address when requested to do so by an authorised person.

(2) The authorised person requesting details under byelaw 9(1) must state the nature of the suspected breach of the byelaw in general terms at the time of the request.

#### **Compliance with instructions and notices, etc.**

10.—(1) A person in the tunnels areas must carry out the reasonable instructions of an authorised person or the requirements of a notice displayed by TfL.

(2) A person must not obstruct an authorised person acting in the course of the duties of the authorised person.

(3) A person acting in compliance with the instructions of an authorised person does not commit a breach of the byelaw which otherwise prohibits the act.

(4) A person is not subject to a penalty for breach of a byelaw by disobeying a notice unless it is proved to the satisfaction of the Court before whom the complaint is laid that the notice referred to in the particular byelaw was displayed.

### **Identification of authorised persons**

**11.—**(1) An authorised person who is exercising any power conferred on an authorised person by any of the byelaws must produce a form of identification when requested to do so.

(2) The form of identification mentioned in byelaw 11(1) must include the name of the authorised person's employer and a means of identifying the authorised person.

### **Breaches by authorised persons**

**12.** An authorised person acting in the course of the duties of the authorised person is not liable for a breach of a byelaw.

### **Attempted breach**

**13.** A person who attempts to breach a byelaw is liable to the same penalty as a person who breaches a byelaw.

## CLASSIFICATION OF ROADS, ETC.

## PART 1

## CLASSIFICATION AND DESIGNATION OF GLA ROADS (TRANSPORT FOR LONDON ROAD NETWORK)

In the administrative area of the Royal Borough of Greenwich—

**A12 Blackwall Tunnel Southern Approach Southbound**

1. A length of highway proposed to be improved and to be classified as part of the A12, commencing from the existing Blackwall Tunnel South Portal on the existing A102 Blackwall Tunnel Southern Approach Southbound carriageway and continuing in a generally south-easterly direction to a point where it merges with the Silvertown Tunnel Southern Approach Southbound carriageway, at a point approximately 115 metres north-west of the centre point of where it passes under the existing Boord Street footbridge.

Identified by a green line on the classification of roads plans (classification).

**A12 Blackwall Tunnel Southern Approach Northbound**

2. A length of highway proposed to be improved and to be classified as part of the A12, commencing from a point where it diverges from the Silvertown Tunnel Southern Approach Northbound carriageway, at a point approximately 160 metres north-west of the centre point of where it passes under the existing Boord Street footbridge, and continuing in a generally north-westerly direction, to the existing Blackwall Tunnel South Portal on the existing A102 Blackwall Tunnel Southern Approach Northbound carriageway.

Identified by a green line on the classification of roads plans (classification).

**A12 Crossover between Blackwall Tunnel Southern Approach Northbound and Southbound Carriageways**

3. A length of highway proposed to be improved and to be classified as part of the A12, commencing from a point on the existing A102 Blackwall Tunnel Southern Approach Northbound carriageway approximately 350 metres south of the existing Blackwall Tunnel South Portal, and continuing in a generally northerly direction, to a point where it joins the existing A102 Blackwall Tunnel Southern Approach Southbound carriageway at a point approximately 400 metres south of the existing Blackwall Tunnel South Portal, at a point immediately south of the existing junction of the A102 Blackwall Tunnel Southern Approach Southbound with the existing Pavilion Lane.

Identified by a green line on the classification of roads plans (classification).

**Pavilion Lane (Realigned) (to Millennium Way)**

4. A length of new unclassified highway proposed to be constructed and to be designated as a GLA Road (forming part of the Transport for London Road Network (“TLRN”)), commencing at a point on the existing A102 Blackwall Tunnel Southern Approach Southbound approximately 130 metres south of the existing Blackwall Tunnel Southbound South Portal and continuing in a generally southerly direction then turning eastwards to its junction with the existing Millennium

Way, at a point approximately 90 metres north-west of its junction with the existing Edmund Halley Way.

Identified by a dark blue line on the classification of roads plans (designation).

#### **Pavilion Lane (Realigned) (from Millennium Way)**

5. A length of new unclassified highway proposed to be constructed and to be designated as a GLA Road (forming part of the TLRN), commencing from a point on the existing Millennium Way approximately 75 metres north-west of its junction with the existing Edmund Halley Way and continuing in a generally southerly direction to its junction with the Silvertown Tunnel Southern Approach Northbound, proposed to be located approximately 75 metres south-west of the centre point of the existing Millennium Way, which is approximately 50 metres south-east of the centre point of its junction with the existing Edmund Halley Way.

Identified by a dark blue line on the classification of roads plans (designation).

#### **A102 Silvertown Tunnel Southern Approach Northbound**

6. A length of new highway proposed to be constructed and to be classified as the A102 and to be designated as a GLA Road (forming part of the TLRN), commencing from a point where it diverges from the A102 Blackwall Tunnel Southern Approach Northbound carriageway at a point approximately 160 metres north-west of the centre point of where it passes under the existing Boord Street footbridge, and continuing in a generally northerly direction to the South Portal of the Silvertown Tunnel (Northbound) proposed to be located approximately 40 metres south-west of the centre point of the existing Millennium Way which is approximately 50 metres south-east of the centre point of its junction with the existing Edmund Halley Way.

Identified by a dark blue line on the classification of roads plans (classification) and by a dark blue line on the classification of roads plans (designation).

#### **A102 Silvertown Tunnel Southern Approach Southbound**

7. A length of new highway proposed to be constructed and to be classified as the A102 and to be designated as a GLA Road (forming part of the TLRN), commencing from the South Portal of the Silvertown Tunnel (Southbound) proposed to be located approximately 40 metres south-west of the centre point of the existing Millennium Way which is approximately 65 metres south-east of the centre point of its junction with the existing Edmund Halley Way, and continuing in a generally south-easterly direction to a point where it merges with the existing A102 Blackwall Tunnel Southern Approach Southbound carriageway, at a point approximately 115 metres north-west of the existing Boord Street footbridge.

Identified by a dark blue line on the classification of roads plans (classification) and by a dark blue line on the classification of roads plans (designation).

In the administrative areas of the Royal Borough of Greenwich and the London Borough of Newham—

#### **A102 The Silvertown Tunnel Northbound**

8. A length of new highway proposed to be constructed and to be classified as the A102 and to be designated as a GLA Road (forming part of the TLRN), and to be known as the Silvertown Tunnel (Northbound), commencing from a point at the South Portal of the proposed Silvertown Tunnel proposed to be located approximately 30 metres south-west of the centre point of the existing Millennium Way, which is approximately 55 metres south-east of the centre point of its junction with the existing Edmund Halley Way, to a point at the North Portal of the proposed Silvertown Tunnel proposed to be located approximately 65 metres west of the centre point of the existing westbound carriageway of the existing A1101 Silvertown Way that is approximately 20

metres north-west of the point where the existing A1020 Silvertown Way off-slip diverges from the existing A1101 Silvertown Way westbound, and crossing the Borough boundary at the mid-point beneath the river Thames.

Identified by a dark blue line on the classification of roads plans (classification) and by a dark blue line on the classification of roads plans (designation).

#### **A102 The Silvertown Tunnel Southbound**

9. A length of new highway proposed to be constructed and to be classified as the A102 and to be designated as a GLA Road (forming part of the TLRN), and to be known as the Silvertown Tunnel (Southbound), commencing from a point at the North Portal of the proposed Silvertown Tunnel, proposed to be located approximately 50 metres west of the centre point of the existing westbound carriageway of the existing A1101 Silvertown Way that is approximately 20 metres north-west of the point where the existing A1020 Silvertown Way off-slip diverges from the existing A1101 Silvertown Way westbound, to a point at the South Portal of the proposed Silvertown Tunnel, which is proposed to be located approximately 30 metres south-west of the centre point of the existing Millennium Way which is approximately 65 metres south-east of the centre point of its junction with the existing Edmund Halley Way, and crossing the Borough boundary at the mid-point beneath the river Thames.

Identified by a dark blue line on the classification of roads plans (classification) and by a dark blue line on the classification of roads plans (designation).

In the administrative area of the London Borough of Newham—

#### **A102 The Silvertown Tunnel Northern Approach Northbound**

10. A length of new highway proposed to be constructed and to be classified as the A102 and to be designated as a GLA Road (forming part of the TLRN), and to be known as the Silvertown Tunnel Northern Approach Northbound, commencing from the North Portal of the Silvertown Tunnel (Northbound) proposed to be located approximately 65 metres west of the centre point of the existing westbound carriageway of the existing A1101 Silvertown Way which is approximately 20 metres north-west of the point where the existing A1020 Silvertown Way off-slip diverges from the existing A1101 Silvertown Way westbound, and continuing, in a generally north westerly direction to the point where it joins the new Tidal Basin Roundabout, at a point approximately 90 metres west of the point where the existing A1011 Silvertown Way off-slip joins the Tidal Basin Roundabout.

Identified by a dark blue line on the classification of roads plans (classification) and by a dark blue line on the classification of roads plans (designation).

#### **A102 The Silvertown Tunnel Northern Approach Southbound**

11. A length of new highway proposed to be constructed and to be classified as the A102 and to be designated as a GLA Road (forming part of the TLRN), and to be known as the Silvertown Tunnel Northern Approach Southbound, commencing from its junction with the new Tidal Basin Roundabout, at a point approximately 70 metres west of the point where the existing A1011 Silvertown Way off-slip joins the Tidal Basin Roundabout and continuing in a generally south-easterly direction to the North Portal of the Silvertown Tunnel (Southbound) proposed to be located approximately 50 metres west of the centre point of the existing westbound carriageway of the existing A1011 Silvertown Way which is approximately 20 metres north-west of the point where the existing A1020 Silvertown Way off-slip diverges from the existing A1101 Silvertown Way westbound.

Identified by a dark blue line on the classification of roads plans (classification) and by a dark blue line on the classification of roads plans (designation).

### **A102 Silvertown Way Off-Slip (Dedicated Left Turn)**

12. A length of new highway proposed to be constructed and to be classified as part of the A102 and to be designated as a GLA Road (forming part of the TLRN), and to be known as the Silvertown Way Off-Slip dedicated left turn, commencing from a point on the existing A1020 Silvertown Way off-slip approximately 40 metres south-east of the point where the existing A1020 Silvertown Way off-slip joins the Tidal Basin Roundabout and continuing initially in a north-westerly direction then turning in a southerly direction to a point where it joins the Silvertown Tunnel Northern Approach Southbound, approximately 35 metres south-east of the existing Scarab Close.

Identified by a dark blue line on the classification of roads plans (classification) and by a dark blue line on the classification of roads plans (designation).

### **A102 Tidal Basin Roundabout**

13. A length of highway comprising, in part, improved existing highway and, in part, new highway proposed to be constructed, all to be classified as part of the A102 and to be designated as a GLA Road (forming part of the TLRN), and to be known as Tidal Basin Roundabout, over the entire length of the circulatory carriageway of the Tidal Basin Roundabout and including a section of new carriageway through the centre island of the roundabout.

Identified by a dark blue line on the classification of roads plans (classification) and by a dark blue line on the classification of roads plans (designation).

### **A102 Lower Lea Crossing Eastbound**

14. A length of existing highway proposed to be improved and to be classified as part of the A102, and to be designated as a GLA Road (forming part of the TLRN), and to be known as the Lower Lea Crossing (eastbound), commencing from a point on the existing A1020 Lower Lea Crossing at the centre point of where the existing A1020 Lower Lea Crossing meets the Borough boundary, and continuing in a generally south-easterly direction to a point where it joins the new Tidal Basin Roundabout at a point approximately 90 metres south-west of the centre point of where the existing Tidal Basin Roundabout passes under the existing A1011 Silvertown Way, and continuing in a generally south easterly direction towards the Silvertown Tunnel Northern Approach Southbound to a point where it joins the new Tidal Basin Roundabout at a point approximately 95 metres south-west of the centre point of where the existing Tidal Basin Roundabout passes under the existing A1011 Silvertown Way.

Identified by a dark blue line on the classification of roads plans (classification) and by a dark blue line on the classification of roads plans (designation).

### **A102 Lower Lea Crossing Westbound**

15. A length of existing highway proposed to be improved and to be classified as part of the A102 and to be designated as a GLA Road (forming part of the TLRN), and to be known as the Lower Lea Crossing (westbound), commencing from a point on the existing A1020 Lower Lea Crossing at the centre point of where the existing A1020 Lower Lea Crossing meets the Borough boundary and continuing in a generally south easterly direction to a point where it joins the new Tidal Basin Roundabout at a point approximately 105 metres south west of the centre point of where the existing Tidal Basin Roundabout passes under the existing A1011 Silvertown Way.

Identified by a dark blue line on the classification of roads plans (classification) and by a dark blue line on the classification of roads plans (designation).

In the administrative area of the London Borough of Tower Hamlets—

#### **A102 Lower Lea Crossing (Eastbound and Westbound)**

16. A length of existing highway proposed to be classified as part of the A102 and to be designated as a GLA Road (forming part of the TLRN), and to be known as the Lower Lea Crossing (westbound and eastbound), commencing from a point on the existing A1020 Lower Lea Crossing at the centre point of where the existing A1020 Lower Lea Crossing meets the Borough boundary and continuing in a generally north westerly direction to a point where it joins the existing A1020 Leamouth Circus Roundabout at a point approximately 35 metres north-west of the centre point of where the existing A1020 Lower Lea Crossing crosses the existing Docklands Light Railway.

Identified by a dark blue line on the classification of roads plans (classification) and by a dark blue line on the classification of roads plans (designation).

#### **A102 Leamouth Circus Roundabout**

17. A length of existing highway proposed to be classified as part of the A102 and to be designated as a GLA Road (forming part of the TLRN), and to be known as the Leamouth Circus Roundabout, over the entire length of the circulatory carriageway of the existing A1020 Leamouth Circus Roundabout including spurs leading off the arms of the roundabout for a length terminating at the crossing point of the existing roads, in each case.

Identified by a dark blue line on the classification of roads plans (classification) and by a dark blue line on the classification of roads plans (designation).

#### **A102 Leamouth Road (Northbound and Southbound)**

18. A length of existing highway proposed to be classified as part of the A102 and to be designated as a GLA Road (forming part of the TLRN), and to be known as the Leamouth Road (northbound and southbound), commencing from the point of its junction with the existing A1020 Leamouth Circus Roundabout, and continuing in a generally northerly direction to its junction with the existing A13 East India Dock Road, including the off-slip and the on-slip on the existing A13 East India Dock Road.

Identified by a dark blue line on the classification of roads plans (classification) and by a dark blue line on the classification of roads plans (designation).

#### **A12 Blackwall Tunnel Northern Approach Southbound**

19. A length of existing highway proposed to be classified as part of the A12, commencing from a point where it diverges from the existing A12 Blackwall Tunnel Northern Approach Southbound carriageway, at the junction with the existing A13 East India Dock Road, and continuing in a generally south-easterly direction, to the existing Blackwall Tunnel North Portal on the existing A102 Blackwall Tunnel Northern Approach Southbound carriageway, and including the on-slip from the existing A13 East India Dock Road.

Identified by a green line on the classification of roads plans (classification).

#### **A12 Blackwall Tunnel Northern Approach Northbound**

20. A length of existing highway proposed to be classified as part of the A12, commencing from the existing Blackwall Tunnel North Portal on the existing A102 Blackwall Tunnel Northern Approach Northbound carriageway and continuing in a generally northerly direction to a point where it joins the existing A12 Blackwall Tunnel Northern Approach Northbound carriageway, at the junction with the existing A13 East India Dock Road, and including the off-slip on the existing A13 East India Dock Road.



Identified by a green line on the classification of roads plans (classification).

In the administrative areas of the Royal Borough of Greenwich and the London Borough of Tower Hamlets—

#### **A12 Blackwall Tunnel Southbound**

21. A length of existing highway proposed to be classified as the A12, commencing from a point at the North Portal of the existing Blackwall Tunnel Southbound, to a point at the South Portal of the existing Blackwall Tunnel Southbound, crossing the Borough boundary at the mid-point beneath the river Thames.

Identified by a green line on the classification of roads plans (classification).

#### **A12 Blackwall Tunnel Northbound**

22. A length of existing highway proposed to be classified as the A12, commencing from a point at the South Portal of the existing Blackwall Tunnel Northbound, to a point at the North Portal of the existing Blackwall Tunnel Northbound, crossing the Borough boundary at the mid-point beneath the river Thames.

Identified by a green line on the classification of roads plans (classification).

## **PART 2**

### **RE-DESIGNATION OF GLA ROAD AS A LOCAL AUTHORITY ('BOROUGH') ROAD**

In the administrative area of the Royal Borough of Greenwich—

#### **Tunnel Avenue**

23. A length of existing GLA Road (forming part of the A102 Blackwall Tunnel Southern Approach Northbound) proposed to be improved and to be designated as ceasing to be a GLA road, and becoming unclassified,, commencing from a point close to the existing Tunnel Avenue where the existing bus link joins the existing A102 Blackwall Tunnel Northern Approach Northbound, approximately 65 metres north-west of the existing Boord Street footbridge, in a generally north-westerly direction, to a point on the existing Tunnel Avenue approximately 100 metres south-east of the existing Blackwall Tunnel Gate House located on the A102 Blackwall Tunnel Northern Approach Northbound.

Identified by an orange line on the classification of roads plans (designation).

# SCHEDULE 11

Article 62

## TRAFFIC REGULATION MEASURES, ETC.

### PART 1

#### SPEED LIMITS AND RESTRICTED ROADS

Note 1: Where roads are to become restricted roads as indicated in this Schedule (Part 1) and as shown on the plans relating to this Schedule (the traffic regulation measures plans (speed limits and restricted roads)), speed limits are to apply in accordance with the provisions of the Road Traffic Regulation Act 1984 (which defines national speed limits of 30 miles per hour on ‘restricted roads’ by reference to street lighting).

Note 2: Where existing speed limits (to be retained) are shown on the traffic regulation measures plans (speed limits and restricted roads) (sheets 1 to 4) which relate to Part 1 of this Schedule, this is for information only and such speed limits are not subject to this order.

