

Thames Tideway Tunnel
Thames Water Utilities Limited



Application for Development Consent

Application Reference Number: WWO10001

Legal Agreement for Securing of Off-site Mitigation Policies and Resources for Local Planning Authorities

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11 March 2014

DCO-DT-APP-ZZ200-090300

**Thames
Tideway Tunnel**



Creating a cleaner, healthier River Thames

DATED

THAMES WATER UTILITIES LIMITED

as the Undertaker

AND

**THE COUNCIL OF THE LONDON BOROUGH OF EALING;
LONDON BOROUGH OF HOUNSLOW;
LONDON BOROUGH OF HAMMERSMITH AND FULHAM;
LONDON BOROUGH OF RICHMOND-UPON-THAMES;
THE MAYOR AND BURGESSES OF THE LONDON BOROUGH OF WANDSWORTH;
THE MAYOR AND BURGESSES OF THE ROYAL BOROUGH OF KENSINGTON AND
CHELSEA;
LONDON BOROUGH OF LAMBETH;
THE LORD MAYOR AND CITIZENS OF THE CITY OF WESTMINSTER;
THE MAYOR AND COMMONALTY AND CITIZENS OF THE CITY OF LONDON;
THE MAYOR AND BURGESSES OF THE LONDON BOROUGH OF SOUTHWARK;
LONDON BOROUGH OF LEWISHAM;
ROYAL BOROUGH OF GREENWICH;
THE MAYOR AND BURGESSES OF THE LONDON BOROUGH OF TOWER HAMLETS;
THE MAYOR AND BURGESSES OF THE LONDON BOROUGH OF NEWHAM;
LONDON LEGACY DEVELOPMENT CORPORATION**
as the Councils

LEGAL AGREEMENT

securing mitigation and compensation policies relating to the Thames Tideway Tunnel and
the Resources for the Councils

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THIS AGREEMENT entered of the

day of

2014

BETWEEN

- (1) **THAMES WATER UTILITIES LIMITED**, a company incorporated in England with registered number 02366661 whose registered office is at Clearwater Court, Vastern Road, Reading, Berkshire RG1 8DB (the "**Undertaker**")

AND

- (2) **THE COUNCILS**

BACKGROUND

- (A) The Councils are the relevant planning authorities for the purposes of section 106 of the 1990 Act for the area within which the DCO Land is situated.
- (B) The Undertaker submitted the Application to the Secretary of State on 28 February 2013 and the Application was accepted by the Secretary of State on 27 March 2013.
- (C) The Undertaker has agreed that in relation to the Application it shall comply with the commitments set out in the Agreement.
- (D) The Undertaker has agreed that following the DCO Date it will as soon as reasonably practicable enter into the Unilateral Undertaking and provide such to the Councils with the intention that, subject to certain conditions, it is enforceable by the Councils on the Undertaker, and on the DCO Land, and on the Undertaker's Successors to that land.

OPERATIVE PROVISIONS

1 INTERPRETATION

- 1.1 In this Agreement unless the context otherwise requires the following terms (arranged in alphabetical order) shall have the following meanings:

"**1990 Act**" means the Town and Country Planning Act 1990 (as amended).

"**2008 Act**" means the Planning Act 2008 (as amended).

"**Agreement**" means this agreement.

"**Applicant**" means any person, group of persons, or organisation who believes they are entitled to make a claim in accordance with the Offsite Mitigation and Compensation Policies, or who has made such a claim.

"**Application**" means the application for development consent made pursuant to the 2008 Act submitted by Thames Water Utilities Limited to the Secretary of State (application reference number WW010001).

"**Construction Phase**" means the period from Implementation of the Development at each Development Site until the Construction Phase Completion Date.

"**Construction Phase Completion Date**" means the date on which "completion of construction" (as defined in the DCO) occurs in relation to each Development Site.

"Councils" means each of the individual local authorities as listed in Schedule 1 (*The Councils*).

"DCO" means the order granting development consent for the Development to be made by the Secretary of State under the 2008 Act pursuant to the Application.

"DCO Date" means date of the granting of the DCO.

"DCO Land" means the land described in Clause 2 of the Unilateral Undertaking.

"Development" means the Thames Tideway Tunnel comprising the development and associated development described in Part 1 of Schedule 1 of the DCO and any other development authorised by the DCO which is development within the meaning of Section 32 of the Planning Act 2008.

"Development Boroughs" means each of London Borough of Ealing, London Borough of Hammersmith and Fulham, London Borough of Wandsworth, London Borough of Lambeth, City of London Corporation, City of Westminster, Royal Borough of Kensington and Chelsea, London Borough of Newham, London Borough of Greenwich, London Borough of Lewisham, London Borough of Southwark, London Borough of Tower Hamlets, and London Borough of Richmond-upon-Thames;

"Development Sites" means each of the worksites at Acton Storm Tanks, Hammersmith Pumping Station, Barn Elms, Putney Embankment Foreshore, Dormay Street, King George's Park, Carnwath Road Riverside, Falconbrook Pumping Station, Cremorne Wharf Depot, Chelsea Embankment Foreshore, Kirtling Street, Heathwall Pumping Station, Albert Embankment Foreshore, Victoria Embankment Foreshore, Blackfriars Bridge Foreshore, Shad Thames Pumping Station, Chambers Wharf, Earl Pumping Station, Deptford Church Street, Greenwich Pumping Station, King Edward Memorial Park Foreshore, Bekesbourne Street, Abbey Mills Pumping Station, and Beckton Sewage Treatment Plan;

"EAP" means the Expert Advisory Panel as described in paragraph 2 (*The EAP*) of Schedule 3.

"EHP" means the "Exceptional Hardship Procedure" dated March 2014 which is attached at Appendix 2 and any approved amendments.

"First Memorandum of Understanding" means the memorandum of understanding entered with the Councils listed in column (1) of Table 1 of Schedule 8 which is attached at Appendix 6.

"Greater London Authority" means the Greater London Authority, City Hall, The Queen's Walk, More London, London SE1 2AA;

"IAS" means the Independent Advisory Service as described in Schedule 4 (*Independent Advisory Service*).

"ICC" means the Independent Complaints Commissioner as described in Part 2 (*The Independent Complaints Commissioner*) of Schedule 3 (*The Independent Compensation Panel, the Expert Advisory Panel and the Independent Complaints Commissioner*).

"ICP" means the Independent Compensation Panel as described in Part 1 (*Independent Compensation Panel and the Expert Advisory Panel*) of Schedule 3 (*The Independent Compensation Panel, the Expert Advisory Panel and the Independent Complaints Commissioner*).

"Implementation" means commencement of development pursuant to the DCO by the carrying out of a "material operation" (as defined in section 56(4) of the 1990 Act) save that for the purposes of this Agreement the term shall not include site surveys, site clearance, works of archaeological or ground investigation or remediation (and in this Agreement **"Implement"** and **"Implemented"** shall be construed accordingly).

"Judicial Review" means judicial review of a decision by the Secretary of State to grant the DCO in respect of the Development brought further to section 118 of the 2008 Act.

"Necessary Consents" means any landowner, tenant, statutory or other consents required or necessary for the lawful carrying out of the mitigation and compensation measures identified in the Trigger Action Plan.

"New Memorandum of Understanding" means the memorandum of understanding described in paragraphs 4 and 5 of Schedule 8 (*Resources for the Councils*).

"NSOMCP" means the 'Non-Statutory Offsite Mitigation and Compensation Policy' dated March 2014 attached at Appendix 3 and any approved amendments and including any Trigger Action Plan approved under paragraph 2 or 3 of Schedule 5 (*Trigger Action Plans*).

"Offsite Mitigation and Compensation Measures Reporting Protocol" means the protocol described at Schedule 7 (*The Offsite Mitigation and Compensation Measures Reporting Protocol*).

"Offsite Mitigation and Compensation Policies" means the EHP, the NSOMCP and the SIP (and any amendments made further to the recommendations of the ICP).

"Offsite Mitigation and Compensation Policies Publicity Plan" means the plan described in paragraphs 1 and 2 of Schedule 6 (*Offsite Mitigation and Compensation Policies Publicity Plan*).

"Project Website" means the website set up and maintained by the Undertaker in respect of the Development.

"Qualifying Interest" means such interest in the DCO Land sufficient to meet the requirements of Section 106(1) of the 1990 Act which shall include the Developer's status as undertaker for the purposes of the DCO in accordance with the provisions of paragraph 10 (3) of Schedule 19 of the DCO whereby the undertaker is deemed to be a person interested in the DCO Land for the purposes of section 106(1) of the 1990 Act.

"Relevant Applicant" means any person, group of persons, or organisation who believes they are entitled to make a claim in accordance with the Offsite Mitigation and Compensation Policies, or who has made such a claim.

"Relevant Local Planning Authority" means the local planning authority for a site on which part of the Development is to be constructed and in respect of which there are properties listed in the table at Appendix 1 in respect of which a TAP Plan must be prepared further to paragraph 1 of Schedule 5 (*Trigger Action Plans*).

"Relevant Party" means any person, group of persons or organisations entitled to mitigation under the Mitigation Policies or any Relevant Applicants and **"Relevant Parties"** shall be construed accordingly.

"Second Memorandum of Understanding" means the memorandum of understanding entered with the Councils listed in column (2) of Table 1 of Schedule 8 which is attached at Appendix 7.

"Secretary of State" means the secretaries of state for the Department of Communities and Local Government and the Department of Environment, Food and Rural Affairs;

"SIP" means the paper entitled "Settlement Information Paper" dated March 2014 which is attached at Appendix 4 and any approved amendments.

"Special Parliamentary Procedure" means any special parliamentary procedure in connection with a decision to grant the DCO further to the provisions of the 2008 Act and the Statutory Orders (Special Procedure) Act 1945 (as amended).

"Successor" means any person deriving title from the Undertaker in respect of its Qualifying Interest and for the purposes of Section 106(3)(b) of the 1990 Act shall include any person to whom powers are transferred further to Article 9 of the DCO.

"TAP" means a Trigger Action Plan to be prepared further to paragraph 1 of Schedule 5 (*Trigger Action Plans*).

"Trigger Action Plans" means the trigger action plans approved under paragraph 1 and described in paragraph 5 of Schedule 5 (*Trigger Action Plans*) and prepared in accordance with the NSOMCP.

"Undertaker" means Thames Water Utilities Limited and any Successors and statutory assignees.

"Unilateral Undertaking" means an undertaking given under section 106 of the 1990 Act in the form or substantially the same form as that at Appendix 5.

"Working Day(s)" means a day other than a Saturday or Sunday or public holiday in England.

- 1.2 References to "Work Nos" or to a "Work No" are references to the works forming part of the Development listed in Schedule 1 of the DCO.
- 1.3 References in this Agreement to the "Councils" shall include any successor to their functions as local planning authorities.
- 1.4 References in this Agreement to any statutes or statutory instruments include any statute or statutory instrument amending, consolidating or replacing them respectively from time to time in force and references to a statute include statutory instruments and regulations made pursuant to it.
- 1.5 The clause headings in this Agreement are for convenience only and do not form part of the Agreement.
- 1.6 References to clauses paragraphs schedules or recitals shall (unless the context otherwise requires) be references to clauses paragraphs and schedules or recitals in this Agreement.
- 1.7 References to the singular shall include the plural and vice versa.

2 **UNDERTAKER'S COVENANTS**

2.1 The Undertaker covenants with the Councils:

- (a) that from the date of this Agreement it will observe and perform the covenants on its part contained in Schedule 2 (*Undertaker's Covenants*); and
- (b) that it shall enter into the Unilateral Undertaking and provide such to the Councils as soon as reasonably practicable after the DCO Date and in any event before Implementation of the Development for the purposes of ensuring that the DCO Land is bound by the planning obligations set out in clause 5 of the Unilateral Undertaking.

3 **RELEASE AND LAPSE**

This Agreement shall cease to have effect and the Undertaker shall be released from any further liability under it on the occurrence of any of the following events:

- (a) the refusal of the Application by the Secretary of State and the upholding of such refusal in a Judicial Review or the Undertaker notifying the Councils that it does not intend to challenge any such refusal by way of an application for Judicial Review;
- (b) the refusal of the Application by Parliament following the implementation of the Special Parliamentary Procedure;
- (c) a decision in a Judicial Review to overturn the grant of the Application by the Secretary of State (following the expiration of any period within which an appeal to a higher Court could be made or following the Developer notifying the Councils that it does not intend to contest such overturn by appeal to a higher Court); or
- (d) the Undertaker notifying the Councils of its irrevocable decision not to proceed with, or to abandon, the carrying out of the Development.

4 **NOTICES**

4.1 Any notices required to be served by one party on another under this Undertaking shall be served in writing by first class prepaid recorded delivery post or by hand (providing proof of delivery is always obtained) in the following manner:

- (a) on the Councils at the address specified in Schedule 1 and shall in the case of all the Councils be marked for the attention of the "Chief Executive" or similar person holding the equivalent position, and quoting reference: WW010001; and
- (b) on the Undertaker at the address shown above or the registered office of any Successor marked "For the attention of the Company Secretary" ;

save that any of the parties may by written notice notify the other parties of an alternative address and/or reference for the service of subsequent written notices in which case those details shall be substituted for the details in Clause 4.1(a) or Clause 4.1(b) above.

4.2 Any such notice shall be deemed to have been received as follows:

- (a) if delivered by hand, upon delivery on all relevant addresses;

(b) if sent by first class post, on the second Working Day after the date of posting.

5 **SEVERABILITY**

It is agreed that if any part of this Agreement shall be declared unlawful or invalid by a Court of competent jurisdiction then (to the extent possible) the offending provisions will be severed from the Agreement and the remainder of this Agreement shall continue in full force and effect.

6 **CONTRACTS (RIGHTS OF THIRD PARTIES) ACT 1999**

Notwithstanding the provisions of the Contracts (Rights of Third Parties) Act 1999 no part of this Agreement shall be enforceable by a third party who is not a party to the Agreement and for the avoidance of any doubt the terms of the Agreement may be varied by agreement between the parties without the consent of any third party being required.

7 **JURISDICTION**

This Agreement is governed by and interpreted in accordance with English law and the parties agree to submit to the exclusive jurisdiction of the English courts.

8 **STATUTORY POWERS**

This Agreement is entered into by the Councils pursuant to section 111 of the Local Government Act 1972 and section 1 of the Localism Act 2011 and all other powers so enabling.

9 **COUNTERPARTS**

This Agreement may be executed in a number of counterparts each of which is an original and all of which together evidence the same Agreement.

This Agreement has been executed as a deed and delivered on the date stated at the beginning of this Agreement.

Schedule 1
The Councils

- 1 **THE COUNCIL OF THE LONDON BOROUGH OF EALING** of Perceval House, 14-16 Uxbridge Road, Ealing, London, W5 2HL;
- 2 **LONDON BOROUGH OF HOUNSLOW** of Civic Centre, Lampton Road, Hounslow, Middlesex TW3 4DN;
- 3 **LONDON BOROUGH OF HAMMERSMITH AND FULHAM** of Town Hall, King Street, Hammersmith, London W6 9JU;
- 4 **LONDON BOROUGH OF RICHMOND-UPON-THAMES** of Civic Centre, 44 York Street, Twickenham, Middlesex TW1 3BZ;
- 5 **THE MAYOR AND BURGESSES OF THE LONDON BOROUGH OF WANDSWORTH** of Town Hall, Wandsworth High Street, London SW18 2PU;
- 6 **THE MAYOR AND BURGESSES OF THE ROYAL BOROUGH OF KENSINGTON AND CHELSEA** of Town Hall, Hornton Street, London W8 7NX;
- 7 **LONDON BOROUGH OF LAMBETH** of Lambeth Town Hall, Brixton Hill, London SW2 1RW;
- 8 **THE LORD MAYOR AND CITIZENS OF THE CITY OF WESTMINSTER** of City Hall, 64 Victoria Street, London SW1E 6QP;
- 9 **THE MAYOR AND COMMONALTY AND CITIZENS OF THE CITY OF LONDON** of Guildhall, PO Box 270 London, EC2P 2EJ;
- 10 **THE MAYOR AND BURGESSES OF THE LONDON BOROUGH OF SOUTHWARK** of 160 Tooley Street London SE1 2TZ;
- 11 **LONDON BOROUGH OF LEWISHAM** of Laurence House, Catford Road, SE6 4RU;
- 12 **ROYAL BOROUGH OF GREENWICH** of Town Hall, Wellington Street, Woolwich, London SE18 6PW;
- 13 **THE MAYOR AND BURGESSES OF THE LONDON BOROUGH OF TOWER HAMLETS** of the Town Hall, Mulberry Place, 5 Clove Crescent, London E14 2BG; and
- 14 **THE MAYOR AND BURGESSES OF THE LONDON BOROUGH OF NEWHAM** of Newham Dockside, 1000 Dockside Road, London E16 2QU.
- 15 **THE LONDON LEGACY DEVELOPMENT CORPORATION** of Level 10, 1 Stratford Place, Mountfichet Road, London E20 1EJ.

Schedule 2
Undertaker's Covenants

1 Undertaker's Covenants

- (a) The Undertaker covenants to the Councils as set out in paragraphs 2 to 6 below.

2 The Offsite Mitigation and Compensation Policies

- (a) The Undertaker shall:
- (i) comply with the obligations and responsibilities expressed to be on the part of the 'undertaker' and the 'employer' in the Offsite Mitigation and Compensation Policies;
 - (ii) require its contractors to observe and perform the obligations and responsibilities expressed to be on the part of the 'contractor' in the Offsite Mitigation and Compensation Policies; and
 - (iii) publish the Offsite Mitigation and Compensation Policies on the Project Website.

3 The Independent Compensation Panel, the Expert Advisory Panel, the Independent Advisory Service and the Independent Complaints Commissioner

- (a) The Undertaker shall:
- (i) establish,
 - (A) the Independent Compensation Panel ("ICP") and the Expert Advisory Panel ("EAP") in accordance with Part 1 of Schedule 3 (*The Independent Compensation Panel, the Expert Advisory Panel and the Independent Complaints Commissioner*);
 - (B) the Independent Advisory Service ("IAS") in accordance with Schedule 4 (*Independent Advisory Service*)and in the case of both paragraph (A) and (B) in accordance the Offsite Mitigation and Compensation Policies; and
 - (C) appoint the Independent Complaints Commissioner ("ICC") in accordance with Part 2 (*The Independent Complaints Commissioner*) of Schedule 3 (*The Independent Compensation Panel, the Expert Advisory Panel and the Independent Complaints Commissioner*) and the Offsite Mitigation and Compensation Policies,

as soon as is reasonably practicable and in any event within 6 months from the date of this Agreement.

- (b) The Undertaker shall comply with its obligations in Schedule 3 (*The Independent Compensation Panel, the Expert Advisory Panel and the Independent Complaints Commissioner*) and Schedule 4 (*Independent Advisory Service*).
- (c) The Undertaker shall ensure that the ICP, the EAP and the IAS shall continue to operate and that the ICC remains available until not less than 1 year after the Construction Phase Completion Date or such later date at which time there are no

outstanding claims to be resolved further to the Offsite Mitigation and Compensation Policies.

4 **Trigger Action Plans**

- (a) The Undertaker shall comply with obligations under Schedule 5 (*Trigger Action Plans*).

5 **The Offsite Mitigation and Compensation Policies Publicity Plan**

- (a) The Undertaker shall not later than three months of the DCO Date submit to the ICP for approval a proposed plan for publicising the availability and details of the Offsite Mitigation and Compensation Policies ("the Offsite Mitigation and Compensation Policies Publicity Plan").
- (b) Prior to submitting the Offsite Mitigation and Compensation Policies Publicity Plan to the ICP for approval the Undertaker will:
 - (i) consult the Councils on the terms of the proposed Offsite Mitigation and Compensation Policies Publicity Plan and shall give them not less than 10 working days to comment on the proposed Offsite Mitigation and Compensation Policies Publicity Plan;
 - (ii) take reasonable account of any comments on the Offsite Mitigation and Compensation Policies Publicity Plan received from Councils prior to it submitting the proposed final plan to the ICP for approval;
 - (iii) include with the proposed Offsite Mitigation and Compensation Policies Publicity Plan submitted to the ICP for approval a summary of any comments received from the Councils and the account taken of them by the Undertaker in finalising the Plan as submitted for approval.
- (c) The Undertaker shall implement the Offsite Mitigation and Compensation Policies Publicity Plan as approved by the ICP.

6 **Offsite Mitigation and Compensation Measures Reporting Protocol**

- (a) The Undertaker shall comply with its obligations in Schedule 7 (*The Offsite Mitigation and Compensation Measures Reporting Protocol*).

7 **Resources for the Councils**

- (a) The Undertaker shall comply with its obligations in Schedule 8 (*Resources for the Councils*).

Schedule 3

The Independent Compensation Panel, the Expert Advisory Panel and the Independent Complaints Commissioner

Part 1

Independent Compensation Panel and the Expert Advisory Panel

1 Composition of the ICP

- (a) The ICP will be comprised of a Chairperson plus two additional members.
- (b) The Chairperson shall have not less than 20 years' experience in the field of:
 - (i) compensation and valuation; or
 - (ii) environmental health;and suitable experience in the management of major infrastructure projects of compatible scale and complexity to the Development.
- (c) The other two members of the ICP shall be appointed by the Chairperson on a case-by-case basis. They shall be drawn from the EAP but shall not be a representative of the Undertaker or its appointed contractors, and shall each have at least 15 years' experience in one of the fields of expertise specified in paragraphs 2(a)(ii) to paragraph 2(a)(ix) or such other experts that the Chairperson shall determine at the Chairperson's absolute discretion further to paragraph 2(a)(x).
- (d) The Chairperson shall be appointed by the Undertaker. No member of the ICP shall be a current employee of the Undertaker.
- (e) The Undertaker shall consult the Councils on the proposed Chairperson prior to their being appointed. The Councils will be given 10 Working Days to provide comments to the Undertaker concerning the proposed appointment, and the Undertaker will take reasonable account of any written representations received from the Councils within that period concerning the proposed appointment of the Chairperson within that period.
- (f) In the event that the Undertaker proposes to appoint a replacement for an existing Chairperson paragraph 1(d) and paragraph 1(e) shall apply and the Undertaker shall when consulting the Councils under paragraph 1(e) provide to the Councils a statement explaining the reason why a replacement Chairperson needs to be appointed.
- (g) The name of the Chairperson will be published on the Project Website and shall be notified to the Councils, the IAS and the ICC in writing, including after any replacement Chairperson has been appointed.

2 The EAP

- (a) The Undertaker will facilitate that the ICP has access to:
 - (i) representatives of the Undertaker and its appointed contractors;and experts in the following specialist areas:
 - (ii) Noise and vibration;

- (iii) Transport;
- (iv) Building surveying;
- (v) Quantity surveying;
- (vi) Chartered engineering (Mechanical, Structural, Electrical and Civil) with directly relevant experience including tunnelling projects in highly developed and complex urban environments;
- (vii) Chartered surveying;
- (viii) Qualified medical professionals (for advice on the potential effects of exposure to noise and vibration on the health of individuals or groups of individuals);
- (ix) Legal advice; and
- (x) such other specialists as the Chairperson of the ICP may from time to time deem as necessary for the performance of the role and functions of the ICP,

for the purpose of providing information and advice the Chairperson of the ICP considers necessary in respect of any matter falling within the role and functions of the ICP as described in paragraph 4 (*Role and functions of the ICP*) of this Schedule.

3 **Resourcing and Funding of the ICP and EAP**

- (a) Administrative and support staff will be appointed to assist the day-to-day operation of the ICP, with the specific numbers to be determined by the Chairperson of the ICP.
- (b) The administrative and support staff will not be members of the ICP.
- (c) The operation of the ICP will be funded by the Undertaker, and will be managed by the ICP.

4 **Role and functions of the ICP**

- (a) The Undertaker shall appoint the ICP:
 - (i) to perform the role and functions described at paragraph 2.3.3 of the NSOMCP; and
 - (ii) to review the Offsite Mitigation and Compensation Policies (in particular the NSOMCP further to paragraph 2.3.8 of the NSOMCP) and to recommend any changes or amendments to the Offsite Mitigation and Compensation Policies that in the reasonable view of the ICP are necessary to ensure that the policies continue to effectively mitigate and compensate for the effects of the Development or to improve the efficiency and effectiveness of the processes and procedures contained within the Policies, and to comply with the procedures relating to such changes or amendments to the Offsite Mitigation and Compensation Policies as set out in paragraph 7 (*Changes to the Offsite Mitigation and Compensation Policies*) of this Schedule.

5 **Meetings of the ICP**

- (a) The ICP will meet monthly or at such other frequency as the Chairperson of the ICP considers necessary to perform the role and functions of the ICP. This meeting will

also consider any changes that in the reasonable view of the ICP are necessary further to paragraph 4(a)(ii) of this Schedule.

- (b) All meetings will be chaired by the Chairperson of the ICP.
- (c) Meetings may be held in person, or by video or telephone conference call, and the word "present" shall be construed accordingly.
- (d) Minutes of meetings of the ICP will be published on the Project Website and circulated to the Undertaker, the Councils, the IAS and the ICC within 7 days of any meeting be held.

6 Decision making

- (a) Save for any decision to amend the terms of the Offsite Mitigation and Compensation Policies any decisions of the ICP must be made in accordance with the terms of the Policy to which the decision relates.
- (b) A meeting of the ICP will only be deemed quorate if all members of the ICP are present.
- (c) Decisions in respect of the ICP's supervision of the implementation of the Offsite Mitigation and Compensation Policies will be taken by way of consensus following discussion of the issues and taking such advice that the ICP feels that it needs from the EAP. The chairperson's view will be decisive in event of the ICP failing to reach a decision by consensus.
- (d) Determination of claims or disputes arising out of the Offsite Mitigation and Compensation Policies will be by vote amongst all members of the ICP present at the meeting. Disputes will be resolved by a simple majority vote amongst the members of the ICP with each member of the ICP having a single vote. In the event of no majority being achieved the Chairperson's vote will be the casting vote.
- (e) The decision of the ICP will be final and binding save for the ability of the Undertaker or the Relevant Party to refer the decision of the ICP to the ICC for its consideration further to the terms of the NSOMCP.

7 Changes to the Offsite Mitigation and Compensation Policies

- (a) Where the ICP seeks to recommend changes to the Offsite Mitigation and Compensation Policies it will consult the Undertaker and the Councils and take account of their comments in recommending amendments to the Policies.
- (b) Where the ICP recommends a change or amendment to the Offsite Mitigation and Compensation Policies further to paragraph 7(a) above the Undertaker shall amend the Offsite Mitigation and Compensation Policies in line with such recommendations.

Part 2

The Independent Complaints Commissioner

1 The ICC

- (a) The Undertaker shall appoint the ICC.

- (b) The appointment and activities of the ICC shall be funded by the Undertaker, but the ICC will be independent of the Undertaker.

2 **Role and functions of the ICC**

- (a) The role of the ICC will be to audit the activities and decision making of the ICP where the Undertaker or a Relevant Party is not satisfied with the manner in which the ICP has discharged its role and functions and the Undertaker or the Relevant Party refers the decision or other action of the ICP to the ICC for its consideration.

3 **Decisions of the ICC**

- (a) Decisions of the ICC shall be recorded in writing.
- (b) Where the ICC finds that the activities and decision making of the ICP have not been completed in accordance with the terms of the NSOMCP the activity or decision shall be referred back to the ICP (together with the written records of its decision) who will retake their activity or decision leading to the referral to the ICC in accordance with the findings of the ICC

Schedule 4
Independent Advisory Service

1 Composition of the IAS

- (a) The employees of the IAS will be appointed by the Undertaker and shall include:
 - (i) qualified Chartered Surveyors; and
 - (ii) such administrative and support staff as required to assist and manage requests and to seek such technical assistance as needed.

2 Role of the IAS

- (a) The role of the IAS is to provide professional independent advice to Relevant Parties in respect of the Offsite Mitigation and Compensation Policies and how Relevant Parties may take advantage of the Offsite Mitigation and Compensation Policies and including the role of the ICP and the ICC.
- (b) The IAS will be independent from the Undertaker.
- (c) The services of the IAS will be available to all Relevant Parties.

3 Operation and Management of the IAS

- (a) The establishment and operation of the IAS will be funded by the Undertaker.
- (b) The IAS will remain independent from ICP and from the Undertaker.
- (c) Provision will be made within the IAS for ensuring in so far as reasonably practicable that its services are available to hard-to-reach groups and those for whom English is not their first language.

Schedule 5
Trigger Action Plans

- 1 Within six months of the date of this Agreement the Undertaker shall prepare the Trigger Action Plans for all the properties, premises and buildings listed in the Table at Appendix 1, in accordance with and subject to the terms of sections 3 and 5 of NSOMCP.
- 2 Each TAP shall be:
 - (a) prepared in consultation with the Relevant Local Planning Authority and the owner(s) and occupier(s) of the property, premise or building to which the TAP relates; and
 - (b) shall be submitted to the occupier(s) of the property, premises or building to which the TAP relates for their agreement.
- 3 Any dispute between the Undertaker and the owner(s) and/or occupier(s) of the property, premises or building as to the terms of a TAP submitted for approval by the Undertaker may be referred to the ICP by either the Undertaker or occupier(s) and the decision of the ICP will be final and binding save for the ability of the Undertaker or the occupier(s) to refer the decision of the ICP to the ICC for its consideration.
- 4 Each TAP agreed with occupiers shall be:
 - (a) provided to the ICP for ratification and for the avoidance of doubt this paragraph shall not apply in the event that either the Undertaker or an owner or occupier has invoked the process provided for in paragraph 3 and the ICP has approved the TAP under that process; and
 - (b) once approved or ratified by the ICP the TAP shall be appended to the NSOMCP.
- 5 Each TAP shall contain at least the following information:
 - (a) an introduction to the receptor covered by the TAP and the relevant parts of the Development;
 - (b) subject to paragraph 6, trigger values for noise and/or vibration that will trigger the provision of the mitigation identified in the TAP further to paragraph (c);
 - (c) subject to paragraph 7, the mitigation measures consistent with paragraph 3.1.8 of the NSOMCP to reduce the predicted effects below the trigger values for the receptor to which the TAP relates;
 - (d) the programme for notification and, subject to paragraph 8, implementation of the mitigation measures should they be required including maintenance and repair of the mitigation measures or the property, premise or building into which the mitigation measures have been installed;
 - (e) programme for monitoring of performance of mitigation during construction of the Development;
 - (f) corrective actions in the unforeseen event that measured noise or vibration were to reach or exceed the trigger values without required off-site mitigation being in place.