<i>Borough (1)</i>	<i>Road name, number and length (2)</i>	<i>Speed limit and restricted road status (3)</i>
<i>The traffic regulation measures plans (speed limits and restricted roads) sheet 1</i>		
Royal Borough of Greenwich	Silvertown Tunnel Southern Approach Southbound  A length of new highway from the south portal of the Silvertown Tunnel Southbound, in a generally south-easterly direction to a point where it merges with the existing A102 Blackwall Tunnel Southern Approach southbound.	Restricted road
	Silvertown Tunnel Southern Approach Northbound  A length of new highway from its junction with the existing A102 Blackwall Tunnel Southern Approach northbound, in a generally northerly direction to the south portal of the Silvertown Tunnel Northbound.	Restricted road

<i>Borough (1)</i>	<i>Road name, number and length (2)</i>	<i>Speed limit and restricted road status (3)</i>
	<p>Pavilion Lane (realigned)</p> <p>A length of new highway from a point on the existing A102 Blackwall Tunnel Southern Approach Southbound 130m south of the existing Blackwall Tunnel Southbound South Portal, in a generally southerly direction then turning eastwards to its junction with the northbound carriageway of the existing Millennium Way, for a distance of approximately 150 metres, and a length of new highway from a point on the northbound carriageway of the existing Millennium Way 75 metres to the north west of its junction with the existing Edmund Halley Way, in a generally southerly direction to its junction with the Silvertown Tunnel Southern Approach Northbound, for a distance of approximately 215 metres.</p>	Restricted road
<i>The traffic regulation measures plans (speed limits and restricted roads) sheets 1 and 2</i>		
Royal Borough of Greenwich	<p>Silvertown Tunnel</p> <p>A length of new highway (tunnel) from the Borough boundary between the Royal Borough of Greenwich and the London Borough of Newham at the centre of the river Thames to the south portal of the Silvertown Tunnel Southern Approach along both the northbound and southbound carriageways of the tunnel.</p>	Restricted road
<i>The traffic regulation measures plans (speed limits and restricted roads) sheets 2 and 3</i>		
London Borough of Newham	<p>Silvertown Tunnel</p> <p>A length of new highway (tunnel) from the north portal of the Silvertown Tunnel Northern Approach to the Borough boundary between the Royal Borough of Greenwich and the London Borough of Newham at the centre of the river Thames, along both the northbound and southbound carriageways of the tunnel.</p>	Restricted road
<i>The traffic regulation measures plans (speed limits and restricted roads) sheet 3</i>		
London Borough of Newham	<p>Silvertown Tunnel Northern Approach</p> <p>A length of new highway from the point where Silvertown Tunnel Northern Approach meets Tidal Basin Roundabout in a generally south-easterly direction to the north portal of the Silvertown Tunnel along both the northbound and southbound carriageways.</p>	Restricted road

<i>Borough (1)</i>	<i>Road name, number and length (2)</i>	<i>Speed limit and restricted road status (3)</i>
	<p>Silvertown Way Off-Slip (Dedicated Left Turn)</p> <p>A length of new highway from a point on the A1020 Silvertown Way off-slip approximately 40 metres south-east of the Tidal Basin Roundabout initially in a north-westerly direction then turning in a southerly direction to a point where it joins the Silvertown Tunnel Northern Approach southbound.</p>	Restricted road
	<p>Dock Road (realigned)</p> <p>A length of new highway from the point where the realigned Dock Road meets Tidal Basin Roundabout, in a south easterly direction, for a distance of approximately 430 metres.</p>	Restricted road
	<p>Tidal Basin Roundabout</p> <p>A length of the circulatory carriageway, including the north to south through link, from a point on the existing Tidal Basin Roundabout at the centre point of where the existing Tidal Basin Roundabout passes under the existing A1011 Silvertown Way, and continuing in a generally south-westerly direction and then turning southwards and then turning eastwards to the centre point of where the existing Tidal Basin Roundabout passes under the existing A1011 Silvertown Way.</p>	Restricted road
	<p>Tunnel Services Compound Access Road (off realigned Dock Road)</p> <p>A length of new highway from its junction with the realigned Dock Road (approximately 360 metres south-east from where Dock Road meets the new Tidal Basin Roundabout) in a generally north westerly direction, for a distance of approximately 80 metres.</p>	20 miles per hour Removal of restricted road status
<i>The traffic regulation measures plans (speed limits and restricted roads) sheet 4</i>		
London Borough of Tower Hamlets	<p>Leamouth Circus Roundabout</p> <p>The length of circulatory carriageway on the existing Leamouth Circus Roundabout.</p>	Restricted road

<i>Borough (1)</i>	<i>Road name, number and length (2)</i>	<i>Speed limit and restricted road status (3)</i>
	<p>Aspen Way (Westbound)</p> <p>A length of existing highway from the point where Aspen Way westbound carriageway meets Leamouth Circus Roundabout in a westerly direction for approximately 40 metres.</p>	Restricted road
	<p>A1020 Leamouth Road</p> <p>A length of existing highway from the point where A1020 Leamouth Road meets Leamouth Circus Roundabout in northerly direction for approximately 150 metres along both the northbound and southbound carriageways.</p>	Restricted road

## PART 2

### TRAFFIC REGULATION MEASURES (CLEARWAYS AND PROHIBITIONS)

<i>Borough (1)</i>	<i>Road name, number and length (2)</i>	<i>Measures (3)</i>
<i>The traffic regulation measures (clearways and prohibitions) plans, sheet 1</i>		
Royal Borough of Greenwich	<p>Silvertown Tunnel Southern Approach Southbound</p> <p>A length of new highway from the south portal of the Silvertown Tunnel Southbound, in a generally south-easterly direction to a point where it merges with the existing A102 Southbound.</p>	Clearway (Red Route) (to include verges)
	<p>Silvertown Tunnel Southern Approach Northbound</p> <p>A length of new highway from its junction with the existing A102 Blackwall Tunnel Southern Approach northbound, in a generally northerly direction to the south portal of the Silvertown Tunnel Northbound.</p>	Clearway (Red Route) (to include verges)
	<p>Pavilion Lane (realigned)</p> <p>A length of new highway from a point on the existing A102 Blackwall Tunnel Southern Approach Southbound 130m south of the existing Blackwall Tunnel Southbound South Portal, in a generally southerly direction then turning eastwards to its junction with the northbound carriageway of the existing Millennium Way, for a distance of approximately 150 metres, and a length of new highway from a point on the northbound carriageway of the existing Millennium Way 75 metres to the north west of its junction with the existing Edmund Halley Way, in a generally southerly direction to its junction with the Silvertown Tunnel Southern Approach Northbound, for a distance of approximately 215 metres.</p>	Clearway (Red Route Side Road) (to include verges)
<i>The traffic regulation measures (clearways and prohibitions) plans, sheets 1 and 2</i>		
Royal Borough of Greenwich	<p>Silvertown Tunnel</p> <p>A length of new highway (tunnel) from the Borough boundary between the Royal Borough of Greenwich and the London Borough of Newham at the centre of the river Thames to the south portal of the Silvertown Tunnel Southern Approach along both the northbound and southbound carriageways.</p>	Clearway (Red Route) (to include verges)
<i>The traffic regulation measures (clearways and prohibitions) plans, sheets 2 and 3</i>		

<i>Borough (1)</i>	<i>Road name, number and length (2)</i>	<i>Measures (3)</i>
London Borough of Newham	<p>Silvertown Tunnel</p> <p>A length of new highway (tunnel) from the north portal of the Silvertown Tunnel Northern Approach to the Borough boundary between Royal Borough of Greenwich and London Borough of Newham at the centre of the river Thames along both the northbound and southbound carriageways.</p>	Clearway (Red Route) (to include verges)
<i>The traffic regulation measures (clearways and prohibitions) plans, sheet 3</i>		
London Borough of Newham	<p>Silvertown Tunnel Northern Approach</p> <p>A length of new highway from the point where Silvertown Tunnel Northern Approach meets Tidal Basin Roundabout in a generally south easterly direction to the north portal of the Silvertown Tunnel along both the northbound and southbound carriageways.</p>	Clearway (Red Route) (to include verges)
	<p>Silvertown Way Off-Slip (Dedicated Left Turn)</p> <p>A length of new highway from a point on the A1020 Silvertown Way off-slip approximately 40 metres south-east of the Tidal Basin Roundabout initially in a north-westerly direction then turning in a southerly direction to a point where it joins the Silvertown Tunnel Approach Southbound.</p>	No Stopping (Red Route)
	<p>Tidal Basin Roundabout</p> <p>The length of the entire circulatory carriageway of the Tidal Basin Roundabout including the north to south through link.</p>	No Stopping (Red Route)
	<p>A1020 Silvertown Way Northbound Off-Slip</p> <p>A length of existing slip road from the start of the nosing on the A1020 Silvertown Way northbound to the point where the slip road meets Tidal Basin Roundabout.</p>	No Stopping (Red Route Side Road)
	<p>A1020 Silvertown Way Southbound On-Slip</p> <p>The length of existing slip road from where it meets Tidal Basin Roundabout to the end of the nosing on A1020 Silvertown Way southbound.</p>	No Stopping (Red Route Side Road)

<i>Borough (1)</i>	<i>Road name, number and length (2)</i>	<i>Measures (3)</i>
	<p>Tidal Basin Road</p> <p>A length of existing highway from the point where Tidal Basin Road meets Tidal Basin Roundabout, to its junction with Western Gateway along both the westbound and eastbound carriageway.</p>	No Stopping (Red Route Side Road)
	<p>Tunnel Services Compound Access Road (off realigned Dock Road)</p> <p>A length of new highway from its junction with the realigned Dock Road (approximately 360 metres south-east from where Dock Road meets the new Tidal Basin Roundabout) in a generally north westerly direction, for a distance of approximately 80 metres.</p>	Waiting and loading restriction No waiting or loading at any time
	<p>Dock Road (realigned)</p> <p>A length of new highway from the point where Dock Road meets Tidal Basin Roundabout in a southerly direction to the northern kerb line of Scarab Close junction.</p>	No Stopping (Red Route Side Road)
<i>The traffic regulation measures (clearways and prohibitions) plans, sheets 3 and 4</i>		
London Borough of Newham	<p>A1020 Lower Lea Crossing</p> <p>A length of existing highway from the point where Lower Lea Crossing meets Tidal Basin Roundabout, to the Borough boundary between London Borough of Newham and London Borough of Tower Hamlets along both the eastbound and westbound carriageways.</p>	No Stopping (Red Route)
<i>The traffic regulation measures (clearways and prohibitions) plans, sheet 4</i>		
London Borough of Tower Hamlets	<p>A1020 Lower Lea Crossing</p> <p>A length of existing highway from the Borough boundary between London Borough of Newham and London Borough of Tower Hamlets to the point where Lower Lea Crossing meets the Leamouth Circus Roundabout along both the eastbound and westbound carriageways.</p>	No Stopping (Red Route)



<i>Borough</i> (1)	<i>Road name, number and length</i> (2)	<i>Measures</i> (3)
	<p>A1020 Lower Lea Crossing to Canning Town Station Access</p> <p>A length of existing highway from its on-slip with A1020 Lower Lea Crossing westbound to approximately 45 metres north along the access road and a length of existing highway from its off-slip with A1020 Lower Lea Crossing westbound to approximately 45 metres north along the access road.</p>	No Stopping (Red Route Side Road)
	<p>Orchard Place Northern Slip Road</p> <p>A length of the existing slip road from its junction with A1020 Lower Lea Crossing Eastbound carriageway in a generally easterly direction to its junction with Orchard Place.</p>	No Stopping (Red Route Side Road)
	<p>Orchard Place Southern Slip Road</p> <p>A length of the existing slip road from its junction with A1020 Lower Lea Crossing Westbound carriageway in a generally easterly direction to its junction with Orchard Place.</p>	No Stopping (Red Route Side Road)
	<p>Leamouth Circus Roundabout</p> <p>The length of the circulatory carriageway on the existing Leamouth Circus Roundabout.</p>	No Stopping (Red Route Side Road)
	<p>Blackwall Way</p> <p>A length of existing highway from the point where Blackwall Way meets Leamouth Circus Roundabout to the start of the north splitter island on the Blackwall Way/Newport Avenue roundabout along both the northbound and southbound carriageways.</p>	No Stopping (Red Route Side Road)
	<p>Aspen Way (Westbound)</p> <p>A length of existing highway from the point where Aspen Way westbound carriageway meets Leamouth Circus Roundabout, in a westerly direction for approximately 30 metres.</p>	Clearway (Red Route Side Road) (to include verges)

<i>Borough (1)</i>	<i>Road name, number and length (2)</i>	<i>Measures (3)</i>
	<p>Saffron Avenue</p> <p>A length of existing private highway from the point where Saffron Avenue meets Leamouth Circus Roundabout to the point where it meets the Saffron Avenue/Oregano Drive mini-roundabout.</p>	<p>No Stopping (Red Route Side Road)</p> <p>Saffron Avenue is a private road. This measure can only be effected with the landowner's consent</p>
	<p>A1020 Leamouth Road</p> <p>A length of existing highway from the point where the A1020 Leamouth Road meets Leamouth Circus Roundabout in northerly direction for approximately 150 metres along both the northbound and southbound carriageways.</p>	<p>No Stopping (Red Route Side Road)</p>
	<p>Silvocea Way</p> <p>A length of existing highway from the point where Silvocea Way meets Leamouth Circus Roundabout in a generally northerly direction for a distance of approximately 35 metres to the southern kerb line of the access to the petrol station.</p>	<p>No Stopping (Red Route Side Road)</p>

**PART 3**  
**PRESCRIBED ROUTES**

<i>Borough (1)</i>	<i>Road name, number and length (2)</i>	<i>Measures (3)</i>
<i>The traffic regulation measures (clearways and prohibitions) plans, sheet 1</i>		
Royal Borough of Greenwich	<p>Pavilion Way (Realigned)</p> <p>A length of new highway from a point on the existing A102 Blackwall Tunnel Southern Approach Southbound 130m south of the existing Blackwall Tunnel Southbound South Portal, in a generally southerly direction then turning eastwards to its junction with the northbound carriageway of the existing Millennium Way, for a distance of approximately 150 metres, and a length of new highway from a point on the northbound carriageway of the existing Millennium Way 75 metres to the north west of its junction with the existing Edmund Halley Way, in a generally southerly direction to its junction with the Silvertown Tunnel Southern Approach Northbound, for a distance of approximately 215 metres.</p>	<p>New prescribed route</p> <p>Prohibition of entry (no entry at any time except by buses)</p>
	<p>Silvertown Tunnel Southern Approach Southbound</p> <p>The nearside lane of a length of new highway from the south portal of the Silvertown Tunnel Southbound, in a generally south easterly direction, for a distance of approximately 20 metres.</p>	<p>New prescribed route</p> <p>Prohibition of entry in the nearside lane (no entry at any time with the exception of buses, taxis and goods vehicles in excess of 7.5 tonnes)</p>
	<p>Silvertown Tunnel Southern Approach Northbound</p> <p>The nearside lane of a length of new highway from a point approximately 50 metres south of the south portal of the Silvertown Tunnel northbound, in a generally northerly direction to the south portal of the Silvertown Tunnel northbound.</p>	<p>New prescribed route</p> <p>Prohibition of entry in the nearside lane (no entry at any time with the exception of buses, taxis and goods vehicles in excess of 7.5 tonnes)</p>

<i>Borough (1)</i>	<i>Road name, number and length (2)</i>	<i>Measures (3)</i>
	A102 Blackwall Tunnel Southern Approach Northbound On-Slip  A length of new highway from its junction with A102 Blackwall Tunnel Southern Approach northbound carriageway approximately 70 metres south of Blackwall Tunnel Gatehouse, to its junction with Tunnel Avenue.	New prescribed route  Prohibition of entry (no entry at any time except by buses)
<i>The traffic regulation measures (clearways and prohibitions) plans, sheets 1 and 2</i>		
Royal Borough of Greenwich	Silvertown Tunnel  A length of new highway (tunnel) from the Borough boundary between Royal Borough of Greenwich and London Borough of Newham at the centre of the river Thames to the south portal of the Silvertown Tunnel Southern Approach along the nearside lane of the northbound and southbound carriageways.	New prescribed route  Prohibition of entry in the nearside lane (no entry at any time with the exception of buses, taxis and goods vehicles in excess of 7.5 tonnes)
<i>The traffic regulation measures (clearways and prohibitions) plans, sheets 2 and 3</i>		
London Borough of Newham	Silvertown Tunnel  A length of new highway (tunnel) from the Borough boundary between Royal Borough of Greenwich and London Borough of Newham at the centre of the river Thames to the north portal of the Silvertown Tunnel Northern Approach along the nearside lane of the northbound and southbound carriageways.	New prescribed route  Prohibition of entry in the nearside lane (no entry at any time with the exception of buses, taxis and goods vehicles in excess of 7.5 tonnes)
<i>The traffic regulation measures (clearways and prohibitions) plans, sheet 3</i>		
London Borough of Newham	Silvertown Tunnel Northern Approach Northbound and Southbound  A length of new highway from the north portal of the Silvertown Tunnel, in a generally northerly direction, for a distance of approximately 10 metres along the nearside lane of the northbound and southbound carriageways.	New prescribed route  Prohibition of entry in the nearside lane (no entry at any time) with the exception of buses, taxis and goods vehicles in excess of 7.5 tonnes

## PART 4

### REVOCATIONS & VARIATIONS OF EXISTING TRAFFIC REGULATION ORDERS

<i>Borough (1)</i>	<i>Road name, number and length (2)</i>	<i>Title of Order (3)</i>	<i>Revocations or Variations (4)</i>
<i>The traffic regulation measures (clearways and prohibitions) plans, sheet 1</i>			
Royal Borough of Greenwich	Tunnel Avenue  Tunnel Avenue, from its junction with A102 Blackwall Tunnel Southern Approach approximately 100 metres south east of Blackwall Tunnel Gatehouse to a point approximately 35 metres south-east of the extended south easternmost building line of No. 215 Blackwall Tunnel Approach.	The GLA and GLA Side Roads (Greenwich) Red Route (Clearway) Consolidation Traffic Order (GLA 2007 No. 417)	Order to be partially revoked  As identified on sheet 1 by a dashed purple line broken by the characters “xx”
<i>The traffic regulation measures (clearways and prohibitions) plans, sheet 3</i>			
London Borough of Newham	Dock Road (Realigned)  A length of new highway from the northern kerb line of Scarab Close junction in a south easterly direction, for a distance of approximately 430 metres.	Traffic Management Order  The Newham (Waiting and Loading Restriction) Order 2011 No. 107	Order to be varied (varying the length of the realigned Dock Road to which the Order applies)  Dock Road, along both sides, from the northern kerb line of Scarab Close junction and a point approximately 20 metres south-east of the north-western boundary of Waterfront Studios Business Centre  As identified on sheet 3 by a dashed orange line broken by the character “A”

<i>Borough (1)</i>	<i>Road name, number and length (2)</i>	<i>Title of Order (3)</i>	<i>Revocations or Variations (4)</i>
	Tidal Basin Roundabout  The length of the entire existing circulatory carriageway of the Tidal Basin Roundabout.	Traffic Management Order  The Newham (Waiting and Loading Restriction) Order 2011 No. 107	Order to be partially revoked  As identified on sheet 3 by a dashed orange line broken by the characters "xx"
<i>The traffic regulation measures (clearways and prohibitions) plans, sheets 3 and 4</i>			
London Borough of Newham	A1020 Lower Lea Crossing  A length of existing highway from the point where Lower Lea Crossing meets Tidal Basin roundabout to the Borough boundary between London Borough of Newham and London Borough of Tower Hamlets along both the westbound and eastbound carriageways.	Traffic Management Order  The Newham (Waiting and Loading Restriction) Order 2011 No. 107	Order to be partially revoked  As identified on sheets 3 and 4 by a dashed orange line broken by the characters "xx"
<i>The traffic regulation measures (clearways and prohibitions) plans, sheet 4</i>			
London Borough of Tower Hamlets	A1020 Lower Lea Crossing  A length of existing highway from the Borough boundary between London Borough of Newham and London Borough of Tower Hamlets to the point where Lower Lea Crossing meets the Leamouth Circus Roundabout along both the eastbound and westbound carriageways.	Traffic Management Order  The Tower Hamlets (Waiting and Loading Restriction) Order 2012 No. 14	Order to be partially revoked  As identified on sheet 4 by a dashed orange line broken by the characters "xx"

<i>Borough (1)</i>	<i>Road name, number and length (2)</i>	<i>Title of Order (3)</i>	<i>Revocations or Variations (4)</i>
	<p>Orchard Place Northern Slip Road</p> <p>A length of the existing slip road from its junction with A1020 Lower Lea Crossing Eastbound carriageway in a generally easterly direction for approximately 115 metres to its junction with Orchard Place.</p>	<p>Traffic Management Order</p> <p>The Tower Hamlets (Waiting and Loading Restriction) Order 2012 No. 14</p>	<p>Order to be partially revoked</p> <p>As identified on sheet 4 by a dashed orange line broken by the characters "xx"</p>
	<p>Orchard Place Southern Slip Road</p> <p>A length of the existing slip road from its junction with A1020 Lower Lea Crossing Westbound carriageway in a generally easterly direction for approximately 140 metres to its junction with Orchard Place.</p>	<p>Traffic Management Order</p> <p>The Tower Hamlets (Waiting and Loading Restriction) Order 2012 No. 14</p>	<p>Order to be partially revoked</p> <p>As identified on sheet 4 by a dashed orange line broken by the characters "xx"</p>
	<p>Blackwall Way</p> <p>A length of the existing Blackwall Way from the point where it meets Leamouth Circus Roundabout to the start of the north splitter island on Blackwall Way/Newport Avenue roundabout along both the northbound and southbound carriageway.</p>	<p>Traffic Management Order</p> <p>The Tower Hamlets (Waiting and Loading Restriction) Order 2012 No. 14</p>	<p>Order to be partially revoked</p> <p>As identified on sheet 4 by a dashed orange line broken by the characters "xx"</p>

<i>Borough (1)</i>	<i>Road name, number and length (2)</i>	<i>Title of Order (3)</i>	<i>Revocations or Variations (4)</i>
	<p>A1020 Leamouth Road</p> <p>A length of existing highway from the point where the A1020 Leamouth Road meets Leamouth Circus Roundabout, in a northerly direction for approximately 150 metres along both the northbound and southbound carriageways.</p>	<p>Traffic Management Order</p> <p>The Tower Hamlets (Waiting and Loading Restriction) Order 2012 No. 14</p>	<p>Order to be partially revoked</p> <p>As identified on sheet 4 by a dashed orange line broken by the characters "xx"</p>
	<p>Silvocea Way</p> <p>A length of existing highway from the point where Silvocea Way meets Leamouth Circus Roundabout in a generally northerly direction for a distance of approximately 35 metres to the southern kerb line of the access to the petrol station.</p>	<p>Traffic Management Order</p> <p>The Tower Hamlets (Waiting and Loading Restriction) Order 2012 No. 14</p>	<p>Order to be partially revoked</p> <p>As identified on sheet 4 by a dashed orange line broken by the characters "xx"</p>



## PART 5

### VARIATIONS OF EXISTING TRAFFIC REGULATION ORDERS DUE TO ROAD RE-CLASSIFICATION

<i>Borough (1)</i>	<i>Title of Order (2)</i>	<i>Revocations or Variations (3)</i>
Royal Borough of Greenwich	Traffic Management Order  The Greenwich (Waiting and Loading Restriction) Order 2007 No. 28	Orders to be varied  Substitute all references to A102 Blackwall Tunnel Southern Approach with A12 Blackwall Tunnel Southern Approach.  Substitute all references to A102 Blackwall Tunnel with A12 Blackwall Tunnel.  Substitute all references to A102 Blackwall Tunnel Northern Approach with A12 Blackwall Tunnel Northern Approach.
	Traffic Management Order  The Greenwich (Prescribed Routes) (No. 132) Traffic Order 2007	
	Traffic Management Order  The Greenwich (Prescribed Routes) (No. 141) Traffic Order 2009	
Royal Borough of Greenwich, London Borough of Newham, and London Borough of Tower Hamlets	GLA 2005 No. 016  The A12/A102 GLA Road (Blackwall Tunnel Northern Approach Road, Blackwall Tunnel Southern Approach Road and Northbound Blackwall Tunnel, London Boroughs of Greenwich and Tower Hamlets) (Restricted Road) Order 2005	
	GLA 2006 No. 044  The A12/A102 GLA Road (Blackwall Tunnel Northern Approach Road, Blackwall Tunnel Southern Approach Road and the Southbound Blackwall Tunnel, London Boroughs of Greenwich and Tower Hamlets) (Variable Speed Limits) Order 2006	

<i>Borough (1)</i>	<i>Title of Order (2)</i>	<i>Revocations or Variations (3)</i>
	<p>GLA 22006 No. 403</p> <p>The A102 GLA Road (Blackwall Tunnel Southern Approach Road, London Borough of Greenwich) (Prohibition of Traffic and Pedestrians) Order 2006</p>	
	<p>GLA 2011 No. 279</p> <p>The A102 GLA Side Road (Tunnel Avenue, London Borough of Greenwich) Banned Turn Experimental Traffic Order 2011</p>	
	<p>GLA 2009 No. 152</p> <p>The A12 and 102 GLA Roads (Blackwall Tunnel and Blackwall Tunnel Approaches, Greenwich and Tower Hamlets) Prescribed Routes Traffic Order 2009</p>	
	<p>GLA 2011 No. 452</p> <p>The Blackwall Tunnel (No. 1) Traffic Order 1982 A102 GLA Road (London Borough of Greenwich) Experimental Variation Order 2011</p>	
	<p>GLA 2007 No. 417</p> <p>The GLA Roads and GLA Side Roads (Greenwich) Red Route (Clearway) Consolidation Traffic Order 2007</p>	

## SCHEDULE 12

Article 63

### DEEMED MARINE LICENCE

#### PART 1

#### GENERAL

##### **Interpretation**

**1.** In this licence—

“the 2008 Act” means the Planning Act 2008;

“the 2009 Act” means the Marine and Coastal Access Act 2009;

“the Archaeological Written Scheme of Investigation” means the Archaeological Written Scheme of Investigation approved under paragraph 5(3)(b) of Schedule 2 (requirements) to the Order where it relates to any part of the river Thames;

“the authorised development” has the meaning given in paragraph 3(2);

“business day” means a day other than a Saturday or Sunday or bank holiday in England;

“commence” means beginning to carry out any part of a licensed activity and “commenced” and “commencement” shall be construed accordingly;

“condition” means a condition in Part 2 of this licence and references in this licence to numbered conditions are to the conditions with those numbers in Part 2;

“the licence holder” means Transport for London and any transferee pursuant to article 60 of the Order;

“licensed activity” means any of the activities specified in Part 1 of this licence;

“the MMO” means the Marine Management Organisation;

“the Order” means the Silvertown Tunnel Order 2017; and

“the River” means so much of the river Thames, the Thames estuary, rivers, streams, creeks, watercourses and the sea as is within the Port of London Authority’s limits as described in paragraph 2 of Schedule 1 to the Port of London Act 1968.

##### **Contacts**

**2.**—(1) Except where otherwise indicated, the main point of contact with the MMO and the address for email and postal returns and correspondence are as follows—

(a) Marine Management Organisation

Marine Licensing Team

Lancaster House

Hampshire Court

Newcastle upon Tyne

NE4 7YH

Tel—0300 123 1032

Fax—0191 376 2681

Email—[marine.consent@marinemanagement.org.uk](mailto:marine.consent@marinemanagement.org.uk)

(b) Marine Management Organisation

MMO Lowestoft

Pakefield Road  
 Lowestoft  
 Suffolk  
 NR33 0HT

Tel—01502 573 149 or 01502 572 769

Email—lowestoft@marinemanagement.org.uk

(2) The contact details for the MMO Marine Pollution Response Team are—

Tel (during office hours)—0300 200 2024

Tel (outside office hours)—07770 977 825 or 0845 051 8486

Email—dispersants@marinemanagement.org.uk

or such replacement contact details notified to the licence holder in writing by the MMO.

### Details of licensed marine activities

3.—(1) Subject to the licence conditions in Part 2, this licence authorises the licence holder (and any agent, contractor or subcontractor acting on their behalf) to carry out any licensable marine activities under section 66(1) of the 2009 Act which—

- (a) form part of, or are related to, the authorised development (including any maintenance dredging activities); and
- (b) are not exempt from requiring a marine licence by virtue of any provision made under section 74 of the 2009 Act.

(2) In this paragraph “the authorised development” means the development described in Schedule 1 (authorised development) to the Order, and any other development within the meaning of section 32 of the 2008 Act that is authorised by the Order.

(3) The grid coordinates for the area of the river Thames within which the licence holder may carry out licensed activities are specified below and more particularly shown on the works plans—

<i>Point reference</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>
1	51.502086	0.011706655
2	51.501788	0.011218071
3	51.501519	0.010658691
4	51.501260	0.010056521
5	51.501261	0.00999893
6	51.501036	0.009441541
7	51.501100	0.009372319
8	51.500936	0.009019267
9	51.500165	0.009878706
10	51.500580	0.010876711
11	51.500875	0.01148046
12	51.500973	0.011585596
13	51.501295	0.012190542
14	51.501477	0.012587593
15	51.501782	0.013148567
16	51.502141	0.013726324
17	51.502528	0.014247686
18	51.502925	0.014683064
19	51.503485	0.014001723
20	51.504437	0.013035025
21	51.504757	0.013236467
22	51.504800	0.013368036

23	51.504926	0.013359183
24	51.504991	0.013203569
25	51.504949	0.013071999
26	51.505236	0.012047159
27	51.506233	0.010577994
28	51.505490	0.009320454
29	51.504395	0.010742076
30	51.502644	0.012711054
31	51.502373	0.012252441

## PART 2

### CONDITIONS APPLYING TO CONSTRUCTION ACTIVITIES

#### **Benthic ecology monitoring and mitigation**

4.—(1) The licence holder must submit a benthic ecology monitoring and mitigation plan, for approval by the MMO, prior to the commencement of the first licensed activity.

(2) The monitoring and mitigation plan submitted for approval must include—

- (a) the detailed methodology and extent of pre-construction benthic ecology surveys to be carried out;
- (b) the detailed methodology and extent of benthic ecology surveys to be carried out prior to the removal of any temporary structures constructed as part of Work No. 20A;
- (c) the detailed methodology and extent of post-construction benthic ecology surveys to be carried out; and
- (d) details of how any necessary mitigation will be identified following the carrying out of the surveys and implemented.

(3) The licence holder must not commence the first licensed activity until the MMO has approved in writing the submitted monitoring and mitigation plan.

(4) The licence holder must—

- (a) not commence the first licensed activity until it has carried out the pre-construction surveys and implemented any pre-construction mitigation measures required by the monitoring and mitigation plan approved under sub-paragraph (3);
- (b) not remove any temporary structures constructed as part of Work No. 20A until it has carried out the surveys and implemented any mitigation measures required by the monitoring and mitigation plan approved under sub-paragraph (3) in relation to the removal of those structures; and
- (c) following completion of construction of the authorised development (including the removal of any temporary structures constructed as part of Work No. 20A), carry out the post-construction surveys and implement any post-construction mitigation measures required by the monitoring and mitigation plan approved under sub-paragraph (3), unless otherwise agreed in writing by the MMO.

#### **Construction method statement**

5.—(1) The licence holder must submit a method statement, for approval by the MMO following consultation with the Environment Agency, at least 6 weeks prior to the commencement of any licensed activity.

(2) The method statement must include the following details—

- (a) the detailed construction methodology to be employed by the licence holder in carrying out the licensed activity; and

- (b) a programme of works including timings and durations, method of delivery of material to site and plant to be used during the works.
- (3) The licence holder must not commence the licensed activity until the MMO has approved in writing the submitted method statement.
- (4) The licensed activity must be carried out in accordance with the approved method statement, unless otherwise agreed in writing by the MMO.

### **Marine pollution contingency plan**

- 6.—(1) The licence holder must submit a marine pollution contingency plan, for approval by the MMO, at least 6 weeks prior to the commencement of any licensed activity.
- (2) The marine pollution contingency plan must set out the licence holder's assessment of the likely risks which could arise as a result of a spill or collision during construction and operation of the authorised development and the methods and procedures the licence holder intends to put in place to address them.
- (3) The MMO must consult the Environment Agency and the PLA on the marine pollution contingency plan before approving it.
- (4) The licence holder must not commence the licensed activity until the MMO has approved in writing the submitted marine pollution contingency plan.
- (5) The licensed activity must be carried out in accordance with the approved marine pollution contingency plan, unless otherwise agreed in writing by the MMO.

### **Concrete and cement**

7. The licence holder must not discharge waste concrete slurry or wash water from concrete or cement into the River. The licence holder must site concrete and cement mixing and washing areas at least 10 metres from the River or surface water drain to minimise the risk of run off entering the River.

### **Coatings and treatments**

8. The licence holder must ensure that any coatings and any treatments are suitable for use in the River and are used in accordance with either guidelines approved by the Health and Safety Executive or the Environment Agency.

### **Spills, etc.**

- 9. The licence holder must—
  - (a) store, handle, transport and use fuels, lubricants, chemicals and other substances so as to prevent releases into the marine environment, including bunding of 110% of the total volume of all reservoirs and containers;
  - (b) report any spill of oil, fuel or chemicals into the marine area to the MMO Marine Pollution Response Team within 12 hours of the spill occurring; and
  - (c) store all waste in designated areas that are isolated from surface water drains and open water and are bunded.

### **Percussive piling**

10. Where a licensed activity involves percussive piling the licence holder must commence piling activities using soft-start techniques for at least 20 minutes to ensure an incremental increase in pile power until full operational power is achieved. Should piling cease for at least 10 minutes the soft-start procedures must be repeated.

### **Archaeological written scheme of investigation**

**11.**—(1) At the same time as the licence holder submits the first method statement to the MMO for approval under condition 5, the licence holder must supply the MMO with, for information purposes, the Archaeological Written Scheme of Investigation.

(2) At the same time as the licence holder submits any subsequent method statement to the MMO for approval under condition 5, the licence holder must supply the MMO with, for information purposes, the Archaeological Written Scheme of Investigation if it has been amended from any previous version supplied to the MMO under this paragraph.

(3) The licence holder must implement and act in accordance with the Archaeological Written Scheme of Investigation.

### **Removal of temporary structures, etc.**

**12.**—(1) Subject to sub-paragraph (2), the licence holder must remove all equipment, temporary structures, waste and debris associated with the licensed activities from the River within 6 weeks of the completion of those activities, unless otherwise agreed in writing by the MMO.

(2) The licence holder must remove the temporary structures constructed under Work No. 20A described in Schedule 1 to the Order as soon as reasonably practicable after the use of that Work in connection with the construction of the authorised development has ceased, unless otherwise agreed in writing by the MMO.

## **PART 3**

### **PROCEDURE FOR THE DISCHARGE OF CONDITIONS**

#### **Meaning of “application”**

**13.** In this Part, “application” means a submission by the licence holder for approval of a construction method statement under condition 5 or a marine pollution contingency plan under condition 6.

#### **Further information regarding application**

**14.**—(1) The MMO may request in writing such further information from the licence holder as is necessary to enable the MMO to consider the application.

(2) If the MMO does not make a request under sub-paragraph (1) within 20 business days of the day immediately following that on which the application is received by the MMO, it shall be deemed to have sufficient information to consider the application and is not entitled to request further information after this date without the prior agreement of the licence holder.

#### **Determination of application**

**15.**—(1) In determining the application the MMO may have regard to—

- (a) the application and any supporting information or documentation;
- (b) any further information provided by the licence holder in accordance with paragraph 14; and
- (c) such other matters as the MMO thinks relevant.

(2) Having considered the application the MMO must—

- (a) grant the application unconditionally;
- (b) grant the application subject to the conditions as the MMO thinks fit; or
- (c) refuse the application.

### **Notice of determination**

**16.—**(1) Subject to sub-paragraph (2) or (3), the MMO must give notice to the licence holder of the determination of the application within 30 business days of the day immediately following that on which the application is received by the MMO.

(2) Where the MMO has made a request under condition 14, the MMO must give notice to the licence holder of the determination of the application no later than 30 business days of the day immediately following that on which the further information is received by the MMO.

(3) The MMO and the licence holder may agree in writing a longer period of time for the provision by the MMO of a notice under sub-paragraph (1) such period to be no more than 60 days from the day immediately following that on which the application is received.

(4) Where the MMO refuses the application the refusal notice must state the reasons for the refusal.

(5) Where notice is not given by the MMO in accordance with sub-paragraph (1) or (2) the application is deemed to have been refused.

### **Arbitration**

**17.—**(1) Subject to condition 16(2), any difference under any provision of this licence must , unless otherwise agreed between the MMO and the licence holder, be referred to and settled by a single arbitrator to be agreed between the MMO and the licence holder or, failing agreement, to be appointed on the application of either the MMO or the licence holder (after giving notice in writing to the other) by the President of the Institution of Civil Engineers.

(2) Nothing in condition 16(1) or 16(2) is to be taken, or to operate so as to, fetter or prejudice the statutory rights, powers, discretions or responsibilities of the MMO.



## PROTECTIVE PROVISIONS

## PART 1

## FOR THE PROTECTION OF ELECTRICITY, GAS, WATER AND SEWERAGE UNDERTAKERS

1. The provisions of this Part have effect for the protection of statutory undertakers unless otherwise agreed in writing between TfL and the statutory undertaker in question.