- 6 The TAPs for the properties, premises and buildings marked with an asterisk in the Table at Appendix 1 shall not include noise or vibration thresholds that must be exceeded in order to trigger the provision of noise insulation or equivalent mitigation.
- 7 The mitigation measures included in the TAPs for the facades that face the river of:
- (a) 5 Carnwath Road;
 - (b) 89-101 Carnwath Road; and
 - (c) 8-14 Fountain Green Square,
- shall include the provision (subject to obtaining the Necessary Consents) of acrylic acoustic screens to the riverward side of these properties.
- 8 The Undertaker shall use its reasonable endeavours to obtain the Necessary Consents required for the installation or implementation of mitigation further to a TAP approved under paragraph 2 or 3 within the timescales set for the giving or grant of such Consents PROVIDED THAT the Undertaker shall have no obligation to refer any of the Necessary Consents to dispute resolution, arbitration or to appeal the refusal of any consents (as applicable) in the event that any of the Necessary Consents are refused by the relevant person, organisation or authority.
- 9 The Undertaker shall prepare Trigger Action Plans and implement approved Trigger Action Plans in accordance with sections 3 and 5 of the NSOMCP.

Schedule 6

Offsite Mitigation and Compensation Policies Publicity Plan

1 Objectives

- (a) The objective of the Offsite Mitigation and Compensation Policies Publicity Plan is to raise awareness in communities in the vicinity of Development Sites of:
- (i) the content of the Offsite Mitigation and Compensation Policies;
 - (ii) the mitigation and compensation and other measures that are contained within the Offsite Mitigation and Compensation Policies and the procedures contained therein and how they are intended to mitigate or compensate for the adverse effects the Development may have on Relevant Parties;
 - (iii) how those mitigation and compensation and other measures will be made available or may be secured;
 - (iv) the availability of the IAS and how advice may be obtained from the IAS;
 - (v) the role and function of the ICP and the ICC and how they operate;
 - (vi) how applications may be made to the ICP or the ICC or how disputes requiring their attention may be referred to the ICP or the ICC;
 - (vii) proposals for continuing publicity in respect of the matters covered in paragraph 1(a)(i) to paragraph 1(a)(vi) during the Construction Phase.

2 The Offsite Mitigation and Compensation Policies Publicity Plan shall:

- (a) set out proposals to ensure that the information and objectives in paragraph 1 are made available to hard-to-reach groups and to those individuals for whom English is not their first language;
- (b) confirm that the Offsite Mitigation and Compensation Policies will be published on the Project Website, and will be updated as necessary; and
- (c) confirm the Undertaker's proposals for ensuring awareness of the Offsite Mitigation and Compensation Policies by the Citizens Advice Bureaus, Ward Councillors, MPs and Council officers in the Development Boroughs.

Schedule 7

The Offsite Mitigation and Compensation Measures Reporting Protocol

- 1 The Undertaker will require the ICP to provide:
 - (a) a monthly written report to the Undertaker, the Councils, the IAS and the ICC on its activities, on any decisions made, and on any recommendations relating to the amendment of the Offsite Mitigation and Compensation Policies;
 - (b) a summary report to the Undertaker, the Councils, the IAS and the ICC on its main activities annually (or at such interval as agreed between the Undertaker and the ICP).
- 2 The Undertaker will provide the Councils, the ICP, the IAS and the ICC with a monthly written report on its activities in relation to compliance with the Offsite Mitigation and Compensation Policies, and on any changes or amendments made to those policies.
- 3 The Undertaker will publish the monthly and annual summary reports prepared by the Undertaker and the ICP on the Project Website.

Schedule 8
Resources for the Councils

- 1 The Undertaker shall continue to observe:
- (a) the terms of clause 10 of the First Memorandum of Understanding entered with those Councils listed in column (1) of Table 1 (despite any limitations on time contained in the First Memorandum of Understanding); and
 - (b) the terms of clause 10 of the Second Memorandum of Understanding entered with those Councils listed in column (2) of Table 1 (despite any limitations on time contained in the Second Memorandum of Understanding),

for the purpose of ensuring those Councils receive funding for tasks and actions they are requested to undertake by the Undertaker in respect of the Application and any work associated with implementation of the DCO that they are requested to carry out by the Undertaker that are outside of their normal statutory role and functions.

Table 1

(1) Councils who entered the First Memorandum of Understanding	(2) Councils who entered the Second Memorandum of Understanding
London Borough of Ealing	London Borough of Richmond-upon-Thames
London Borough of Tower Hamlets	London Borough of Wandsworth
London Borough of Newham	Royal Borough of Kensington and Chelsea
City of London Corporation	Westminster City Council
	City of London Corporation
	London Borough of Lambeth
	London Borough of Southwark

- 2 Paragraph 1 shall cease to have effect upon the grant of the DCO or agreement of the New Memorandum of Understanding with the Councils and the Greater London Authority (or as many of them as agree the terms of the New Memorandum of Understanding) whichever is the earlier.
- 3 In respect of those Councils not listed in Table 1 or the Greater London Authority the Undertaker will if requested in writing by the relevant Council or the Greater London Authority enter the Second Existing Memorandum of Understanding with that Council or the Greater London Authority and from the moment both the Undertaker and the Council or the Greater London Authority has completed the Second Memorandum of Understanding paragraph 1 will apply.
- 4 Subject to paragraph 6 the Undertaker will use its reasonable endeavours to agree the New Memorandum of Understanding with the Councils or as many of them as it is able to and the Greater London Authority (acting reasonably) prior to the DCO Date.
- 5 The New Memorandum of Understanding:
- (a) shall make provision for the payment of the Councils' costs associated with work they are asked to carry out by the Undertaker or its appointed contractors which is:
- (i) outside the Councils normal statutory role and functions that they are obliged to carry out including costs associated with:
 - (A) pre-application discussions with respect to requirements in the DCO;
 - (B) pre-application discussions in respect of section 61 Control of Pollution Act 1974 applications; and
 - (C) liaison and discussions associated with:
 - (1) the disapplication of the relevant sections of the Highways Act 1980 (as amended) as provided for in the DCO; and
 - (2) any other disapplication of legislation provided for in the DCO;
- and,
- (ii) is not covered by fees payable further to the terms of the DCO or any agreement entered or unilateral undertaking given to the relevant Council under section 106 of the 1990 Act;
- (b) may make such other provision as may be agreed between the Undertaker and the Councils.
- 6 In the event the Undertaker cannot agree the terms of the New Memorandum of Understanding with the Councils and / or the Greater London Authority it will refer the New Memorandum of Understanding to an independent expert to be appointed by the President of the Royal Town Planning Institute for determination of the terms of the New Memorandum of Understanding. The decision of the appointed expert shall be final.
- 7 Once agreed the Undertaker shall enter the New Memorandum of Understanding with those Councils and the Greater London Authority who are willing and able to enter the New Memorandum of Understanding.

- 8 The New Memorandum of Understanding will replace paragraph 1, any Memorandum of Understanding entered further to paragraph 3, the First Memorandum of Understanding and the Second Memorandum of Understanding.

EXECUTION PAGE

Executed as a deed by **THAMES WATER**)
UTILITIES LIMITED by the affixing of its)
Common Seal in the presence of:)

Authorised Signatory

Executed as a deed by **THE COUNCIL OF**)
THE LONDON BOROUGH OF EALING)
by the affixing of its Common Seal in the)
presence of:)

Authorised Signatory

Executed as a deed by **LONDON**)
BOROUGH OF HOUNSLOW by the)
affixing of its Common Seal in the presence)
of:)

Authorised Signatory

Executed as a deed by **LONDON**
BOROUGH OF HAMMERSMITH AND
FULHAM by the affixing of its Common
Seal in the presence of:

)
)
)

Authorised Signatory

Executed as a deed by **LONDON**)
BOROUGH OF RICHMOND-UPON-)
THAMES by the affixing of its Common)
Seal in the presence of:)

Authorised Signatory

Executed as a deed by **THE MAYOR AND**)
BURGESSES OF THE LONDON)
BOROUGH OF WANDSWORTH by the)
affixing of its Common Seal in the presence)
of:

Authorised Signatory

Executed as a deed by **THE MAYOR AND**)
BURGESSES OF THE ROYAL BOROUGH)
OF KENSINGTON AND CHELSEA by the)
affixing of its Common Seal in the presence)
of:

Authorised Signatory

Executed as a deed by **LONDON**)
BOROUGH OF LAMBETH by the affixing)
of its Common Seal in the presence of:)

Authorised Signatory

The Common Seal of **THE LORD MAYOR**)
AND CITIZENS OF THE CITY OF)
WESTMINSTER was hereunto affixed by)
order:)

Authorised Signatory

Executed as a deed by **THE MAYOR AND
COMMONALTY AND CITIZENS OF THE
CITY OF LONDON** by the affixing of its
Common Seal in the presence of:)
)
)

Authorised Signatory

Executed as a deed by **THE MAYOR AND**)
BURGESSES OF THE LONDON)
BOROUGH OF SOUTHWARK by the)
affixing of its Common Seal in the presence)
of:

Authorised Signatory

Executed as a deed by **LONDON**)
BOROUGH OF LEWISHAM by the)
affixing of its Common Seal in the presence)
of:)

Authorised Signatory

Executed as a deed by **ROYAL BOROUGH**)
OF GREENWICH by the affixing of its)
Common Seal in the presence of:)

Authorised Signatory

Executed as a deed by **THE MAYOR AND**)
BURGESSES OF THE LONDON)
BOROUGH OF TOWER HAMLETS by the)
affixing of its Common Seal in the presence)
of:

Authorised Signatory

Executed as a deed by **THE MAYOR AND**)
BURGESSES OF THE LONDON)
BOROUGH OF NEWHAM by the affixing)
of its Common Seal in the presence of:)

Authorised Signatory

Executed as a deed by **LONDON LEGACY**)
DEVELOPMENT CORPORATION by the)
affixing of its Common Seal in the presence)
of:

Authorised Signatory

Appendix 1

Properties, premises and buildings in respect of which Trigger Action Plans will be prepared

Properties, premises and buildings in respect of which Trigger Actions Plans will be prepared

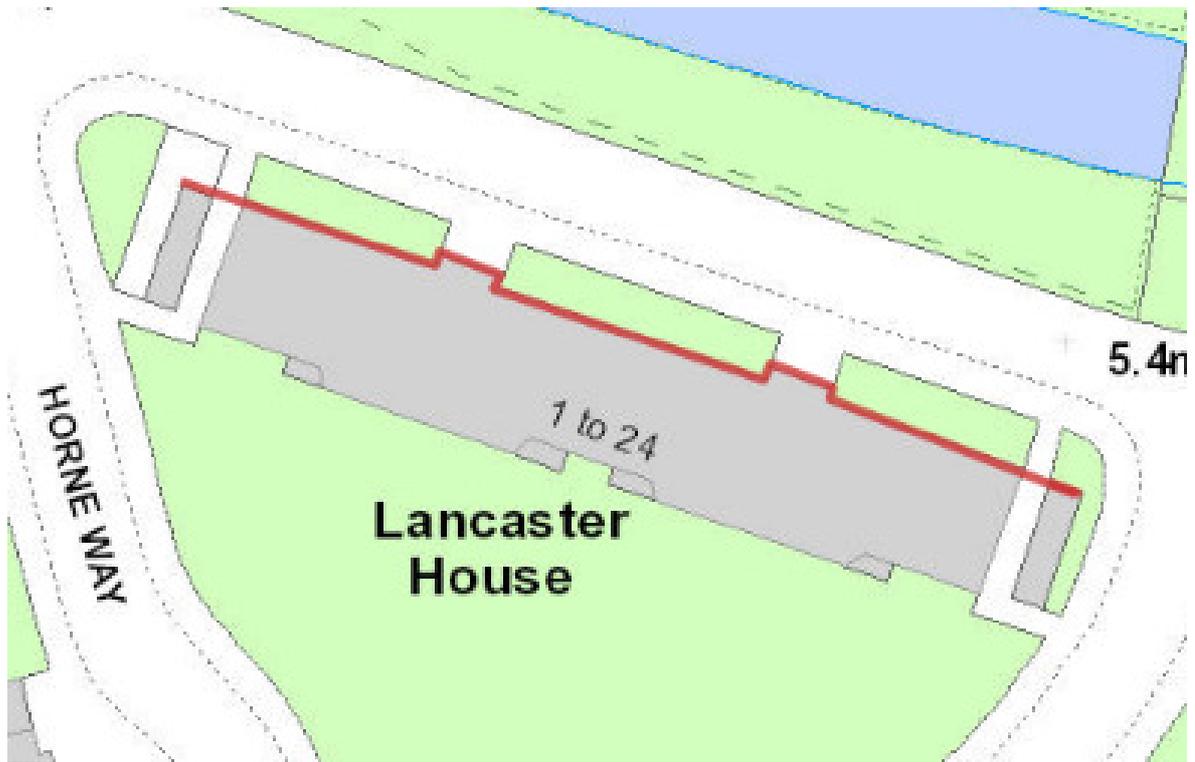
Site	Trigger action plans
Hammersmith Pumping Station	Residential: Fulham Reach Phase 2 Block B (under development) - the façades ¹ facing the site, Fulham Reach Phase 3 Block F (under development) - the façades facing the site Special cases: -
Barn Elms	Residential: Lancaster House – the façade facing the site shown on Plan 1 below Special cases: -
Putney Embankment Foreshore	Residential: Ruvigny Gardens – the façades facing the embankment shown on Plan 2 below Special cases: Putney Pier Houseboats (both) Star and Garter public house staff accommodation - the façade facing the embankment shown on Plan 3 below
Falconbrook Pumping Station	Residential: - Special cases: Adventure playground – the façades facing the site shown on Plan 4 below Library – the façade facing the site shown on Plan 5 below
Carnwath Road Riverside	Residential: *5 Carnwath Road - the façade facing the river <u>and site</u> shown on Plan 6 below Special cases: *89-101 Carnwath Road - the façade facing the river <u>and site</u> , and vulnerable residents shown on Plan 7 below
Cremorne Wharf Depot	Residential: Lots Road Power Station development mid-rise block (under development) - the façades facing the site Lots Road Power Station development high-rise tower (under development) - the façades facing the site Station House - the façades facing southeast; shown on Plan 8 below Special cases: -
Kirtling Street	Residential: Battersea Power Station development blocks PS and RS4 (under development) - the façades facing the site Special cases: Nine Elms Pier houseboats (all)
Heathwall Pumping Station	Residential: Special cases: Nine Elms Pier houseboats (all)
Albert Embankment	Residential: 1-146 Bridge House (vibration effects only)

¹ 'Façade' means any aspect of the property where there are habitable rooms.

Site	Trigger action plans
Foreshore	Special cases: Camelford House – the façades facing northwest and sections of façade facing northeast overlooking the site shown on Plan 9 below Vauxhall Cross (vibration effects only) Tintagel House - the façade facing the site shown on Plan 10 below
Victoria Embankment Foreshore	Residential: - Special cases: The Hispaniola Tattershall Castle
Blackfriars Bridge Foreshore	Residential: - Special cases: City of London Boys School – the façades facing the river shown on Plan 11 below The President
Chambers Wharf	Residential: *Luna House – the façade facing the site shown on Plan 12 below *Luna House - the façade facing the river shown on Plan 12 below *Axis Court - the façades facing the site shown on Plan 13 below *8-14 Fountain Green Square - the façades facing the site shown on Plan 14 below *8-14 Fountain Green Square - the façades facing the river shown on Plan 14 below Special cases: *Riverside Primary School – the façades facing west shown on Plan 15 below
Shad Thames Pumping Station	Residential: Tamarind Court - the façade facing Maguire Street shown on Plan 16 below – noise effects only Tamarind Court - the rear façade facing the site shown on Plan 16 below – vibration effects only Coriander Court – the façade facing Maguire Street shown on Plan 17 below Coriander Court – the façade facing Gainsford Street shown on Plan 17 below Special cases: Clove Building – the façade facing Maguire Street shown on Plan 18 below – vibration effects only
King Edward Memorial Park Foreshore	Residential: *Free Trade Wharf South – the façades facing the site shown on Plan 19 below Special cases: *Pier Head Preparatory School – the façade facing north shown on Plan 20 below
Earl Pumping Station	Residential: 1-39 Chilton Grove – the façade facing southeast shown on Plan 21 below 108-136 Chilton Grove – the façade facing northeast shown on Plan 22 below 52-62 Croft Street – the façades facing northeast shown on Plan 23 below Cannon Wharf Block J (under development) - the façades facing the site

Site	Trigger action plans
	Special cases: -
Deptford Church Street	Residential: - Special cases: *St Paul's Church – the façade facing south shown on Plan 24 below *St Joseph's Roman Catholic Primary School – the façades facing northeast shown on Plan 25 below
Bekesbourne Street	Residential: John Scurr House - the façade facing west shown on Plan 26 below Special cases: Royal Foundation of St Katherine – the façades facing site shown on Plan 27 below

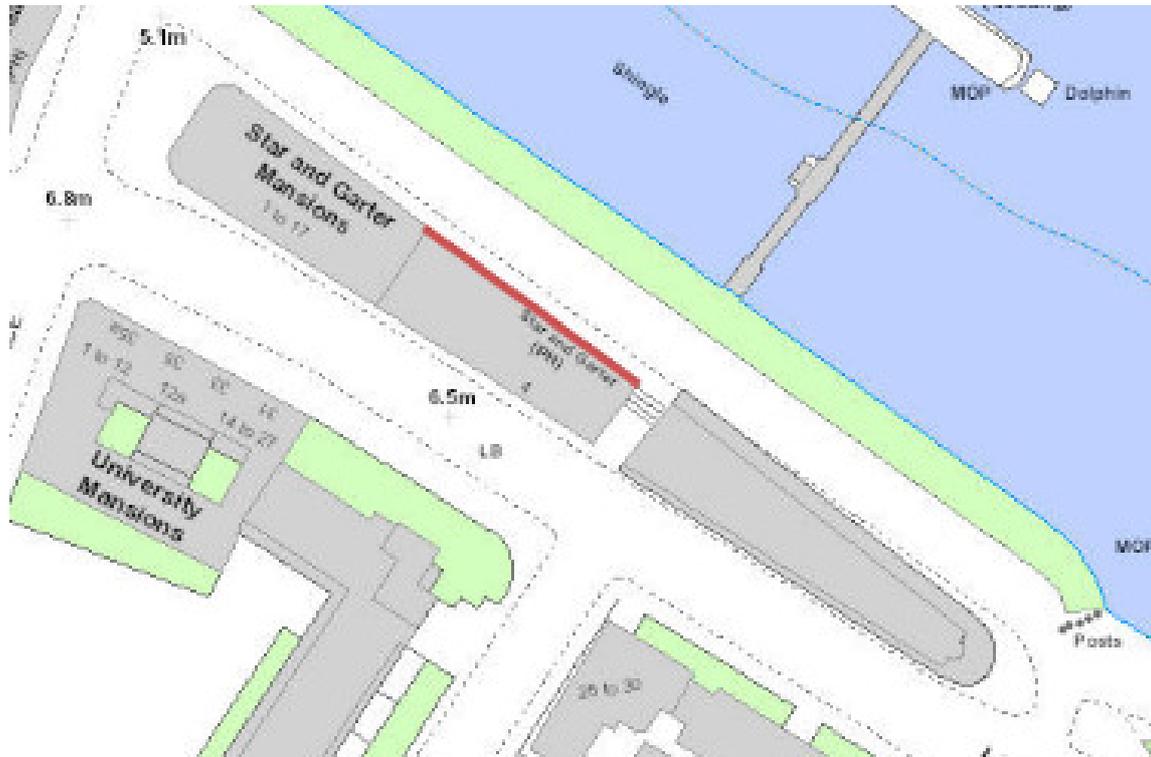
**Plan 1 – Barn Elms - Lancaster House: Façade to be covered by Trigger Action
Plan shown in red edging**



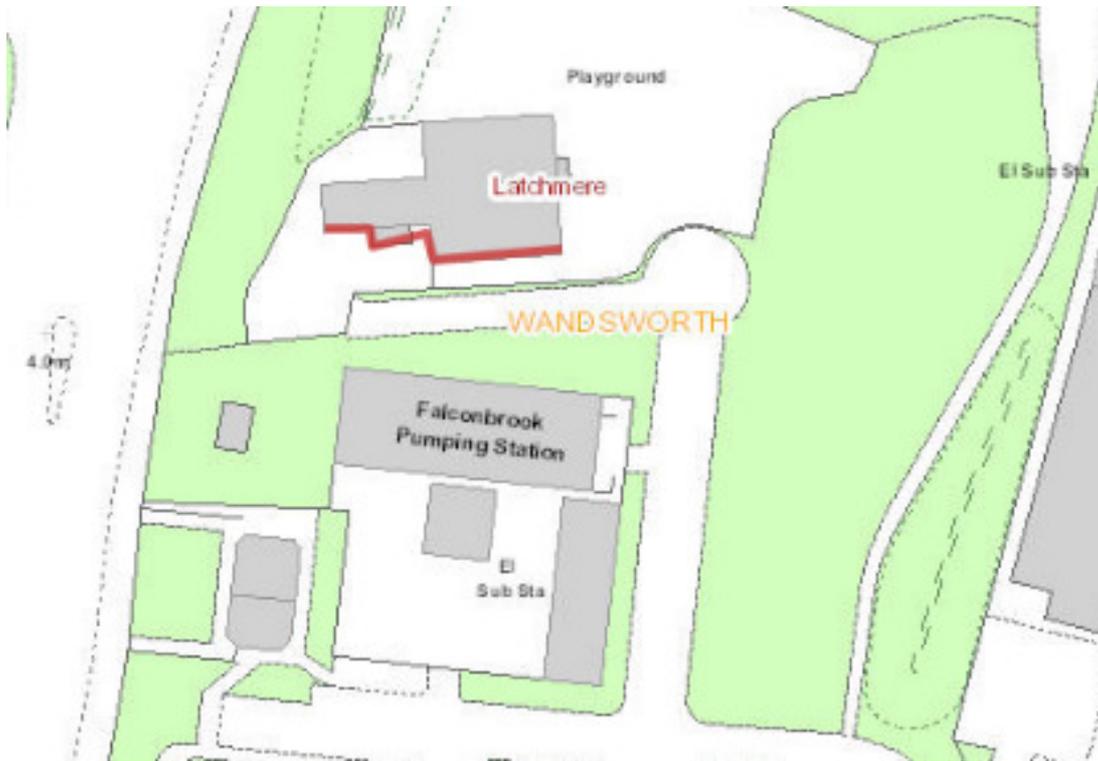
Plan 2 – Putney Embankment Foreshore - 10 Ruvigny Gardens: Façades to be covered by Trigger Action Plan shown in red edging



Plan 3 - Putney Embankment Foreshore - Star and Garter public house staff accommodation: Façade to be covered by Trigger Action Plan shown in red edging



**Plan 4 - Falconbrook Pumping Station - York Gardens Adventure Playground:
Façades to be covered by Trigger Action Plan shown in red edging**



Plan 5 – Falconbrook Pumping Station - York Gardens Library and Community Centre: Façade to be covered by Trigger Action Plan shown in red edging



Plan 6 – Carnwath Road Riverside - 5 Carnwath Road: Façade to be covered by Trigger Action Plan shown in red edging



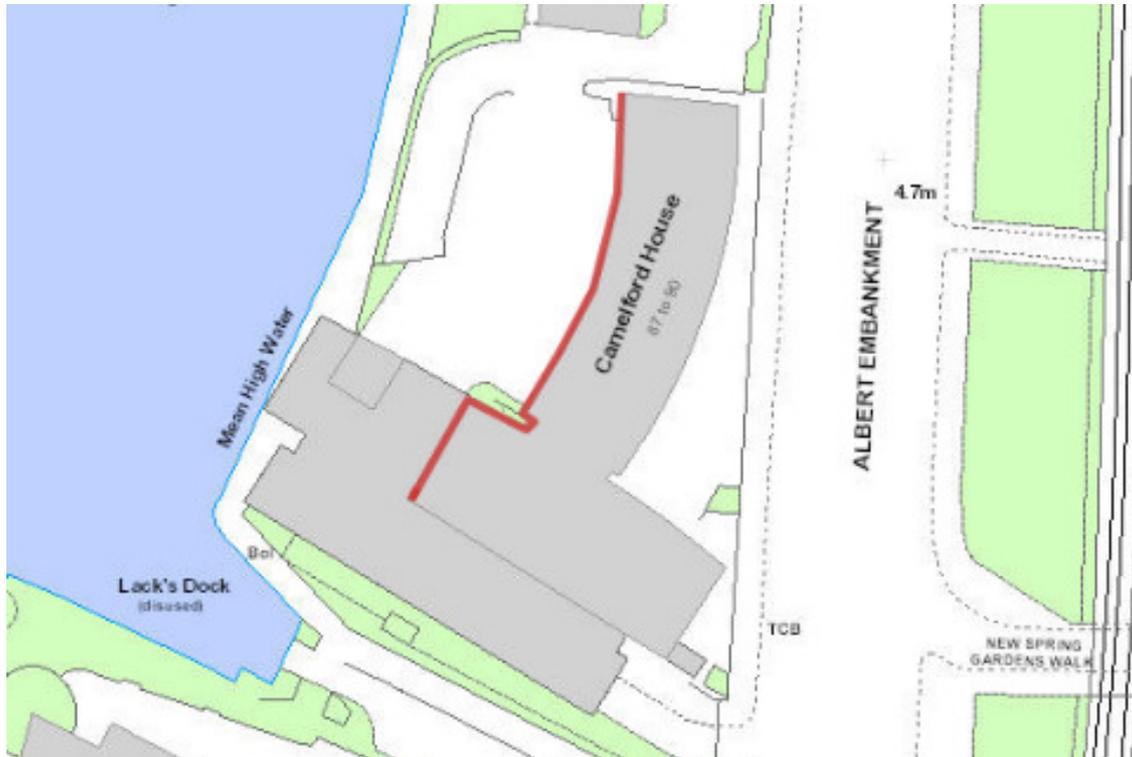
Plan 7 – Carnwath Road Riverside - 89-101 Carnwath Road: Façade to be covered by Trigger Action Plan shown in red edging



Plan 8 – Cremorne Wharf Depot - Station House: Façade to be covered by Trigger Action Plan shown in red edging



Plan 9 – Albert Embankment Foreshore - Camelford House: Façades to be covered by Trigger Action Plan shown in red edging



Plan 10 – Albert Embankment Foreshore - Tintagel House: Façade to be covered by Trigger Action Plan shown in red edging



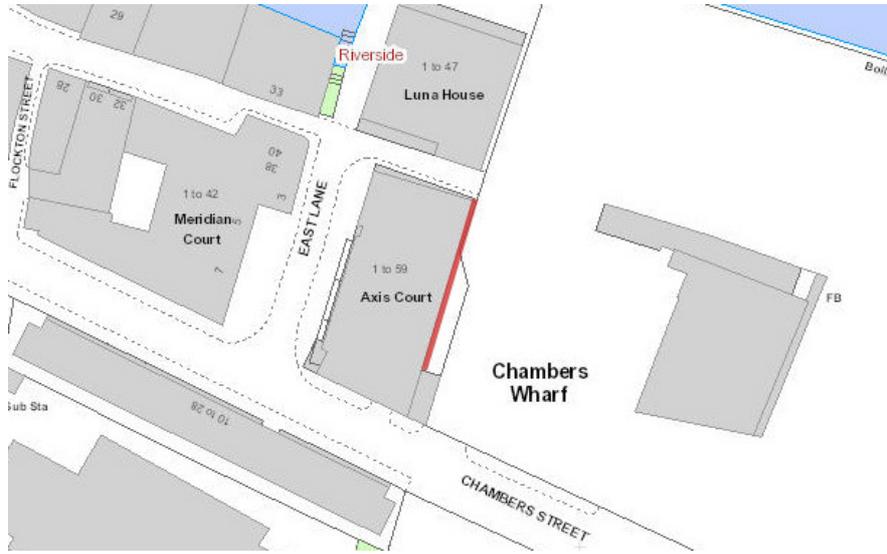
Plan 11 – Blackfriars Bridge Foreshore - City of London Boys School: Façades to be covered by Trigger Action Plan shown in red edging



Plan 12 – Chambers Wharf - Luna House: Façades to be covered by Trigger Action Plan shown in red edging



Plan 13 – Chambers Wharf - Axis Court: Façades to be covered by Trigger Action Plan shown in red edging