2. In this Part of this Schedule—

“alternative apparatus” means alternative apparatus adequate to enable the statutory undertaker in question to fulfil its statutory functions in a manner not less efficient than previously;

“apparatus” means—

- (a) in the case of a statutory undertaker within paragraph (a) of the definition of that term, electric lines or electrical plant (as defined in the Electricity Act 1989(a)), belonging to or maintained by the statutory undertaker for the purposes of electricity supply;
- (b) in the case of a statutory undertaker within paragraph (b) of the definition of that term, any mains, pipes or other apparatus belonging to or maintained by the statutory undertaker for the purposes of gas supply;
- (c) in the case of a statutory undertaker within paragraph (c) of the definition of that term—
  - (i) mains, pipes or other water apparatus belonging to or maintained by the statutory undertaker for the purposes of water supply; and
  - (ii) mains, pipes or other water apparatus that is the subject of an agreement to adopt made under section 51A of the Water Industry Act 1991; and
- (d) in the case of a sewerage undertaker—
  - (i) any drain or works vested in the sewerage undertaker under the Water Industry Act 1991(b); and
  - (ii) any sewer which is so vested or is the subject of a notice of intention to adopt given under section 102(4) of that Act or an agreement to adopt made under section 104 of that Act,

and includes a sludge main, disposal main (within the meaning of section 219 of that Act) or sewer outfall and any manholes, ventilating shafts, pumps or other accessories forming part of any such sewer, drain or works, and in each case includes any structure in which apparatus is or is to be lodged or which gives or will give access to apparatus;

“functions” includes powers and duties;

“in” in a context referring to apparatus or alternative apparatus in land includes a reference to apparatus or alternative apparatus under, over or upon land; and

“statutory undertaker” means—

- (a) any licence holder within the meaning of Part 1 of the Electricity Act 1989;
- (b) a gas transporter within the meaning of Part 1 of the Gas Act 1986(c);

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(a) 1989 c.29.

(b) 1991 c.56.

(c) 1986 c.44. A new section 7 was substituted by section 5 of the Gas Act 1995 (c.45), and was further amended by section 76 of the Utilities Act 2000 (c.27).

- (c) a water undertaker within the meaning of the Water Industry Act 1991; and
  - (d) a sewerage undertaker within the meaning of Part 1 of the Water Industry Act 1991,
- for the area of the authorised development, and in relation to any apparatus, means the utility undertaker to whom it belongs or by whom it is maintained.

3. This Part of this Schedule does not apply to apparatus in respect of which the relations between TfL and the statutory undertaker are regulated by Part 3 of the 1991 Act.

4.—(1) Regardless of the temporary stopping up, alteration or diversion of streets under the powers conferred by article 10 (temporary stopping up and restriction of use of streets), a statutory undertaker is at liberty at all times to take all necessary access across any such street and to execute and do all such works and things in, upon or under any such street as may be reasonably necessary or desirable to enable it to maintain any apparatus which at the time of the temporary stopping up, alteration or diversion was in that street.

(2) Where any street is stopped up under article 9 (permanent stopping up of streets and private means of access), any statutory undertaker whose apparatus is in the street has the same powers and rights in respect of that apparatus as it enjoyed immediately before the stopping up and TfL must grant to the statutory undertaker legal easements reasonably satisfactory to the statutory undertaker in respect of such apparatus and access to it, but nothing in this paragraph affects any right of TfL or of the statutory undertaker to require the removal of that apparatus under paragraph 6 or to carry out works under paragraph 8.

5. Despite any provision in this Order or anything shown on the land plans, TfL must not acquire any apparatus otherwise than by agreement.

6.—(1) If, in the exercise of the powers conferred by this Order, TfL acquires any interest in any land in which any apparatus is placed or over which access to any apparatus is enjoyed or requires that the statutory undertaker's apparatus is relocated or diverted, that apparatus must not be removed under this Part of this Schedule, and any right of a statutory undertaker to maintain that apparatus in that land and to gain access to it must not be extinguished, until alternative apparatus has been constructed and is in operation, and access to it has been provided, to the reasonable satisfaction of the statutory undertaker in question in accordance with sub-paragraphs (2) to (8).

(2) If, for the purpose of executing any works in, on or under any land purchased, held, appropriated or used under this Order, TfL requires the removal of any apparatus placed in that land, TfL must give to the statutory undertaker in question 28 days' written notice of that requirement, together with a plan and section of the work proposed, and of the proposed position of the alternative apparatus to be provided or constructed and in that case (or if in consequence of the exercise of any of the powers conferred by this Order a statutory undertaker reasonably needs to remove any of its apparatus) TfL must, subject to sub-paragraph (3), afford to the statutory undertaker the necessary facilities and rights for the construction of alternative apparatus in other land of TfL and subsequently for the maintenance of that apparatus.

(3) If alternative apparatus or any part of such apparatus is to be constructed elsewhere than in other land of TfL, or TfL is unable to afford such facilities and rights as are mentioned in sub-paragraph (2), in the land in which the alternative apparatus or part of such apparatus is to be constructed, the statutory undertaker in question must, on receipt of a written notice to that effect from TfL, as soon as reasonably practicable use reasonable endeavours to obtain the necessary facilities and rights in the land in which the alternative apparatus is to be constructed.

(4) The obligation imposed on the statutory undertaker under sub-paragraph (3) does not extend to the exercise by the statutory undertaker of any power to acquire any land or rights in land by compulsory purchase order.

(5) Any alternative apparatus to be constructed in land of TfL under this Part of this Schedule must be constructed in such manner and in such line or situation as may be agreed between the statutory undertaker in question and TfL or in default of agreement settled by arbitration in accordance with article 69 (arbitration).

(6) The statutory undertaker in question must, after the alternative apparatus to be provided or constructed has been agreed or settled by arbitration in accordance with article 69 (arbitration),

and after the grant to the statutory undertaker of any such facilities and rights as are referred to in sub-paragraph (2) or (3), proceed without unnecessary delay to construct and bring into operation the alternative apparatus and subsequently to remove any apparatus required by TfL to be removed under the provisions of this Part of this Schedule.

(7) Regardless of anything in sub-paragraph (6), if TfL gives notice in writing to the statutory undertaker in question that it desires itself to execute any work, or part of any work, in connection with the construction or removal of apparatus in any land controlled by TfL, that work, instead of being executed by the statutory undertaker, may be executed by TfL, with the prior written consent of the statutory undertaker (which must not be unreasonably withheld or delayed and is to be subject to any such conditions as are reasonable and proper to protect the apparatus) in accordance with plans and in a position agreed between the statutory undertaker and TfL or, in default of agreement, determined by arbitration in accordance with article 69 (arbitration), without unnecessary delay under the superintendence, if given, and to the reasonable satisfaction of the statutory undertaker.

(8) In carrying out any work under sub-paragraph (7) TfL must comply with all statutory obligations which would have been applicable had the works been carried out by the statutory undertaker.

(9) Nothing in sub-paragraph (7) authorises TfL to execute the placing, installation, bedding, packing, removal, connection or disconnection of any apparatus, or execute any filling around the apparatus (where the apparatus is laid in a trench) within 600 millimetres of the apparatus.

7.—(1) Where, in accordance with the provisions of this Part of this Schedule, TfL affords to a statutory undertaker facilities and rights for the construction and maintenance in land of TfL of alternative apparatus in substitution for apparatus to be removed, those facilities and rights must be granted upon such terms and conditions as may be agreed between TfL and the statutory undertaker in question or in default of agreement settled by arbitration in accordance with article 69 (arbitration).

(2) In settling those terms and conditions in respect of alternative apparatus to be constructed in land of TfL, the arbitrator must—

- (a) give effect to all reasonable requirements of TfL for ensuring the safety and efficient operation of the tunnels and for securing any subsequent alterations or adaptations of the alternative apparatus which may be required to prevent interference with any proposed works of TfL; and
- (b) so far as it may be reasonable and practicable to do so in the circumstances of the particular case, give effect to the terms and conditions, if any, applicable to the apparatus constructed in, under, over or above the tunnels for which the alternative apparatus is to be substituted.

(3) If the facilities and rights to be afforded by TfL in respect of any alternative apparatus, and the terms and conditions subject to which those facilities and rights are to be granted, are in the opinion of the arbitrator less favourable on the whole to the statutory undertaker in question than the facilities and rights enjoyed by it in respect of the apparatus to be removed and the terms and conditions to which those facilities and rights are subject, the arbitrator must make such provision for the payment of compensation by TfL to that statutory undertaker as appears to the arbitrator to be reasonable having regard to all the circumstances of the particular case.

8.—(1) Not less than 28 days before starting the execution of any works authorised by this Order that will or may affect any apparatus the removal of which has not been required by TfL under paragraph 6(2), TfL must submit to the statutory undertaker in question a plan, section and description of the works to be executed.

(2) Those works must be executed only in accordance with the plan, section and description submitted under sub-paragraph (1) and in accordance with such reasonable requirements as may be made in accordance with sub-paragraph (3) by the statutory undertaker for the alteration or otherwise for the protection of the apparatus, or for securing access to it, and the statutory undertaker is entitled to watch and inspect the execution of those works.

(3) Any requirements made by a statutory undertaker under sub-paragraph (2) must be made within a period of 28 days beginning with the date on which a plan, section and description under sub-paragraph (1) are submitted to it.

(4) If a statutory undertaker in accordance with sub-paragraph (3) and in consequence of the works proposed by TfL, reasonably requires the removal of any apparatus and gives written notice to TfL of that requirement, paragraphs 1 to 7 apply as if the removal of the apparatus had been required by TfL under paragraph 6(2).

(5) Nothing in this paragraph precludes TfL from submitting at any time or from time to time, but in no case less than 28 days before commencing the execution of any works, a new plan, section and description instead of the plan, section and description previously submitted, and having done so the provisions of this paragraph apply to and in respect of the new plan, section and description.

(6) TfL is not required to comply with sub-paragraph (1) in a case of emergency but in that case it must give to the statutory undertaker in question notice as soon as is reasonably practicable and a plan, section and description of those works as soon as reasonably practicable subsequently and must comply with sub-paragraph (2) in so far as is reasonably practicable in the circumstances.

(7) Nothing in sub-paragraph (6) entitles TfL to carry out works to any apparatus but, upon receipt of notice from TfL, the statutory undertaker must proceed to carry out such works as may be required without unnecessary delay.

9.—(1) Subject to the following provisions of this paragraph, TfL must repay to the statutory undertaker in question the proper and reasonable expenses incurred by that statutory undertaker in, or in connection with the inspection, removal, relaying, replacing, alteration or protection of any apparatus under any provision of this Part of this Schedule (including any costs reasonably incurred or compensation properly paid in connection with the acquisition of facilities and rights or exercise of statutory powers for such apparatus) including the cutting off of any apparatus from any other apparatus or the making safe of any redundant apparatus as a consequence of the exercise by TfL of any power under this Order and the surveying of any land or works, the inspection, superintendence and monitoring of works or the removal of any temporary works reasonably necessary in consequence of the exercise of TfL of any power under this Order.

(2) The value of any apparatus removed under this Part is to be deducted from any sum payable under sub-paragraph (1), that value being calculated after removal.

(3) If in accordance with this Part—

- (a) apparatus of better type, of greater capacity or of greater dimensions is placed in substitution for existing apparatus of worse type, of smaller capacity or of smaller dimensions; or
- (b) apparatus (whether existing apparatus or apparatus substituted for existing apparatus) is placed at a depth greater than the depth at which the existing apparatus was,

and the placing of apparatus of that type or capacity or of those dimensions or the placing of apparatus at that depth, as the case may be, is not agreed by TfL or, in default of agreement, is not determined by arbitration in accordance with article 69 (arbitration) to be necessary, then, if such placing involves cost in the construction of works under this Part of this Schedule exceeding that which would have been involved if the apparatus placed had been of the existing type, capacity or dimensions, or at the existing depth, as the case may be, the amount which apart from this sub-paragraph would be payable to the statutory undertaker in question by virtue of sub-paragraph (1) is to be reduced by the amount of that excess.

(4) For the purposes of sub-paragraph (3)—

- (a) an extension of apparatus to a length greater than the length of existing apparatus is not to be treated as a placing of apparatus of greater dimensions than those of the existing apparatus; and
- (b) where the provision of a joint in a cable is agreed, or is determined to be necessary, the consequential provision of a jointing chamber or of a manhole is to be treated as if it also had been agreed or had been so determined.

(5) An amount which apart from this sub-paragraph would be payable to a statutory undertaker in respect of works by virtue of sub-paragraph (1) must, if the works include the placing of apparatus provided in substitution for apparatus placed more than 7 years and 6 months earlier so as to confer on the statutory undertaker in question any financial benefit by deferment of the time for renewal of the apparatus in the ordinary course, be reduced by the amount which represents that benefit.

**10.**—(1) Subject to sub-paragraphs (2) and (3), if by reason or in consequence of the construction, maintenance or failure of any of the works referred to in paragraph 6(2), any damage is caused to any apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of those works) or property of a statutory undertaker, or there is any interruption in any service provided, or in the supply of any goods, by any statutory undertaker, TfL must—

- (a) bear and pay the cost reasonably incurred by that statutory undertaker in making good such damage or restoring the supply; and
- (b) indemnify the statutory undertaker against all reasonable claims, penalties, demands, proceedings, costs, damages and expenses which may be made or taken against or recovered from, or reasonably and properly incurred by, the statutory undertaker,

by reason or in consequence of any such damage or interruption.

(2) Nothing in sub-paragraph (1) imposes any liability on TfL with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of a statutory undertaker, its officers, servants, contractors or agents.

(3) A statutory undertaker must give TfL reasonable notice of any such claim or demand and no settlement or compromise is to be made without the consent of TfL which, if it withholds such consent, has the sole conduct of any settlement or compromise or of any proceedings necessary to resist the claim or demand.

**11.** If in consequence of the exercise of the powers conferred by this Order the access to any apparatus is materially obstructed TfL must provide such alternative means of access to that apparatus as will enable the statutory undertaker to maintain or use the apparatus no less effectively than was possible before the obstruction.

## PART 2

### FOR THE PROTECTION OF OPERATORS OF ELECTRONIC COMMUNICATIONS CODE NETWORKS

**12.**—(1) For the protection of any operator, the following provisions have effect, unless otherwise agreed in writing between TfL and the operator.

(2) In this Part of this Schedule—

“the 2003 Act” means the Communications Act 2003(a);

“conduit system” has the same meaning as in the electronic communications code and references to providing a conduit system are to be construed in accordance with paragraph 1(3A)(b) of that code;

“electronic communications apparatus” has the same meaning as in the electronic communications code;

“the electronic communications code” has the same meaning as in Chapter 1 of Part 2 of the 2003 Act(c);

“electronic communications code network” means—

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(a) 2003 c.21.

(b) Paragraph 1(3A) was inserted by section 106(2) of, and paragraphs 1 and 4 of Schedule 3 to, the Communications Act 2003.

(c) See section 106.

- (a) so much of an electronic communications network or conduit system provided by an electronic communications code operator as is not excluded from the application of the electronic communications code by a direction under section 106 of the 2003 Act; and
- (b) an electronic communications network which the Secretary of State is providing or proposing to provide;

“electronic communications code operator” means a person in whose case the electronic communications code is applied by a direction under section 106 of the 2003 Act; and

“operator” means the operator of an electronic communications code network.

**13.** The exercise of the powers of article 31 (statutory undertakers) is subject to paragraph 23 of Schedule 2 to the Telecommunications Act 1984(a) (undertaker’s works).

**14.—(1)** Subject to sub-paragraphs (2) to (4), if as the result of the authorised development or its construction, or of any subsidence resulting from any of those works—

- (a) any damage is caused to any electronic communications apparatus belonging to an operator (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of those works), or other property of an operator; or
- (b) there is any interruption in the supply of the service provided by an operator,

TfL must bear and pay the cost reasonably incurred by the operator in making good such damage or restoring the supply and make reasonable compensation to that operator for any other expenses, loss, damages, penalty or costs incurred by it, by reason, or in consequence of, any such damage or interruption.

(2) Nothing in sub-paragraph (1) imposes any liability on TfL with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of an operator, its officers, servants, contractors or agents.

(3) The operator must give TfL reasonable notice of any such claim or demand and no settlement or compromise of the claim or demand is to be made without the consent of TfL which, if it withholds such consent, has the sole conduct of any settlement or compromise or of any proceedings necessary to resist the claim or demand.

(4) Any difference arising between TfL and the operator under this Part of this Schedule must be referred to and settled by arbitration under article 69 (arbitration).

**15.** This Part of this Schedule does not apply to—

- (a) any apparatus in respect of which the relations between TfL and an operator are regulated by the provisions of Part 3 of the 1991 Act; or
- (b) any damage, or any interruption, caused by electro-magnetic interference arising from the construction or use of the authorised development.

## PART 3

### FOR THE PROTECTION OF NATIONAL GRID

#### **Application**

**16.** The following provisions have effect for the protection of National Grid unless otherwise agreed in writing between TfL and National Grid.

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(a) 1984 c.12. Paragraph 23 was amended by section 190 of, and paragraph 68 of Schedule 25 and part 1 of Schedule 27 to, the Water Act 1989 (c.15), section 112(4) of, and Schedule 18 to, the Electricity Act 1989 (c.29) and section 106(2) of, and paragraphs 1, 5(d) and 8 of Schedule 3 to, the Communications Act 2003.

## Interpretation

### 17. In this Schedule—

“alternative apparatus” means appropriate alternative apparatus to enable National Grid to fulfil its statutory functions in a manner no less efficient than previously;

“apparatus” means—

- (a) electric lines or electrical plant as defined in the Electricity Act 1989<sup>(a)</sup>, belonging to or maintained by National Grid; and
- (b) mains, pipes or other apparatus belonging to or maintained by National Grid for the purposes of gas supply,

together with any replacement apparatus and such other apparatus constructed pursuant to this Order that becomes operational apparatus of National Grid for the purposes of transmission, distribution or supply and includes any structure in which apparatus is or will be lodged or which gives or will give access to apparatus;

“authorised development” has the same meaning as in article 2 of this Order and (unless otherwise specified) for the purposes of this Schedule includes the use and maintenance of the authorised development;

“commence” has the same meaning as in article 2 of this Order and commencement is construed to have the same meaning;

“functions” includes powers and duties;

“ground mitigation scheme” means a scheme approved by National Grid (such approval not to be unreasonably withheld or delayed) setting out the necessary measures (if any) for a ground subsidence event;

“ground monitoring scheme” means a scheme for monitoring ground subsidence which sets out the apparatus which is to be subject to such monitoring, the extent of land to be monitored, the manner in which ground levels are to be monitored, the timescales of any monitoring activities and the extent of ground subsidence event which, if exceeded, requires TfL to submit for National Grid’s approval a ground mitigation scheme;

“ground subsidence event” means any ground subsidence which National Grid and TfL agree is attributable to the authorised development (or in default of agreement is settled by arbitration in accordance with article 69 (arbitration) of the Order to be attributable to the authorised development) and is identified by the monitoring activities set out in the ground monitoring scheme that has exceeded the level described in the ground monitoring scheme as requiring a ground mitigation scheme;

“in” in a context referring to apparatus or alternative apparatus in land includes a reference to apparatus or alternative apparatus under, over, across, along or upon such land;

“maintain” and “maintenance” includes the ability and right to do any of the following in relation to any apparatus or alternative apparatus of National Grid including construct, use, repair, alter, inspect, renew or remove the apparatus;

“National Grid” means either—

- (a) National Grid Electricity Transmission PLC (Company No. 2366977) whose registered office is at 1-3 Strand, London, WC2N 5EH or any of its entities or successor entities; or
- (b) National Grid Gas PLC (Company No. 200600) whose registered office is at 1-3 Strand, London, WC2N 5EH or any of its entities or successor entities;

“plan” or “plans” include all designs, drawings, specifications, method statements, soil reports, programmes, calculations, risk assessments and other documents that are reasonably necessary properly and sufficiently to describe and assess the works to be executed; and

“specified work” means so much of any of the authorised development or activities authorised by this Order and undertaken in association with the authorised development—

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(a) 1989 c.29.