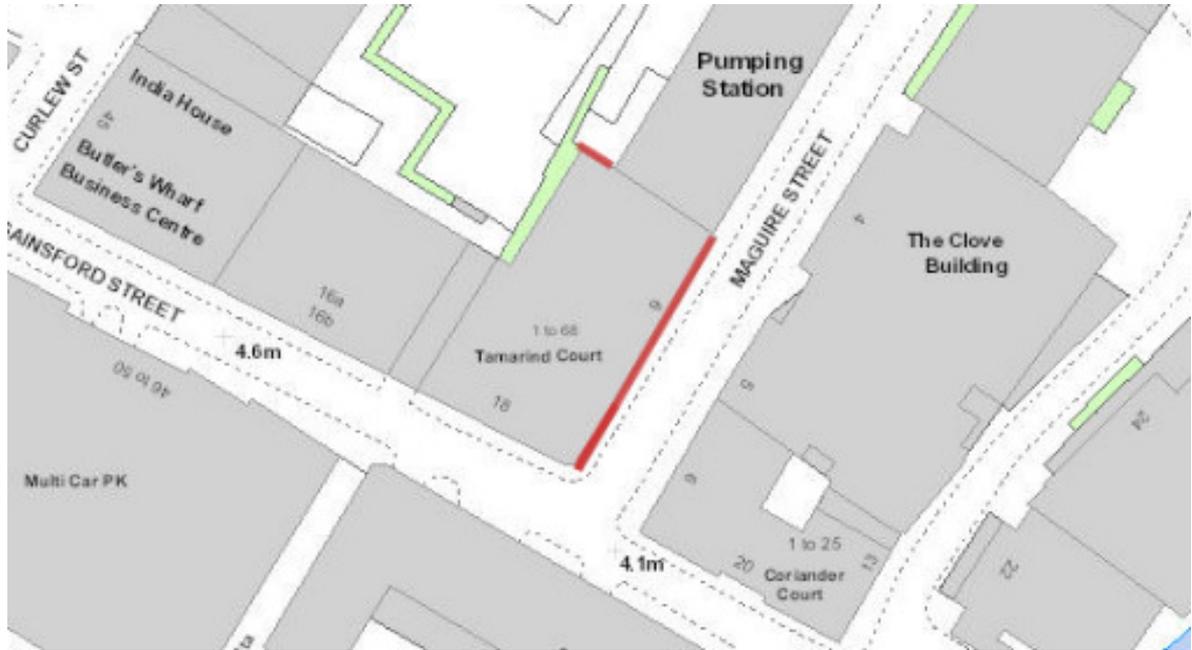
Plan 14 – Chambers Wharf - 8-14 Fountain Green Square: Façades to be covered by Trigger Action Plan shown in red edging



Plan 15 – Chambers Wharf - Riverside School: Façades to be covered by Trigger Action Plan shown in red edging



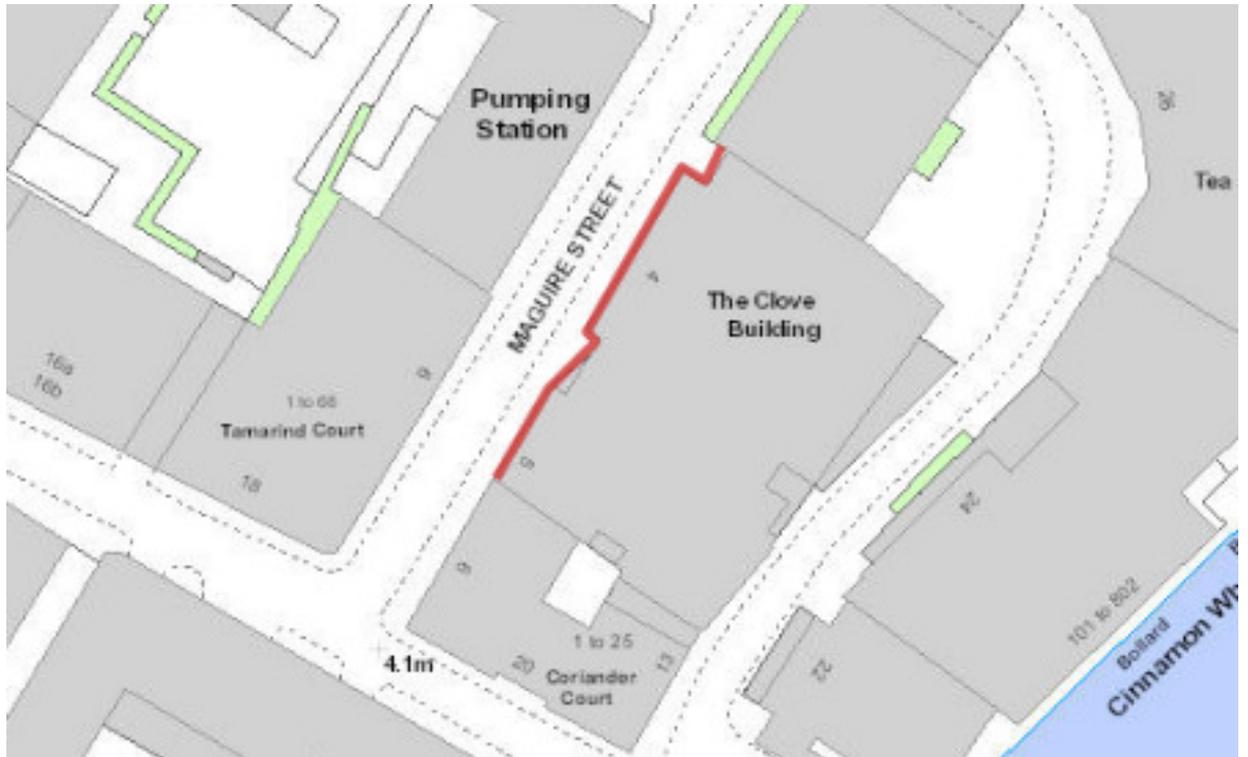
Plan 16 – Shad Thames Pumping Station - Tamarind Court: Façades to be covered by Trigger Action Plan shown in red edging



Plan 17 – Shad Thames Pumping Station - Coriander Court: Façades to be covered by Trigger Action Plan shown in red edging



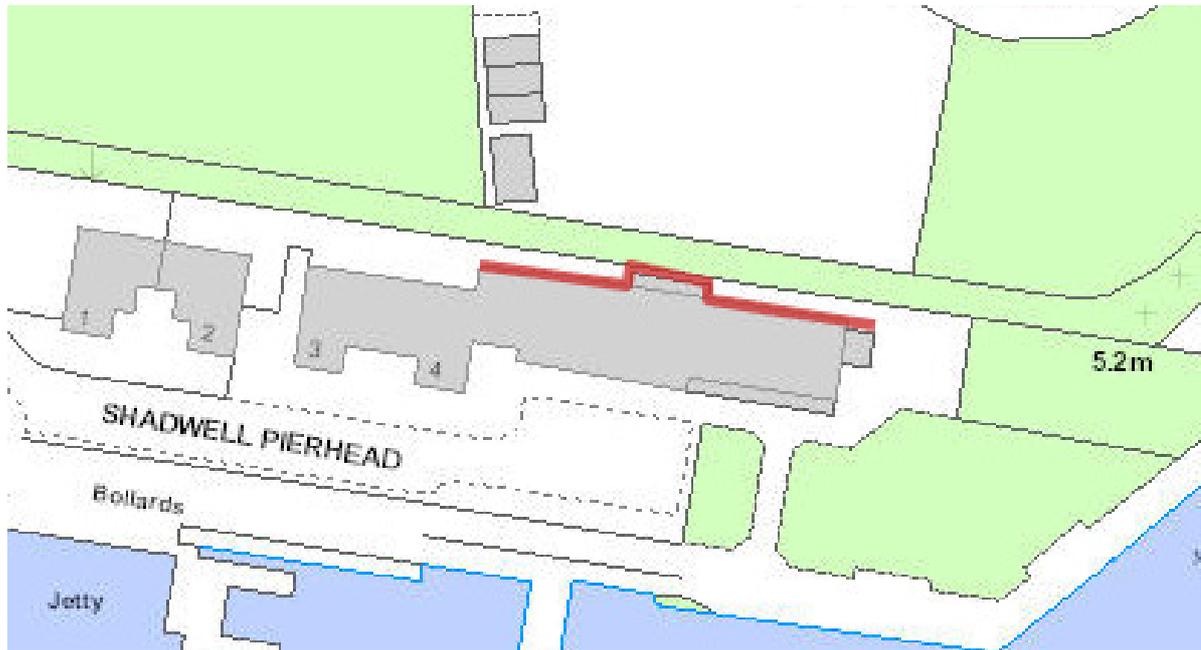
Plan 18 – Shad Thames Pumping Station - Clove Building: Façade to be covered by Trigger Action Plan shown in red edging



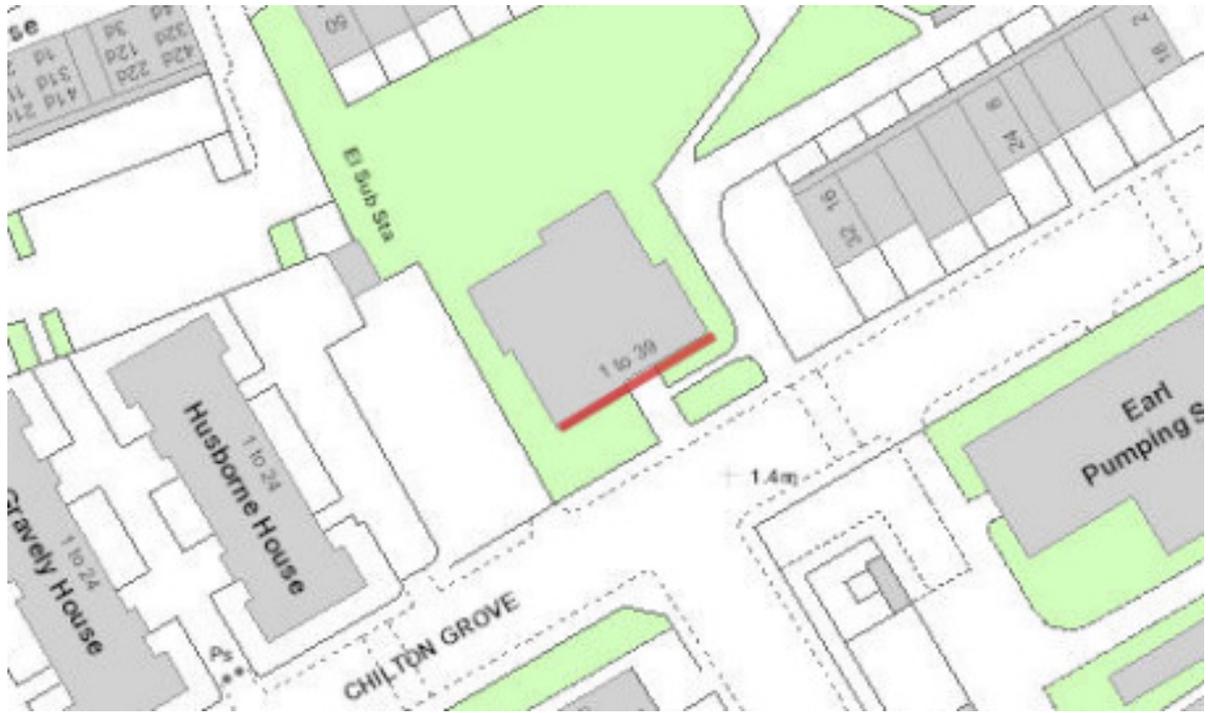
Plan 19 – King Edward Memorial Park - Free Trade Wharf South: Façades to be covered by Trigger Action Plan shown in red edging



Plan 20 – King Edward Memorial Park - Pier Head Preparatory School: Façade to be covered by Trigger Action Plan shown in red edging



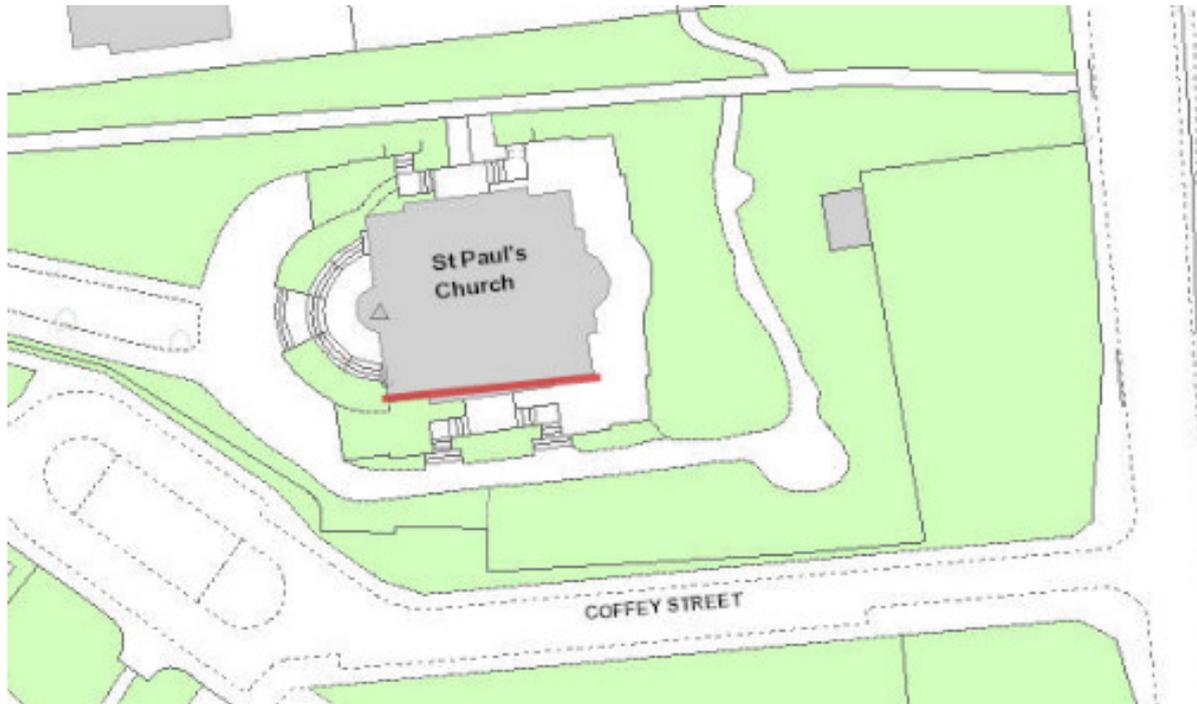
Plan 21- Earl Pumping Station - 1-39 Chilton Grove: Façade to be covered by Trigger Action Plan shown in red edging



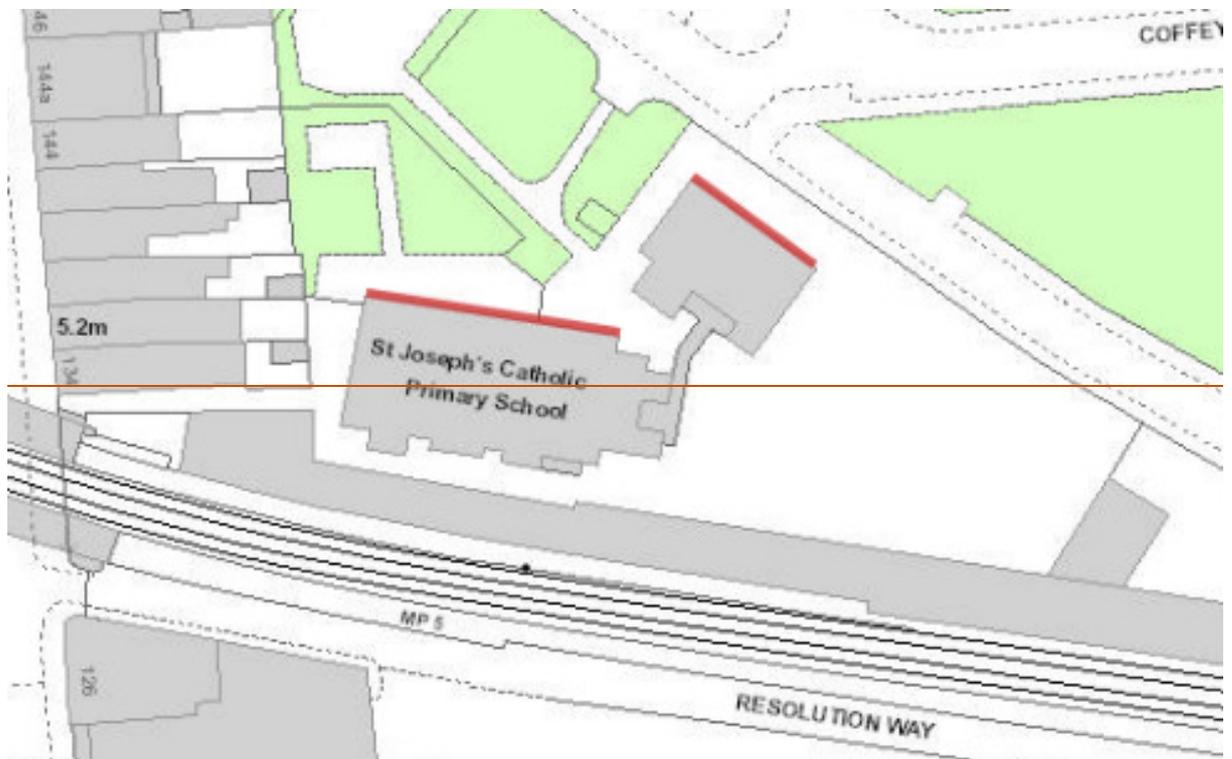
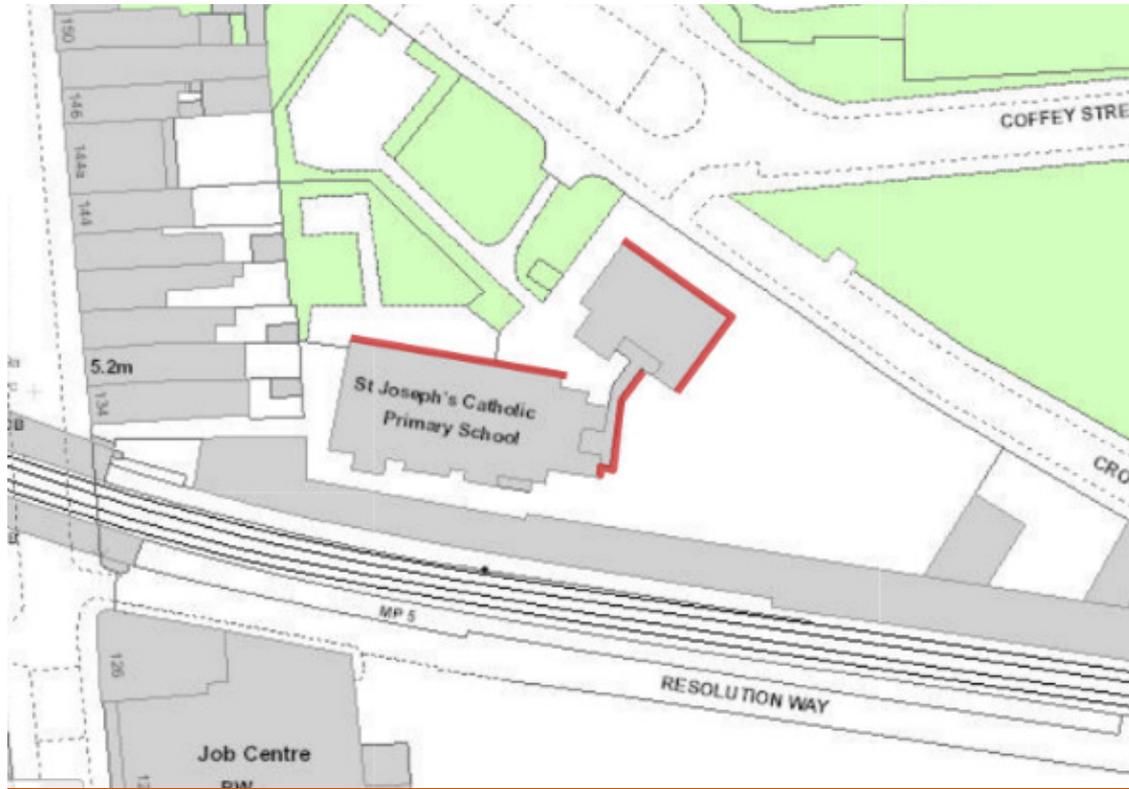
Plan 22 – Earl Pumping Station - 108-136 Chilton Grove: Façade to be covered by Trigger Action Plan shown in red edging



Plan 24 – Deptford Church Street - St Paul's Church: Façade to be covered by Trigger Action Plan shown in red edging



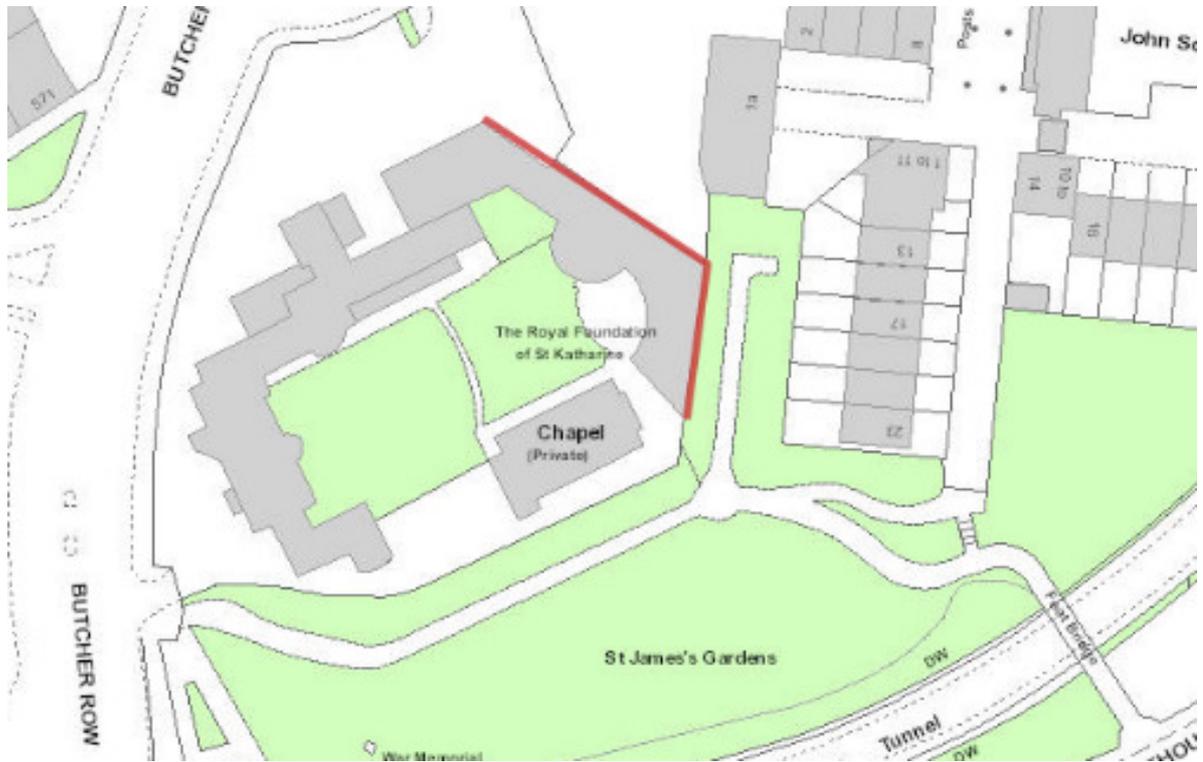
**Plan 25 – Deptford Church Street - St Joseph’s Roman Catholic Primary School:
Façades to be covered by Trigger Action Plan shown in red edging**



Plan 26 – Bokesbourne Street - John Scurr House: Façade to be covered by Trigger Action Plan shown in red edging



Plan 27 – Bekesbourne Street - Royal Foundation of St Katherine: Façades to be covered by Trigger Action Plan shown in red edging



Appendix 2
Exceptional Hardship Procedure

Thames Tideway Tunnel

Exceptional hardship procedure

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List of abbreviations

AQL	acceptable quality level
EHP	Exceptional hardship procedure
ICP	Independent Compensation Panel
IAS	Independent Advisory Service
ICC	Independent Complaints Commissioner
LLAU	limits of land to be acquired or used

1 Introduction

- 1.1.1 This Exceptional Hardship Procedure (EHP) provides information for property owners whose property may be affected by the Thames Tideway Tunnel project (the 'project') proposals, and who have a pressing need to sell and are able to evidentially demonstrate this requirement.
- 1.1.2 This procedure was introduced as an interim scheme in August 2011 and has subsequently been amended to provide the same support for property owners throughout the lifetime of the project.
- 1.1.3 The procedure has also been amended to provide support for leasehold occupiers of business premises identified for temporary use as a construction work site in the Development Consent Order. In certain circumstances, applicants may request their lease be purchased outright, thereby removing the question of being required to return after the construction phase.

2 Purpose of document

- 2.1.1 This document is designed to outline the EHP. It explains:
- a. how the EHP will be managed
 - b. how applications can be made
 - c. the criteria on which they will be assessed
 - d. the procedure for completing purchases.
- 2.1.2 This document, and the associated application form and guidance, will be subject to review and amendment, through continual improvement, as required.
- 2.1.3 Reviews will be conducted on an annual basis, irrespective of any continual improvements, to ensure accuracy.

3 Planning and construction timeline

- | | |
|-------------------|-------------------------------|
| a. September 2010 | Phase one public consultation |
| b. November 2011 | Phase two public consultation |
| c. July 2012 | Section 48 Publicity |
| d. February 2013 | Application submission |
| e. 2015-16 | Commencement of construction |
| f. 2023 | Project due for completion |

4 Exceptional hardship procedure

4.1 Introduction

- 4.1.1 The Undertaker¹ recognises that, from the announcement of the project until it is completed, there will be uncertainty as to which properties may be substantially and adversely affected by construction or operation of the project.
- 4.1.2 This means that, in some cases, there may be a significant effect on properties in the immediate vicinity of the project construction sites in the period until the project has been completed.
- 4.1.3 Given this, the Undertaker has decided to introduce the EHP.
- 4.1.4 The EHP is available to eligible property owners who can demonstrate that they have a pressing need to sell but have been unable to do so, other than at a substantially reduced price as a direct result of the project.
- 4.1.5 The EHP is also available to eligible occupiers of premises to be used temporarily as part of a construction worksite.
- 4.1.6 Those property owners who apply to the EHP and meet the eligibility criteria can then have their property purchased by the Undertaker at its unaffected fair market value (that is, what the value of the property would have been without any adverse effect arising from the project proposals).
- 4.1.7 Those occupiers of premises to be used as a construction site who apply to the EHP and meet the eligibility criteria can have their leasehold interest purchased by the Undertaker at its unaffected fair market value and will also be entitled to claim compensation for disturbance in accordance with the Statutory Code².
- 4.1.8 The EHP is a discretionary procedure, and supplements the statutory rights of owners.
- 4.1.9 It recognises the importance of providing assistance for those property owners who are most severely affected by the project.
- 4.1.10 Every application under the provisions of this procedure will be subject to assessment by the Independent Compensation Panel (ICP). Further advice and clarification on this procedure can be obtained by contacting the Independent Advisory Service (IAS). These two services are discussed in more detail in Section 5.
- 4.1.11 The ID numbers next to the steps in the tables in Section 7 cross-refer to the procedural steps and paragraphs which follow it.

¹ For the purposes of this document, the 'Undertaker' means Thames Water Utilities Limited and any successors and statutory assignees.

² The Statutory Code refers to one or more of the following acts: Land Compensation Act 1961, Compulsory Purchase Act 1965, Land Compensation Act 1973, Acquisition of Land Act 1981, Planning Compensation Act 1991.

4 Exceptional hardship procedure

- 4.1.12 A help guide and application form can be found on the project's website, www.thamestidewaytunnel.co.uk

5 Independent advice and support

- 5.1.1 The Undertaker recognises that, in order to give confidence that the process is impartial and transparent in every respect regarding compensation, potential claimants will require independent advice and decision making regarding claims.
- 5.1.2 In order to assist individuals and ensure independent review of mitigation and compensation policies and processes, the Undertaker shall establish the following bodies:
- a. Independent Advisory Service (IAS)
 - b. Independent Compensation Panel (ICP)
 - c. Independent Complaints Commissioner (ICC)

5.2 Independent Advisory Service (IAS)

- 5.2.1 The IAS shall provide advice in respect of the EHP. It will advise individuals and other affected parties how to apply and whether they might qualify for the EHP and explain the role of the ICP. Staff at the IAS will be familiar with the *Book of Reference* and the application documents, including later submissions.
- 5.2.2 The IAS shall be independent from the Undertaker. The Undertaker will not be responsible for any advice given by the service. The full cost of setting up and operating the IAS will be met by the Undertaker.
- 5.2.3 The IAS shall be effective from February 2014 and run for the duration of construction. The Undertaker will publish details of the IAS and periodically advise local residents and small business owners about its availability through a newsletter. The IAS will be operated through a freephone helpline and email service.

5.3 Independent Compensation Panel (ICP)

- 5.3.1 The ICP shall be established by the Undertaker and consist of an independent chairperson with experience in the field of compensation and valuation and two additional members. These members will have expertise in the field of the claim and be chosen from the expert advisory panel detailed below on the basis of their specialty field.
- 5.3.2 The ICP shall receive advice from the expert advisory panel in relation to the following areas or professions:
- a. noise and vibration
 - b. transport
 - c. building surveying
 - d. quantity surveying
 - e. chartered engineering with experience of tunnelling projects in highly developed and complex urban environments

- f. chartered surveying
- g. medical advice from an appropriate qualified medical professional on the potential effects of exposure to noise and vibration on the health of individuals or groups of individuals
- h. legal advice.

5.3.3 In addition, the ICP may call on such other specialists as the chairperson may deem necessary from time to time to perform the role and functions of the ICP, which include:

- a. supervising the implementation of this procedure, the *Settlement information paper* and the *Non-statutory off-site mitigation and compensation policy*
- b. ensuring that the mitigation avoids *significant* observed adverse effects and, where provided for that purpose, then minimises adverse effects on the same receptor as far as reasonably practicable
- c. ensuring that the mitigation provided is of good design quality
- d. ensuring that all policies are effective and accessible, and recommending any necessary changes to improve the efficiency and effectiveness of the processes and procedures that they contain
- e. determining any claims or disputes arising out of all policies
- f. taking decisions with reference to the relevant policy and relevant guidance in codes of practice, British Standard BS 5228 and precedent from other equivalent projects.