- (a) that will or may be situated 15 metres (measured in any direction) within, or which may adversely affect, any apparatus the removal of which has not been required by TfL under paragraph 21(2) or otherwise; or
- (b) that includes any of the activities that are referred to in paragraph 8 of T/SP/SSW/22 (National Grid’s policies for safe working in proximity to gas apparatus “Specification for safe working in the vicinity of National Grid, High pressure Gas pipelines and associated installation requirements for third parties T/SP/SSW/22”).

**18.** This Schedule does not apply to apparatus in respect of which the relations between TfL and National Grid are regulated by the provisions of Part 3 of the 1991 Act.

**Apparatus of National Grid in stopped up streets**

**19.—(1)** Without limitation on the scope of any other protection afforded to National Grid elsewhere in the Order, where any street is stopped up under article 9 (permanent stopping up of streets), if National Grid has any apparatus in the street or accessed via that street National Grid is entitled to the same rights in respect of such apparatus as it enjoyed immediately before the stopping up and TfL must grant to National Grid, or procure the granting to National Grid of, legal easements reasonably satisfactory to National Grid in respect of such apparatus and access to it prior to the stopping up of any such street or highway.

(2) Notwithstanding the temporary stopping up, alteration or diversion of any street under the powers of article 10 (temporary stopping up and restriction of use of streets), National Grid is at liberty at all times to take all necessary access across any stopped up, altered or diverted street and to execute and do all such works and things in, upon or under any such street as may be reasonably necessary or desirable to enable it to maintain any apparatus which at the time of the stopping up, alteration or diversion was in that street.

**Acquisition of land**

**20.—(1)** This Order does not authorise the acquisition or extinguishment of land or rights in land or override any interest in land owned by National Grid that is required for the retention or maintenance of any retained apparatus except with National Grid’s agreement (such agreement not to be unreasonably withheld or delayed).

(2) As a condition of agreement between the parties in sub-paragraph (1), prior to the carrying out of any part of the authorised development (or in such other timeframe as may be agreed between National Grid and TfL) that are subject to the requirements of this Part of this Schedule that will cause any conflict with or breach the terms of any easement or other legal or land interest of National Grid or affects the provisions of any enactment or agreement regulating the relations between National Grid and TfL in respect of any apparatus laid or erected in land belonging to or secured by TfL, TfL must as National Grid reasonably requires enter into such deeds of easement or consent upon such terms and conditions as may be agreed between National Grid and TfL acting reasonably and which must be no less favourable on the whole to National Grid unless otherwise agreed by National Grid, and it is the responsibility of TfL to procure or secure the consent and entering into of such deeds and variations by all other third parties with an interest in the land at that time who are affected by such authorised development.

(3) Where there is any inconsistency or duplication between the provisions set out in this Part of this Schedule relating to the relocation or removal of apparatus (including but not limited to the payment of costs and expenses relating to such relocation or removal of apparatus) and the provisions of any existing easement, rights, agreements and licences granted, used, enjoyed or exercised by National Grid or other enactments relied upon by National Grid as of right or other use in relation to the apparatus, then the provisions in this Part of this Schedule prevail.

(4) No agreement or consent granted by National Grid under any other provision of this Part of this Schedule constitutes agreement under sub-paragraph (1).



## **Removal of apparatus**

**21.**—(1) If, in the exercise of the agreement reached in accordance with paragraph 20 or in any other authorised manner, TfL acquires any interest in any land in which any apparatus is placed, that apparatus must not be removed under this Part of this Schedule and any right of National Grid to maintain that apparatus in that land must not be extinguished until alternative apparatus has been constructed, and is in operation to the reasonable satisfaction of National Grid in accordance with sub-paragraphs (2) to (5) inclusive.

(2) If, for the purpose of executing any works comprised in the authorised development in, on, under or over any land purchased, held, appropriated or used under this Order, TfL requires the removal of any apparatus placed in that land, it must give to National Grid 56 days' advance written notice of that requirement, together with a plan of the work proposed, and of the proposed position of the alternative apparatus to be provided or constructed and in that case (or if in consequence of the exercise of any of the powers conferred by this Order National Grid reasonably needs to remove any of its apparatus) TfL must, subject to sub-paragraph (3), afford to National Grid to their satisfaction (taking into account paragraph 22(1)) the necessary facilities and rights for—

- (a) the construction of alternative apparatus in other land of, or land secured by, TfL; and
- (b) subsequently for the maintenance of that apparatus.

(3) If alternative apparatus or any part of such apparatus is to be constructed elsewhere than in other land of, or land secured by, TfL, or TfL is unable to afford such facilities and rights as are mentioned in sub-paragraph (2), in the land in which the alternative apparatus or part of such apparatus is to be constructed, National Grid must, on receipt of a written notice to that effect from TfL, take such steps as are reasonable in the circumstances in an endeavour to obtain the necessary facilities and rights in the land in which the alternative apparatus is to be constructed save that this obligation does not extend to the requirement for National Grid to use its compulsory purchase powers to this end unless it elects to so do.

(4) Any alternative apparatus to be constructed in land of, or land secured by, TfL under this Schedule must be constructed in such manner and in such line or situation as may be agreed between National Grid and TfL.

(5) National Grid must, after the alternative apparatus to be provided or constructed has been agreed, and subject to the grant to National Grid of any such facilities and rights as are referred to in sub-paragraph (2) or (3), proceed without unnecessary delay to construct and bring into operation the alternative apparatus and subsequently to remove any apparatus required by TfL to be removed under the provisions of this Part of this Schedule.

(6) Where there is any inconsistency or duplication between the provisions set out in this Part of this Schedule relating to the relocation or removal of apparatus (including but not limited to the payment of costs and expenses relating to such relocation or removal of apparatus) and the provisions of any existing easement, rights, agreements and licences granted, used, enjoyed or exercised by National Grid as of right or other use in relation to the apparatus then the provisions in this Part of this Schedule prevail.

## **Facilities and rights for alternative apparatus**

**22.**—(1) Where, in accordance with the provisions of this Part of this Schedule, TfL affords to National Grid facilities and rights for the construction and maintenance and protection in land of TfL of alternative apparatus in substitution for apparatus to be removed, those facilities and rights must be granted upon such terms and conditions as may be agreed between TfL and National Grid and must be no less favourable on the whole to National Grid than the facilities and rights enjoyed by it in respect of the apparatus to be removed unless agreed by National Grid.

(2) If the facilities and rights to be afforded by TfL and agreed with National Grid under sub-paragraph (1) above in respect of any alternative apparatus, and the terms and conditions subject to which those facilities and rights are to be granted, are less favourable on the whole to National Grid than the facilities and rights enjoyed by it in respect of the apparatus to be removed and the terms and conditions to which those facilities and rights are subject, the matter must be referred to

arbitration and the arbitrator must make such provision for the payment of compensation by TfL to National Grid as appears to the arbitrator to be reasonable having regard to all the circumstances of the particular case.

### **Retained apparatus: protection of National Grid as Gas Undertaker**

**23.**—(1) Not less than 56 days before the commencement of any works authorised by this Order that are near to, or will or may affect, any apparatus the removal of which has not been required by TfL under paragraph 21(2) or otherwise, TfL must submit to National Grid a plan.

(2) In relation to specified works, or any works that (wherever situated) impose any load directly upon any apparatus, the plan to be submitted to National Grid under sub-paragraph (1) must show—

- (a) the exact position of the works;
- (b) the level at which these are proposed to be constructed or renewed;
- (c) the manner of their construction or renewal including details of excavation and positioning of plant;
- (d) the position of all apparatus;
- (e) by way of detailed drawings, every alteration proposed to be made to or close to any such apparatus; and
- (f) details of any ground monitoring scheme if required.

(3) TfL must not commence any works to which sub-paragraph (2) applies until National Grid has given written approval of the plan so submitted.

(4) Any approval of National Grid required under sub-paragraph (3)—

- (a) may be given subject to reasonable conditions for any purpose mentioned in sub-paragraph (5) or (7); and
- (b) must not be unreasonably withheld.

(5) In relation to a work to which sub-paragraph (1) and (2) applies, National Grid may require such modifications to be made to the plan as may be reasonably necessary for the purpose of securing its system against interference or risk of damage or for the purpose of providing or securing proper and convenient means of access to any apparatus.

(6) Works executed under sub-paragraph (1) or (2) must be executed only in accordance with the plan, submitted under sub-paragraph (1) or (2), as amended from time to time by agreement between TfL and National Grid and in accordance with such reasonable requirements as may be made in accordance with sub-paragraphs (4), (5), (7) or (8) by National Grid for the alteration or otherwise for the protection of the apparatus, or for securing access to it, and National Grid is entitled to watch and inspect the execution of those works.

(7) Where National Grid requires protective works to be carried out either themselves or by TfL (whether of a temporary or permanent nature) such protective works, inclusive of any measures or schemes required and approved as part of the plan approved pursuant to this paragraph, must be carried out to National Grid's satisfaction prior to the commencement of any work to which sub-paragraph (1) or (2) applies and National Grid must give 56 days' notice of such works from the date of submission of a plan in line with sub-paragraph (1) or (2) (except in an emergency).

(8) If National Grid in accordance with sub-paragraph (5) or (7) and in consequence of the works proposed by TfL, reasonably requires the removal of any apparatus and gives written notice to TfL of that requirement, paragraphs 16 to 18 and 21 to 22 apply as if the removal of the apparatus had been required by TfL under paragraph 21(2).

(9) Nothing in this paragraph precludes TfL from submitting at any time or from time to time, but in no case less than 56 days before commencing the execution of any works, a new plan, instead of the plan previously submitted, and having done so the provisions of this paragraph apply to and in respect of the new plan.

(10) TfL is not required to comply with sub-paragraph (1) where it needs to carry out emergency works as defined in the 1991 Act but in that case it must give to National Grid notice as soon as is reasonably practicable and a plan of those works and must—

- (a) comply with sub-paragraph (5), (6) and (7) insofar as is reasonably practicable in the circumstances; and
- (b) comply with sub-paragraph (11) at all times.

(11) At all times when carrying out any works authorised under this Order comply with National Grid's policies for safe working in proximity to gas apparatus enshrined in Specification for safe working in the vicinity of National Grid, High pressure Gas pipelines and associated installation requirements for third parties T/SP/SSW22 and the Health and Safety Executive's guidance note "Avoiding Danger from underground services HSG47".

(12) As soon as reasonably practicable after any ground subsidence event, TfL must implement an appropriate ground mitigation scheme.

### **Retained apparatus: protection of National Grid as Electricity Undertaker**

**24.**—(1) Not less than 56 days before the commencement of any specified work that does not require the removal of apparatus under paragraph 21(2) (removal of apparatus) TfL must submit to National Grid a plan and seek from National Grid details of the underground extent of their electricity tower foundations.

(2) The plan to be submitted under sub-paragraph (1) must show—

- (a) the exact position of the specified work;
- (b) the level at which the specified work is proposed to be constructed or renewed;
- (c) the manner of the construction or renewal of the specified work including details of excavation and positioning of plant;
- (d) the position of all apparatus;
- (e) by way of detailed drawings, every alteration proposed to be made to or close to any such apparatus; and
- (f) details of any ground monitoring scheme if required.

(3) In relation to any works which will or may be situated on, over, under or within 10 metres of any part of the foundations of an electricity tower or between any two or more electricity towers, the plan to be submitted under sub-paragraph (1) must include a method statement which must in addition to the matters set out in sub-paragraph (2)—

- (a) describe details of any cable trench design including route, dimensions, clearance to pylon foundations;
- (b) demonstrate that pylon foundations will not be affected prior to, during and post construction;
- (c) describe details of load bearing capacities of trenches;
- (d) describe details of cable installation methodology including access arrangements, jointing bays and backfill methodology;
- (e) provide a written management plan for high voltage hazard during construction and on-going maintenance of the cable route;
- (f) provide written details of the operations and maintenance regime for the cable, including frequency and method of access;
- (g) assess earth rise potential if reasonably required by National Grid's engineers; and
- (h) provide evidence that trench bearing capacity is to be designed to 26 tonnes to take the weight of overhead line construction traffic.

(4) TfL must not commence any works requiring the submission of a plan under sub-paragraph (1) until National Grid has given written approval of the plan so submitted.

(5) Any approval of National Grid required in relation to a plan submitted under sub-paragraph (1)—

- (a) may be given subject to reasonable conditions for any purpose mentioned in sub-paragraph (6) or (8); and
- (b) must not be unreasonably withheld.

(6) In relation to a work requiring the submission of a plan under sub-paragraph (1), National Grid may require such modifications to be made to the plan as may be reasonably necessary for the purpose of securing its system against interference or risk of damage or for the purpose of providing or securing proper and convenient means of access to any apparatus.

(7) Works requiring the submission of a plan under sub-paragraph (1) must be executed only in accordance with the plan, as amended from time to time by agreement between TfL and National Grid and in accordance with such reasonable requirements as may be made in accordance with sub-paragraph (5), (6), (8) or (9) by National Grid for the alteration or otherwise for the protection of the apparatus, or for securing access to it, and National Grid is to be entitled to watch and inspect the execution of those works.

(8) Where National Grid require any protective works to be carried out either themselves or by TfL (whether of a temporary or permanent nature) such protective works must be carried out to National Grid's satisfaction prior to the commencement of works requiring the submission of a plan under sub-paragraph (1) and National Grid must give 56 days' notice of such works from the date of submission of the plan (except in an emergency).

(9) If National Grid in accordance with sub-paragraph (6) or (8) and in consequence of the works proposed by TfL, reasonably requires the removal of any apparatus and gives written notice to TfL of that requirement, paragraphs 16 to 18 and 21 to 22 apply as if the removal of the apparatus had been required by TfL under paragraph 21(2).

(10) Nothing in this paragraph precludes TfL from submitting at any time or from time to time, but in no case less than 56 days before commencing the execution of any works, a new plan, instead of the plan previously submitted, and having done so the provisions of this paragraph apply to and in respect of the new plan.

(11) TfL is not required to comply with sub-paragraph (1) where it needs to carry out emergency works as defined in the 1991 Act but in that case it must give to National Grid notice as soon as is reasonably practicable a plan of those works and must—

- (a) comply with sub-paragraph (6), (7) and (8) insofar as is reasonably practicable in the circumstances; and
- (b) comply with sub-paragraph (12) at all times.

(12) At all times when carrying out any specified works TfL must comply with National Grid's policies for development near or over headlines enshrined in ENA TA 43-8 and the Health and Safety Executive's guidance note 6 "Avoidance of Danger from Overhead Lines".

(13) As soon as reasonably practicable after any ground subsidence event, TfL must implement an appropriate ground mitigation scheme.

### **Protective works to buildings**

25. TfL must not exercise the powers conferred by article 15 (protective work to buildings), so as to obstruct or render less convenient the access to any apparatus without the written consent of National Grid.

### **Expenses**

26.—(1) Subject to the following provisions of this paragraph, TfL must repay to National Grid on demand all charges, costs and expenses reasonably incurred or in the case of sub-paragraph (a) compensation properly paid by National Grid in, or in connection with, the inspection, removal, relaying or replacing, alteration or protection of any apparatus or the construction of any new or

alternative apparatus which may be required in consequence of the execution of any such works as are referred to in this Part of this Schedule including without limitation—

- (a) in connection with the acquisition of rights or the exercise of statutory powers for such apparatus including without limitation in the event that National Grid elects to use compulsory purchase powers to acquire any necessary rights under paragraph 21 sub-paragraph (3) all costs incurred as a result of such action;
- (b) carrying out any diversion work or providing alternative apparatus;
- (c) cutting off any apparatus from any other apparatus or making safe redundant apparatus;
- (d) the approval of plans;
- (e) the carrying out of protective works, plus a capitalised sum to cover the cost of maintaining and renewing permanent protective works;
- (f) the survey of any land, apparatus or works, the inspection and monitoring of works or the installation or removal of any temporary works reasonably necessary in consequence of the execution of any such works referred to in this Part of this Schedule.

(2) There must be deducted from any sum payable under sub-paragraph (1) the value of any apparatus removed under the provisions of this Part of this Schedule and which is not re-used as part of the alternative apparatus, that value being calculated after removal.

(3) If in accordance with the provisions of this Part of this Schedule—

- (a) apparatus of better type, of greater capacity or of greater dimensions is placed in substitution for existing apparatus of worse type, of smaller capacity or of smaller dimensions; or
- (b) apparatus (whether existing apparatus or apparatus substituted for existing apparatus) is placed at a depth greater than the depth at which the existing apparatus was situated,

and the placing of apparatus of that type or capacity or of those dimensions or the placing of apparatus at that depth, as the case may be, is not agreed by TfL or in default of agreement settled by arbitration in accordance with article 69 (arbitration) of the Order to be necessary, then, if such placing involves cost in the construction of works under this Schedule exceeding that which would have been involved if the apparatus placed had been of the existing type, capacity or dimensions, or at the existing depth, as the case may be, the amount which apart from this sub-paragraph would be payable to National Grid by virtue of sub-paragraph (1) must be reduced by the amount of that excess except where it is not possible in the circumstances to obtain the existing type of operations, capacity, dimensions or place at the existing depth in which case the full costs must be borne by TfL.

(4) For the purposes of sub-paragraph (3)—

- (a) an extension of apparatus to a length greater than the length of existing apparatus must not be treated as a placing of apparatus of greater dimensions than those of the existing apparatus; and
- (b) where the provision of a joint in a pipe or cable is agreed, or is determined to be necessary, the consequential provision of a jointing chamber or of a manhole must be treated as if it also had been agreed or had been so determined.

(5) An amount which apart from this sub-paragraph would be payable to National Grid in respect of works by virtue of sub-paragraph (1) must, if the works include the placing of apparatus provided in substitution for apparatus placed more than 7 years and 6 months earlier so as to confer on National Grid any financial benefit by deferment of the time for renewal of the apparatus in the ordinary course, be reduced by the amount which represents that benefit.

## **Indemnity**

27.—(1) Subject to sub-paragraphs (2) and (3), if by reason or in consequence of the construction of any works authorised by this Part of this Schedule or in consequence of the construction, use, maintenance or failure of any of the authorised development by or on behalf of TfL or in consequence of any act or default of TfL (or any person employed or authorised by him)

in the course of carrying out such works (including without limitation works carried out by TfL under this Schedule or any subsidence resulting from any of these works), any material damage is caused to any apparatus or alternative apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of those works) or property of National Grid, or there is any interruption in any service provided, or in the supply of any goods, by National Grid, or National Grid becomes liable to pay any amount to any third party, TfL must—

- (a) bear and pay on demand the cost reasonably incurred by National Grid in making good such damage or restoring the supply; and
- (b) indemnify National Grid for any other expenses, loss, demands, proceedings, damages, claims, penalty or costs incurred by or recovered from National Grid, by reason or in consequence of any such damage or interruption or National Grid becoming liable to any third party.

(2) The fact that any act or thing may have been done by National Grid on behalf of TfL or in accordance with a plan approved by National Grid or in accordance with any requirement of National Grid as a consequence of the authorised development or under its supervision does not (unless sub-paragraph (3) applies) excuse TfL from liability under the provisions of sub-paragraph (1) unless National Grid fails to carry out and execute the works properly with due care and attention and in a skilful and workman like manner or in a manner that does not materially accord with the approved plan or as otherwise agreed between TfL and National Grid.

(3) Nothing in sub-paragraph (1) imposes any liability on TfL in respect of—

- (a) any damage or interruption to the extent that it is attributable to the neglect or default of National Grid, its officers, servants, contractors or agents; and
- (b) any authorised development or works authorised by this Part of this Schedule carried out by National Grid as an assignee, transferee or lessee of TfL with the benefit of this Order pursuant to section 156 of the 2008 Act or under article 60 of this Order subject to the proviso that once such works become apparatus (“new apparatus”), any works yet to be executed and not falling within this sub-paragraph (b) are subject to the full terms of this Part of this Schedule including this paragraph 27 in respect of such new apparatus.

(4) National Grid must give TfL reasonable notice of any such claim or demand and no settlement or compromise is to be made without National Grid first consulting TfL and considering their representations.

(5) National Grid must use its reasonable endeavours to mitigate in whole or in part and to minimise any costs, expenses, loss, demands, and penalties to which the indemnity under this paragraph 27 applies. If requested to do so by TfL, National Grid must provide an explanation of how the claim has been minimised. TfL is only liable under this paragraph 27 for claims reasonably incurred by National Grid.

### **Enactments and agreements**

**28.** Save to the extent provided for to the contrary elsewhere in this Part of this Schedule or by agreement in writing between National Grid and TfL, nothing in this Part of this Schedule affects the provisions of any enactment or agreement regulating the relations between TfL and National Grid in respect of any apparatus laid or erected in land belonging to TfL on the date on which this Order is made.

### **Co-operation**

**29.** National Grid and TfL must use their best endeavours to co-ordinate with each other on the timing and method of execution of any works carried out under this Order or this Part of this Schedule in the interests of safety and the efficient and economic execution of the authorised development and taking into account the need to ensure the safe and efficient operation of the other party’s operations.

## **Access**

**30.** If in consequence of the agreement reached in accordance with paragraph 20 or the powers granted under this Order the access to any apparatus is materially obstructed, TfL must provide such alternative means of access to such apparatus as will enable National Grid to maintain or use the apparatus no less effectively than was possible before such obstruction.

## **Arbitration**

**31.** Any difference or dispute arising between TfL and National Grid under this Schedule must, unless otherwise agreed in writing between TfL and National Grid, be determined by arbitration in accordance with article 69 (arbitration) of this Order.

# **PART 4**

## **FOR THE PROTECTION OF THE PORT OF LONDON AUTHORITY**

**32.** The provisions of this Part of this Schedule have effect unless otherwise agreed in writing between TfL and the PLA, for the protection of the PLA in relation to construction of the authorised development and, within any maintenance period defined in article 30(14), any maintenance of any part of the authorised development.

## **Definitions**

**33.** In this Part of this Schedule—

“construction” includes execution, placing, altering, replacing, relaying, renewal and works of maintenance within a maintenance period defined in article 30(14) and, in its application to a specified work which includes or comprises any operation, means the carrying out of that operation and “construct” and “constructed” have corresponding meanings;

“the PLA” means the Port of London Authority;

“plans” includes navigational risk assessments, plans, sections, elevations, drawings, specifications, programmes, construction methods and descriptions including, where applicable, such relevant hydraulic information about the river Thames as may be reasonably requested by the PLA;

“specified function” means any function of TfL under this Order (except any function under article 19, 22 or 26) the exercise of which may affect the river Thames or any function of the PLA;

“specified work” means any part of the authorised development (which for this purpose includes the removal of any part of the authorised development), which—

(a) is, may be, or takes place in, on, under or over the surface of land below mean high water level forming part of the river Thames; or

(b) may affect the river Thames or any function of the PLA,

including any projection over the river Thames by any authorised work or any plant or machinery; and

“tunnelling works” means so much of Work No. 1 as is carried out wholly under the bed of the river Thames.

## **Approval of detailed design**

**34.**—(1) TfL must not commence the construction of any specified work or the exercise of any specified function until plans of the work or function have been approved in writing by the PLA, but the PLA’s approval is not required under this paragraph for any tunnelling works forming part of a specified work.

(2) Where the PLA approves a suspension of the public right of navigation under article 17, TfL is not required to obtain the PLA's approval under this paragraph for any specified function to be exercised in respect of that suspension of the public right of navigation, including under article 29 or 30.

(3) TfL must submit to the PLA plans of the specified work or specified function and such further particulars as the PLA may, within 20 business days starting with the day on which plans are submitted under this sub-paragraph, reasonably require, and the particulars so supplied are to provide all information necessary to enable the PLA to determine whether approval should be given and, if so, whether conditions should be imposed.

(4) Any approval of the PLA required under this paragraph must not be unreasonably withheld but may be given subject to such reasonable modifications, terms and conditions as the PLA may make for the protection of—

- (a) traffic in, or the flow or regime of, the river Thames;
- (b) the use of its land, or the river Thames, for the purposes of performing its functions; or
- (c) the performance of any of its functions connected with environmental protection.

(5) Requirements made under sub-paragraph (4) may include conditions as to—

- (a) the proposed location of any temporary work and its dimensions or the location where the specified function is proposed to be exercised;
- (b) the programming of temporary works or the exercise of the specified function;
- (c) the removal of any temporary work and the undertaking by TfL of any related work or operation that the PLA considers to be necessary for the purpose of removing or preventing any obstruction to navigation;
- (d) the relocation, provision and maintenance of works, moorings, apparatus and equipment necessitated by the specified work or specified function; and
- (e) the expiry of the approval if TfL does not commence construction or carrying out of the approved specified work or exercise of the specified function within a prescribed period.

(6) Subject to sub-paragraph (7), an application for approval under this paragraph is deemed to have been refused if it is neither given nor refused within 30 business days of the paragraph 34 specified day.

(7) An approval of the PLA under this paragraph is not deemed to have been unreasonably withheld if approval within the time limited by sub-paragraph (6) has not been given pending the outcome of any consultation on the approval in question that the PLA is obliged to carry out in the proper exercise of its functions.

(8) TfL must carry out all operations for the construction of any specified work or the specified function without unnecessary delay and to the reasonable satisfaction of the PLA so that traffic in, or the flow or regime of, the river Thames, and the exercise of the PLA's functions, do not suffer more interference than is reasonably practicable. The PLA is entitled at all reasonable times, on giving such notice as may be reasonable in the circumstances, to inspect and survey those operations and TfL must provide all reasonable facilities to enable that inspection and survey to take place.

(9) In this paragraph "the paragraph 34 specified day" means, in relation to any specified work or specified function—

- (a) the day on which plans and sections of that work are submitted to the PLA under sub-paragraph (1); or
- (b) the day on which TfL provides the PLA with all further particulars of the work that have been requested by the PLA under that sub-paragraph, whichever is the later.



### **Design of the tunnelling works**

**35.**—(1) TfL must undertake the detailed design and construction of the tunnelling works to ensure that, as far as is reasonably foreseeable, the navigable channel of the river Thames can be maintained by the PLA to a depth of at least 5.80 metres below chart datum.

(2) When complying with sub-paragraph (1) TfL must allow for potential ‘over-dredge’ of 0.5 metres attributable to standard dredging methodology.

(3) Prior to commencing construction of the tunnelling works and as soon as reasonably practicable after they each become available, TfL must provide to the PLA the following documents—

- (a) an Approval in Principle, or similar, demonstrating that the design requirement has been incorporated into the detailed design of the tunnelling works;
- (b) a Design Certificate demonstrating that the detailed design of the tunnelling works has satisfied the design requirement; and
- (c) a Check Certificate, completed by an independent person, demonstrating that the detailed design of the tunnelling works has satisfied the design requirement.

(4) TfL must supply to the PLA—

- (a) any of the drawings referred to in either of the certificates specified in sub-paragraphs (3)(b) and (3)(c); and
- (b) such other information relating to any of the documents provided under sub-paragraph (2) or (3)(a) as the PLA may reasonable require,

upon request made by the PLA within 10 business days of the day on which the PLA receives the document that gives rise to the request.

(5) If, following receipt of any of the documents supplied under sub-paragraphs (3) and (4), the PLA is not reasonably satisfied that the design requirement will be met, it may within 20 business days of the paragraph 35 specified day, notify TfL that the PLA is in dispute with TfL and accordingly refer the matter to arbitration under paragraph 52 to review the proposed detailed design of the tunnelling works so far as it concerns the design requirement.

(6) In this paragraph—

- (a) “Approval in Principle”, “Check Certificate” and “Design Certificate” have the same meaning as in the Design Manual for Roads and Bridges Volume 1 Section 1 Part 1 BD2/12;
- (b) “the design requirement” means the detailed design requirement specified in sub-paragraphs (1) and (2);
- (c) “the navigable channel” means Regions 2 and 4 as defined in article 53 (restrictions on other works in the river Thames);
- (d) “the paragraph 35 specified day” means—
  - (i) the day on which the documents referred to in sub-paragraph (3) are provided to the PLA under that sub-paragraph; or
  - (ii) the day on which TfL provides the PLA with all drawings and further information that has been requested by the PLA under sub-paragraph (4),

whichever is the later.

### **As built drawings**

**36.** As soon as reasonably practicable following the completion of the construction of the authorised development, TfL must provide to the PLA as built drawings of any specified works (but not including any work constructed or placed within the tunnels) in a form and scale to be agreed between TfL and the PLA to show the position of those works in relation to the river Thames.

### **Discharges, etc.**

**37.**—(1) TfL must not without the consent of the PLA exercise the powers conferred by article 14 (discharge of water) so as to—

- (a) deposit in or allow to fall or be washed into the river Thames any gravel, soil or other material;
- (b) discharge or allow to escape either directly or indirectly into the river Thames any offensive or injurious matter in suspension or otherwise; or
- (c) directly or indirectly discharge any water into the river Thames.

(2) Any consent of the PLA under this paragraph must not be unreasonably withheld but may be given subject to such terms and conditions as the PLA may reasonably impose.

(3) Any consent under this paragraph is deemed to have been given if it is neither given nor refused (or is refused but without an indication of the grounds for refusal) within 35 days of the day on which the request for consent is submitted under sub-paragraph (1).

**38.** TfL must not, in exercise of the powers conferred by article 14 (discharge of water), damage or interfere with the beds or banks of any watercourse forming part of the river Thames unless such damage or interference is approved as a specified work under this Order or is otherwise approved in writing by the PLA.

### **Navigational lights, buoys, etc.**

**39.**—(1) TfL must, at or near a specified work or a location where a specified function is being exercised, exhibit such lights, lay down such buoys and take such other steps for preventing danger to navigation as the PLA may from time to time reasonably require.

(2) The PLA must give TfL not less than 20 business days written notice of a requirement under sub-paragraph (1) except in the case of emergency when the PLA must give such notice as is reasonably practicable.

### **Directions as to lights**

**40.** TfL must comply with any reasonable directions issued from time to time by the Harbour Master with regard to the lighting of—

- (a) a specified work; or
- (b) the carrying out of a specified function or the use of apparatus for the purposes of such a function,

or the screening of such lighting, so as to ensure that it is not a hazard to navigation on the river Thames.

### **Removal, etc. of the PLA's moorings and buoys**

**41.**—(1) Subject to sub-paragraph (2), if by reason of the construction of any specified work or the exercise of any specified function it is reasonably necessary for the PLA to incur the cost of—

- (a) temporarily or permanently altering, removing, re-siting, repositioning or reinstating existing moorings or aids to navigation (including navigation marks or lights) owned by the PLA;
- (b) laying down and removing substituted moorings or buoys; or
- (c) carrying out dredging operations for any such purpose,

not being costs which it would have incurred for any other reason, TfL must pay the costs reasonably so incurred by the PLA.

(2) The PLA must give to TfL not less than 20 business days' notice of its intention to incur such costs, and take into account any representations which TfL may make in response to the notice within 10 business days of the receipt of the notice.

### **Removal of temporary works**

**42.—**(1) On completion of the construction of the whole or any part of a permanent specified work, TfL must—

- (a) as soon as reasonably practicable after such completion seek approval under paragraph 34 for the removal required by sub-paragraph (b); and
- (b) as soon as reasonably practicable after the grant of that approval under paragraph 34 remove—
  - (i) in the case of completion of part, any temporary tidal work (other than a residual structure) carried out only for the purposes of that part of the permanent specified work;
  - (ii) on completion of all the specified works, any remaining temporary tidal work (other than a residual structure); and
  - (iii) in either case, any materials, plant and equipment used for such construction,

and make good the site to the reasonable satisfaction of the PLA.

(2) For the purposes of TfL making good the site in accordance with sub-paragraph (1)(b), the PLA may require that—

- (a) any residual structure is cut off by TfL at such level below the bed of the river Thames as the PLA may reasonably direct; and
- (b) TfL takes such other steps to make the residual structure safe as the PLA may reasonably direct.

(3) As soon as reasonably practicable after TfL has complied with the PLA's requirements under sub-paragraphs (1) and (2) in relation to any residual structure, the PLA will grant TfL a works licence for that structure under section 66 of the Port of London Act 1968, and the terms of the licence are to reflect such requirements.

(4) For the avoidance of doubt, article 3(1)(h) will not apply to a residual structure which will, accordingly, be subject to sections 66 to 75 of the Port of London Act 1968.

(5) In this article—

“residual structure” means any part of a temporary tidal work that the PLA agrees cannot reasonably be removed by TfL on completion of the construction of the permanent specified works; and

“tidal work” means any specified work any part of which is, or may be, or, in, under or over the surface of land below mean high water level forming part of the river Thames.

### **Protective action**

**43.—**(1) If any specified work or the exercise of any specified function—

- (a) is constructed or carried out otherwise than in accordance with the requirements of this Part of this Schedule or with any condition in an approval given under paragraph 34(4); or
- (b) during construction or carrying out gives rise to sedimentation, scouring, currents or wave action, which would be materially detrimental to traffic in, or the flow or regime of, the river Thames,

then the PLA may by notice in writing require TfL at TfL's own expense to comply with the remedial requirements specified in the notice.

(2) The requirements that may be specified in a notice given under sub-paragraph (1) are—

- (a) in the case of a specified work or specified function to which sub-paragraph (1)(a) applies, such requirements as may be specified in the notice for the purpose of giving effect to the requirements of—
  - (i) this Part of this Schedule; or
  - (ii) the condition that has been breached; or

- (b) in any case within sub-paragraph (1)(b), such requirements as may be specified in the notice for the purpose of preventing, mitigating or making good the sedimentation, scouring, currents or wave action so far as required by the needs of traffic in, or the flow or regime of, the river Thames.

(3) If TfL does not comply with a notice under sub-paragraph (1), or is unable to do so then the PLA may in writing require TfL to—

- (a) remove, alter or pull down the specified work, and where the specified work is removed to restore the site of that work (to such extent as the PLA reasonably requires) to its former condition; or
- (b) take such other action as the PLA may reasonably specify for the purpose of remedying the non-compliance to which the notice relates.

(4) If a specified work gives rise to environmental impacts over and above those anticipated by any environmental document, TfL must, in compliance with its duties under any enactment, take such action as is necessary to prevent or mitigate those environmental impacts and in so doing must consult and seek to agree the necessary measures with the PLA.

(5) If the PLA becomes aware that any specified work is causing an environmental impact over and above those anticipated by any environmental document, the PLA must notify TfL of that environmental impact, the reasons why the PLA believes that the environmental impact is being caused by the specified work and of measures that the PLA reasonably believes are necessary to counter or mitigate that environmental impact. TfL must implement either the measures that the PLA has notified to TfL or such other measures as TfL believes are necessary to counter the environmental impact identified, giving reasons to the PLA as to why it has implemented such other measures.

(6) In this paragraph “environmental document” means—

- (a) the environmental statement; and
- (b) any other document containing environmental information provided by TfL to the PLA for the purposes of any approval under paragraph 34.

#### **Abandoned or decayed works**

**44.**—(1) If a specified work is abandoned or falls into decay, the PLA may by notice in writing require TfL to take such reasonable steps as may be specified in the notice either to repair or restore the specified work, or any part of it, or to remove the specified work and (to such extent and within such limits as the PLA reasonably requires) restore the site of that work to its condition prior to the construction of the specified work.

(2) If any specified work is in such condition that it is, or is likely to become, a danger to or an interference with navigation in the river Thames, the PLA may by notice in writing require TfL to take such reasonable steps as may be specified in the notice—

- (a) to repair and restore the work or part of it; or
- (b) if TfL so elects, to remove the specified work and (to such extent as the PLA reasonably requires) to restore the site to its former condition.

(3) If on the expiration of such reasonable period as may be specified in a notice under this paragraph the work specified in the notice has not been completed to the satisfaction of the PLA, the PLA may undertake that work and any expenditure reasonably incurred by the PLA in so doing is recoverable from TfL.

#### **Facilities for navigation**

**45.**—(1) TfL must not in the exercise of the powers conferred by this Order interfere with any marks, lights or other navigational aids in the river without the consent of the PLA, and must ensure that access to such aids remains available during and following construction of any specified work or the exercise of any specified function.

(2) TfL must provide at any specified work, or must afford reasonable facilities at such work (including an electricity supply) for the PLA to provide at TfL's cost, from time to time such navigational lights, signals, radar or other apparatus for the benefit, control and direction of navigation as the PLA may deem necessary by reason of the construction and presence of the specified work and must ensure access remains available to such facilities during and following construction of the specified work.