5.3.4 The ICP shall be independent from the Undertaker and will run until construction of the project is completed. The Undertaker will not be responsible for any advice given or decisions made by the ICP. The full cost of setting up and operating the ICP will be met by the Undertaker.

5.3.5 The Undertaker shall publish details of the ICP and periodically advise local residents and small business owners about its availability through a newsletter.

5.3.6 Any dispute or request for a decision must be made in writing to the ICP, including full details, by either the Undertaker or the affected party. The panel will consider such requests within five working days of receipt and write to both parties, setting out the timetable for resolution. It may also request a site visit or further information.

5.3.7 EHP applications for consideration by the ICP must be submitted using the template proforma available from the IAS or the undertaker and found on the project website, www.thamestidewaytunnel.co.uk

5.4 Independent Complaints Commissioner (ICC)

5.4.1 The Undertaker shall arrange the appointment of an Independent Complaints Commissioner, whose role will be to ensure that the correct process has been followed where a claimant is not satisfied with the

response of the ICP. In such circumstances, a claimant can raise the matter formally with the commissioner, who will then evaluate the ICP's decision-making process in that case. Should the commissioner find that due process has not been followed, then the application will be returned for re-evaluation by the ICP.

6 EHP criteria

6.1 Introduction

6.1.1 To qualify to have your property purchased under the EHP, you should be able to answer yes to all of the following five questions.

6.2 Property interest

Q. 1) Do you have a qualifying interest in the property which you wish the Undertaker to buy?

6.2.1 The definition of a qualifying interest covers:

- a. owner-occupiers (to include freeholders and long leaseholders) of private residential properties
- b. owner-occupiers of business premises with an annual rateable value not exceeding £34,800
- c. occupiers of premises which are identified for temporary use as a construction worksite
- d. mortgagees (ie, banks and building societies) with a right to sell a property and who can give immediate vacant possession
- e. personal representatives of a deceased person who had a qualifying interest at the time of death.

Residential owner-occupiers

6.2.2 You must either be living in the property at the date on which the application is received and must have owned it and lived in it as your main residence for at least six months before that date; or

6.2.3 if the property is empty, you must have lived there for at least six months prior to it being empty, so long as it has not been empty for more than 12 months.

6.2.4 If you are a long leaseholder, the tenancy must be granted for a certain term of years, not less than three years of which remain unexpired on the date of an application under the EHP.

Owner-occupiers of business premises

6.2.5 You must hold a freehold or long leasehold interest in the premises at the date on which the application is received and must have owned it for at least six months before that date, and have operated a business of which you are the sole proprietor or principal shareholder from there throughout this time; or

6.2.6 if the property is empty, you must have operated a business, of which you are the sole proprietor or principal shareholder, from there for at least six months prior to it being empty, so long as it has not been empty for more than 12 months.

Occupiers of premises identified for temporary use

- 6.2.7 You must hold a leasehold interest in the premises which has at least three years to run at the date on which the application is received.
- 6.2.8 You must be in occupation of the premises or, if it is empty, be able to show that you have occupied it for at least six months prior to it being empty, so long as it has not been empty for more than 12 months.

6.3 Location of property

Q. 2) Is your property directly affected by the project proposals, or in such close proximity to the project that it would likely be substantially adversely affected by the construction or operation of the new infrastructure?

- 6.3.1 Any property must be situated within 100 metres of the limits of land to be acquired or used (LLAU) in order to satisfy this criterion within the scope of this document.
- 6.3.2 However, in considering the question above, the particular characteristics of the property, including its position and its surroundings (for example, whether there is other built development between the property and the project infrastructure), will be considered when forming a view as to the degree to which it would be affected by the project.
- 6.3.3 Occupiers of premises identified for temporary use must show that all or a significant proportion of the premises are identified within the LLAU and are not identified for permanent acquisition in the Development Consent Order.

6.4 Effort to sell

Q. 3) Have you made all reasonable efforts to sell your property and still not received an offer within 15 per cent of its unaffected open market property value (that is the price it would most likely have achieved other than for the project proposals, assuming a normal or unpressured sale period)?

- 6.4.1 The purpose of this criterion is to identify whether or not and, if so, the extent to which, the reason a property has not sold is because of the effect of the proposed project on its sale prospects rather than any other factor.
- 6.4.2 The requirement that all reasonable efforts should have been made to sell a property and that, despite those efforts, no offers have been received within 15 per cent of its unaffected open market value helps to demonstrate any such effect.
- 6.4.3 This is because if a property is appropriately priced and marketed, it should ordinarily (ie, without the effect of a proposed project) receive an offer and that offer should be within 15 per cent of its open market value. Coupled with this, there is an expectation that applicants should accept an offer within 15 per cent of their property's unaffected open market value because it is not uncommon for there to be a difference between the open

market value of a property and prices offered for it, and because the applicant has an urgent need to sell.

6.4.4 In considering this criterion in relation to applications under the EHP, the panel will take into account the performance of the current housing market and the efforts that sellers would ordinarily have to make in such circumstances, particularly if they needed to sell their property urgently.

6.4.5 With this context in mind, 'all reasonable efforts to sell' is defined as including:

- a. having made reasonable attempts to obtain the current unaffected open market value for the property (that is the price it would most likely have achieved other than for publication of the project proposals) and ensuring the asking price reflects professional advice as to that value and is competitive for the market it is in
- b. the property having been actively marketed, preferably with at least one Royal Institute of Chartered Surveyors qualified estate agent, for a minimum of three months
- c. being able to demonstrate, through positive actions, a willingness to review and, where appropriate, revise the asking price and marketing strategy for the property, particularly in the light of advice from the estate agent and/or feedback from potential buyers.

6.4.6 Occupiers of premises identified for temporary use will not be required to go through or meet the Efforts to Sell criteria.

6.5 No prior knowledge

Q. 4) Did you buy your property before you could be reasonably expected to have been aware of the project proposals?

6.5.1 Provided the property was acquired prior to 27 March 2013 (the date the application for development consent was accepted), you will meet this criterion.

6.5.2 You may also qualify if you can demonstrate that you purchased your property before it could have been reasonably possible for you to have known about the project proposals which would have the effect on your ability to sell the property.

6.6 Exceptional hardship

Q. 5) Do you have a pressing need to sell your property and would you suffer exceptional hardship if you had to wait until the project has been completed (expected to be in 2023)?

6.6.1 There is no definitive list of circumstances which might potentially give rise to such a need, but examples include as follows:

- a. Domestic – there is an urgent need to move to a larger or different house due to changed family circumstances

- b. Employment – a need to relocate to take up a new or different job, outside reasonable commuting distance
- c. Financial – there is a significant external financial pressure that necessitates a sale, for example, the need to realise assets in conjunction with a divorce, dissolution of a civil partnership or other individual personal circumstances, to release capital in connection with a business, or to avoid threatened repossession
- d. Medical condition – where the applicant, or a dependant living in the affected property, has developed a medical condition which necessitates selling. Examples would include a severe disability causing inability to negotiate stairs, loss of mobility, or a requirement to go into sheltered accommodation, to co-locate with family members, or to move to a long-term nursing home due to infirmity or ill health.

6.6.2 For occupiers of premises identified for temporary use, the hardship criteria will be met in the event that the planned temporary occupation of the premises by the Undertaker extends beyond a period of 24 months.

6.6.3 Any application from an occupier of premises identified for temporary use for a period shorter than 24 months will be considered on its merits and determined at the absolute discretion of the ICP.

7 Procedure

Table 7.1 Overall procedure

ID	Activity	Responsible person	AQL	Methods of review	Reviewing person
7	Exceptional hardship property purchase procedure	Property Manager	100% of the time	Annual inspection	Operations Manager

Table 7.2 Procedural steps

ID	Activity	Responsible person	AQL	Methods of review	Reviewing person
7.2.1	Submit application	Applicant	100% for each application	Ongoing	Compensation Coordinator
7.2.2	Application form and evidence	Applicant	100% for each application	Ongoing	Compensation Coordinator
7.3	Review application	Compensation Coordinator	100% of the time, within 3 days of receipt of application	Ongoing	ICP
7.4.1	Consider application	ICP	100% of the time, within 5 days of the receipt of a checked application	Ongoing	Property Manager
7.4.3	Notification to the project	ICP	100% of the time, within 5 days of a recommendation from the ICP	Ongoing	Property Manager
7.5.1	Notify applicant	Compensation Coordinator	100% of the time, within 3 days of the project review notification	Ongoing	Property Manager

ID	Activity	Responsible person	AQL	Methods of review	Reviewing person
7.5.3	Obtain valuations	Independent valuers	100% of the time, providing values within 10 days of tasking from Compensation Coordinator	Ongoing	Property Manager
7.5.4	Make and agree offer	EHP Applicant	90% of the time, reaching legal instructions within 21 days of valuations being offered	Ongoing	Property Manager
7.6	Take ownership and manage site	Facilities Manager	95% of time, taking ownership within 8 weeks from legal instructions being reached	Ongoing	Property Manager

1 day = 1 working day

7.1 Stage one

- 7.1.1 Complete the application form and submit it together with supporting evidence, using the Exceptional Hardship form.
- 7.1.2 Applicants are asked please to submit as much evidence as they can to support the application (eg, copies of correspondence with estate agents, employers or medical staff) as this will enable your application to be processed more quickly.

7.2 Stage two

- 7.2.1 The project appointed Compensation Coordinator will acknowledge your application and review it to ensure that it is complete and contains the required information.
- 7.2.2 If information or evidence is missing, you will be contacted and asked to provide it.
- 7.2.3 In addition, it is very likely that your estate agents will be contacted while other information regarding your application may be independently verified.

7.3 Stage three

- 7.3.1 Completed applications will be submitted to the ICP for its consideration.

- 7.3.2 The members of each panel will be independent of the Undertaker.
- 7.3.3 A recommendation to either accept or refuse the application will be made by the panel. Ultimately, a determination by the ICC will be final and binding.

7.4 Stage four

- 7.4.1 If the ICP recommends that the Undertaker should offer to buy your property, you will be notified.
- 7.4.2 You will be notified by the Compensation Coordinator if you are successful or unsuccessful, detailing the reasons why (in the case of an unsuccessful application).
- 7.4.3 If you are successful, independent valuations of your property will be arranged to establish an offer. The average of two valuations will be used to inform the offer for your property. In circumstances where the two valuations are more than 10% apart, a third valuation will be sought and the outlier discarded from the process to establish the offer price.
- 7.4.4 If you are an occupier of premises identified for temporary use as a construction worksite, you will be invited to submit a detailed claim for compensation in accordance with the Statutory Code.
- 7.4.5 The Compensation Coordinator will then write to you with a formal offer to buy your property.

7.5 Stage five

- 7.5.1 For occupiers of premises identified for temporary use as a construction site, there will then ensue a period of negotiation of the compensation claim with the Undertaker's representative, under the guidance of the ICP. If negotiations are not concluded to the satisfaction of the applicant, a complaint may be made to the ICC.
- 7.5.2 On the completion of the purchase, the Undertaker will take ownership and management of the property.

8 Timeframes

8.1.1 Timeframes provided in this document are targets.

Appendix 3
Non-Statutory Offsite Mitigation and Compensation Policies

Thames Tideway Tunnel

Non-statutory off-site mitigation and compensation policy

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Abbreviations

CoCP	Code of Construction Practice
ICP	Independent Compensation Panel
IAS	Independent Advisory Service
ICC	Independent Complaints Commissioner
TAP	Trigger Action Plan

1 Introduction

- 1.1.1 Thames Water recognises that those who live or work close to the proposed Thames Tideway Tunnel project (the 'project') construction sites could be affected by the construction works. In the first instance, the Undertaker¹ will minimise the significant and adverse impacts from construction² at source as far as reasonably practicable by means of on-site mitigation as required by the project's *Code of Construction Practice (CoCP)*.
- 1.1.2 The *Non-statutory off-site mitigation and compensation policy* (the 'Policy') covers those affected by the construction of the project due to the following:
- a. dust (in terms of compensation)
 - b. light interference (in terms of compensation)
 - c. noise (in terms of mitigation and compensation)
 - d. vibration (in terms of mitigation and compensation)
 - e. in combination effects (in terms of discretionary mitigation and compensation)
 - f. other impacts of the works unique to the individual making the claim (in terms of discretionary mitigation and compensation).
- 1.1.3 Those who may qualify under the Policy include:
- a. owner occupiers
 - b. residential tenants
 - c. independent residential landlords
 - d. businesses
 - e. special case properties such as houseboats, mobile homes, sheltered housing, care homes and non-residential sensitive buildings such as schools and hospitals (discussed in more detail in Section 7)
 - f. special cases such as shift workers, vulnerable persons who are housebound and those with medical conditions that it is proven could be exacerbated by exposure to noise or vibration (discussed in more detail in Section 7).
- 1.1.4 The control of potential impacts arising from dust, noise, vibration, and light (refer to 1.1.2) to avoid significant effects are addressed in the *CoCP*. Compensation for any residual damage or loss is covered in Section 8 of the Policy.

¹ For the purposes of this document, the 'Undertaker' means Thames Water Utilities Limited and any successors and statutory assignees.

² As defined in the Environmental Statement update report, the Noise Policy Statement for England 2010 and the emerging national Planning Practice Guidance.

- 1.1.5 Controls to avoid significant observed adverse noise effects at businesses are also addressed in the *CoCP*. Compensation for any residual damage or loss is covered in Section 8 of the Policy.
- 1.1.6 In some situations, however, having exhausted mitigation on site it may not be possible to avoid significant observed adverse effects from noise³. Under the Policy the Undertaker will prepare and where accepted by the beneficiary, implement mitigation or provide compensation for such situations.
- 1.1.7 Examples of what may be offered under the Policy include:
- a. installation of secondary glazing and additional ventilation, enabling windows to be kept closed, to provide additional noise insulation during the construction works
 - b. a support package that reflects ongoing costs associated with managing a property differently during the works
 - c. cost and expense of temporary relocation or rehousing for houseboats during certain phases of the construction programme
 - d. short-term respite accommodation if unacceptable disruption were to be experienced due to, for example, short periods of exposure to combined noise and vibration
 - e. an offer of financial compensation to cover:
 - i additional property management costs such as window cleaning, cleaning, security, insurance
 - ii temporary reduction of business profits
 - iii temporary reduction in the value of property
 - iv additional travel costs and car parking charges
 - v costs of installing blackout blinds
 - vi any cost or loss which arises as a direct consequence of the construction of the project
 - vii fees and costs associated with making a successful claim.
- 1.1.8 The Undertaker has already identified the residential properties predicted to experience significant adverse effects due to the construction works. These are set out in the *Environmental Statement*⁴ (*ES*) which supports the application for development consent.
- 1.1.9 Through the *ES*, engagement with stakeholders and public consultation, the Undertaker has also identified other properties that, although not predicted to experience 'significant adverse impacts', are in close

³ As defined in Noise Policy Statement for England 2010 and emerging National Planning Practice Guidance – noise.

⁴ 'Environmental Statement' means the Environmental Statement for the Development (January 2013) together with the Errata to the Environmental Statement (September 2013), and the Environmental Statement Update Report (March 2014), all submitted by Thames Water Utilities Limited to supports its application for development consent.

proximity to sites or access routes and are considered to be special cases (special cases are covered in Section 7).

- 1.1.10 The Policy introduces Trigger Action Plans (TAPs), which are detailed in Section 3. These plans shall define both noise and/or vibration trigger values and the planned mitigation package to be implemented in the event of adverse effects being predicted to occur. The TAPs will be individually produced and capture a set of agreed actions that address the particular concerns of property owners and occupiers involved in each case.
- 1.1.11 For properties that qualify for a TAP, the Undertaker shall actively engage with each of the identified parties to discuss, explain and manage the available information and work with them to identify, offer, agree and (where accepted) implement appropriate mitigation through a TAP.
- 1.1.12 The trigger values contained within this policy may be amended in line with any alterations made to project-wide requirement PW17 in the draft development consent order by the Secretaries of State in granting development consent for the project.
- 1.1.13 The Undertaker shall use reasonable endeavours to obtain all relevant consents required to undertake the works defined in the TAPs. For example, the types of consent required may include:
- a. planning permissions
 - b. listed building consents
 - c. consent from the landowner
 - d. consent from the landlord
 - e. building regulations.
- 1.1.14 The Undertaker shall not permit any individual work or works, forming part of the development in respect of which mitigation or compensation measures are required, to commence unless, and until, those measures have been fully implemented. This restriction will not apply where
- a. access to property for the purpose of implementing or completing the mitigation or compensation measures is refused or unreasonably delayed by the owner or occupier
 - b. any person entitled to the measures fails to comply to timescales imposed as part of this process
 - c. the owner or occupier of the property which qualifies for mitigation or compensation measures objects or confirms in writing to the Undertaker that they do not wish those measures to be implemented
 - d. any necessary consents required to complete works are not forthcoming and as a result temporary rehousing is offered and refused
 - e. any owner or occupier of the property refuses to be temporarily rehoused where that is the mitigation or compensation measure that they are entitled to under the terms of the Policy.

- 1.1.15 All finalised TAPs will be appended to this policy and shall be shared with the Independent Advisory Service (IAS) and act as a precedent on which further TAPs can be prepared and agreed. The IAS is described further in Section 2.
- 1.1.16 The Undertaker will actively engage property owners and occupiers who qualify for a TAP, and will actively promote the Policy in the lead up to commencement of construction of the project to ensure that all special cases (refer to Section 7) are covered by the Policy.
- 1.1.17 The Undertaker will continue to identify, and respond to requests for owners and occupiers to be treated as special cases and prepare additional TAPs as may be necessary.
- 1.1.18 Individuals who believe they have a claim may discuss this with the Undertaker directly or the IAS.
- 1.1.19 Despite all proactive engagement before construction commences, there may be circumstances in which individuals come forward once works have begun who seek to be treated as special cases under the Policy (eg shift workers). The Policy will remain valid until one year after construction or until all claims under the policy have been settled.
- 1.1.20 With or without mitigation measures in place, the Undertaker recognises that financial damage or loss could arise as a direct consequence of construction activity. A procedure for claims for damage and loss is in place to process and settle such claims expeditiously (see Section 8).
- 1.1.21 The Undertaker recognises that individuals may require some assistance working through this and other compensation policies; therefore the IAS, an independent organisation, will provide advice to the public relating to the Policy. Individuals are encouraged to contact this service to discuss their particular cases on 0800 0721 086 or info@tidewayias.co.uk.
- 1.1.22 The Undertaker shall also establish an Independent Compensation Panel (ICP) composed of compensation and technical experts. The panel members will perform a number of functions but will primarily supervise the implementation of the various policies and determine any disputes arising out of the policies. The IAS and ICP are discussed in more detail in Section 2.
- 1.1.23 Where parties are not satisfied with the response from the ICP they can ask the Independent Complaints Commissioner (also described in Section 2) to review the decision-making process for that case.
- 1.1.24 Any award in respect of a claim for financial compensation shall be subject to the claimant having a reasonable, valid and evidentially supportable claim which arises as a direct consequence of the Undertaker's activities in respect of the project and having sought to reasonably mitigate any loss or damage.

1.2 Wayfinding and signposts to other documents

- 1.2.1 The Policy brings together the following previous Thames Water policies:
- a. *Noise insulation and temporary rehousing policy*

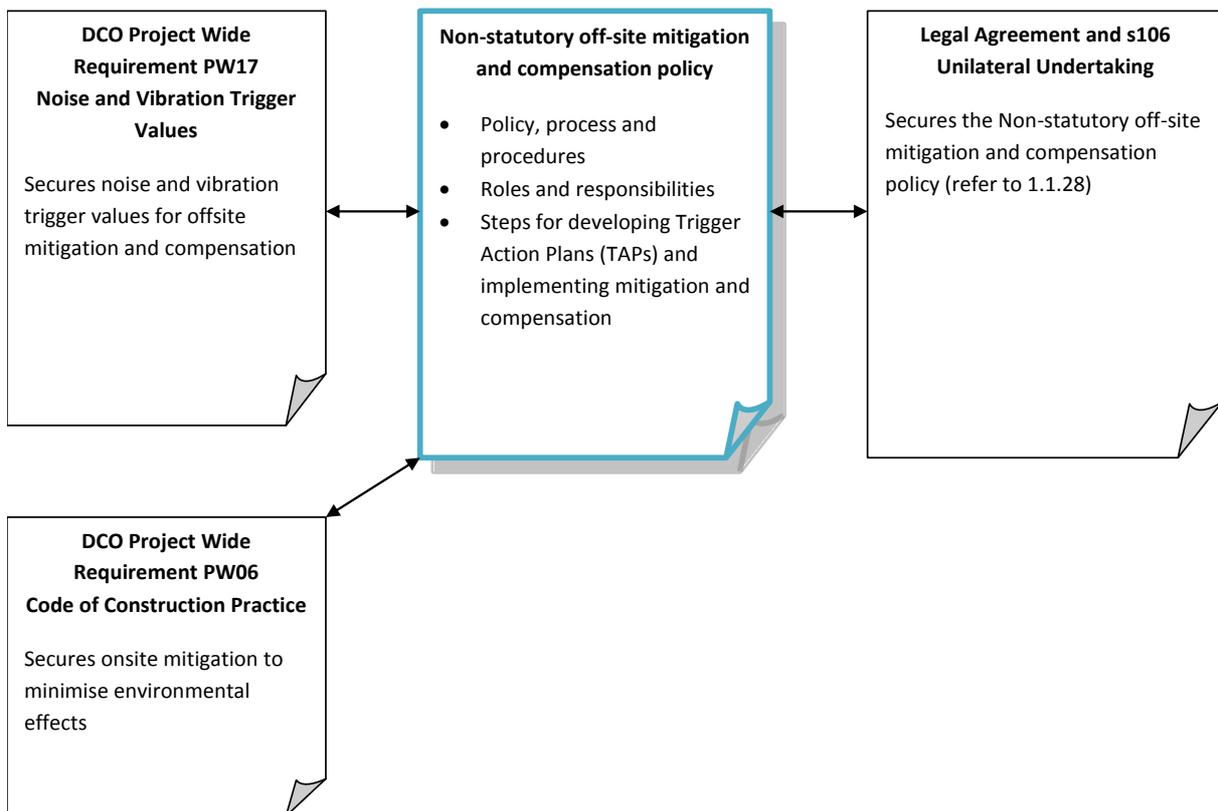
- b. *Non-statutory mitigation compensation procedure*
- c. *Non-statutory disturbance compensation procedure*

1.2.2 The Undertaker will maintain separately the following other existing non-statutory compensation policies:

- a. *Exceptional hardship procedure*
- b. *Settlement information paper*

1.2.3 The Policy is outside the statutory regime for compensation and is entered into voluntarily by the Undertaker. However, it shall initially be secured by a legal agreement with the relevant London Borough and subsequently through a Section 106 unilateral undertaking to be entered into after the grant of development consent.

1.2.4 Below is a diagram showing the Policy's relation to these other documents:



1.3 Fees

1.3.1 The Undertaker recognises the potential for claimants to incur costs to pursue a claim under the Policy. Where claims are successful, the claimant shall be entitled to submit evidence of reasonable costs to the ICP and request reimbursement from the Undertaker.

- 1.3.2 The Undertaker accepts that the IAS may advise a claimant to pursue a course of action under one of the compensation policies that is eventually unsuccessful. In circumstances where a claimant receives such advice and appoints a professional adviser to help pursue a claim, that advisor should seek a fee agreement with the Undertaker.
- 1.3.3 In the event that a claim is unsuccessful, reimbursement shall be subject to a cap not exceeding £500 plus VAT. The ICP will determine the reasonableness of such costs and claimants are strongly advised to make this clear to any advisors they may appoint in connection with non-statutory compensation claims against the Undertaker.

2 Independent advice and support

- 2.1.1 The Undertaker recognises that in order to give confidence that the process is impartial and transparent in every respect regarding compensation, potential claimants will require independent advice and decision making regarding claims.
- 2.1.2 In order to assist individuals and ensure independent review of mitigation and compensation policies and processes, the Undertaker shall establish the following bodies:
- a. Independent Advisory Service (IAS)
 - b. Independent Compensation Panel (ICP)
 - c. Independent Complaints Commissioner (ICC)

2.2 Independent Advisory Service (IAS)

- 2.2.1 The IAS shall provide advice in respect of the Policy, the *Settlement information paper* and the *Exceptional hardship procedure*. It will advise individuals and other affected parties how to qualify for these policies and explain the roles of the ICP and ICC. Staff at the IAS will be familiar with the *Book of Reference* and the application documents, including later submissions. Advice will be available to individuals and other affected parties, such as schools and communities generally, who either are entitled or believe they may be entitled to mitigation or compensation under any of the relevant policies.
- 2.2.2 The IAS shall be independent from the Undertaker. The Undertaker will not be responsible for any advice given by the service. The full cost of setting up and operating the IAS will be met by the Undertaker.
- 2.2.3 The IAS shall be effective from February 2014 and run for the duration of construction. The policy will remain valid until one year after construction or until all claims under the policy have been settled. The Undertaker will publish details of the IAS and periodically advise local residents and small business owners about its availability through a newsletter. The IAS will be operated through a freephone helpline and email service.
- 2.2.4 Individuals are encouraged to contact this service to discuss their particular cases on 0800 0721 086 or info@tidewayias.co.uk.

2.3 Independent Compensation Panel (ICP)

- 2.3.1 The ICP shall be established by the Undertaker and consist of an independent chairperson and two additional members. The chairperson should have experience in the field of compensation and valuation, or environmental health and the management of major infrastructure projects. The two additional members will be chosen from the expert advisory panel detailed below on the basis of their specialty field.

- 2.3.2 The ICP shall receive advice from the expert advisory panel in relation to the following areas or professions:
- a. Noise and vibration
 - b. Transport
 - c. Building surveying
 - d. Quantity surveying
 - e. Chartered engineering (Mechanical, Structural, Electrical and Civil) with directly relevant experience including tunnelling projects in highly developed and complex urban environments
 - f. Chartered surveying
 - g. Medical advice from an appropriate qualified medical professional on the potential effects of exposure to noise and vibration on the health of individuals or groups of individuals
 - h. Legal advice.
- 2.3.3 In addition, the ICP may call on such other specialists as the chairperson may deem necessary from time to time to perform the role and functions of the ICP, which include:
- a. supervising the implementation of the Policy, the *Settlement information paper* and the *Exceptional hardship procedure*
 - b. ensuring that the mitigation avoids significant observed adverse effects⁵, and where provided for that purpose then minimises adverse effects on the same receptor as far as reasonably practicable⁶
 - c. ensuring that the mitigation provided is of good design quality, durable, sustainable and meets all relevant requirements (for example building regulations)
 - d. ensuring that the mitigation provided minimises as far as practicable any consequence adverse impact (eg enabling windows that can currently be opened can still be opened if the beneficiary wishes to do so even though the additional ventilation will be provided to enable windows to be kept closed to provide noise mitigation during the noisier works)
 - e. ensuring that all policies are effective and accessible and recommending any necessary changes to improve the efficiency and effectiveness of the processes and procedures that they contain
 - f. determining any claims or disputes arising out of all policies; the decision of the ICP will be final and binding on the Undertaker, save

⁵ A significant effect identified using the assessment methodology defined in the *Environmental Statement* where the forecast noise levels exceeds the relevant day, evening or night assessment category 'C' in line with the Noise Policy Statement for England (Department for Environment, Food and Rural Affairs (Defra) 2010 and emerging National Planning Practice Guidance 2013)

⁶ The performance (in all respects) of noise insulation should be equal or better than the performance of the insulation package defined in the Noise Insulation (Railways and Other Guided Systems) Regulations 1996 and all mitigation shall aim to meet the design aims set out at Appendix B as far as reasonably practicable.

for the ability of the Undertaker or the relevant party to refer the decision of the ICP to the ICC for its consideration

- g. taking decisions with reference to the relevant policy and relevant guidance in codes of practice, British Standard BS 5228 and precedent from other equivalent projects
- h. giving assurance to the local authority that the Undertaker has fulfilled its obligations under this policy

2.3.4 The Undertaker and its appointed contractors shall provide such information and assistance as may be requested by the ICP in order to progress cases expeditiously.

2.3.5 The ICP shall be independent from the Undertaker and will run throughout construction. The Policy will remain valid until one year after construction or until all claims under the policy have been settled. The Undertaker will not be responsible for any advice given or decisions made by the ICP. The full cost of setting up and operating the ICP will be met by the Undertaker.

2.3.6 The Undertaker shall publish details of the ICP and periodically advise local residents and small business owners about its availability through a newsletter.

2.3.7 Any dispute or request for a decision must be made in writing to the ICP. It may be made by the Undertaker, the affected party or a key stakeholder (such as the relevant London Borough). The panel will consider such requests within five working days of receipt and write to both parties setting out the timetable for resolution. It may also request a site visit or further information.

2.3.8 Throughout the project the ICP will regularly review the Policy and where changes are recommended, the ICP will consult the Undertaker and relevant London Boroughs for approval prior to implementing what must be mutually acceptable improvements.

2.4 Independent Complaints Commissioner (ICC)

2.4.1 The Undertaker shall arrange for the appointment of an Independent Complaints Commissioner, whose role will be to ensure that the correct process has been followed where a party is not satisfied with the response of the ICP. In such circumstances, the party can raise the matter formally with the commissioner, who will then evaluate the ICP's decision-making process in that case. Should the commissioner find that due process has not been followed, then the claim will be returned for a re-evaluation by the ICP.

3 Trigger action plan (TAP)

- 3.1.1 The *CoCP* requires the contractor to implement all mitigation on-site that are the best practicable means to minimise noise and vibration. This reduces and generally avoids the need for noise insulation, temporary rehousing or other off-site mitigation.
- 3.1.2 Where on-site mitigation has been exhausted and this has been confirmed by local authority consent⁷ but significant adverse noise effects⁸ remain, then off-site mitigation and compensation measures will be developed and offered to landowners and occupiers. Off-site mitigation measures will be formalised through a TAP agreed between the Undertaker and occupier and/or owner.
- 3.1.3 Each TAP will define noise and/or vibration trigger values and the mitigation package that will be implemented in the event that the trigger values are predicted to be, or are, reached⁹. The purpose of the plan is to ensure that specific mitigation measures are identified and agreed and that all relevant consents are in place so that, if required, the mitigation can be implemented quickly before the construction activity that necessitates the measures commences.
- 3.1.4 TAPs shall be prepared for the properties that meet the following criteria:
- residential properties identified in the *ES* as being potentially significantly affected for certain periods of time
 - 'special cases' as defined in Section 7 of the Policy
 - directly adjacent properties if the affected facade of those properties (ie, facing the works) is contiguous or forms part of a series of contiguous facades.
- 3.1.5 TAPs are not required for other receptors, except special cases (Section 7). This is because section 2.1 of the *CoCP* requires¹⁰ environmental effects from the contractor's detailed proposals and works to be no worse than those reported in the *ES*. A property not identified as being subject to a significant adverse impact in the *ES* cannot therefore later become significantly affected; therefore no TAP is required.
- 3.1.6 It is recognised that special cases may arise at any time during the construction period. For those parties who believe they may be a special case (or are aware of a potential special case) and who have not been contacted by the Undertaker they should contact the IAS in the first instance.
- 3.1.7 Each TAP shall comprise:

⁷ Under Section 61 of the Control of Pollution Act 1974

⁸ A significant effect identified using the assessment methodology defined in the *Environmental Statement* where the forecast noise levels exceeds the relevant day, evening or night assessment category 'C' in line with the Noise Policy Statement for England (Department for Environment, Food and Rural Affairs (Defra) 2010 and emerging National Planning Practice Guidance (2013).

⁹ And in the event that a TAP is 'pre triggered' before construction and the relevant Section 61 consents.

¹⁰ See Section 2 of the *CoCP* Part A

- a. introduction (to receptor and the project)
- b. trigger values for noise and/or vibration, where applicable (see Section 3.2)
- c. mitigation measures to reduce the predicted effects below the trigger values
- d. programme for notification and implementation of the mitigation measures should they be required
- e. programme for monitoring of performance of mitigation during works
- f. corrective actions in the unforeseen event that measured noise or vibration were to reach the trigger values without required off-site mitigation being in place¹¹.

3.1.8 Mitigation shall be specific to each receptor and consider options such as:

- a. temporary or permanent noise barriers (eg, at the property boundary or on adjacent council land, subject to relevant permissions, such as the acrylic barriers noted in the *CoCP* at Carnwath Road Riverside and Chambers Wharf)
- b. modifications to balcony balustrades/parapets to provide local noise barriers and reduce internal noise levels in the property
- c. noise insulation (with a bespoke package where required in response to the construction of the building design) to provide a noise reduction and ventilation performance equivalent to the standard package defined in the noise insulation regulations¹²
- d. temporary rehousing as an option of last resort, where other mitigation is not practicable or will not be effective

3.1.9 The TAP shall be prepared by the Undertaker through engagement and consultation with the beneficiary and the relevant local authority and be issued to the beneficiary for agreement. It will also be submitted to the ICP for approval or any modifications.

3.1.10 Any dispute between parties shall be referred to the ICP for resolution. The ICP's decision shall be final and binding on the Undertaker (save for the right for either party to seek redress through the ICC).

3.1.11 For residential property, the trigger values are defined in Section 4.

3.1.12 For special cases (Section 7), trigger values will be defined considering the following factors (among others):

- a. the nature of the affected property's use, eg, educational, place of worship, musical or theatrical performance
- b. the specific use of affected rooms and external spaces
- c. the vulnerability of any affected persons residing in or using the property (with particular attention to those who are housebound or

¹¹ If measured construction noise or vibration exceed the trigger values in a TAP, then the noise or vibration at the receptor will be kept below the relevant trigger value until the mitigation required by the TAP or temporary rehousing is implemented (subject to the caveats in para. 1.1.14).

¹² Noise Insulation (Railways and Other Guided Systems) Regulations 1996

- suffering from a medical condition that could be exacerbated by increased noise or shift working)
- d. the current noise level in the affected rooms or external spaces
 - e. the affected individual's circumstances
 - f. the current external noise levels¹³
 - g. the nature of the construction activities proposed and the duration of noise impacts
 - h. existing published literature on recommended internal noise levels for that particular property use or vulnerable group to avoid significant observed adverse effects (refer to Appendix B).
- 3.1.13 The TAP shall identify all necessary permissions and consents required to implement the mitigation. The Undertaker shall use its reasonable endeavours to obtain these consents required to undertake the works defined in the TAPs.
- 3.1.14 The TAP will set out the Undertaker's maintenance and repair obligations together with any agreement with a beneficiary for removal and reinstatement following completion of the construction works for the project, if that is what the beneficiary wishes.
- 3.1.15 The TAP shall be implemented by the Undertaker. The Undertaker's contractors will be aware of the plan when developing the construction programme and in any application for consent to the relevant local authority under Section 61 of the Control of Pollution Act 1974. In the event that it is not reasonably practicable to reduce predicted noise or vibration below the trigger values in the TAP, as accepted by the relevant local authority under a Section 61 consent, then the contractor will implement the mitigation package set out in the TAP in full before commencing the works that would exceed the trigger values¹⁴. This is subject to the caveats listed in para. 1.1.15 and obtaining the necessary consents (para 3.1.13).
- 3.1.16 The TAP shall also set out the corrective actions that the contractor will take in the unplanned event that monitoring during the construction demonstrates that the trigger values are being or are expected to be exceeded.
- 3.1.17 Steps for developing and implementing the TAPs are further defined in Section 5 of the Policy.

¹³ Where the short-term attended monitoring carried out as part of preparing a TAP demonstrates that the existing noise levels could equal or exceed the trigger values for the relevant property or its users, then longer term noise monitoring will be carried out to robustly establish the baseline and trigger values to be adopted. The method statement for the longer term noise monitoring will be agreed in writing with the local authority or, in the event of any disagreement, the ICP.

¹⁴ The Undertaker may, at its discretion, 'pre-trigger' a TAP; for example: for buildings occupying vulnerable residents; residents located directly adjacent to the site and subject to noise and other effects in combination, such as secondary limited views, reduced light or single aspect dwellings; or schools or other sensitive receptors subject to combined effects.

- 3.1.18 A schedule of TAPs to be produced, including for special cases, can be found in the Legal Agreement undertaking which secures the Policy. For more information on those properties please contact the IAS.

3.2 Pre-triggering of TAPs

- 3.2.1 Recognising that some parties will experience in combination effects over extended durations which cannot be addressed through on-site mitigation measures, off-site mitigation packages and associated works (or alternatives as agreed by the beneficiary) will be proactively offered to some owners/occupiers based on the following criteria:
- a. buildings or other communities with vulnerable residents
 - a. residents located directly adjacent to the site and subject to noise and other effects in combination, such as secondary limited views, reduced light or single aspect dwellings
 - b. schools or other sensitive receptors subject to combined effects
- 3.2.2 Details of the noise insulation packages that will be formalised through TAPs will not include noise or vibration thresholds which must be exceeded in order to trigger the noise insulation. Rather, the Undertaker commits to offer the noise insulation without a trigger level for the relevant owners and occupiers.
- 3.2.3 Pre-triggered TAPs are identified in the Schedule of Trigger Action Plans appended to the Legal Agreement which secures the Policy.

4 Qualification (residential property)

4.1.1 The trigger values contained within this policy are secured in project-wide requirement PW17. The levels recorded in Table 4.1 and the other provisions of this section will be amended in line with any alterations made to project-wide requirement PW17 in the draft development consent order, by the Secretaries of State in granting development consent for the project.

4.2 Airborne noise

4.2.1 Noise insulation (or equivalent other mitigation as described at 3.1.8) and temporary rehousing will be provided where the predicted or measured noise at a receptor exceeds the trigger values in Table 4.1.

Table 4.1 Airborne noise trigger values for noise insulation¹⁵ and temporary rehousing for residential property

Day	Time	Averaging period, T	Noise insulation trigger value dB L _{Aeq,T}	Temporary rehousing trigger value dB L _{Aeq,T}
Mondays to Fridays	7am to 8am	1 hour	70	80
	8am to 6pm	10 hours	75	85
	6pm to 7pm	1 hour	70	80
	7pm to 10pm	1 hour	65	75
Saturdays	7am to 8am	1 hour	70	80
	8am to 1pm	5 hours	75	85
	1pm to 2pm	1 hour	70	80
	2pm to 10pm	1 hour	65	75
Sundays and Public Holidays	7am to 10pm	1 hour	65	75
Any day	10pm to 7am	1 hour	55	65

4.2.2 The trigger values shown in Table 4.1 do not apply where the ambient noise level is greater than the noise insulation trigger value. In such cases, where the ambient noise level (in the absence of construction noise) exceeds the relevant noise insulation trigger value shown above, then:

¹⁵ For the avoidance of doubt, noise insulation will also be triggered where a significant effect is identified using the assessment methodology defined in the *Environmental Statement* and forecast noise level exceeds assessment category C defined in the *Environmental Statement*, even if the duration trigger values in paragraph 4.1.5 are not exceeded.

- a. the ambient noise level shall be used as the construction noise level required to trigger insulation, and
 - b. the ambient noise level +10dB shall be used as the temporary rehousing trigger value.
- 4.2.3 Unless otherwise agreed with the relevant local authority, noise levels will be measured or predicted in accordance with the methods set out in British Standard 5228¹ (as updated in 2014).
- 4.2.4 All construction noise levels will be predicted or measured at a distance of 1m from any affected eligible facade, which must have windows to bedrooms or living rooms.
- 4.2.5 Further to this, noise insulation (or the reasonable costs thereof against agreed bills) will only be offered to owners or occupiers who can demonstrate that the property can lawfully be occupied as a permanent dwelling and if the following apply:
- a. The predicted or measured noise level exceeds the noise trigger value for noise insulation at the property for **at least ten days out of any period of 15 consecutive days** or alternatively for **40 days in any six-month period**
 - b. Noise insulation does not already exist that is of an equivalent standard to that which would be allowed for under the Noise Insulation (Railways and other Guided Systems) Regulations 1996 (the '1996 Regulations')
 - c. If grants for noise insulation works in accordance with the Land Compensation Act 1973 have not already been paid.
- 4.2.6 Temporary rehousing (or the reasonable costs thereof) will be offered to legal occupiers, if :
- a. The predicted or measured noise level exceeds the noise trigger value for temporary rehousing at that property for **at least ten days out of any period of 15 consecutive days** or alternatively for **40 days in any six-month period**

4.3 Groundborne noise and vibration including combined effects (during works)

- 4.3.1 Appreciable vibration will be generated by only a few construction activities and generally only when carried out in close proximity to a property. In the majority of cases, the significant adverse effects of vibration can be avoided by changing the construction method or the detailed implementation of the method, as required by the *CoCP*, and ensured by a Section 61 consent from the local authority. High levels of vibration are therefore unusual and of short duration and will not necessarily constitute a significant adverse effect based on the methodology defined in the *ES*.

- 4.3.2 As a protective contingency, vibration trigger values above which occupants would be exposed to a significant observed adverse effect¹⁶ shall be defined (as required) in the relevant TAP. This is for receptors close to cofferdam construction as a contingency in the event that the local authority were to grant Section 61 consent for an alternative pile driving method as push piling was impossible (as defined in CoCP).
- 4.3.3 Since exposure above the trigger thresholds is unlikely and would be of short duration, exceeding the values set in each TAP will trigger temporary respite accommodation (eg, short-term accommodation in a hotel or equivalent).
- 4.3.4 The facility to provide temporary respite accommodation will be arranged in advance of works that can generate significant observed adverse effects due to vibration. The Undertaker shall increase engagement with occupiers in the lead-up to and during the activity, particularly when the activity first commences. This will be supported by continuous monitoring of noise and vibration. In the event that residents report unacceptable disruption during the activity due to vibration or combined effects of noise and vibration¹⁷, and monitoring confirms that project activities are the source, then temporary respite accommodation will be arranged on a case-by-case basis for the duration of the disruption.
- 4.3.5** Consistent with the Government's noise policy (as defined in Defra's Noise Policy Statement for England, 2010), emerging National Planning Practice Guidance and British Standard 6472-1, trigger values are defined at the threshold for significant observed adverse effect levels (SOAEL) for groundborne vibration and noise inside properties. For noise, exceeding the relevant SOAEL is used as the basis for triggering the provision of noise insulation measures (refer to Section 4.1 of the Policy). However, there are no equivalent insulation measures to reduce vibration levels entering buildings. The Undertaker will therefore avoid people being exposed to significant observed adverse vibration effects for any period longer than one day by providing temporary respite measures.
- 4.3.6 Based on information published by High Speed 2 Ltd¹⁸, the following groundborne vibration and noise levels are considered to be SOAELs.
- 4.3.7 Temporary respite will be triggered if:
- a. the predicted or measured vibration exceeds the following trigger values set at the centre of any floor inside the property (highest vibration):
 - i Daytime (7am to 11pm): a vibration dose value (VDV_b) of 0.8m/s^{1.75}
 - ii Night-time (11pm to 7am): a vibration dose value (VDV_b) of 0.4m/s^{1.75}.

¹⁶ Noise Policy Statement for England, Defra (2010) and emerging National Planning Practice Guidance – Noise.

¹⁷ For example: Airborne noise and groundborne vibration, airborne noise and groundborne noise, or airborne noise and waterborne noise (for houseboats).

¹⁸ HS2 London to West Midlands. Environmental Statement 2013. Appendix SV-001-000: Sound, Noise and Vibration: Methodology, Assumptions and Routewide Assessment.

4 Qualification (residential property)

- b. the predicted or measured groundborne noise exceeds as 45 dB L_{ASmax} measured near, but not at, the centre of any room in a property
- c. the predicted or measured groundborne noise or vibration exceeds the relevant trigger value for a period exceeding one day.

5 Noise insulation or equivalent mitigation

5.1 The process

- 5.1.1 The relevant powers granted to responsible authorities by Regulation 8 of the 1996 Regulations shall be also adopted, as far as relevant and consistent with the Policy. Where these regulations do not apply, eg, cases under Section 7 of the Policy, then specific measures will be developed under the relevant TAP to provide equivalent benefit to the measures defined in the regulations.
- 5.1.2 The Undertaker shall notify in writing the owners and/or occupiers of the identified property that a TAP is to be prepared for their property.
- 5.1.3 The Undertaker shall then make arrangements for specialists to carry out a noise and condition survey of the eligible property. The survey is required to assess the specific details of the property, taking into account any existing features such as double and secondary glazing. The Undertaker will assess existing glazing and ventilation already present in an eligible room and consider what additional insulation work may be required. The survey will include acoustic measurements.
- 5.1.4 Reasonable access must be granted to the Undertaker to complete the survey(s). The Undertaker shall make every practical effort to obtain necessary consents for such access. If access is not granted to the property and appropriate surveys cannot be carried out, then the Undertaker will not be able to put a TAP in place. In such cases, the Undertaker will not be precluded from carrying out the construction works that would give rise to the need to provide appropriate mitigation or compensation.
- 5.1.5 Once the survey(s) are complete, the Undertaker shall confirm specific details of the insulation, or other mitigation, package and identify any additional mitigation measures to be installed under the Policy and any associated work. The specific insulation package shall be defined in the TAP. For example, for secondary or double glazing to be completely effective it should be provided with additional ventilation and or blinds to comply with the specifications in the 1996 Regulations, Schedule I. As described in Section 4, the requirement for insulation defined in the relevant TAP will be confirmed when the contractor secures Section 61 noise consent for its works from the local authority.
- 5.1.6 Once prepared, the TAP will be formally offered to the beneficiary¹⁹ in writing for acceptance. Any acceptance of a formal offer under the Policy must be made in writing by the beneficiary to the Undertaker. The offer letter shall include a timeframe in which to respond. This is because, should the offer be acceptable, then the Undertaker will need to make arrangements to ensure that mitigation measures are put in place prior to the commencement of the construction activity that leads to the need for

¹⁹ Beneficiary means the occupier of the property to which the TAP relates.

that mitigation. In the event that agreement cannot be reached, then the TAP shall be submitted to the ICP for approval or any modifications.

- 5.1.7 Where (a) the offer of noise insulation is accepted and insulation is to be installed by the Undertaker (as opposed to being dealt with through the grant scheme, see below) and (b) the Undertaker is allowed appropriate access to the property but insulation is not installed before an activity which results in a qualification of noise insulation commences, then the contractor may not proceed with that activity (see paragraph 1(b) of the Section 106 unilateral undertaking).
- 5.1.8 Any TAP agreed between the Undertaker and a beneficiary shall go to the ICP for ratification.
- 5.1.9 The Undertaker shall be responsible for obtaining all necessary third-party consents for this work to be undertaken. Where required these will include, for example, planning permission, listed building consents, conservation area consents, building regulations approval and the building owner's consent. These consents will be updated as required in the event of any change in circumstances, for example, a change in tenant.
- 5.1.10 Where, due to the nature or type of building, noise insulation cannot reasonably be installed, affected owners and occupiers shall qualify under the temporary rehousing section of the Policy (Section 6).
- 5.1.11 The Undertaker will ensure that the individual or groups of individuals have the opportunity to discuss the implications of the TAP directly with the Undertaker and will also provide the details of the IAS should they wish to seek independent advice.
- 5.1.12 Once final construction noise levels have been determined and approved by the relevant local authority, the owners and occupiers of properties where the need for mitigation set out in a TAP is triggered shall be notified by the Undertaker in writing. In order that noise insulation, or other equivalent mitigation, is installed before the works that result in the need for noise insulation are started, and to ensure that this doesn't delay the contractor, it may be necessary for the contractor to obtain Section 61 consent for works up to six months or more in advance or for the Undertaker to 'pre-trigger' the TAP (ie commit to proving the mitigation in the TAP without waiting for the confirmation of detailed construction noise levels by a Section 61 consent). The programme for implementing the mitigation or rehousing will be set out and agreed in the TAP so that the Undertaker, contractor and local authority are clear on the 'lead time' for installing the off-site mitigation and this can be taken into account in planning submission dates for Section 61 consents or determining whether to 'pre-trigger' any TAPs.
- 5.1.13 The works shall be monitored throughout to ensure compliance with all commitments, consents and TAPs.
- 5.1.14 In the event that predicted noise levels change and the rehousing trigger value is not exceeded before those works that would previously have triggered an obligation to offer temporary rehousing commence, then the occupier may choose to proceed with rehousing or remain in their dwelling. This is in recognition of the fact that occupiers may make

preparations on the basis of the initial predicted noise levels and TAP and it would be unfair to expect the occupier to change their plans following the final noise assessment.

- 5.1.15 Where a residential property is subject to combined noise and/or vibration impacts, the mitigation response is set out in Section 4.

5.2 Discretionary grants

- 5.2.1 At the request of the claimant, the Undertaker shall consider making a discretionary grant in respect of insulation work so that the claimant may carry out the insulation works themselves. A grant may only be made subject to the following conditions:
- a. Insulation work shall be carried out in accordance with the relevant TAP or the 1996 Regulations, a copy of which shall be provided to the claimant by the Undertaker on request.
 - b. The claimant shall provide the Undertaker with three written competitive quotations, in accordance with the relevant specifications, for the costs of the insulation work.
 - c. The Undertaker shall also provide a comparative cost estimate for review against the three written quotations.
 - d. The final grant payment shall not exceed the final agreed quotation. However, in exceptional circumstances, before any additional works are carried out the cost of those works must be approved by the Undertaker and the additional sum included in the new revised grant payment. The Undertaker's cost estimate for the works will be stated in the formal offer letter; this information shall be provided to the claimant on request of a grant.
 - e. The amount of grant shall not exceed the claimant's estimate of the cost of the insulation works or the actual cost on completion of the work.
 - f. The Undertaker may pay in advance a maximum of 50 per cent of the estimated cost, with the balance payable to the claimant on satisfactory completion of the works.
 - g. The insulation works shall be completed to the required specifications and within the reasonable timeframes prescribed by the Undertaker to ensure completion of the construction works for which insulation is required. Failure to meet this requirement will necessitate the repayment of any and all grant monies paid in accordance with the Policy and, in such a circumstance, this shall not prohibit the contractor commencing the relevant construction works on site.
 - h. In the event that the claimant does not proceed with the insulation works, the Undertaker shall offer to carry out the works.
- 5.2.2 Any acceptance of a grant under the Policy shall be made in writing to the Undertaker providing adequate time for the insulation works to be carried out in accordance with relevant sections of the Policy and the TAP.

5.3 Additional items

- 5.3.1 Any obligation to repair, maintain or make any payments in respect of repairing or maintaining any equipment or apparatus installed under the Policy or to pay for the running costs, shall be defined in the relevant TAP.
- 5.3.2 Nothing in the Policy constitutes an agreement, undertaking or power of the Undertaker to carry out work or make a grant in respect of carrying out work required to correct an existing defect in an eligible building.
- 5.3.3 The Undertaker shall repair any damage to the structure and/or decoration of the property that may occur as part of the installation of the noise insulation.
- 5.3.4 The Undertaker shall reimburse reasonable fees and costs incurred by the claimant to obtain the three quotations in para. 5.2.1b. This will be due with payment of any discretionary grant or when the Undertaker requests the contractor to implement the work.

6 Temporary rehousing (residential general and special cases)

6.1 Temporary rehousing process

- 6.1.1 The Undertaker shall proactively engage owners or occupiers where it identifies that they could be eligible for temporary rehousing in order to:
- a. identify and arrange temporary alternative accommodation to meet the assessed requirements
 - b. provide information and guidance to assist claimants to identify and secure temporary alternative accommodation.
- 6.1.2 The Undertaker shall notify those beneficiaries potentially entitled to temporary rehousing under the terms of the Policy as part of preparing a TAP for their property. The beneficiary will be requested to advise acceptance of temporary rehousing (if the need for such is confirmed at the time of construction) in writing to the Undertaker within 28 days of receipt of notification. The confirmation should provide the following details:
- a. The name and address of the beneficiary and the number of persons to be temporarily rehoused
 - b. Confirmation of the address of the eligible building for which the request is made
 - c. A statement of the capacity in which the beneficiary makes the request, ie:
 - i owner or occupier
 - ii freeholder or leaseholder
 - iii tenant or subtenant.
 - d. Confirmation that temporary rehousing is required
 - e. A statement confirming that one or both of the following services is required:
 - i identification and arrangement of temporary alternative accommodation on behalf of the beneficiary
 - ii provision of information and guidance to enable the beneficiary to identify and secure temporary alternative accommodation.
- 6.1.3 In order to assist the beneficiary in this regard, the Undertaker shall include a temporary rehousing proforma with the notification letter, asking the beneficiary for details of their existing property in order to understand their requirements in relation to an alternative property.
- 6.1.4 In all cases, the Undertaker shall assess the particular requirements of the beneficiary (based on the existing accommodation and location in relation to schools and work place, for example) and seek to formally agree and document these in order to assist in finding suitable temporary rehousing.

Should this not be agreed between the parties, then any disputes will be referred to the ICP for resolution.

6.1.5 On receipt of confirmation of the requirement for temporary rehousing from a beneficiary, the Undertaker shall confirm in writing the applicants' position regarding reimbursement of reasonable expenses (see Section 6.4).

6.1.6 The discretionary powers in respect of temporary rehousing granted to responsible authorities by Section 28 of the Land Compensation Act 1973 (power to pay expenses of persons moving temporarily during construction works, etc) shall be adopted.

6.2 Identifying and organising alternative temporary rehousing

6.2.1 Beneficiaries requesting a service to identify and arrange temporary alternative accommodation shall receive the following services (this list is not intended to be exhaustive and the service will be tailored to the individual beneficiary's requirements following an assessment thereof):

- a. Identifying and arranging temporary alternative accommodation (based on the assessment of the beneficiary's requirements) and the payment of the reasonable costs associated with temporary alternative accommodation
- b. Arranging for removals and the payment of associated costs
- c. Arranging for storage and insurance of personal effects and payment of associated costs
- d. Arranging insurance for vacated properties during any period of temporary rehousing and payment of the associated costs
- e. Identifying and arranging kennelling and/or catteries for pets and payment of associated costs
- f. Arranging disconnection/connection of utilities and payment of associated costs
- g. Identifying local hotels in order to arrange short-term temporary alternative accommodation for applicants and payment of associated costs.

6.3 Information and guidance for arranging temporary alternative accommodation

6.3.1 Beneficiaries who request information and guidance in order to identify and secure temporary alternative accommodation shall receive information on the following issues (this list is not intended to be exhaustive and information and guidance will generally be tailored to the individual claimant's requirements following an assessment thereof):

- a. Information and guidance with regard to letting agencies and other organisations able to provide temporary alternative accommodation

- b. Information and guidance on removal companies and associated costs
- c. Information and guidance on storage and insurance of personal effects and associated costs
- d. Information and guidance on insuring vacated properties during any period of temporary rehousing
- e. Guidance on kennelling or catteries for pets and associated costs
- f. Information and guidance on the requirements for the disconnection/connection of utilities and associated costs
- g. Information and guidance on local hotels and rates for short-term temporary alternative accommodation
- h. Information and guidance on arrangements to ensure reimbursable costs (eg, deposits to secure temporary alternative accommodation) may be agreed and paid as soon as reasonably practicable.

6.3.2 Beneficiaries who arrange temporary alternative accommodation themselves must make a request to the Undertaker in writing at least 28 days prior to the need for rehousing for payment of associated costs. The beneficiary must provide the following details in the request:

- a. The name and address of the beneficiary and the address of the building subject to the noise impact
- b. A written estimate/statement detailing:
 - i costs associated with the temporary alternative residential accommodation to which the beneficiary wishes to relocate for the duration of the works which exceed the noise trigger levels in the relevant TAP
 - ii details of any additional costs (see above and Section 6.4) reasonably or properly incurred as a direct result of temporary rehousing.

6.3.3 The beneficiary shall obtain written agreement from the Undertaker of the estimated costs reasonably associated with temporary rehousing before such costs are incurred, or agreed to be incurred, by the beneficiary.

6.3.4 The Undertaker shall only pay costs up to the amount that the expenses for the temporary alternative accommodation exceed the expenses that the applicant would have incurred if the eligible building had continued to be occupied.

6.4 Assessment of costs in respect of temporary rehousing

6.4.1 The ICP shall assess claims for costs in respect of temporary rehousing on receipt of confirmation of the requirement for temporary rehousing from the beneficiary. The ICP will notify the beneficiary in writing of its decision, which is final.

6.4.2 Reasonable expenses incurred by the beneficiary in respect of temporary alternative accommodation for the beneficiary and members of the

household for the duration of the works which exceed the relevant noise trigger levels shall be agreed by the ICP and paid by the Undertaker. In assessing such expenses, it is accepted that a transition period must be agreed between parties to allow the applicant to move back to the property on completion of the works. The transition period shall be based on individual circumstances but not less than a four-week period unless agreed otherwise.

6.5 Security for eligible buildings

- 6.5.1 Where eligible buildings are unoccupied because the occupants are temporarily rehoused under the terms of the Policy, the Undertaker shall take reasonable measures to ensure the security and any additional insurance of those buildings.
- 6.5.2 The Undertaker shall inform the local police whenever eligible buildings are vacated for the purposes of temporary rehousing.

7 Special cases

7.1 Lightweight dwellings, mobile homes and houseboats

- 7.1.1 Lightweight dwellings, mobile homes and houseboats shall be treated on a case-by-case basis.
- 7.1.2 A specific compensation policy has been adopted for houseboats to address the various tiers of mitigation and compensation available (see Appendix C).
- 7.1.3 The trigger values to be applied are those at Section 4 of the Policy. These will then be adjusted to reflect the sound insulation of the lightweight dwellings, mobile homes and houseboats as measured during surveys to prepare the TAP.

7.2 Residential special cases

- 7.2.1 The Undertaker shall consider the individual circumstances of each potential beneficiary, having regard to the vulnerability of any affected persons residing or using eligible properties and beneficiaries who may have special circumstances (specifically night shift workers, vulnerable persons who are housebound and those with a medical condition that it is proven could be exacerbated by exposure to noise or vibration). Where such individuals are known to the Undertaker, then the Undertaker shall contact them directly through the relevant engagement plans. Individuals who have not raised any issues previously are encouraged to contact the Undertaker directly or contact the IAS for help and advice. On the basis of the predicted or measured noise levels, the ICP shall consider whether there is a case for noise insulation or temporary rehousing and such provision may be made accordingly. Any disputes shall be passed to the ICP for resolution.
- 7.2.2 Trigger values for special cases may be different to those for other cases addressed in the Policy and may require agreement of additional mitigation measures.
- 7.2.3 The ICP shall apply any relevant government policy to special cases and will draw upon the specific relevant standards and guidance such as that provided in Appendix B.
- 7.2.4 In the absence of specific information the following trigger values shall be applied by the Undertaker:
 - a. Night/Shift worker: The night-time trigger values in Section 4 of the Policy shall apply during the day and evening
 - b. Vulnerable persons (as defined above): For airborne and groundborne noise temporary rehousing/respice-accommodation trigger levels at Section 4 of the Policy minus 10 dB shall apply. For groundborne

vibration the trigger values at Section 4 of the Policy divided by 2 shall apply.