### **Survey of riverbed**

**46.**—(1) The PLA may, at TfL's expense (such expense to be that which is reasonably incurred), carry out a survey (or externally procure the carrying out of a survey) for the purpose of establishing the condition of the river Thames—

- (a) before the commencement of construction of the first specified work below mean high water level to be constructed following approval under paragraph 34;
- (b) before the commencement of construction of any other specified work, or the carrying out of any other specified function, approved under paragraph 34;
- (c) during the construction of any specified work, or the carrying out of any specified function, as is reasonably required; and
- (d) after completion of, respectively—
  - (i) any specified work and the exercise of all related specified functions; and
  - (ii) all the specified works constructed and specified functions carried out under this Order in relation to such construction,

of such parts of the river Thames as might be affected by sedimentation, scouring, currents or wave action that might result from the construction of the relevant specified work, or the carrying out of a specified function as would, if it were to be constructed or carried out, constitute specified works, or give rise to operations, below mean high water level.

(2) The PLA must make available to TfL the results of any survey carried out under this paragraph.

(3) The PLA must not under this paragraph carry out a survey of any part of the river Thames in respect of which TfL has provided to the PLA survey material which the PLA is satisfied establishes the condition of the river Thames, and in the case of a survey under sub-paragraph (1)(c), the effect of the specified works and the specified functions.

(4) A survey carried out under this paragraph is the property of the PLA.

### **Statutory functions**

**47.** Subject to article 3 (disapplication of legislation, etc.) the exercise in, under or over the river Thames by TfL of any of its functions under this Order is subject to—

- (a) any enactment relating to the PLA;
- (b) any byelaw, direction or other requirement made by the PLA or the Harbour Master under any enactment; and
- (c) any other exercise by the PLA or the Harbour Master of any function conferred by or under any enactment.

### **Indemnity**

**48.**—(1) TfL is responsible for and must make good to the PLA all financial costs, charges, damages losses or expenses which may be incurred reasonably or suffered by the PLA by reason of—

- (a) the construction or operation of a specified work or its failure;
- (b) the exercise of any specified function; or

- (c) any act or omission of TfL, its employees, contractors or agents or others whilst engaged on the construction or operation of a specified work or exercise of a specified function dealing with any failure of a specified work,

and TfL must indemnify the PLA from and against all claims and demands arising out of or in connection with the specified works or specified functions or any such failure, act or omission.

(2) The fact that any act or thing may have been done—

- (a) by the PLA on behalf of TfL; or
- (b) by TfL, its employees, contractors or agents in accordance with plans or particulars submitted to or modifications or conditions specified by the PLA, or in a manner approved by the PLA, or under its supervision or the supervision of its duly authorised representative,

does not (if it was done or required without negligence on the part of the PLA or its duly authorised representative, employee, contractor or agent) excuse TfL from liability under the provisions of this paragraph.

(3) The PLA must give TfL reasonable notice of any such claim or demand as is referred to in sub-paragraph (1) and no settlement or compromise of it is to be made without the prior consent of TfL.

### **Compensation for temporary works**

**49.**—(1) Regardless of article 3, compensation in respect of—

- (a) any specified work constructed on land specified in Schedule 7 (land of which only temporary possession may be taken) and belonging to the PLA;
- (b) any specified function exercised on that land;
- (c) the rights conferred in connection with construction of such a specified work; and
- (d) the carrying out of such a specified function,

is payable to the PLA as if TfL has been required—

- (e) to obtain a licence for the work or the exercise of the function under section 66 (licensing of works) of the Port of London Act 1968; and
- (f) to pay consideration for the licence determined in accordance with the provisions of section 67 (consideration for licence) of that Act.

(2) For the avoidance of doubt, in determining the amount of compensation payable under this paragraph, no account is to be taken of the value of any other specified work whose construction is facilitated by the construction and use of any specified work mentioned in sub-paragraph (1).

(3) This paragraph has effect in addition to the obligation to pay compensation in articles 29(8) and 30(9).

### **Apparatus in the Silvertown Tunnel area**

**50.**—(1) Whenever TfL receives an application from any person who is considering placing or doing anything that might require TfL's consent under article 48, TfL will inform the person concerned of the possible need to obtain the PLA's licence under section 66 of the 1968 Act in relation to that matter and will recommend that the person contacts the PLA in order to discuss the matter with the PLA.

(2) Within 5 business days of giving a consent under article 48(1), TfL must notify the PLA in writing that consent has been given and in doing so must provide the PLA with the name and address of the person to whom the consent has been given and details of the apparatus or work to which the consent relates.

### **Disposals, etc.**

51. TfL must within 7 days after the completion of any sale, agreement or other transaction under article 60 (transfer of benefit of Order, etc.) in relation to which any powers, rights and obligations of TfL are transferred to another party, notify the PLA in writing, and the notice must include particulars of the other party to the transaction under article 60, the general nature of the transaction and details of the extent, nature and scope of the works or functions sold, transferred or otherwise dealt with.

### **Disputes**

52. Any dispute arising between TfL and the PLA under this Part of this Schedule is to be determined by arbitration as provided in article 69 (arbitration).

## **PART 5**

### **FOR THE PROTECTION OF THE ENVIRONMENT AGENCY**

53. The following provisions apply for the protection of the Environment Agency unless otherwise agreed in writing between TfL and the Agency, in relation to construction of the authorised development and, within any maintenance period defined in article 30(14), any maintenance of any part of the authorised development.

### **Definitions**

54. In this Schedule—

“the Agency” means the Environment Agency;

“asset control limits” means the predefined values, based on assessment, relating to safety and serviceability considerations that instigate a review of risk to the flood defences with respect of movement impacts;

“authorised work” means any work forming part of the authorised development;

“baseline monitoring” means any surveys carried out to determine and establish movements of the flood defences due to factors external to the authorised work including (but not limited to) seasonal variations or diurnal impacts due to tide or temperature;

“construction” includes execution, placing, altering, replacing, relaying, removal and excavation and “construct” and “constructed” is to be construed accordingly;

“damage” includes (but is not limited to) scouring, erosion, loss of structural integrity and environmental damage to any drainage work or any flora or fauna dependent on the aquatic environment, and “damaged” is to be construed accordingly;

“detailed designs” means any information submitted under paragraph 56(1);

“drainage work” means any main river and any bank, wall, embankment or other structure, or any appliance, constructed or used for land drainage, flood defence or tidal monitoring or flood storage capacity;

“Ecological Enhancements” means the inclusion of any features integral to or adjacent to the foreshore structures and any new, modified, or replaced flood defences that can support wildlife. This includes, but is not limited to, where practicable, the set back of flood defences to provide inter tidal habitat and the creation of shelters for juvenile fish;

“environmental duties” means the Agency’s duties in the Environment Act 1995, the Natural Environment and Rural Communities Act 2006 and the Water Environment (Water Framework Directive)(England and Wales) Regulations 2003 (SI 2003 no 3242);

“fishery” means any waters containing fish and fish in, or migrating to or from such waters and the spawn, spawning grounds or food for such fish;

“fit for purpose flood defence” means a flood defence that prevents tidal flood water from entering into land and which is of the statutory defence level;

“the flood defences” means any bank, wall, embankment, bridge abutments, lock gates or other structure or any appliance (including any supporting anchorage system) that fulfils a function of preventing, or reducing the risk of, flooding to land or property;

“flood storage capacity” means any land, which, taking account of the flood defences, is expected to provide flood storage capacity for any main river;

“main river” “means all watercourses shown as such on the statutory main river maps held by the Agency and the Department of Environment, Food and Rural Affairs, including any structure or appliance for controlling or regulating the flow of water into, in or out of the channel;

“maintenance” has the same meaning as in article 2(1), save for the exclusion of the works of inspection;

“specified day” means the business day on which detailed designs of that work are received by the Agency under paragraph 56(1) and for the avoidance of doubt if any further information is requested by the Agency under paragraph 56(1)(i), the specified day is the business day on which the Agency receives this information from TfL;

“specified work” means so much of any permanent or temporary work or operation forming part of the authorised work (other than works required in an emergency) as is in, on, under or over a main river or drainage works or within 16 metres of a drainage work or is otherwise likely to—

- (a) affect any drainage works or the volumetric rate of flow of water in or flowing to or from any drainage works; or
- (b) affect the flow, purity or quality of water in any main river or other surface waters or ground water; or
- (c) cause obstruction to the free passage of fish or damage to any fishery; or
- (d) affect the conservation, distribution or use of water resources; or
- (e) affect the conservation value of the main river and habitats in its immediate vicinity;

“the statutory defence level” means 5.18 metres above ordnance datum;

“the structural integrity plans” means the plans and documents to be provided to the Agency under paragraph 55;

“temporary flood defence measures” means any temporary measures constructed by TfL under this Part of this Schedule for the purpose of creating a fit for purpose flood defence; and

“TE2100” means the standards associated with the strategy for managing flood risk across the Thames estuary, including recommendations for action in short, medium and long term time periods to take account of sea level rise and climate change, as adopted and updated from time to time by the Environment Agency.

### **Structural integrity of flood defences**

**55.—**(1) Prior to commencing the first authorised work likely to impact a flood defence and at least at the same time as submitting any submissions for approval in respect of the first specified work under paragraph 56, TfL must prepare at its own expense and provide to the Agency (for its approval where stated below), the following documents in the corresponding order (but nothing precludes TfL from submitting more than one document to the Agency at a time)—

- (a) a schedule of defects existing in the flood defences including, where reasonably practicable, a description of the magnitude of any defect;
- (b) a survey plan, for approval by the Agency, to include details of any further surveys and intrusive investigations of the flood defences proposed to be undertaken by TfL to inform the detailed design process, construction methodology and mitigation proposals;
- (c) an assessment report, to—



- (i) include details of the structural integrity of the flood defences in light of any proposed authorised works;
  - (ii) include asset control limits of any sections of the flood defences;
  - (iii) identify any sections of the flood defences requiring protective works by reason of the authorised works; and
  - (iv) identify any section of the flood defences that are not a fit for purpose flood defence, such report to be based on the findings of the additional surveys carried out by TfL under the survey plan under sub-paragraph (b), the schedule of defects provided under sub-paragraph (a) and any available historical information;
- (d) a mitigation design report (or reports), for approval by the Agency, to include details of the protective works identified by the assessment report provided under sub-paragraph (c) that—
- (i) are necessary before; or
  - (ii) may be required to be implemented as an action under the emergency preparedness plan provided under sub-paragraph (f) during or after, the construction of the authorised development and that such details will—
  - (iii) be sensitive to the foreshore and hydraulic regime; and
  - (iv) not prevent the relevant sections of the flood defences being raised to TE2100 levels in future and such standards being maintained;
- (e) an instrumentation and monitoring plan, for approval by the Agency, to include, in respect of the flood defences—
- (i) details of monitoring locations (which must be established having regard to the asset control limits);
  - (ii) details of monitoring in respect of scour of any flood defence within the Order limits;
  - (iii) the frequency of monitoring (which must, as a minimum, be until (a) the rate of settlement experienced by the flood defences directly attributable to the authorised development ceases or is less than or equal to 2 millimetres per annum; or (b) the period of 2 years has expired following the completion of the authorised development, whichever is later); and
  - (iv) the minimum amount of baseline monitoring; and
- (f) an emergency preparedness plan, for approval by the Agency, to include details as to what actions TfL will take, including the implementation of any mitigation identified in the mitigation design report (or reports) approved under sub-paragraph (d), in respect of the asset control limits identified in the assessment report provided under sub-paragraph (c), including timescales and the hierarchy of actions.
- (2) TfL must implement and act in accordance with the approved structural integrity plans.
- (3) Any protective work identified as being required by the structural integrity plans is to be treated as a specified work for the purposes of this Part of this Schedule.
- (4) Following completion of the authorised development, TfL must prepare at its own expense and provide to the Agency, a completion report, to include details of—
- (a) any modifications or mitigation measures to be implemented in respect of the flood defences;
  - (b) illustrations in respect of the interactions between ground movement relating to the flood defences and construction activities;
  - (c) actual ground movement in respect of the flood defences compared to predicted ground movement;
  - (d) the results of a post-construction defects survey but only in relation to any differences identified when compared to the schedule of defects provided to the Agency under sub-paragraph (1)(a);

- (e) any remedial works undertaken by TfL to the flood defences; and
- (f) final as-built drawings and plans of the parts of the authorised development situated within 16 metres of a flood defence.

### Specified works

**56.**—(1) Before commencing construction of a specified work (excluding any piling works which comprise a “licensable marine activity” as defined in the 2009 Act), TfL must submit to the Agency for its written approval—

- (a) plans, calculations, cross-sections, elevations, drawings, specifications and designs of the specified work together with the details of the positioning of any structure within the main river;
- (b) proposals for strengthening, modification, renewal or replacement of any drainage work required as a result of the anticipated impacts of the specified work;
- (c) any proposed mitigation measures to minimise the impact of the specified work on the foreshore, ecologically sensitive areas and the wider environment;
- (d) details of any Ecological Enhancements which are considered by TfL to be appropriate and reasonable to be incorporated into the specified work having regard to the nature of the specified work;
- (e) method statements in respect of the specified work to include both timing of and methods used, sequence of construction and the type, location and storage of all machinery, materials and fuel;
- (f) any proposals for reinstatement of the foreshore setting out timing of reinstatement works, measures to be used to minimise environmental impact of the works, materials to be used, methods of reinstatement and any proposed pollution protection measures;
- (g) information to demonstrate that the Agency will be afforded sufficient access to drainage works within the Order limits and the flood defences during the construction of the specified work to discharge its statutory functions;
- (h) details of any temporary flood defence measures which are considered by TfL to be appropriate and reasonable to ensure that, where a flood defence is not a fit for purpose flood defence, suitable flood prevention measures are in place during the construction of the authorised development or, as the case may be, during maintenance of any part of the authorised development within any maintenance period defined in article 30(14);
- (i) such further particulars as the Agency may within 20 business days of the receipt of the detailed designs reasonably require.

(2) Any such specified work must not be constructed except in accordance with all detailed designs as may be approved in writing by the Agency under sub-paragraph (1) (having regard to any structural integrity plans approved under paragraph 55), or settled in accordance with paragraph 64 where applicable, and in accordance with any reasonable conditions or requirements specified under this paragraph.

### Approvals

**57.**—(1) Any approval of the Agency required under paragraph 55(1) or 56(1)—

- (a) must not be unreasonably withheld;
- (b) in the case of a refusal, must be accompanied by a statement of the grounds of refusal;
- (c) may be given subject to such reasonable requirements or conditions as the Agency may make for the protection of any drainage work, flood defence, fishery, main river or water resources, or for the prevention of flooding or pollution or in the discharge of its environmental duties (not including any requirement for TfL to improve any flood defence that goes beyond its maintenance obligation under paragraph **Error! Reference source not found.** but including any requirement or condition that TfL must construct temporary flood defence measures to ensure that, where the Agency reasonably considers

that a flood defence is not a fit for purpose flood defence, suitable flood prevention measures are in place during the construction of the authorised development or, as the case may be, during maintenance of any part of the authorised development within any maintenance period defined in article 30(14)); and

(d) is deemed to have been refused if it is neither given nor refused within 35 business days of the specified day unless otherwise agreed.

(2) Without limitation on the scope of sub-paragraph (1) the requirements or conditions which the Agency may make under sub-paragraph (1) include conditions requiring TfL at its own expense to construct such protective works (including any new works as well as alterations to existing works) as are reasonably necessary—

- (a) to safeguard any drainage work or flood defence against damage;
- (b) to secure that its efficiency or effectiveness for flood defence purposes is not impaired; or
- (c) to ensure the risk of flooding is not otherwise increased by reason of any specified work, maintenance work or protective work,

during the construction of or by reason of the works.

(3) Any dispute in respect of any approval or refusal under this paragraph is subject to the dispute resolution procedure in paragraph 64.

### **Inspection and construction**

**58.**—(1) All works must be constructed without unnecessary delay in accordance with the detailed designs or plans approved or settled under this part of this Schedule and to the reasonable satisfaction of the Agency.

(2) Save where TfL constructs a specified work in accordance with any detailed designs or plans approved by the Agency under paragraph 56, TfL must not damage or obstruct any drainage work during the construction of a specified work.

(3) An officer of the Agency is entitled to watch and inspect the construction of any works.

(4) TfL must give to the Agency not less than 10 business days' notice in writing of its intention to commence construction of specified works and notice in writing of its completion not later than five business days after the date on which it is completed.

(5) If the Agency reasonably requires, TfL must construct all or part of any protective works so that they are in place prior to the carrying out of any specified work to which they relate.

(6) If any part of a work is constructed otherwise than in accordance with the requirements of this Part of this Schedule, the Agency may by notice in writing require TfL at TfL's own expense to comply with the requirements of this part of this Schedule or if TfL so elects (and the Agency in writing consents, such consent not to be unreasonably withheld or delayed) to remove, alter or pull down the work and, where removal is required, to restore the site to its former condition to such extent and within such limits as the Agency reasonably requires.

(7) Subject to sub-paragraph (8), if within a reasonable period, being not less than 28 days from the date when a notice under sub-paragraph (6) is served upon TfL, it has failed to begin taking steps to comply with the requirements of the notice and subsequently to make reasonably expeditious progress towards their implementation, the Agency may execute the works specified in the notice and any expenditure incurred by it in so doing is recoverable from TfL.

(8) In the event of any dispute as to whether sub-paragraph (6) is properly applicable to any work in respect of which notice has been served under that paragraph, or as to the reasonableness of any requirement of such a notice, the Agency must not except in an emergency exercise the powers conferred by sub-paragraph (7) until the dispute has been finally determined.

### **Maintenance of the flood defences**

**59.**—(1) Subject to the provisions of this Schedule and except to the extent that the Agency or any other person is liable to maintain any drainage work and is not precluded by the exercise of the powers of this Order from doing so, TfL must from the commencement of the construction of the

specified works until their completion maintain any drainage work which is situated within the limits of deviation or on land held by TfL for the purposes of or in connection with the specified works fit for purpose and where applicable to the statutory defence level of 5.18m AOD (or such lower level as shall be agreed with the Agency) and free from obstruction, whether or not the drainage work is to be constructed under the powers of this Order or is already in existence.

(2) TfL must, from the commencement of the construction of the specified works until their completion (and during any maintenance works carried out on land temporarily occupied under article 30) maintain to the reasonable satisfaction of the Agency any temporary flood defence measures approved under paragraph 56 or required by the Agency to be constructed by TfL under paragraph 57.

(3) If any such work that TfL is liable to maintain under sub-paragraph **Error! Reference source not found.** or 0 is not maintained to the reasonable satisfaction of the Agency, the Agency may by notice in writing require TfL to repair and restore the work, or any part of it, or (if TfL so elects and the Agency in writing consents, such consent not to be unreasonably withheld), to remove the work and restore the site to its former condition, to such extent and within such limits as the Agency reasonably requires.