7.3 Non-residential sensitive buildings

- 7.3.1 The Undertaker shall consider non-residential buildings occupied by noise- or vibration-sensitive receptors such as medical facilities, educational and religious establishments or businesses with especially noise or vibration sensitive operations or equipment on a case-by-case basis.
- 7.3.2 In preparing TAPs, the Undertaker shall carry out a review of the building and, in accordance with guidance in recognised national standards, determine suitable internal noise levels to compare to predicted or measured construction noise levels. Allowing for the duration of the relevant works, the Undertaker will identify any need to improve noise insulation for such receptors, or other such mitigation, and determine the form such insulation should take. These measures will then be agreed with the beneficiaries. Where agreement cannot be reached, the ICP shall determine the outcome.
- 7.3.3 The requirement for mitigation shall be triggered where the total noise²⁰ inside or outside the building (as relevant to the building use) due to the project exceeds the relevant significant observed adverse effect level that will determined by:
- a. either appropriate guideline value (lowest observed adverse effect level) in Appendix B plus 5 dB
 - b. or the existing ambient level plus 5 dB, whichever is the higher.
- 7.3.4 Mitigation provided under a TAP shall minimise the adverse effect of project construction noise inside or outside the building (as relevant to the building use) as far as is reasonable and practicable with the aim of the total noise, with mitigation in place, being no higher than:
- a. either the appropriate guideline value in Appendix B
 - b. or the existing ambient level plus 3 dB, whichever is the higher.

7.4 Others

- 7.4.1 Other parties who do not fall into the categories above are encouraged to approach the Undertaker directly or contact the IAS for help and advice. On the basis of predicted or measured noise levels or combined effects, the ICP shall consider whether there is a case for noise insulation or temporary rehousing and such provision may be made accordingly.
- 7.4.2 There may be circumstances in which individuals do not qualify under the above special cases but believe that they merit consideration due to the impact of the project on them. These individuals should contact the Undertaker, who shall give the matter due consideration. In such circumstances, any mitigation or compensation measures will be provided at the absolute discretion of the Undertaker. Any dispute or appeal

²⁰ Project construction noise logarithmically added to the ambient noise

against the decision of the Undertaker in such circumstances shall be directed to the ICC.

8 Damage or loss

8.1 Compensation for damage or loss

- 8.1.1 Where possible, the Undertaker shall put in place onsite or off-site mitigation measures to reduce the impact and effects of the project. All reasonably anticipated adverse effects of the worksites will be continually monitored and addressed as appropriate. However, the Undertaker recognises that disturbance may be experienced and financial loss or damages incurred for which the Undertaker needs to pay compensation. Such claims fall outside of the statutory regime for compensation.
- 8.1.2 In circumstances where the potential for a claim is recognised in advance, the applicant and the Undertaker may enter into an agreement (similar to a TAP) which captures agreed actions to be taken and mechanisms to provide support before or during any period of disruption leading to a financial loss. The agreement could include (but not be limited to) details of monitoring, timings of reviews of accounts, how any interim payments may be made, how and when fees may be paid and any particular matters.
- 8.1.3 This approach ensures that no potential claimant has to have suffered a loss before making a claim. Such conditional agreements will enable applicants to be compensated promptly should they subsequently incur any direct loss. All agreements shall be approved by the ICP.
- 8.1.4 Where no such pre-agreement is in place, then a claim may be submitted directly to the ICP.

8.2 Claims process

- 8.2.1 An applicant for compensation for damage or loss may submit a claim to the ICP where that party:
- a. has a reasonable, valid and evidentially supportable claim which arises as a direct consequence of the Undertaker's construction works and related activities
 - b. is able to set out how they are affected by the work and any personal factors which may influence the impact of those works
 - c. is able to demonstrate they have a legal interest in the property that is the subject of the claim
 - d. is not making any other claims against the Undertaker in respect of mitigation disturbance or nuisance arising from the project for the same circumstances (statutory or non-statutory)
 - e. or where the property has not already been the subject of mitigation measures or a compensation payment under a project scheme dealing with the same impacts.

- 8.2.2 Any award for a claim for financial compensation shall be subject to the claimant acting reasonably and, in particular, seeking to reasonably mitigate the loss or damage.
- 8.2.3 In each case, such claims shall be put to the ICP for assessment, taking into account all relevant and unique factors. This may involve requests for further information or a period of monitoring to confirm the appropriate outcome. Ultimately, a determination by the ICC will be final and binding on all parties.
- 8.2.4 Where an affected person is unsure whether they qualify for such compensation, they may contact the IAS for help and advice in the first instance.

Glossary

Term	Description
A-weighted	The A-weighted sound level, expressed as 'dB(A)', allows for the frequency-dependent characteristics of hearing. Corrections are applied for each octave band, and the resultant values summed, to obtain a single overall level.
beneficiary	An owner or occupier of an eligible building who makes a request, or is made an offer under the <i>Non-statutory off-site mitigation and compensation policy</i> .
construction	The construction works required for the project which fall within the remit of the project <i>Code of Construction Practice</i>
decibel (dB)	Logarithmic ratio used to relate sound pressure level to a standard reference level.
eligible buildings	Dwellings lawfully used by claimants for habitation.
eligible room	A living room or a bedroom having a qualifying door or window in any eligible building.
equivalent continuous sound pressure level (L_{eq})	Another index for assessment of overall noise exposure is the equivalent continuous sound level L_{eq} . This is a notional steady level which would, over a given period of time, deliver the same sound energy as the actual time-varying sound over the same period. Hence fluctuating levels can be described in terms of a single figure level. The A-weighted L_{eq} is denoted as L_{Aeq} .
façade	The face of a building.
insulation work	Work carried out to insulate an eligible building against noise including adequate ventilation and potentially blinds.
L_{ASmax}	The instantaneous maximum sound level measured on the A weighted scale occurring during an event, measured with the slow 'S' time response
Lowest Observed Adverse Effect	An adverse effect resulting from exposure to levels greater than a Lowest Observed Adverse Effect Level in accordance with the Policy Statement for England and emerging National Planning Practice Guidance
Noise Insulation (Railways and other Guided Systems) Regulations 1996	The inclusion of the criterion to meet the requirements of these regulations provides a recognised framework under which noise insulation would be provided. This ensures that the insulation measures are commensurate with other noise insulation policies for large construction projects within London (eg, Crossrail, East London Line, Channel Tunnel Rail Link). This ensures a minimum standard of performance for any noise insulation work carried out.
qualifying door and qualifying window	Have the meanings assigned to them in Part I of Schedule 1 of the 1996 Regulations.
Significant effect	As defined in the Environmental Statement and reported in the ES Update Report

Term	Description
Significant Observed Adverse Effect	A Significant effect resulting from exposure to levels greater than a Significant Observed Adverse Effect Level in accordance with the Policy Statement for England and emerging NPPG. Note that only some significant effects reported in the ES and ES update are at this level
the route	The main tunnel from Acton Storm Tanks to Abbey Mills Pumping Station and the construction works at Beckton Sewage Treatment Works.
the Policy	The <i>Non-statutory off-site mitigation and compensation policy</i> .
the 1996 Regulations	the Noise Insulation (Railways and Other Guided Transport Systems) Regulations 1996
the relevant specifications	The items in Part I of Schedule 1 to the 1996 Regulations, such of the items in Part II of Schedule 1 as may be approved by the policy operator and such of the specifications set out in Part III of Schedule 1 as are applicable in the circumstances of the case or items whose performance is equivalent thereto.
the works	The construction works associated with the project and other works deemed by the policy operator to be within the scope of the Policy.

Appendix A: No longer used

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Appendix B: Published literature on recommended internal noise levels for developing TAPs for special cases

- B.1.1 BS5228-1: 2009 + A1: 2014 Code of Practice for Control of Noise and Vibration from Construction and Open Sites
- B.1.2 Noise Policy Statement for England, 2010. Defra
- B.1.3 Beta version of National Planning Practice Guidance, 2013, DCLG
- B.1.4 BS8233 (1999) Sound Insulation and Noise Reduction for Buildings. Code of Practice. British Standards Institution.
- B.1.5 Education Funding Agency (2012). Acoustics Performance Standards for the Priority Schools Building Programme. Department for Education. The Stationery Office Limited.
- B.1.6 Stationery Office (2011) Acoustics: Technical Design Manual 4032:0.3. The Stationery Office Limited.
- B.1.7 British Council for Offices (2009). Guide to Specification. The British Council for Offices.

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Appendix C: Houseboat mitigation and compensation policy

Thames Tideway Tunnel

Houseboat mitigation and compensation policy

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1 Introduction

- 1.1.1 The *Houseboat mitigation and compensation policy* is an annex to the *Non-statutory off-site mitigation and compensation policy* which identifies houseboats as 'special cases' for the assessment of compensation claims resulting from noise.
- 1.1.2 Houseboat owners and tenants may be eligible for mitigation or temporary rehousing. This could include one of the following measures; noise mitigation (where practicable), rehousing on land or relocation of houseboats and/or residents. All claims for mitigation or compensation will be assessed on case-by-case basis.
- 1.1.3 Putney Pier houseboats and Nine Elms Pier houseboats have been identified as special cases and as per Section 8 of the *Non-statutory off-site mitigation and compensation policy*, trigger action plans (TAPs) will be prepared.
- 1.1.4 Although the houseboats in 1.1.3 have been identified as special cases, other houseboats may also fall within this category and these will be assessed according to the individual circumstances of each case. Parties who believe they may be eligible can discuss their concerns with the Undertaker directly or contact the IAS.
- 1.1.5 TAPs will be prepared in accordance with the *Non-statutory off-site mitigation and compensation policy* following consultation with the beneficiary and the relevant London Borough.
- 1.1.6 Where qualification for mitigation or compensation is triggered, the Undertaker is responsible for the implementation and funding of the mitigation or compensation.
- 1.1.7 The IAS will provide potential applicants with free and independent advice in respect of the *Houseboat mitigation and compensation policy*.

2 Qualification

- 8.2.5 Mitigation or compensation for houseboat owners and/or residents will be offered to qualifying parties when construction noise from the project works exceeds the trigger levels set out in the *Non-statutory off-site mitigation and compensation policy*. The trigger values to be applied are those at Section 4 of the *Non-statutory off-site mitigation and compensation policy* which will then be adjusted to reflect the sound insulation of the lightweight dwellings, mobile homes and houseboats as measured during surveys to prepare the TAP.
- 2.1.1 Other significant impacts from project works, such as dust and light interference, may also trigger compensation.

3 Houseboat mitigation and compensation

- 3.1.1 Three tiers of compensation have been established for assessing the level of mitigation or compensation a houseboat owner or occupier may receive. These tiers apply across all project sites.
- 3.1.2 Each application for mitigation or compensation from a houseboat owner or resident will be assessed on a case-by-case basis, and the level and extent of any mitigation or compensation will depend on the following factors:
- a. whether the houseboat is required to move to accommodate the project works
 - b. the extent and duration of noise, cumulative affect or other impact on the vessel
 - c. the length of licence/security of tenure the houseboat currently enjoys
 - d. the basis on which the houseboat is occupied (ie, owner occupied or tenanted).
- 3.1.3 TAPs will be prepared following consultation with the beneficiary and the relevant London Borough for individual houseboats, or groups of houseboats at Nine Elms Pier and Putney Pier.
- 3.1.4 Each TAP will define noise and vibration trigger values, and the mitigation or compensation package to be implemented in the event that those trigger values were exceeded for predefined periods.
- 3.1.5 See the *Non-statutory off-site mitigation and compensation policy* for further information on TAPs.

3.2 Tier 1 mitigation and compensation: Houseboats requiring relocation

- 3.2.1 Tier 1 will apply to houseboat owners whose vessels need to be moved to accommodate the project works.
- 3.2.2 The project team is aware of vacant moorings and houseboats for sale with mooring rights along the River Thames.
- 3.2.3 Houseboat owners requiring relocation will be offered alternative moorings as close to their present mooring as possible. As the need arises, the Undertaker will proactively purchase rights at alternative locations in order to secure locations to move affected houseboat owners or residents. These would, as a minimum, match the security of tenure they currently enjoy. For owners that rent out their houseboats, the Undertaker will offer compensation for loss of income to the owner, and arrange and pay for their vessel to be stored for the duration of works, subject to agreement with individual owners.
- 3.2.4 Alternatively, houseboat owners may request that they are compensated by prior agreement with the Undertaker and surrender their mooring rights. Compensation payable will be agreed between parties and agreed with

the ICP. Recognising issues associated with community and scarcity the undertaker will use reasonable endeavours and work with parties to help achieve the solution desired in each individual case.

3.3 Tier 2 mitigation and compensation: Houseboat owners

3.3.1 Tier 2 compensation will apply to houseboat owners whose boats are not required to move for project works but where there may be significant adverse impacts from noise, dust or other cumulative effects caused by project construction activity.

Owner-occupier residents

3.3.2 Should limits set out in the *Non-statutory off-site mitigation and compensation policy* be exceeded, owner-occupied houseboats would be offered noise mitigation, where this is practical, or an alternative mooring or houseboat elsewhere. Alternative accommodation on land may also be provided where this is preferred by the owner.

3.3.3 The duration of any agreement will be agreed through negotiation with individual owners on a case-by-case basis. This will take into account the length of licence the owner has and the duration and level of any significant adverse noise effect. This will be documented within the TAP.

Houseboat owners with tenants

3.3.4 Houseboat owners with tenants that are unable to occupy due to trigger values being exceeded will not be financially disadvantaged. A compensation package will be agreed through negotiation which reflects any loss of income, detailed in Section 8 of the *Non-statutory off-site mitigation and compensation policy*.

Noise insulation

3.3.5 Due to the nature and construction of houseboats, they are inherently difficult structures to insulate. However, should a houseboat owner request it, an assessment of a vessel may be carried out to establish if the installation of noise insulation measures would have mitigate noise from the project worksites.

3.3.6 In circumstances where noise mitigation may be practicable, measures, such as secondary glazing or standalone air-conditioning, may be fitted, subject to the constraints of individual houseboat design and agreement with the houseboat owner.

3.4 Tier 3 compensation: Houseboat tenants

3.4.1 Tenants of houseboats who are unable to remain in occupation may be offered a mitigation package reflecting their individual circumstances and security of tenure. This may include temporary rehousing on land for a short period. This will be documented within the relevant TAP.

3.5 Post-construction

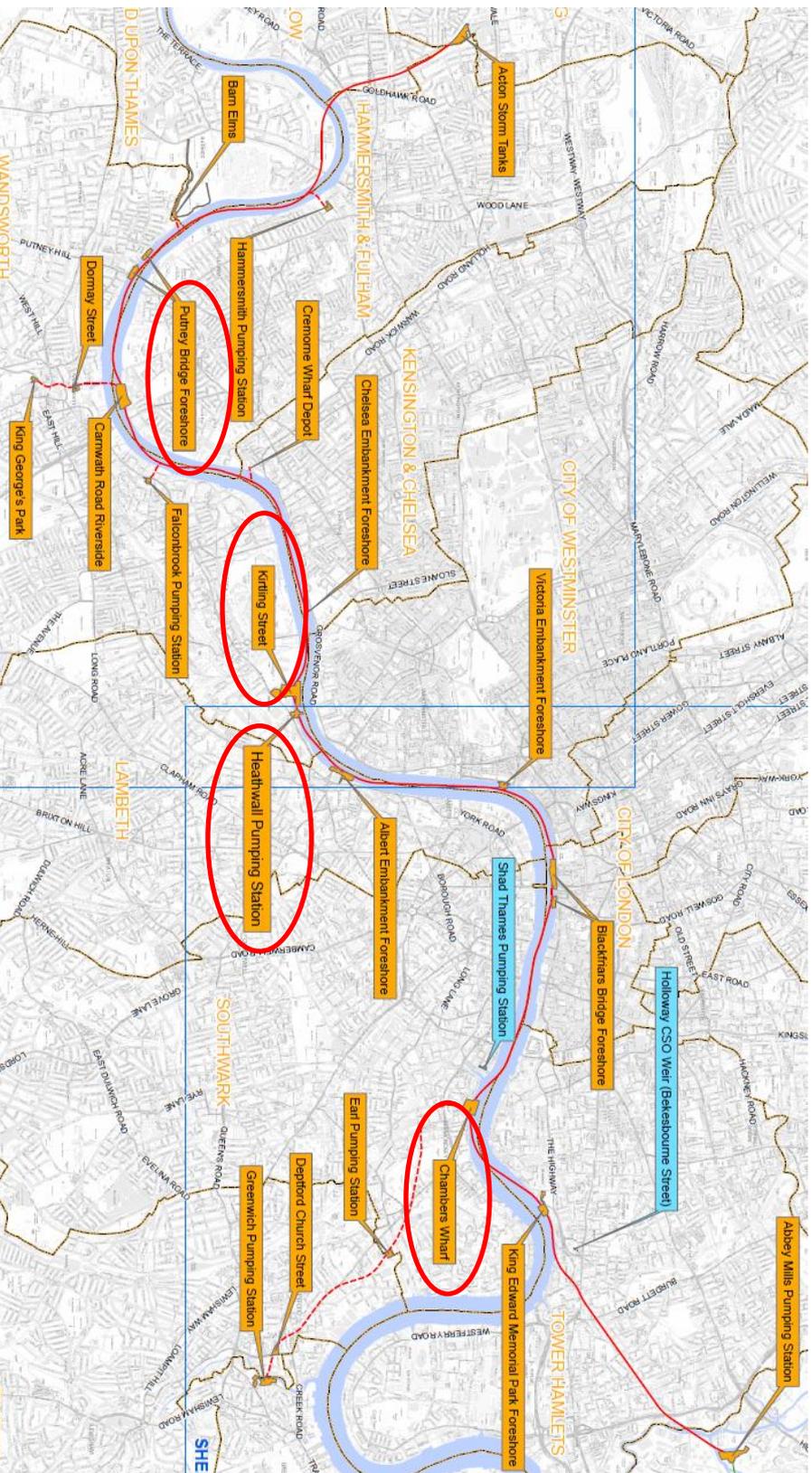
- 3.5.1 The Undertaker will seek to secure the ability of houseboats to return to moorings wherever they have been moved as part of the authorised works by endeavouring to agree with licensors that licences will not be terminated. However it should be noted that the Undertaker is unable to guarantee that houseboats will be able to return to their original mooring as the Undertaker will not have the legal right to grant licences to houseboat owners on third party moorings.
- 3.5.2 The Undertaker will endeavour to ensure that moorings are clear and physically able to be used once construction is complete. In the unlikely event that a mooring becomes physically obstructed as a result of the construction works and it is not possible to rectify this, then the Undertaker will compensate the owner and/or the licensee for losses sustained.
- 3.5.3 Compensation will be assessed on a case by case basis in accordance with the *Houseboat mitigation and compensation policy* and the houseboat owners' pre-existing rights.

4 Site-specific issues

- 4.1.1 There are three work sites where the Undertaker anticipates construction works will, or may, have a significant observed adverse effect on houseboat communities:
- a. Putney Embankment Foreshore (Section 6)
 - b. Kirtling Street (Section 7)
 - c. Heathwall Pumping Station (Section 7)
- 4.1.2 Should significant adverse effects on houseboats be identified at any other site during the project, parties should contact the IAS in the first instance.
- 4.1.3 At Putney Embankment Foreshore and Kirtling Street, there will be houseboats that need to be moved and others that remain where it has been identified that significant adverse impacts may result from the project construction works.
- 4.1.4 In addition, houseboats in the proximity of Chambers Wharf may experience impacts or cumulative impacts due to noise from the site or other impacts, and as such will be treated as special cases.
- 4.1.5 A map showing the location of the four affected sites can be found in Section 5.

5 Houseboat locations

Figure 5.1 Map of houseboat locations



6 Putney Embankment Foreshore

- 6.1.1 The project works at Putney Embankment Foreshore would be adjacent to Putney Pier and require the relocation of one houseboat.
- 6.1.2 Illustrative construction plans, submitted as part of the application for development consent, have allowed for the relocation of the affected houseboat to moor alongside the other houseboat on the pier. However, this may not be possible due to access issues. An annotated plan can be found below in **Figure 6.1**.
- 6.1.3 The houseboat owner may be eligible for relocation to an alternative mooring or other compensation package, subject to individual agreement with the owner, as outlined in Section 3 above.

Figure 6.1 Annotated plan of proposed barge relocation

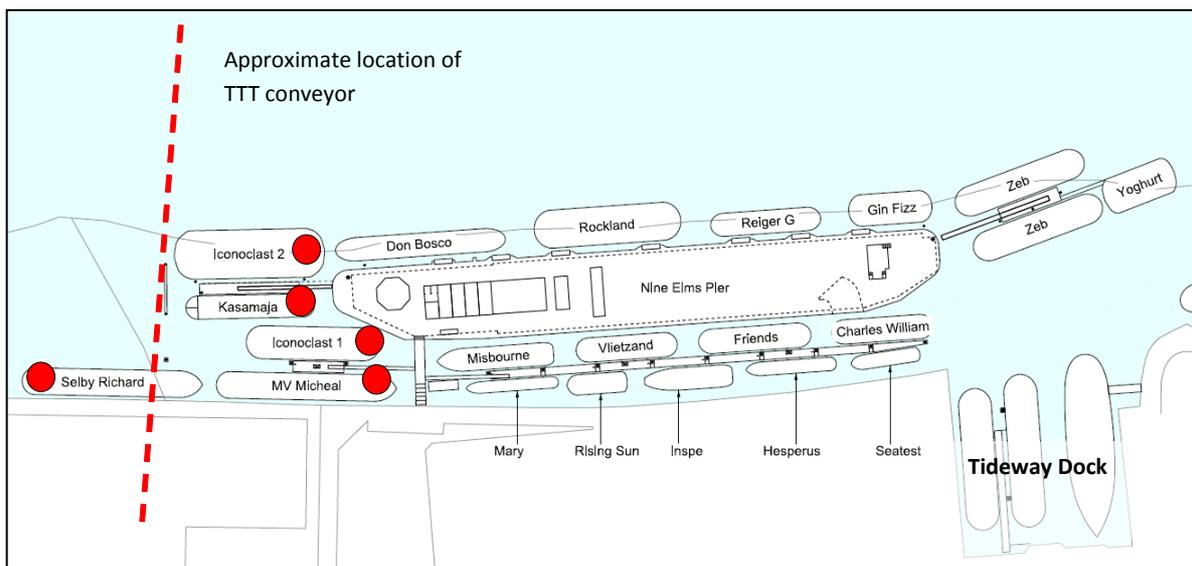


7 Kirtling Street and Heathwall Pumping Station

7.1 Nine Elms Pier

7.1.1 The project works at Kirtling Street would be adjacent to Nine Elms Pier, on which 21 houseboats are moored, five of which would require relocation for the construction of a conveyor to take spoil to the new project jetty. See Figure 7.1 below for an annotated plan of Nine Elms.

Figure 7.1 Annotated plan of proposed barge relocation



● Houseboats that need to be moved for construction of TTT conveyor

- 7.1.2 The pier is owned by Nine Elms Pier Ltd, which has a licence from the Port of London Authority and Crown expiring in 2051. There are six directors of Nine Elms Pier Ltd who own eight of the houseboats on the pier; their houseboats have a recognisable legal interest in the pier, expiring at the same time as the Crown/Port of London Authority licence in 2051. Other houseboats on the pier have three-month rolling licences.
- 7.1.3 The five houseboats that require relocation for the construction of a new project conveyor will, subject to individual agreement, be offered compensation in accordance with the tiers of compensation outlined in Section 3 above.
- 7.1.4 Houseboats remaining on Nine Elms Pier that do not require relocation for the project works may also be eligible for compensation should noise breach thresholds set out in the *Non-statutory off-site mitigation and compensation policy*. Other significant adverse impacts may also result in compensation being offered to houseboat owners and/or residents, subject to individual circumstances.

7.2 Tideway Dock

- 7.2.1 Tideway Dock is located in between the project construction sites at Kirtling Street and Heathwall Pumping Station.
- 7.2.2 There are three vessels moored in the dock which, between them, house circa 100 residents.
- 7.2.3 It is anticipated that the vessels in the dock would not be significantly affected by noise from the project works at Kirtling Street. The vessels are moored in an inset in the river wall, as shown in Figure 6.1 above.

8 Chambers Wharf

- 8.1.1 Chambers Wharf is located on the southern bank of the River Thames, circa 750m east of Tower Bridge. There are two houseboat communities:
- a. Hermitage Community Moorings is located approximately 200m north of Chambers Wharf on the opposite bank of the River Thames and provides berths for 20 vessels.
 - b. Downings Road Moorings is located circa 80m upstream of the Chambers Wharf site and provides berths for 43 vessels.

References

ⁱ British Standards Institution, *BS 5228 Code of Practice for Noise and Vibration Control on Open Construction Sites*, British Standards Institution (2009).

Appendix 4
Settlement Information Paper

Thames Tideway Tunnel
Thames Water Utilities Limited



Application for Development Consent

Application Reference Number: WWO10001

Settlement Information Paper

Doc Ref: **APP191**

Folder **236**
3 March 2014

DCO-DT-APP-ZZ100-910000

**Thames
Tideway Tunnel** 
Creating a cleaner, healthier River Thames



Settlement Information Paper

Asset protection process

Regulation 5(2)(q)

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Thames Tideway Tunnel Settlement Information Paper

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1 Executive summary

- 1.1.1 This paper explains the approach taken by Thames Water to the assessment, monitoring and mitigation measures to be implemented as part of the asset protection process being carried out for the Thames Tideway Tunnel project (the 'project'). In this paper reference to the Employer is to the party responsible for the delivery of the project being the party in whom the powers of the DCO are vested. That is Thames Water Utilities Limited, and/or the body to whom powers are transferred under the DCO to deliver the project.
- 1.1.2 Assessment works were carried out to determine the extent of predicted ground movements and the resulting impacts on existing infrastructure and buildings which may be caused by the construction of the project. This was to confirm either that these impacts would be acceptable or identify the need for mitigation works or special tunnelling measures. The assessments were based on approaches proven on other major projects undertaken in London including the Jubilee Line Extension, Channel Tunnel Rail Link (High Speed 1) and currently the Crossrail project.
- 1.1.3 A risk-based, staged approach was used to establish the predicted impact and identify whether any special protective measures would need to be implemented to ensure the safe construction of the project. The approach used conservative assumptions to identify whether assets would be at risk of negligible damage or less and then used progressively more sophisticated analyses to evaluate the impact on the remainder of the assets not within this risk of damage category.
- 1.1.4 The design of the project was developed to have very deep tunnels relative to other tunnelling projects, which would help to minimise the impact on existing infrastructure and buildings.
- 1.1.5 This paper explains the processes and procedures followed to date and those to be used during construction to manage the interfaces with third-party infrastructure and buildings as the works progress. This includes pre-construction condition surveys and appropriate monitoring to provide the necessary assurance that the behaviour of the ground in response to the construction works is as predicted, as shown in Appendix C.
- 1.1.6 Detailed assessments were carried out on all listed buildings within the potential zone of influence of the main tunnel. The risk of damage due to predicted ground movements as well as the heritage sensitivity, condition and structural form of the building were assessed. Intrusive mitigation measures would not be required or appropriate for any buildings.
- 1.1.7 Thames Water has developed a policy under which certain procedures may be implemented for eligible owners in order to monitor changes attributable to the project with a view to assisting in any claim for statutory compensation. A deed to secure these commitments, will be offered in qualifying cases. The process for the deed is illustrated in Appendix C.

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2 Asset protection process

2.1 Background

- 2.1.1 The approach adopted for assessing the impacts of the construction works on third-party infrastructure and buildings is based on extensive experience of excavation and tunnelling works within London. This includes recent major tunnelling projects such as the Jubilee Line Extension and the Channel Tunnel Rail Link (High Speed 1).
- 2.1.2 These projects established proven methods to assess the impacts of construction-related ground movements on infrastructure and buildings, which were verified by measurements of the resulting ground movements and the response of existing infrastructure and buildings. The same approaches are currently in use on the Crossrail project to assess the risk of damage to buildings.
- 2.1.3 The project requires the construction of tunnels, shafts and other combined sewer overflow interception works. These excavations would cause some ground movements in the vicinity of the works, which may have some impact on existing infrastructure and buildings depending on their location and proximity to the works.
- 2.1.4 The extent of the ground movements caused by the project would depend on several factors including the size and depth of the construction works, existing soil conditions and the methods of construction. The response of the structure to these ground movements would be influenced by the type of structure, its condition, and its foundations.
- 2.1.5 Thames Water has implemented a rigorous asset protection process to support the design submitted with the application for development consent. The potential impacts were predicted and the need for special protective measures identified.
- 2.1.6 The project was designed to maximise the length of main tunnel drives and connections under the river in order to minimise the number of interfaces with third-party infrastructure and particularly with buildings. This is advantageous when compared to the railway projects mentioned above, which are predominantly under land and include the construction of large station tunnels, cross passages, ventilation shafts and station concourses within the city to distribute passengers.

2.2 Approach to impact assessment works

- 2.2.1 A risk-based, staged approach was adopted to assess all third-party infrastructure and buildings that may be impacted by the ground movements arising from the construction of the project.
- 2.2.2 Comprehensive ground investigations were carried out for the project to provide detailed information about the ground conditions along the route of the main tunnel. The information was used in design development and assessment of impacts on third-party infrastructure and buildings. It would

also be used by the contractor to develop construction methods to minimise impacts.

- 2.2.3 'Greenfield' settlement contours were generated for the project based on proven empirical formulae to determine the predicted ground movements arising from construction accounting for both the assumed horizontal and vertical tunnel alignments and the location of the shafts. These are movements at the ground surface, calculated on the premise that the ground is a 'green field' (ie, free of development) and are a conservative prediction.
- 2.2.4 A zone was identified within which the predicted ground movements would be 1mm or more. A 5m buffer zone, equivalent to the alignment adjustment allowed within the limit of deviation for the main tunnel, was added to the 1mm contour to provide an envelope for the potential zone of influence. The assets within this envelope and their owners were identified. This involved an extensive exercise that included searches of historical records and discussions with local authorities and other statutory bodies, as well as the diligent enquiry exercise required by the Planning Act 2008 to identify those who may have a relevant claim.
- 2.2.5 All known existing and proposed assets identified within the potential zone of influence were recorded along with a classification of the type of asset including bridges, tunnels, flood defences, utilities and buildings (distinguishing those that are listed).
- 2.2.6 Assessment works were carried out to establish the predicted impact of the project on these assets. The assessments were used to identify any potential mitigation works and to inform any monitoring requirements.

2.3 Impact assessment works: Non-listed buildings

- 2.3.1 All non-listed buildings within the potential zone of influence of the tunnels, shafts and associated works were classified according to the structural type of the building to establish an appropriate assessment method. Principally the buildings were classed as follows:
- a. Class 1: Load bearing masonry buildings on shallow foundations.
 - b. Class 2: Framed buildings with masonry infill and possibly piled.
 - c. Class 3: Buildings not in 'Class 1 or 2', but subject to less than 10mm settlement and <1:500 gradient¹ and not considered to be 'sensitive' to ground movements.
 - d. Class 4: Buildings not in 'Class 1 or 2' and subject to more than 10mm settlement or >1:500 gradient or structures identified as being 'sensitive' to movement.
- 2.3.2 Following the assignment of the building class, the damage category for the buildings was assessed using a method appropriate to the type of building.

¹ Maximum gradient of predicted settlement trough at surface

- 2.3.3 Burland (1995) proposed a framework that defines potential damage based on calculated tensile strains for a deep beam and related this to approximate crack widths likely to occur and degrees of damage severity based on ease of repair. This framework is shown in the table in Appendix A.
- 2.3.4 The classification system developed by Burland for load bearing masonry structures was used to assess Class 1 and Class 2 buildings. It also provided a useful framework for Class 3 and Class 4 buildings.
- 2.3.5 Buildings in Class 3 were appraised following a review of available information about the building against the predicted ground movements to ascertain whether these were within the 'negligible' damage category, or otherwise they were assessed as a Class 4 building.
- 2.3.6 Class 4 buildings were subject to external visual surveys to determine factors such as the likely presence of basements and any designed movement joints in the facade of the building. Settlement diagrams were produced for each of the Class 4 buildings to assist with the process of determining damage category.
- 2.3.7 A damage category, as shown in Appendix A, was assigned based on an appraisal of ground movements and review of the structural form of the building. Buildings assessed to have a damage category of greater than 2 'Slight', or those where more detailed information was required to make an assessment were subject to further assessment.
- 2.3.8 For the vast majority of buildings, the assessment determined that they have a 'negligible' risk of damage due to the project. Some buildings were assessed as having 'slight' or 'very slight' risk of damage. Only a few buildings were identified as having a potential 'moderate' risk of damage in accordance with either the Burland (1995) damage framework, or by structural assessment.
- 2.3.9 Following this assessment, a total of 46 non-listed buildings qualified for a more detailed assessment, either because they were considered to be particularly sensitive, or because of their proximity to construction sites.
- 2.3.10 Following more detailed assessment, two of the 46 buildings were classified as being potentially subject to 'moderate' risk of damage. For one of these, 'in tunnel' measures as described in para. 3.1.2 were identified as being sufficient to reduce the risk of damage to slight and these measures would be employed to mitigate this risk of damage.
- 2.3.11 The other 44 of the 46 buildings were classified as being potentially subject to 'slight' risk of damage or lower. Therefore this risk would be managed effectively using a suitable monitoring regime (see Section 3.2 for further details).
- 2.3.12 Details on other measures that would be implemented during the construction phase including building surveys and repair works are explained in Sections 3.3 and 3.5.

2.4 Impact assessment works: Flood defences

- 2.4.1 Flood defence assets within the potential zone of influence, including river walls, embankments, slipways, steps, walls, outfalls and sluices, were categorised according to the following key parameters:
- a. wall construction type and construction material
 - b. river bed level in front of asset
 - c. flood defence level and statutory defence level
 - d. Environment Agency condition grade
 - e. other sensitivity to ground movement (eg, listed structure)
 - f. approximate founding level of asset.
- 2.4.2 Visual inspections were carried out to supplement the existing record drawings and other details provided by the Environment Agency and others relating to the flood defence assets.
- 2.4.3 The initial stage of assessment involved assessing different river walls against a set of screening criteria to evaluate the impact of construction works. A number of assets were shown to be subject to negligible impact. For 69 per cent of the flood defence assets along the route of the tunnel, it is predicted that the ground movements will have no impact on the global stability or serviceability of the structure.
- 2.4.4 Further assessment was carried out on the remaining 31 per cent of assets where a greater impact was predicted. In addition to the impact on structures which are currently in very poor condition, increases in the stress in tie-rods in tied structures was the only structurally significant issue identified in the assessment of the river walls that could result from ground movements along the route of the tunnel.
- 2.4.5 Flood defences in the vicinity of construction sites were subject to an assessment of construction-related impacts in addition to ground movement, including where applicable:
- a. excavation in front of river walls
 - b. excavation to rear of walls in vicinity of tie-rods
 - c. additional surcharge loading immediately to the rear of the asset
 - d. increased water differential for walls within temporary cofferdams
 - e. scour due to modified fluvial flow
 - f. additional surcharge loading set back from the rear of the asset
 - g. dewatering as part of shaft construction.
- 2.4.6 A similar approach was adopted for the impact of surface construction at worksites in the vicinity of river walls. The initial stage of assessment involved assessing different river walls against a set of screening criteria to evaluate the impact of construction works. A number of assets were shown to be subject to negligible impact. Further asset-specific assessment was undertaken at some locations and, for approximately 40

per cent of the structures assessed, it was concluded that some form of mitigation would be required.

2.4.7 Potential mitigation options for different flood defences were evaluated where considered to be a potential requirement, both for the river walls along the tunnel route and those affected by work at construction sites. A generic list of possible mitigation strategies was developed and the applicability of each was considered for each location. Considerations included site constraints and asset-related constraints.

2.4.8 In many cases it was considered that the risk to the flood defences could be mitigated using 'in-tunnel' control measures as described in para. 3.1.2 or constraining construction activities so as to avoid the impacts. In other cases, predominantly associated with shaft sites, temporary support, wall strengthening and/or wall replacement were considered as potential options. Confirmation of the need for such mitigation solutions and their design is subject to further investigations and development by the works contractor.

2.5 Impact assessment works: Utilities

2.5.1 In addition to diverting a number of utilities to accommodate the construction of the project, assessments were carried out to determine the impact of the construction on other assets belonging to the utility companies. These assessments were carried out for sensitive utility assets within the potential zone of influence.

2.5.2 For water mains, sewers and gas mains the strains, joint rotation and pull out due to the predicted ground movements were assessed. These were compared to acceptance criteria that took account of the type of material, diameter and type of construction, which had been agreed with the appropriate asset owner.

2.5.3 More detailed assessments were then carried out on the assets that failed the acceptance criteria to identify those that would require protective measures to be implemented prior to construction.

2.5.4 Potentially vulnerable electricity assets were identified in consultation with the owner and the acceptable limits of deformation which would not cause damage were agreed. The assessments predicted no adverse impact on these electricity assets.

2.6 Impact assessment works: Tunnels and bridges

2.6.1 All tunnels and bridges located within the potential zone of influence were identified and a detailed assessment of each was carried out in consultation with the asset owner, where possible.

2.6.2 A visual inspection was carried out where access was feasible for each asset to ascertain the existing structural condition. Owner inspection reports and existing record drawings (where available) were used to inform the numerical models of the bridges and tunnels, which were

developed to enable the potential impact of the construction of the project to be assessed.

2.6.3 The assessments indicated that, with the exception of two assets, no direct protective mitigation measures would be required. The two assets requiring substantial protective measures are existing Thames Water tunnels in west London, which will require a secondary lining to be installed before the main tunnel is constructed above them.

2.6.4 Further assessments to take account of the contractor's method of construction, condition and structural surveys would be carried out adjacent to these interfaces where necessary on behalf of the Employer prior to construction. The details of these surveys, monitoring and any necessary remedial works would be developed prior to construction in discussion with the asset owners.

2.7 Impact assessment works: In-river structures

2.7.1 Visual inspections were carried out for 45 in-river structures within the zone of influence to obtain information; including materials and structural form, condition including existing defects, proximity of historic buildings or moored vessels and operational functions. These structures included wharves, piers, jetties, weirs and locks.

2.7.2 The impact of predicted ground movements on these structures was assessed and 13 structures were predicted to be subject to less than 1mm vertical settlement. Six structures required further detailed assessment.

2.7.3 Detailed assessment showed that three of the six structures would satisfactorily accommodate the predicted ground movements. However, the Thames Water-owned Middle Wharf jetty (Kirtling Street) would require mitigation measures due to predicted ground movements from the connection tunnel.

2.7.4 The existing jetty at Cremorne Wharf (Cremorne Wharf Depot) is in a condition which requires consideration of whether any remediation measures would be needed prior to construction, subject to its condition at that stage.

2.7.5 Detailed assessment of Three Mills Lock (Abbey Mills Pumping Station) showed that any surcharge loading would need to be controlled in order to avoid an adverse impact on this structure.

3 Construction phase works

3.1 Protective measures

- 3.1.1 Construction specifications are being prepared for the project to ensure that best practice is used to minimise the impact of the construction works on existing infrastructure and buildings. The depth of the tunnelling works helps to minimise the need for mitigation works.
- 3.1.2 The approach would be to employ ‘in tunnel’ measures to limit ground movements to acceptable levels where possible, including:
- a. specification of a high performance tunnel boring machine
 - b. installation of instrumentation and monitoring to ensure the tunnel structures and ground movements behave as predicted
 - c. using measures such as increased face pressures for the tunnel boring machine and staged excavation for open-faced tunnels together with additional ground support
 - d. specification of high standards of workmanship and construction management for the construction works
 - e. preparation of design specifications to ensure the acceptability of the design.
- 3.1.3 Ground improvement methods may also be used, in the form of ‘in tunnel’ measures or from the surface, to improve the engineering properties of the ground and reduce ground movements.
- 3.1.4 After these measures have been considered, where the risk of damage that exceeds damage category 2 remains, as defined in para. 2.3.3 and Appendix A, physical mitigation works may be required. These may take the form of special additional tunnelling measures or strengthening an existing structure, eg, installing additional tie-rods to strengthen a river wall.
- 3.1.5 These types of mitigation measures have been successfully used on other major projects that are comparable in scale and complexity of tunnelling and associated works to the project. They have effectively mitigated adverse impacts on third-party infrastructure and buildings.

3.2 Monitoring

- 3.2.1 Monitoring would be used to ensure the safe construction of the project. The monitoring system would be designed to:
- a. confirm that the ground movements are as predicted in the assessments of impacts on existing infrastructure and buildings
 - b. confirm that the construction works are behaving as designed
 - c. provide advanced warnings of any unacceptable trends in ground movement or other parameters before the trend becomes an issue.

- 3.2.2 Ground surface monitoring would be carried out where feasible to confirm that ground movements are within the predicted levels. The specific requirements for monitoring any third-party infrastructure and buildings will be determined from the assessment works carried out in agreement with the asset owner, where appropriate. This includes bridges, tunnels, flood defence structures, in-river structures and utilities.
- 3.2.3 Baseline monitoring would be carried out, where practicable and appropriate, to establish ground movements that are a result of seasonal variations or diurnal impacts due to tides and sunlight or the movement of rail infrastructure due to the morning and evening peak traffic and the night-time recovery. Baseline monitoring of specific infrastructure would be carried out with the agreement of the asset owners. The baseline monitoring would allow the residual movements as a result of construction of the works to be identified.
- 3.2.4 Monitoring against the baseline position would continue after the works until construction-related ground movements have ceased or the rate of settlement is less than or equal to 2mm per annum. These criteria mean that the risk of any further ground movements arising from the construction of the project are so small that they pose no risk of detrimental impact to third-party infrastructure and buildings.

3.3 Building surveys

- 3.3.1 Pre-construction condition surveys would be offered and carried out on all properties located within the zone of influence, which would be confirmed following the final design of the tunnel alignment. These would be carried out by an independent chartered building surveyor commissioned on behalf of the Employer, who would act on a joint instruction for both the Employer and the building owner prior to any works that could cause an impact. Although jointly reported, the surveys would be paid for by the Employer.
- 3.3.2 Surveys would generally be completed no earlier than three months prior to commencing relevant construction activity adjacent to the property or tunnelling under the property to capture the condition of the property immediately prior to any project works.
- 3.3.3 A copy of the Record of Condition produced would be sent to the property owner in hardcopy or electronic version. This document would comprise a written and photographic factual record of the existing condition of the property, including information on the structure, the finishes and evidence of any existing cracking or visible defects. It would provide a true record of the condition of the property before construction works start in the area. Should a building owner decide to carry out their own survey in addition to this, it would be at their own cost.
- 3.3.4 Should the building owner reasonably believe that project construction has caused damage, they should inform the Employer in writing. The Employer would publish a notice to confirm the date of completion of the project and building owners should notify the Employer of any damage to property within two years from the completion date.

- 3.3.5 Following the building owner's notification, a second survey would be carried out by the building surveyor, jointly instructed, to identify any additional defects and determine the extent of any liability and damage. The building owner may request that their own surveyor attend the second survey and provide comments on the draft report produced on behalf of the Employer. Reasonable professional fees incurred by the building owner, agreed with the Employer in advance, would be reimbursed if a successful claim is made.
- 3.3.6 A comparison of the pre- and post-construction condition survey reports may form the basis of any claim. The extent of damage attributable to the project would be assessed and an agreement made for the repair works to be carried out at the Employer's cost. Owners should not carry out their own repairs without first reaching agreement in writing with the Employer.

3.4 Infrastructure surveys

- 3.4.1 Pre-construction condition surveys would be offered and carried out on significant and sensitive assets within the zone of influence and agreed with the asset owner and consenting authority, where appropriate. This would include bridges, tunnels, in-river structures and flood defence structures.
- 3.4.2 The extent and level of detail of these surveys would be determined in agreement with the asset owners and other consenting authorities, where required. Suitable arrangements would be made with the asset owners to ensure safe access to these assets to carry out the necessary surveys, eg, with London Underground Limited for tube tunnels.
- 3.4.3 In addition to surveys, as outlined in Section 3.2, monitoring of significant and sensitive assets would be carried out, where appropriate and feasible as agreed with the asset owners. This would help to manage the risks associated with the tunnelling activities in the vicinity of these assets.
- 3.4.4 On completion of works, notice of which would be published (or earlier), if the asset owner reasonably believes that damage due to the works has occurred, then the procedures set out in paras. 3.3.3 to 3.3.5 above would apply. Where repair works are necessary, these would be carried out in accordance with the terms and conditions of the associated asset protection agreement or flood defence consent.

3.5 Repair works to buildings

- 3.5.1 The development consent order includes powers for the Employer to remediate damage caused by the project. Otherwise, property owners may prefer to be reimbursed for reasonable costs incurred in remediating material physical damage which has arisen from ground settlement caused by the works provided:
- a. the damage was caused by project works
 - b. the property owner has an agreement in writing from the Employer as to the scope of works to be carried out and the cost to be reimbursed

- c. the claim was made within two years from the published date of completion of the project.
- 3.5.2 In the event that the building owner properly submits a claim for remedial works and receives no response within two calendar months, the owner may proceed to carry out the works and seek reimbursement of the reasonable cost. The owner's reasonable steps must include obtaining three competitive quotations for the repair works prior to carrying them out.
- 3.5.3 On receipt of an advanced notice of the proposal to carry out repair work, the Employer may decide to carry out the repair work itself. In this event, the owner may recover reasonable costs and expenses incurred in preparing and submitting a claim in accordance with para. 3.5.2.
- 3.5.4 Any dispute under paras. 3.5.1 to 3.5.3 shall be referred for determination by the Independent Compensation Panel.
- 3.5.5 If any pre-existing defects are worsened as a result of the works, then the additional cost of repair works over and above the cost to rectify the existing defect shall be recoverable.

4 Heritage considerations

4.1 Listed buildings

- 4.1.1 Detailed assessments were carried out of all listed buildings within the potential zone of influence. The risk of damage was assessed, which considered the heritage sensitivity and structural form of 31 listed building in addition to predicted ground movements.
- 4.1.2 Lots Road Pumping Station and Greenwich Pumping Station were also assessed for any impacts from other site works in addition to ground movements from tunnel and CSO drop shaft shaft construction.
- 4.1.3 As well as using information regarding the buildings provided by the Historic Buildings and Monuments Commission for England and local authorities, internal and external inspections of the buildings were carried out where access was available.
- 4.1.4 The buildings were assigned a risk of damage category in accordance with the framework developed by Burland (1995) in Appendix A. Lots Road Pumping Station was given a risk of damage category of 2, 'slight' and Greenwich Pumping Station a risk of damage category of 3, 'moderate'. All 29 other buildings were given a risk of damage category of 0, 'negligible'.
- 4.1.5 The structural, condition and heritage sensitivities were assessed based on a methodology developed in consultation with the Historic Buildings and Monuments Commission for England and the relevant local authorities.
- 4.1.6 The structural sensitivity is based on a number of factors identified as significant in the anticipated response of the building to ground movement, as shown in the table in Appendix B. These factors are reviewed in relation to the predicted ground movements in order to provide a structural sensitivity score.
- 4.1.7 Each building was graded due to its current condition as either 'good', 'poor' or 'very poor'. This was then reviewed against the risk of damage to ascertain whether the building would be more sensitive to damage. A condition score was then assigned to the building.
- 4.1.8 The poorer the condition of a building, the higher its sensitivity is likely to be. However, if a building is in poor condition but is structurally sound and in an area where settlement is predicted to be minimal, then its sensitivity due to condition will be low and the proposed works would not be expected to produce any further deterioration.
- 4.1.9 A heritage sensitivity score was assigned to each building based on its structural form, sensitive features, fixtures and finishes in relation to the predicted risk of damage.
- 4.1.10 The matrix in Appendix B was developed as a guide to assist the scoring of the structural, condition and heritage sensitivities of each of the listed buildings. The scores from the risk of damage category, structural,

condition and heritage sensitivities were reviewed and combined to produce an overall score for each building.

- 4.1.11 Seven of the 31 listed buildings attained a combined score of 3 or more. Of these seven, all were assigned a risk of damage category of 0, except for Lots Road Pumping Station and Greenwich Pumping Station, as explained in para. 4.1.4. The scores for structural and heritage sensitivities were not greater than 1 and the condition scores allocated were generally 1 or less, except for one building in Tower Hamlets that was given a condition score of 2. One building in Lewisham was provisionally assigned a condition score of 2 as access was not available for inspection.
- 4.1.12 For these seven buildings mitigation measures would not be considered to be required or appropriate as intervention measures would be likely to be more intrusive and damaging to heritage fabric than a carefully managed process of survey and repair of minor defects, if required, using appropriate materials and techniques.

4.2 Listed bridges and tunnels

- 4.2.1 There are 24 listed bridges and one listed tunnel within the potential zone of influence. Detailed assessments were carried out for these assets, as described in Section 2.6. The results of these assessments were then reviewed and further inspections and assessments carried out by heritage specialists to ascertain the likely impact on the heritage aspects of these structures.
- 4.2.2 It is not anticipated that there would be any adverse impact on the heritage features of the listed bridges and tunnel. Appropriate measures would be put in place during construction to record and monitor these assets and if required carefully manage the repair of any minor defects.

5 Settlement deeds for buildings

5.1 Settlement deed

- 5.1.1 This paper sets out the Employer's obligations and responsibilities arising as a consequence of promoting a project to tunnel at depth beneath privately-owned property. Those obligations and responsibilities are to the property owners and are generally applicable throughout the timescale of the project. It has become best practice for promoters to encapsulate these responsibilities into a deed which owners are invited to enter into with the Employer.
- 5.1.2 Thames Water has developed a settlement deed. When entered into between building owners and the Employer this shall form a formal legal undertaking concerning settlement, giving effect to the matters set out in this paper. The deed is already available and building owners can request an application for a deed now and qualified owners will receive a deed, otherwise the Employer would notify building owners following the grant of the development consent order and the owners may then apply for a deed as set out in para. 5.1.5 and illustrated in Appendix C.
- 5.1.3 The settlement deed shall be provided to reassure property owners who, during the lifetime of the project, may from time to time require the benefit of a personal contract with the Employer as a guarantee on their property. The owner applying for a deed must have a legal estate interest in all or part of a building within the potential zone of influence.
- 5.1.4 Qualifying criteria shall apply, which are set out below. The deed will incorporate the commitments made in this document. It will not be necessary to enter into a deed in order to benefit from the processes set out in this document.
- 5.1.5 The Employer will issue a notice to the owners within the potential zone of influence within six months of the DCO being granted. The notice must provide sufficient information for the owner to apply for a deed. At this stage, the Employer will confirm or refuse the owner's application for a deed. Otherwise it shall issue a deed within 14 days of receipt of the application. On receipt of a deed, the owner must return a completed counterpart within 21 days. Any dispute under this paragraph shall be referred for determination by the Independent Compensation Panel.
- 5.1.6 Where a qualifying building is in multiple ownership, each owner shall be entitled to a deed.
- 5.1.7 The deed may remain in place and be attached to the property so that the benefit of it can be assigned on any subsequent transfer.
- 5.1.8 The deed shall provide as follows:
- a. Prior to commencing relevant construction activity in the area of the owner's property the Employer shall carry out an assessment of the property to determine what, if any, monitoring and surveying is necessary to accord with the terms of the deed. The results of this

assessment will be made available to the owner prior to commencing relevant construction activity.

- b. The owner shall allow the Employer's personnel the required access to the qualifying building to carry out the assessments and any subsequent monitoring, surveying or preventative mitigation works.
- c. If the owner wishes, the Employer shall instead reimburse the reasonable cost of repairing any damage caused to the qualifying building by the work carried out in connection with assessment, monitoring, surveying or mitigation.
- d. If, as a consequence of ongoing monitoring, the Employer identifies the need to revisit the qualifying building to install additional monitoring or carry out preventative works, it shall be permitted to do so subject to prior agreement with the owner.
- e. If, during the period of the deed, the owner becomes aware of damage to the property potentially caused by project construction activity they may contact the Employer and request a further assessment be carried out. This shall be conducted at the Employer's expense and may be triggered by the owner at any time.
- f. This may result in the installation of additional monitoring equipment or additional preventative works to mitigate the effects of potential settlement.
- g. On completion of the relevant construction activity, if any damage was caused or suspected, the qualifying building shall be subject to a post-construction condition survey and a report shall be prepared to identify and explain any differences from the pre-construction condition survey held on record by both the Employer and the property owner.
- h. In the event of a dispute over liability for damage that may have occurred, the deed provides for arbitration, in accordance with the Housing Grants, Construction and Regeneration Act 1996 (as amended).
- i. Two years after the published notice confirming completion of the works or after a period during which no further settlement as defined in para. 3.2.4 has occurred, the deed shall expire.

5.1.9 The deed has been available since the date of acceptance of application for development consent.

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Glossary

Term	Description
asset	An existing or proposed/planned physical object, whose stability, form or function is responsive to ground movements to such an extent that these responses need to be fully understood and investigated prior to commencing construction works.
combined sewer overflow (CSO)	A structure or series of structures, that allows sewers that carry both rainwater and wastewater to overflow into a river when at capacity during periods of heavy rainfall. The flows are discharged to river in order to prevent the sewers backing up and flooding streets or houses. Flows may discharge by gravity or by pumping.
condition survey	A survey of an asset that is undertaken prior to construction works that may affect the asset. A further survey can be carried out once construction is complete, if required.
connection tunnel	A tunnel that connects a drop shaft to the main tunnel.
construction site	The area of a site used during the construction phase.
development consent order (DCO)	An order under the Planning Act 2008 approving a development that is or forms part of a Nationally Significant Infrastructure project. The order can grant planning permission and compulsory purchase powers. The order is granted by the Government ministers.
dewatering	The removal of water from solid material or soil by wet classification, centrifugation, filtration, or similar solid-liquid separation processes, such as removal of residual liquid from a filter cake by a filter press as part of various industrial processes. Construction dewatering is a term used to describe removal or draining groundwater or surface water from a riverbed, construction site, caisson or mine shaft, by pumping or evaporation.
drive/drive option	A possible tunnelling option.
greenfield settlement	The term used to describe predicted movements at the ground surface, calculated on the premise that the ground is a 'green field' (ie, free of development) used as a starting point for ground movement calculations.
ground investigations	Information gathering and collation regarding existing geotechnical ground information to enable the design process (eg, boreholes, groundwater monitoring, trial holes, etc).
groundwater	All water below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil. Water contained in underground strata, predominantly in aquifers.

Glossary

Term	Description
Independent Compensation Panel	The independent panel that will be set up by Thames Water to manage claims for compensation and disputes arising from matters generally relating to mitigation, quantum and reimbursement of compensation.
listed buildings	A structure of architectural and/or historical interest included on the Secretary of State's list, which affords statutory protection. Such buildings are subdivided in to Grades I, II* and II (in descending importance).
main tunnel	The large diameter tunnel from Acton Storm Tanks to Abbey Mills.
mitigation measures	Proposed actions to prevent or reduce adverse effects arising from the whole or specific elements of a development.
monitoring	Monitoring, recording and collection of existing situation data prior to construction (eg, CSO spill frequency, vehicle or pedestrian traffic movements or building settlement monitoring before or during construction).
secondary lining	A second, internal lining of the tunnel to provide additional strength.
sensitive asset	An asset that has limited scope to accommodate the effects of ground movements without adverse effects. This may be due to age, value (heritage and financial), ownership, location, form, function and nature, and construction materials.
settlement	Ground movements arising from construction.
shaft	Duct, pipe or vertical tunnel.
Thames Water	The <i>Thames Water Utilities Limited Draft Development Consent Order</i> contains an ability for Thames Water to transfer powers to an Infrastructure Provider (as defined in article 2(1) of the development consent order) and/or another body, with the consent of the Secretary of State.
tunnel alignments	The horizontal and vertical routes of a tunnel.
tunnel boring machine (TBM)	A machine that has a circular cross-section used to excavate tunnels through a variety of geological conditions.
weir	A dam in a watercourse or sewer that alters and manages the flow.
works	All construction work associated with the construction of the Thames Tideway Tunnel project.

Appendix A

A.1 Risk of damage category for buildings

- A.1.1 The risk of damage to buildings classification system is based on a framework developed by Burland (1995). This framework appraises potential damage to buildings based on the calculated tensile strains for a deep beam and relates these to the likely approximate crack widths and degrees of damage severity based on ease of repair.
- A.1.2 Where an individual building does not fit within the Burland framework, consideration has been given to the applied displacements and the structural form of the building.

Table A.1 Building damage categorisation

Category of damage	Description of typical damage (Ease of repair is underlined)	Approx. crack width (mm)	ε_{lim} , Limiting tensile strain (%)
0 Negligible	Hairline cracks.	< 0.1	< 0.05
1 Very Slight	Fine cracks that can easily be treated during normal decoration. Perhaps isolated slight fracture in buildings. Cracks in external brickwork visible on inspection.	1	0.05 - 0.075
2 Slight	Cracks easily filled. Redecorating probably required. Several slight fractures showing inside of building. Cracks are visible externally and some repointing may be required externally to ensure weather tightness. Doors and windows may stick slightly.	5	0.075 - 0.15
3 Moderate	The cracks require some opening up and can be patched by a mason. Recurrent cracks can be masked by suitable linings. Repointing of external brickwork and possibly a small amount of brickwork to be replaced. Doors and windows sticking. Service pipes may fracture. Weather tightness often impaired.	5 - 15 or a number of cracks > 3	0.15 – 0.3
4 Severe	Extensive repair work involving breaking out and replacing sections of walls, especially over doors and windows. Windows and door frames distorted, floor sloping noticeably. Walls leaning and bulging noticeably, some loss of bearing in beams. Service pipes disrupted.	15 – 25 but also depends on number of cracks	> 0.3
5 Very severe	This requires a major repair job involving partial or complete rebuilding. Beams lose bearing, walls lean badly and require shoring. Windows broken due to distortion. Danger of instability.	Usually >25 but depends on number of cracks	

Note: Crack width is only one factor in assessing category of damage and should not be used on its own as a direct measure of it.

Note: Local deviation of slope, from the horizontal or vertical, of more than 1/100 will normally be clearly visible. Overall deviations in excess of 1/150 are undesirable.