(4) If, within a reasonable period being not less than 20 business days beginning with the date on which a notice in respect of any work is served under sub-paragraph 0 on TfL, that person has failed to begin taking steps to comply with the reasonable requirements of the notice and has not thereafter made reasonably expeditious progress towards their implementation, the Agency may do what is necessary for such compliance and may recover any expenditure reasonably incurred by it in doing so from that person.

(5) In the event of any dispute as to the reasonableness of any requirement of a notice served under sub-paragraph (3), the Agency must not, except in a case of immediate foreseeable need, exercise the powers of sub-paragraph (4) until the dispute has been finally determined.

### **Emergency powers**

**60.**—(1) Subject to sub-paragraph (4), if by reason of the construction of any specified work or any other development authorised by this Order or the failure of any such work the efficiency or effectiveness of any drainage work or the conservation value of the aquatic habitat is impaired, or that drainage work is otherwise damaged, so as to require remedial action, such impairment or damage must be made good by TfL to the reasonable satisfaction of the Agency.

(2) If such impaired or damaged drainage work is not made good to the reasonable satisfaction of the Agency, the Agency may by notice in writing require TfL to restore it to its former standard of efficiency or where necessary to construct some other work in substitution for it.

(3) If, within a reasonable period being not less than 28 days beginning with the date on which a notice in respect of impaired or damaged drainage work is served under sub-paragraph (2) on TfL TfL has failed to begin taking steps to comply with the requirements of the notice and has not thereafter made reasonably expeditious progress towards its implementation, the Agency may do what is necessary for such compliance and may recover any expenditure reasonably incurred by it in so doing from TfL.

(4) In the event of any dispute as to the reasonableness of any requirement of a notice served under sub-paragraph (2), the Agency must not except in a case of immediate foreseeable need exercise the powers conferred by sub-paragraph (3) until the dispute has been finally determined in accordance with paragraph 64.

(5) In any case where immediate action by the Agency is reasonably required in order to secure that the imminent flood risk or damage to the environment is avoided or reduced, the Agency may take such steps as are reasonable for the purpose and may recover from TfL the reasonable cost of so doing provided that the notice specifying those steps is served on TfL as soon as it is reasonably practicable after the Agency has taken or commence to take the steps specified in the notice.

### **Protection for fish and fisheries**

**61.**—(1) TfL must take all such measures as may be reasonably practicable to prevent any interruption of the free passage of fish in any fishery during the construction of any specified work.

(2) If by reason of—

- (a) the construction of any specified work; or
- (b) the failure of any such specified work,

damage to a fishery is caused, or the Agency has reason to expect that such damage may be caused, the Agency may serve notice on TfL requiring it to take such steps as may be reasonably practicable to make good the damage or, as the case may be, to protect the fishery against such damage.

(3) If, within such time as may be reasonably practicable for that purpose after the receipt of written notice from the Agency of any damage or expected damage to a fishery, TfL fails to take such steps as are described in sub-paragraph (1), the Agency may take such steps as are reasonable for the purpose and may recover from TfL the reasonable cost of so doing provided that the notice specifying those steps is served on TfL as soon as is reasonably practicable after the Agency has taken, or commenced to take the steps specified in the notice.

### **Indemnities and costs**

**62.**—(1) TfL is responsible for and must indemnify the Agency against all financial liabilities, claims, demands proceedings, costs, expenses, damages and losses (including but not limited to any direct, indirect or consequential losses, loss of reputation and all interest, penalties and legal costs calculated on a full indemnity basis) and all other professional costs and expenses not otherwise provided for in this Part of this Schedule which may be reasonably incurred or suffered by the Agency by reason of:

- (a) the construction or operation or maintenance of any specified works comprised within the authorised development or the failure of any such works comprised within them; or
- (b) any act or omission of TfL, its employees, contractors or agents or others whilst engaged upon the construction or operation or maintenance of the authorised works or dealing with any failure of the authorised works,

and TfL must indemnify and keep indemnified the Agency from and against all claims and demands arising out of or in connection with the authorised works or any such failure, act or omission.

(2) The fact that any act or thing may have been done—

- (a) by the Agency on behalf of TfL; or
- (b) by TfL, its employees, contractors or agents in accordance with plans or particulars submitted to or modifications or conditions specified by the Agency, or in a manner approved by the Agency, or under its supervision or the supervision of its duly authorised representative,

does not (if it was done or required without negligence on the part of the Agency or its duly authorised representative, employee, contractor or agent) excuse TfL from liability under the provisions of this paragraph.

(3) The Agency must give TfL reasonable notice of any such claim or demand as is referred to in sub-paragraph (1), and no settlement or compromise of any such claim or demand can be made without the prior consent of TfL.

### **Notices**

**63.** All notices under this Part of the Schedule are to be sent to the Agency by email to PSO-Thames@environment-agency.gov.uk and PSO.SELondon&NKent@environment-agency.gov.uk unless otherwise agreed in writing.

## **Dispute resolution**

**64.** Any difference or dispute arising between TfL and the Agency under this Part of this Schedule is to be determined by arbitration in accordance with article 69 (arbitration) unless otherwise agreed in writing between TfL and the Agency.

## **PART 6**

### **FOR THE PROTECTION OF THE LONDON BOROUGH OF NEWHAM AND THE ROYAL BOROUGH OF GREENWICH**

**65.** The following provisions of this Part of this Schedule have effect, unless otherwise agreed in writing between TfL and the appropriate Council.

**66.** In this Part of this Schedule—

“the appropriate Council” means—

- (a) the Council of the London Borough of Newham, in relation to any part of the authorised development constructed in the area of that council; and
- (b) the Council of the Royal Borough of Greenwich, in relation to any part of the authorised development constructed in the area of that council;

“GLA side road” has the same meaning as in the 1984 Act;

“highway” means a street vested in or maintainable by the appropriate Council as highway authority under the 1980 Act;

“highway operations” means the construction of any part of the authorised development which will involve the interference with a highway or (where the highway is not a GLA side road) the traffic in a highway and any temporary stopping up, alteration or diversion of a highway; and

“plans” includes sections, drawings, specifications and particulars (including descriptions of methods of construction).

**67.** Without affecting the application of sections 59 and 60 of the 1991 Act (duty of street authority to co-ordinate and undertakers to co-operate) before commencing any highway operations, TfL must submit to the appropriate Council for its approval proper and sufficient plans and shall not commence the highway operations until such plans have been approved or settled by arbitration.

**68.** If, within 56 days after any plans have been submitted to the appropriate Council under paragraph 67, it has not intimated its disapproval and the grounds of disapproval, it is deemed to have approved them.

**69.** In the event of any disapproval of plans by the appropriate Council under paragraph 67, TfL may re-submit the plans with modifications and, in that event, if the appropriate Council has not intimated its disapproval and the grounds of disapproval within 28 days of the plans being re-submitted, it is deemed to have approved them.

**70.** So much of the authorised development as forms part of or is intended to become a highway, or part of any such highway, and which are not street works as respects which the provisions of Part 3 of the 1991 Act apply, shall be completed in accordance with the reasonable requirements of the appropriate Council which is to become the highway authority or, in case of difference between TfL and the appropriate Council as to whether those requirements have been complied with or as to their reasonableness, in accordance with such requirements as may be approved or settled by arbitration.

**71.** TfL must not, except with the consent of the appropriate Council, deposit any soil, subsoil or materials or stand any vehicle or plant on any highway (except on so much of it as is for the time being temporarily stopped up or occupied under the powers conferred by this Order) so as to

obstruct the use of the highway by any person or, except with the same consent, deposit any soil, subsoil or materials on any highway except within a hoarding.

**72.** Except in an emergency or where reasonably necessary to secure the safety of the public no direction or instruction may be given by the appropriate Council to the contractors, servants or agents of TfL regarding any highway operations without the prior consent in writing of TfL; but the appropriate Council is not liable for any additional costs which may be incurred as a result of the giving of instructions or directions under this paragraph.

**73.** TfL must, if reasonably so required by the appropriate Council, provide and maintain during such time as TfL may occupy any part of a highway for the purpose of the construction of any part of the authorised development that is not a GLA side road, temporary ramps for vehicular traffic or pedestrian traffic, or both, and any other traffic measures required to protect the safety of road users in accordance with the standard recommended in Chapter 8 of the Traffic Signs Manual issued for the purposes of the Traffic Signs Regulations and General Directions 1994<sup>(a)</sup> in such position as may be necessary to prevent undue interference with the flow of traffic in any highway.

**74.** TfL must indemnify the appropriate Council against any claim which may arise as a result of any subsidence of, or damage to, any highway or any retained sanitary convenience, refuge, sewer, drain, lamp column, traffic sign, bollard, bin for refuse or road materials or associated apparatus or any other property or work belonging to, or under the jurisdiction or control of, or maintainable by, the appropriate Council on or under any highway which may be caused by, or in consequence of, any act or default of TfL, its contractors, servants or agents but the appropriate Council must give to TfL reasonable notice of any such claim and no settlement or compromise of it may be made without TfL's prior consent.

**75.** Wherever in this Part of this Schedule provision is made with respect to the approval or consent of the appropriate Council, that approval or consent must be in writing and may be given subject to such reasonable terms and conditions as the appropriate Council may require in the interests of safety and in order to minimise inconvenience to persons using the highway, but must not be unreasonably withheld.

**76.** Unless otherwise agreed between the parties any difference arising between TfL and the appropriate Council under this Part of this Schedule (other than a difference as to its meaning or construction) shall be determined by arbitration in accordance with article 69.

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(a) S.I. 1994/1519.

## SCHEDULE 14

Article 66

### DOCUMENTS TO BE CERTIFIED

<i>(1)</i> <i>Document</i>	<i>(2)</i> <i>Description</i>
book of reference	The book of reference contained in document reference 4.3 (revision 3)
bus strategy	The bus strategy contained in document reference 8.82 (revision 2)
charging policies and procedures	The charging policies and procedures contained in document reference 7.11 (revision 3)
classification of roads (classification) plans	The classification of roads (classification) plans contained in document reference 2.7 (revision 1) (revision P02 in respect of sheet 1 and revision P01 in respect of sheet 2)
classification of roads (designation) plans	The classification of roads (designation) plans contained in document reference 2.7 (revision 1) (revision P02 in respect of sheet 1 and revision P01 in respect of sheet 2)
code of construction practice	The code of construction practice contained in document reference 6.10 (revision 4)
design and access statement	Design and Access Statement Document 7.3
design and access statement addendum	Design and Access Statement Addendum Document 8.83
design principles	The design principles contained in document reference 7.4 (revision 3)
engineering section drawings and plans	The engineering section drawings and plans contained in document reference 2.8 (revision 1) (revision P02 in respect of sheets 1, 6 to 10, 21 to 23 and revision P01 in respect of sheets 2 to 5 and 11 to 20)
environmental statement	<p>The environmental statement and associated figures and appendices contained in documents referenced 6.1, 6.2 and 6.3 (revision 0) (subject to the substitutions below)</p> <p>The revised chapter 6 of the environmental statement contained in document reference 6.1.6 (revision 0) (which substitutes chapter 6 of the environmental statement contained in document reference 6.1 (revision 0))</p>



	<p>The updated air quality and health assessment (to be read alongside the above) contained in document reference 8.33</p> <p>The revised chapter 8 of the environmental statement contained in document reference 6.1.8 (revision 1) (which substitutes chapter 8 of the environmental statement contained in document reference 6.1 (revision 0))</p> <p>The revised chapter 10 of the environmental statement contained in document reference 6.1.10 (revision 1) (which substitutes chapter 10 of the environmental statement contained in document reference 6.1 (revision 0))</p> <p>The revised chapter 12 of the environmental statement contained in document reference 6.1.12 (revision 1) (which substitutes chapter 12 of the environmental statement contained in document reference 6.1 (revision 0))</p> <p>The revised chapter 13 of the environmental statement contained in document reference 6.1.13 (revision 1) (which substitutes chapter 13 of the environmental statement contained in document reference 6.1 (revision 0))</p> <p>The revised chapter 16 of the environmental statement contained in document reference 6.1.16 (revision 1) (which substitutes chapter 16 of the environmental statement contained in document reference 6.1 (revision 0))</p> <p>The following figures substitute the corresponding figures of the environmental statement contained in document reference 6.2 (revision 0)—</p> <p>the revised figures 6.3 to 6.4 of the environmental statement contained in document reference 6.2 (revision 1);</p> <p>the revised figures 6.5 to 6.6 of the environmental statement contained in document reference 6.2 (revision 1);</p> <p>the revised figures 6.7 to 6.8 of the environmental statement contained in document reference 6.2 (revision 1);</p> <p>the revised figures 6.9 to 6.10 of the environmental statement contained in document reference 6.2 (revision 1);</p> <p>the revised figures 7.1 to 11.2 of the environmental statement contained in document reference 6.2</p>
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	<p>(revision 1);</p> <p>the revised figures 14.1 to 14.5 of the environmental statement contained in document reference 6.2 (revision 1);</p> <p>the revised figures 14.6 to 14.8 of the environmental statement contained in document reference 6.2 (revision 1);</p> <p>the revised figures 15.1 to 15.2 of the environmental statement contained in document reference 6.2 (revision 1);</p> <p>the revised figures 16.1 to 16.5 of the environmental statement contained in document reference 6.2 (revision 1);</p> <p>the revised figures 16.6 to 16.10 of the environmental statement contained in document reference 6.2 (revision 1); and</p> <p>the revised figures 17.1 to 17.2 of the environmental statement contained in document reference 6.2 (revision 1)</p> <p>The revised appendix 4.A of the environmental statement contained in document reference 6.3.4.1 (revision 1) (which substitutes appendix 4.A of the environmental statement contained in document reference 6.3 (revision 0))</p> <p>The revised appendix 6.B of the environmental statement contained in document reference 6.3.6.2 (revision 1.1) (which substitutes appendix 6.B of the environmental statement contained in document reference 6.3 (revision 0))</p> <p>The revised appendix 8.A of the environmental statement contained in document reference 6.3.8.1 (revision 1) (which substitutes appendix 8.A of the environmental statement contained in document reference 6.3 (revision 0))</p> <p>The revised appendix 9.G of the environmental statement contained in document reference 6.3.9.7 (revision 1) (which substitutes appendix 9.G of the environmental statement contained in document reference 6.3 (revision 0))</p> <p>The revised appendix 9.H of the environmental statement contained in document reference 6.3.9.8 (revision 1.1) (which substitutes appendix 9.H of the environmental statement contained in document reference 6.3 (revision 0))</p>
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	<p>The revised appendix 10.A of the environmental statement contained in document reference 6.3.10.1 (revision 1) (which substitutes appendix 10.A of the environmental statement contained in document reference 6.3 (revision 0))</p> <p>The revised appendix 10.B of the environmental statement contained in document reference 6.3.10.2 (revision 1) (which substitutes appendix 10.B of the environmental statement contained in document reference 6.3 (revision 0))</p> <p>The revised appendix 16.A of the environmental statement contained in document reference 6.3.16.1 (which substitutes appendix 16.A of the environmental statement contained in document reference 6.3 (revision 0))</p> <p>The draft HGV management strategy contained in Appendix K of document reference 8.4</p> <p>The Hoola noise technical note contained in Appendix E of document reference 8.9</p> <p>The NIR assessment contained in Appendix F of document reference 8.9</p> <p>The additional noise survey data contained in Appendix D of document reference 8.28</p> <p>The proposed non-material changes report contained in document reference 8.56</p> <p>The addendum to the non-material changes report contained in document reference 8.78</p> <p>The PCC plant environmental appraisal contained in document reference 8.65</p> <p>The STP environmental appraisal contained in document reference 8.66</p> <p>The Hoola air quality technical note contained in Appendix 5 of document reference 8.76</p> <p>The envisaged construction techniques, duration and hours of working for marine piling contained in Appendix 11 of document reference 8.77</p> <p>The PCC plan indicative visualisation contained in Appendix A of document reference 8.93</p> <p>The underwater noise technical note contained in Appendix B of document reference 8.100</p> <p>The Marine Policy Statement Compliance Statement</p>
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	contained in document reference 8.114
general arrangement plans	The general arrangement plans contained in document reference 2.2 (revision 1) (revision P04 in respect of all sheets)
land plans	The land plans contained in document reference 2.3 (revision P01.1 in respect of all sheets)
landscaping plan	The landscaping plan contained in document reference 8.88 (revision P02)
monitoring and mitigation strategy	The monitoring and mitigation strategy contained in document reference 8.84 (revision 2)
rights of way and access plans	The rights of way and access plans contained in document reference 2.6 (revision 1) (revision P02 in respect of sheet 1 and revision P01 in respect of sheets 2 and 3)
river restrictions plan	The river restrictions plan contained in document reference 2.10 (revision 0) (revision P02)
river restrictions section	The river restrictions section contained in document reference 2.10 (revision 0) (revision P01)
special category land plan	The special category land plan contained in document reference 2.4 (revision P01.1)
traffic regulation measures (speed limits and restricted roads) plans	The traffic regulation measures (speed limits and restricted roads) plans contained in document reference 2.9 (revision 1) (revision P02 in respect of sheet 1 and revision P01 in respect of sheets 2 to 4)
traffic regulation measures (clearways and prohibitions) plans	The traffic regulation measures (clearways and prohibitions) plans contained in document reference 2.9 (revision 1) (revision P02 in respect of sheet 1 and revision P01 in respect of sheets 2 to 4)
the tunnels location and operational boundaries plans	The tunnels location and operational boundaries plans contained in document reference 2.1 (revision 1) (revision P03 in respect of sheet 1 of the tunnels location and operational boundaries plans (location plan), revision P02 in respect of sheet 1 of the tunnels location and operational boundaries plans (tunnels operational boundaries plans) and revision P01 in respect of sheets 2 and 3 of the tunnels location and operational boundaries plans (tunnels operational boundaries plans))
works plans	The works plans contained in document reference 2.5 (revision 2) (revision P03 in respect of sheet 1 and revision P04 in respect of sheets 2 and 3)

## **EXPLANATORY NOTE**

*(This note is not part of the Order)*

This Order authorises Transport for London to construct, operate and maintain the Silvertown Tunnel. This is a new road tunnel linking the areas north and south of the river Thames in London between the Greenwich Peninsula and Silvertown.

The Order would permit Transport for London to acquire, compulsorily or by agreement, land and rights in land and to use land for this purpose.

The Order also includes provisions in relation to the operation of the existing Blackwall Tunnel and the new Silvertown Tunnel, including for the implementation of user charging at both tunnels.

A copy of all documents mentioned in this Order and certified in accordance with article 66 of this Order (certification of documents) may be inspected free of charge during working hours at Transport for London, Windsor House, 42 Victoria Street, London, SW1H 0TL.

**2017 No.**

**INFRASTRUCTURE PLANNING**

Silvertown Tunnel Order 2017

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10 April 2017