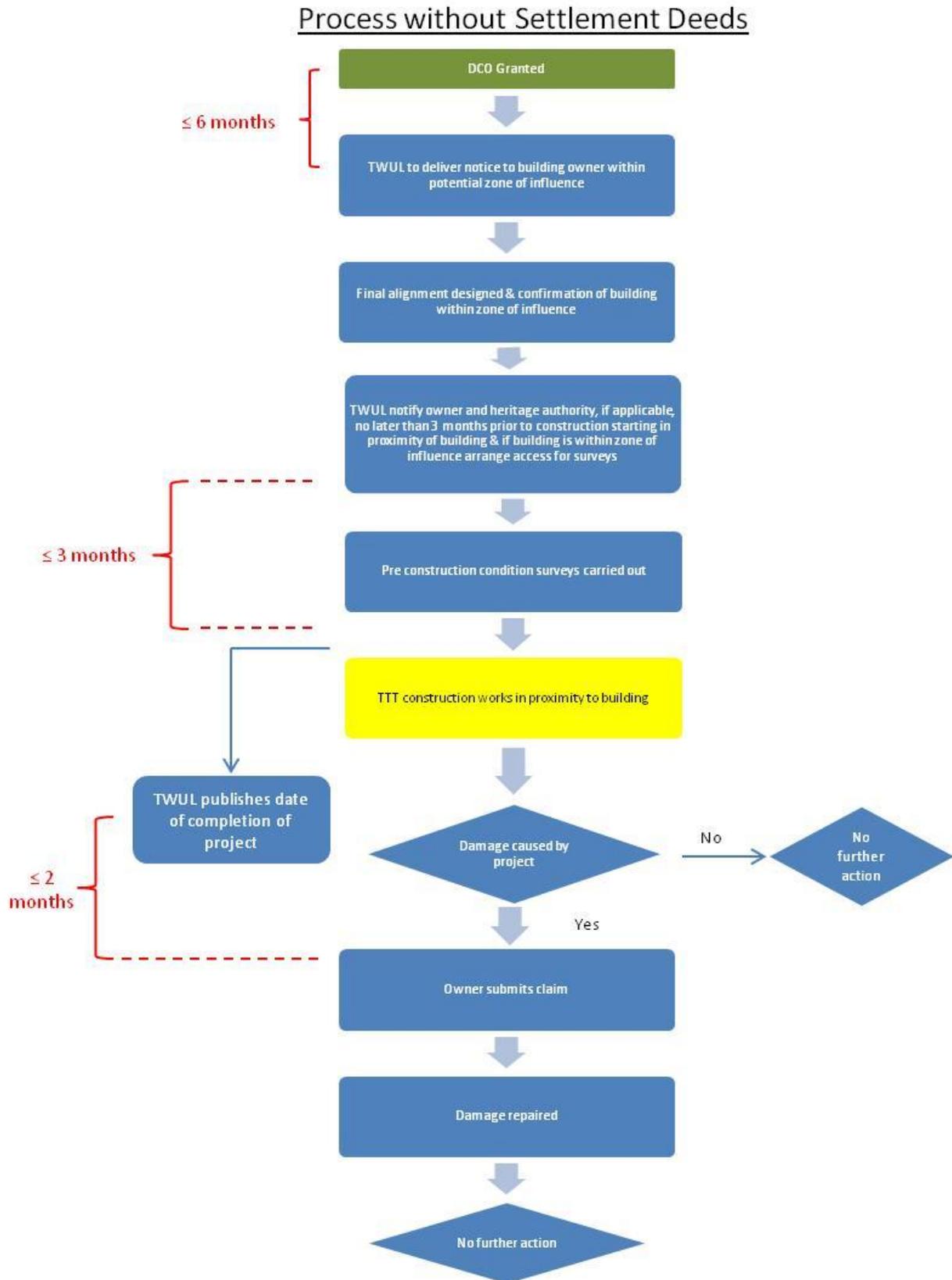
Appendix B

B.1 Listed building: Additional evaluation criteria

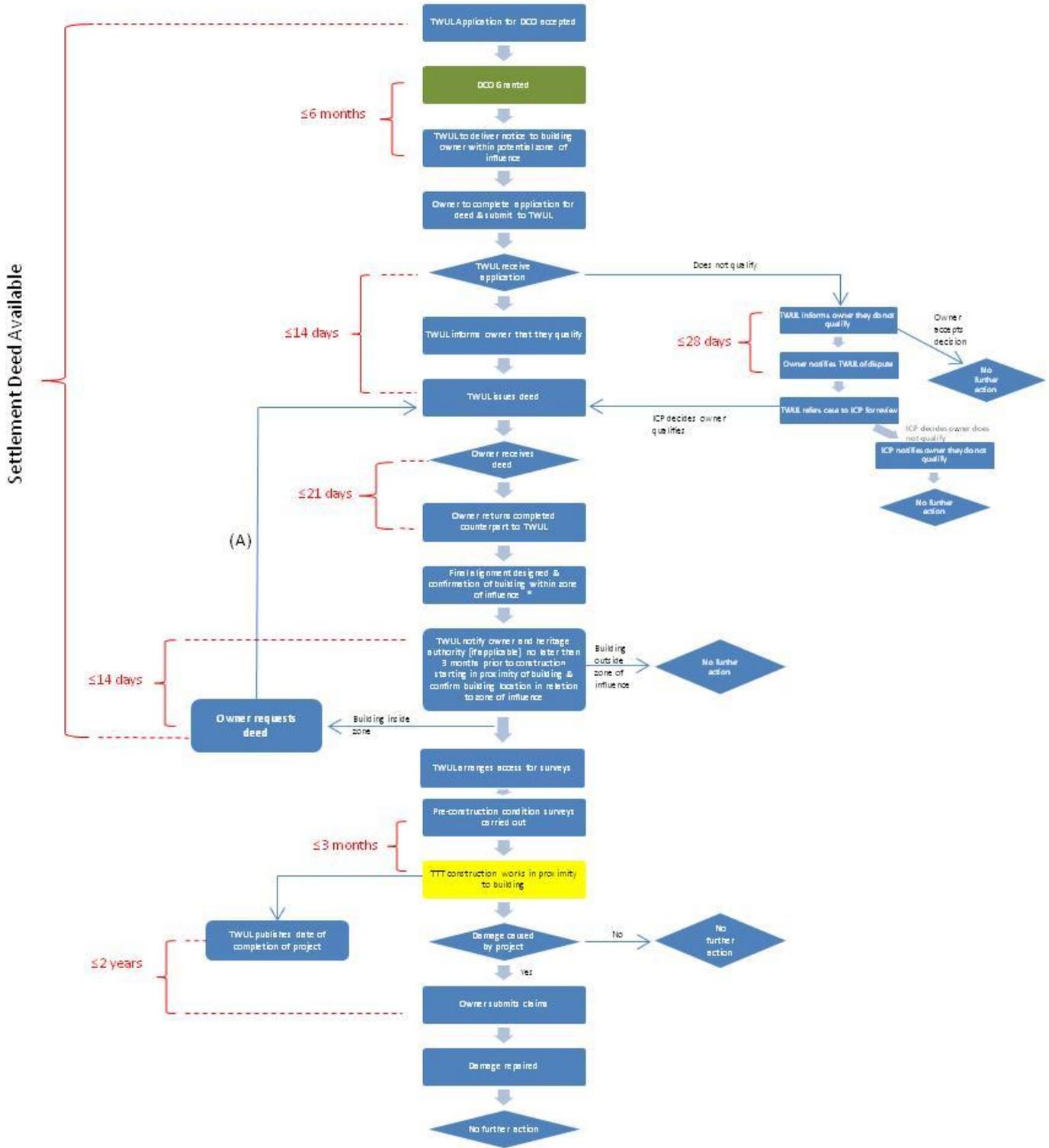
Table B.1 Structural, heritage and condition scoring matrix for listed buildings

Score	STRUCTURE Sensitivity of the structure to ground movements and interaction with adjacent buildings	HERITAGE FEATURES Sensitivity to calculated movement of particular features within the building	CONDITION Factors which may affect the sensitivity of structural or heritage features
0	Masonry buildings with lime mortar and regular openings, not abutted by other buildings, and therefore similar to the buildings on which the original Burland assessment was based.	No particular sensitive features	Good - not affecting the sensitivity of structural or heritage features
1	Buildings not complying with categories 0 or 2, but still with some sensitive structural features in the zone of settlement e.g.: cantilever stone staircases, long walls without joints or openings, existing cracks where further movements are likely to concentrate, mixed foundations	Brittle finishes, e.g. faience or tight-jointed stonework, which are susceptible to small structural movements and difficult to repair invisibly.	Poor - may change the behaviour of a building in cases of movement. Poor condition of heritage features and finishes. Evidence of previous movement.
2	Buildings which, by their structural form, will tend to concentrate all their movements in one location (e.g.: a long wall without joints and with a single opening).	Finishes which if damaged will have a significant effect on the heritage value of the building, e.g. Delicate frescos, ornate plasterwork ceilings.	Very poor – parlous condition of heritage features and finishes, or severe existing damage to structure including evidence of ongoing movement. Essentially buildings which are close to collapse or where finishes are loose such that even very small movements could lead to significant damage.

Appendix C: Process for settlement deeds



Process for Settlement Deeds



* Omitted if resulting from (A)



Settlement Information Paper

Asset protection process

Regulation 5(2)(q)

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Thames Tideway Tunnel Settlement Information Paper

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1 Executive summary

- 1.1.1 This paper explains the approach taken by Thames Water to the assessment, monitoring and mitigation measures to be implemented as part of the asset protection process being carried out for the Thames Tideway Tunnel project (the 'project'). In this paper reference to the Employer is to the party responsible for the delivery of the project (i.e., being the party in whom the powers of the DCO are vested. That is (i.e., Thames Water Utilities Limited), and/or the body to whom powers are transferred (i.e., infrastructure provider) under the DCO to deliver the project).
- 1.1.2 Assessment works were carried out to determine the extent of predicted ground movements and the resulting impacts on existing infrastructure and buildings which may be caused by the construction of the project. This was to confirm either that these impacts would be acceptable or identify the need for mitigation works or special tunnelling measures. The assessments were based on approaches proven on other major projects undertaken in London including the Jubilee Line Extension, Channel Tunnel Rail Link (High Speed 1) and currently the Crossrail project.
- 1.1.3 A risk-based, staged approach was used to establish the predicted impact and identify whether any special protective measures would need to be implemented to ensure the safe construction of the project. The approach used conservative assumptions to identify whether assets would be at risk of negligible damage or less and then used progressively more sophisticated analyses to evaluate the impact on the remainder of the assets not within this risk of damage category.
- 1.1.4 The design of the project was developed to have very deep tunnels relative to other tunnelling projects, which would help to minimise the impact on existing infrastructure and buildings.
- 1.1.5 This paper explains the processes and procedures followed to date and those to be used during construction to manage the interfaces with third-party infrastructure and buildings as the works progress. This includes pre-construction condition surveys and appropriate monitoring to provide the necessary assurance that the behaviour of the ground in response to the construction works is as predicted, as shown in Appendix C.
- 1.1.6 Detailed assessments were carried out on all listed buildings within the potential zone of influence of the main tunnel. The risk of damage due to predicted ground movements as well as the heritage sensitivity, condition and structural form of the building were assessed. Intrusive mitigation measures would not be required or appropriate for any buildings.
- 1.1.7 Thames Water has developed a policy under which certain procedures may be implemented for eligible owners in order to monitor changes attributable to the project with a view to assisting in any claim for statutory compensation. ~~Thames Water~~ Thames Water will also offer a deed to secure these commitments in qualifying cases, will be offered in qualifying cases. with these deeds being novated to the undertaker on the

| ~~appointment of the undertaker. This~~ the process for the deed is illustrated in Appendix C.

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2 Asset protection process

2.1 Background

- 2.1.1 The approach adopted for assessing the impacts of the construction works on third-party infrastructure and buildings is based on extensive experience of excavation and tunnelling works within London. This includes recent major tunnelling projects such as the Jubilee Line Extension and the Channel Tunnel Rail Link (High Speed 1).
- 2.1.2 These projects established proven methods to assess the impacts of construction-related ground movements on infrastructure and buildings, which were verified by measurements of the resulting ground movements and the response of existing infrastructure and buildings. The same approaches are currently in use on the Crossrail project to assess the risk of damage to buildings.
- 2.1.3 The project requires the construction of tunnels, shafts and other combined sewer overflow interception works. These excavations would cause some ground movements in the vicinity of the works, which may have some impact on existing infrastructure and buildings depending on their location and proximity to the works.
- 2.1.4 The extent of the ground movements caused by the project would depend on several factors including the size and depth of the construction works, existing soil conditions and the methods of construction. The response of the structure to these ground movements would be influenced by the type of structure, its condition, and its foundations.
- 2.1.5 Thames Water has implemented a rigorous asset protection process to support the design submitted with the application for development consent. The potential impacts were predicted and the need for special protective measures identified.
- 2.1.6 The project was designed to maximise the length of main tunnel drives and connections under the river in order to minimise the number of interfaces with third-party infrastructure and particularly with buildings. This is advantageous when compared to the railway projects mentioned above, which are predominantly under land and include the construction of large station tunnels, cross passages, ventilation shafts and station concourses within the city to distribute passengers.

2.2 Approach to impact assessment works

- 2.2.1 A risk-based, staged approach was adopted to assess all third-party infrastructure and buildings that may be impacted by the ground movements arising from the construction of the project.
- 2.2.2 Comprehensive ground investigations were carried out for the project to provide detailed information about the ground conditions along the route of the main tunnel. The information was used in design development and assessment of impacts on third-party infrastructure and buildings. It would

also be used by the contractor to develop construction methods to minimise impacts.

- 2.2.3 'Greenfield' settlement contours were generated for the project based on proven empirical formulae to determine the predicted ground movements arising from construction accounting for both the assumed horizontal and vertical tunnel alignments and the location of the shafts. These are movements at the ground surface, calculated on the premise that the ground is a 'green field' (ie, free of development) and are a conservative prediction.
- 2.2.4 A zone was identified within which the predicted ground movements would be 1mm or more. A 5m buffer zone, equivalent to the alignment adjustment allowed within the limit of deviation for the main tunnel, was added to the 1mm contour to provide an envelope for the potential zone of influence. The assets within this envelope and their owners were identified. This involved an extensive exercise that included searches of historical records and discussions with local authorities and other statutory bodies, as well as the diligent enquiry exercise required by the Planning Act 2008 to identify those who may have a relevant claim.
- 2.2.5 All known existing and proposed assets identified within the potential zone of influence were recorded along with a classification of the type of asset including bridges, tunnels, flood defences, utilities and buildings (distinguishing those that are listed).
- 2.2.6 Assessment works were carried out to establish the predicted impact of the project on these assets. The assessments were used to identify any potential mitigation works and to inform any monitoring requirements.

2.3 Impact assessment works: Non-listed buildings

- 2.3.1 All non-listed buildings within the potential zone of influence of the tunnels, shafts and associated works were classified according to the structural type of the building to establish an appropriate assessment method. Principally the buildings were classed as follows:
- a. Class 1: Load bearing masonry buildings on shallow foundations.
 - b. Class 2: Framed buildings with masonry infill and possibly piled.
 - c. Class 3: Buildings not in 'Class 1 or 2', but subject to less than 10mm settlement and <1:500 gradient¹ and not considered to be 'sensitive' to ground movements.
 - d. Class 4: Buildings not in 'Class 1 or 2' and subject to more than 10mm settlement or >1:500 gradient or structures identified as being 'sensitive' to movement.
- 2.3.2 Following the assignment of the building class, the damage category for the buildings was assessed using a method appropriate to the type of building.

¹ Maximum gradient of predicted settlement trough at surface

- 2.3.3 Burland (1995) proposed a framework that defines potential damage based on calculated tensile strains for a deep beam and related this to approximate crack widths likely to occur and degrees of damage severity based on ease of repair. This framework is shown in the table in Appendix A.
- 2.3.4 The classification system developed by Burland for load bearing masonry structures was used to assess Class 1 and Class 2 buildings. It also provided a useful framework for Class 3 and Class 4 buildings.
- 2.3.5 Buildings in Class 3 were appraised following a review of available information about the building against the predicted ground movements to ascertain whether these were within the 'negligible' damage category, or otherwise they were assessed as a Class 4 building.
- 2.3.6 Class 4 buildings were subject to external visual surveys to determine factors such as the likely presence of basements and any designed movement joints in the facade of the building. Settlement diagrams were produced for each of the Class 4 buildings to assist with the process of determining damage category.
- 2.3.7 A damage category, as shown in Appendix A, was assigned based on an appraisal of ground movements and review of the structural form of the building. Buildings assessed to have a damage category of greater than 2 'Slight', or those where more detailed information was required to make an assessment were subject to further assessment.
- 2.3.8 For the vast majority of buildings, the assessment determined that they have a 'negligible' risk of damage due to the project. Some buildings were assessed as having 'slight' or 'very slight' risk of damage. Only a few buildings were identified as having a potential 'moderate' risk of damage in accordance with either the Burland (1995) damage framework, or by structural assessment.
- 2.3.9 Following this assessment, a total of 46 non-listed buildings qualified for a more detailed assessment, either because they were considered to be particularly sensitive, or because of their proximity to construction sites.
- 2.3.10 Following more detailed assessment, two of the 46 buildings were classified as being potentially subject to 'moderate' risk of damage. For one of these, 'in tunnel' measures as described in para. 3.1.2 were identified as being sufficient to reduce the risk of damage to slight and these measures would be employed to mitigate this risk of damage.
- 2.3.11 The other 44 of the 46 buildings were classified as being potentially subject to 'slight' risk of damage or lower. Therefore this risk would be managed effectively using a suitable monitoring regime (see Section 3.2 for further details).
- 2.3.12 Details on other measures that would be implemented during the construction phase including building surveys and repair works are explained in Sections 3.3 and 3.5.

2.4 Impact assessment works: Flood defences

- 2.4.1 Flood defence assets within the potential zone of influence, including river walls, embankments, slipways, steps, walls, outfalls and sluices, were categorised according to the following key parameters:
- a. wall construction type and construction material
 - b. river bed level in front of asset
 - c. flood defence level and statutory defence level
 - d. Environment Agency condition grade
 - e. other sensitivity to ground movement (eg, listed structure)
 - f. approximate founding level of asset.
- 2.4.2 Visual inspections were carried out to supplement the existing record drawings and other details provided by the Environment Agency and others relating to the flood defence assets.
- 2.4.3 The initial stage of assessment involved assessing different river walls against a set of screening criteria to evaluate the impact of construction works. A number of assets were shown to be subject to negligible impact. For 69 per cent of the flood defence assets along the route of the tunnel, it is predicted that the ground movements will have no impact on the global stability or serviceability of the structure.
- 2.4.4 Further assessment was carried out on the remaining 31 per cent of assets where a greater impact was predicted. In addition to the impact on structures which are currently in very poor condition, increases in the stress in tie-rods in tied structures was the only structurally significant issue identified in the assessment of the river walls that could result from ground movements along the route of the tunnel.
- 2.4.5 Flood defences in the vicinity of construction sites were subject to an assessment of construction-related impacts in addition to ground movement, including where applicable:
- a. excavation in front of river walls
 - b. excavation to rear of walls in vicinity of tie-rods
 - c. additional surcharge loading immediately to the rear of the asset
 - d. increased water differential for walls within temporary cofferdams
 - e. scour due to modified fluvial flow
 - f. additional surcharge loading set back from the rear of the asset
 - g. dewatering as part of shaft construction.
- 2.4.6 A similar approach was adopted for the impact of surface construction at worksites in the vicinity of river walls. The initial stage of assessment involved assessing different river walls against a set of screening criteria to evaluate the impact of construction works. A number of assets were shown to be subject to negligible impact. Further asset-specific assessment was undertaken at some locations and, for approximately 40

per cent of the structures assessed, it was concluded that some form of mitigation would be required.

2.4.7 Potential mitigation options for different flood defences were evaluated where considered to be a potential requirement, both for the river walls along the tunnel route and those affected by work at construction sites. A generic list of possible mitigation strategies was developed and the applicability of each was considered for each location. Considerations included site constraints and asset-related constraints.

2.4.8 In many cases it was considered that the risk to the flood defences could be mitigated using 'in-tunnel' control measures as described in para. 3.1.2 or constraining construction activities so as to avoid the impacts. In other cases, predominantly associated with shaft sites, temporary support, wall strengthening and/or wall replacement were considered as potential options. Confirmation of the need for such mitigation solutions and their design is subject to further investigations and development by the works contractor.

2.5 Impact assessment works: Utilities

2.5.1 In addition to diverting a number of utilities to accommodate the construction of the project, assessments were carried out to determine the impact of the construction on other assets belonging to the utility companies. These assessments were carried out for sensitive utility assets within the potential zone of influence.

2.5.2 For water mains, sewers and gas mains the strains, joint rotation and pull out due to the predicted ground movements were assessed. These were compared to acceptance criteria that took account of the type of material, diameter and type of construction, which had been agreed with the appropriate asset owner.

2.5.3 More detailed assessments were then carried out on the assets that failed the acceptance criteria to identify those that would require protective measures to be implemented prior to construction.

2.5.4 Potentially vulnerable electricity assets were identified in consultation with the owner and the acceptable limits of deformation which would not cause damage were agreed. The assessments predicted no adverse impact on these electricity assets.

2.6 Impact assessment works: Tunnels and bridges

2.6.1 All tunnels and bridges located within the potential zone of influence were identified and a detailed assessment of each was carried out in consultation with the asset owner, where possible.

2.6.2 A visual inspection was carried out where access was feasible for each asset to ascertain the existing structural condition. Owner inspection reports and existing record drawings (where available) were used to inform the numerical models of the bridges and tunnels, which were

developed to enable the potential impact of the construction of the project to be assessed.

2.6.3 The assessments indicated that, with the exception of two assets, no direct protective mitigation measures would be required. The two assets requiring substantial protective measures are existing Thames Water tunnels in west London, which will require a secondary lining to be installed before the main tunnel is constructed above them.

2.6.4 Further assessments to take account of the contractor's method of construction, condition and structural surveys would be carried out adjacent to these interfaces where necessary on behalf of the undertakerEmployerThames Water prior to construction. The details of these surveys, monitoring and any necessary remedial works would be developed prior to construction in discussion with the asset owners.

2.7 Impact assessment works: In-river structures

2.7.1 Visual inspections were carried out for 45 in-river structures within the zone of influence to obtain information; including materials and structural form, condition including existing defects, proximity of historic buildings or moored vessels and operational functions. These structures included wharves, piers, jetties, weirs and locks.

2.7.2 The impact of predicted ground movements on these structures was assessed and 13 structures were predicted to be subject to less than 1mm vertical settlement. Six structures required further detailed assessment.

2.7.3 Detailed assessment showed that three of the six structures would satisfactorily accommodate the predicted ground movements. However, the Thames Water-owned Middle Wharf jetty (Kirtling Street) would require mitigation measures due to predicted ground movements from the connection tunnel.

2.7.4 The existing jetty at Cremorne Wharf (Cremorne Wharf Depot) is in a condition which requires consideration of whether any remediation measures would be needed prior to construction, subject to its condition at that stage.

2.7.5 Detailed assessment of Three Mills Lock (Abbey Mills Pumping Station) showed that any surcharge loading would need to be controlled in order to avoid an adverse impact on this structure.

3 Construction phase works

3.1 Protective measures

- 3.1.1 Construction specifications are being prepared for the project to ensure that best practice is used to minimise the impact of the construction works on existing infrastructure and buildings. The depth of the tunnelling works helps to minimise the need for mitigation works.
- 3.1.2 The approach would be to employ 'in tunnel' measures to limit ground movements to acceptable levels where possible, including:
- a. specification of a high performance tunnel boring machine
 - b. installation of instrumentation and monitoring to ensure the tunnel structures and ground movements behave as predicted
 - c. using measures such as increased face pressures for the tunnel boring machine and staged excavation for open-faced tunnels together with additional ground support
 - d. specification of high standards of workmanship and construction management for the construction works
 - e. preparation of design specifications to ensure the acceptability of the design.
- 3.1.3 Ground improvement methods may also be used, in the form of 'in tunnel' measures or from the surface, to improve the engineering properties of the ground and reduce ground movements.
- 3.1.4 After these measures have been considered, where the risk of damage that exceeds damage category 2 remains, as defined in para. 2.3.3 and Appendix A, physical mitigation works may be required. These may take the form of special additional tunnelling measures or strengthening an existing structure, eg, installing additional tie-rods to strengthen a river wall.
- 3.1.5 These types of mitigation measures have been successfully used on other major projects that are comparable in scale and complexity of tunnelling and associated works to the project. They have effectively mitigated adverse impacts on third-party infrastructure and buildings.

3.2 Monitoring

- 3.2.1 Monitoring would be used to ensure the safe construction of the project. The monitoring system would be designed to:
- a. confirm that the ground movements are as predicted in the assessments of impacts on existing infrastructure and buildings
 - b. confirm that the construction works are behaving as designed
 - c. provide advanced warnings of any unacceptable trends in ground movement or other parameters before the trend becomes an issue.

- 3.2.2 Ground surface monitoring would be carried out where feasible to confirm that ground movements are within the predicted levels. The specific requirements for monitoring any third-party infrastructure and buildings will be determined from the assessment works carried out in agreement with the asset owner, where appropriate. This includes bridges, tunnels, flood defence structures, in-river structures and utilities.
- 3.2.3 Baseline monitoring would be carried out, where practicable and appropriate, to establish ground movements that are a result of seasonal variations or diurnal impacts due to tides and sunlight or the movement of rail infrastructure due to the morning and evening peak traffic and the night-time recovery. Baseline monitoring of specific infrastructure would be carried out with the agreement of the asset owners. The baseline monitoring would allow the residual movements as a result of construction of the works to be identified.
- 3.2.4 Monitoring against the baseline position would continue after the works until construction-related ground movements have ceased or the rate of settlement is less than or equal to 2mm per annum. These criteria mean that the risk of any further ground movements arising from the construction of the project are so small that they pose no risk of detrimental impact to third-party infrastructure and buildings.

3.3 Building surveys

- 3.3.1 Pre-construction condition surveys would be offered and carried out on all properties located within the zone of influence, which would be confirmed following the final design of the tunnel alignment. These would be carried out by an independent chartered building surveyor commissioned on behalf of ~~the undertaker~~Employer Thames Water, who would act on a joint instruction for both ~~the undertaker~~Employer Thames Water and the building owner prior to any works that could cause an impact. Although jointly reported, the surveys would be paid for by ~~the undertaker~~Employer Thames Water.
- 3.3.2 Surveys would generally be completed no earlier than three months prior to commencing relevant construction activity adjacent to the property or tunnelling under the property to capture the condition of the property immediately prior to any project works.
- 3.3.3 A copy of the Record of Condition produced would be sent to the property owner in hardcopy or electronic version. This document would comprise a written and photographic factual record of the existing condition of the property, including information on the structure, the finishes and evidence of any existing cracking or visible defects. It would provide a true record of the condition of the property before construction works start in the area. Should a building owner decide to carry out their own survey in addition to this, it would be at their own cost.
- 3.3.4 Should the building owner reasonably believe that project construction has caused damage, they should inform ~~the undertaker~~Employer Thames Water in writing. ~~The undertaker~~Employer Thames Water would publish a notice to confirm the date of completion of the project and building owners

should notify ~~the undertakerEmployerThames Water~~ of any damage to property within two years from the completion date.

3.3.5 Following the building owner's notification, a second survey would be carried out by the building surveyor, jointly instructed, to identify any additional defects and determine the extent of any liability and damage. The building owner may request that their own surveyor attend the second survey and provide comments on the draft report produced on behalf of ~~the undertakerEmployer Thames Water~~. Reasonable professional fees incurred by the building owner, agreed with ~~the undertakerEmployer Thames Water~~ in advance, would be reimbursed if a successful claim is made.

3.3.6 A comparison of the pre- and post-construction condition survey reports may form the basis of any claim. The extent of damage attributable to the project would be assessed and an agreement made for the repair works to be carried out at ~~the undertakerEmployer's Thames Water's~~ cost. Owners should not carry out their own repairs without first reaching agreement in writing with ~~the undertakerEmployerThames Water~~.

3.4 Infrastructure surveys

3.4.1 Pre-construction condition surveys would be offered and carried out on significant and sensitive assets within the zone of influence and agreed with the asset owner and consenting authority, where appropriate. This would include bridges, tunnels, in-river structures and flood defence structures.

3.4.2 The extent and level of detail of these surveys would be determined in agreement with the asset owners and other consenting authorities, where required. Suitable arrangements would be made with the asset owners to ensure safe access to these assets to carry out the necessary surveys, eg, with London Underground Limited for tube tunnels.

3.4.3 In addition to surveys, as outlined in Section 3.2, monitoring of significant and sensitive assets would be carried out, where appropriate and feasible as agreed with the asset owners. This would help to manage the risks associated with the tunnelling activities in the vicinity of these assets.

3.4.4 On completion of works, notice of which would be published (or earlier), if the asset owner reasonably believes that damage due to the works has occurred, then the procedures set out in paras. 3.3.3 to 3.3.5 above would apply. Where repair works are necessary, these would be carried out in accordance with the terms and conditions of the associated asset protection agreement or flood defence consent.

3.5 Repair works to buildings

3.5.1 The development consent order includes powers for ~~the undertakerEmployerThames Water~~ to remediate damage caused by the project. Otherwise, property owners may prefer to be reimbursed for reasonable costs incurred in remediating material physical damage which has arisen from ground settlement caused by the works provided:

- a. the damage was caused by project works
- b. the property owner has an agreement in writing from the EmployerundertakerThames Water as to the scope of works to be carried out and the cost to be reimbursed
- c. the claim was made within two years from the published date of completion of the project.

3.5.2 In the event that the building owner properly submits a claim for remedial works and receives no response within two calendar months, the owner may proceed to carry out the works and seek reimbursement of the reasonable cost. The owner's reasonable steps must include obtaining three competitive quotations for the repair works prior to carrying them out.

3.5.3 On receipt of an advanced notice of the proposal to carry out repair work, the Employerundertaker Thames Water may decide to carry out the repair work itself. In this event, the owner may recover reasonable costs and expenses incurred in preparing and submitting a claim in accordance with para. 3.5.2.

3.5.4 Any dispute under paras. 3.5.1 to 3.5.3 shall be referred for determination by the Independent Compensation Panel.

3.5.5 If any pre-existing defects are worsened as a result of the works, then the additional cost of repair works over and above the cost to rectify the existing defect shall be recoverable.

4 Heritage considerations

4.1 Listed buildings

- 4.1.1 Detailed assessments were carried out of all listed buildings within the potential zone of influence. The risk of damage was assessed, which considered the heritage sensitivity and structural form of 31 listed building in addition to predicted ground movements.
- 4.1.2 Lots Road Pumping Station and Greenwich Pumping Station were also assessed for any impacts from other site works in addition to ground movements from tunnel and CSO drop shaft shaft construction.
- 4.1.3 As well as using information regarding the buildings provided by the Historic Buildings and Monuments Commission for England and local authorities, internal and external inspections of the buildings were carried out where access was available.
- 4.1.4 The buildings were assigned a risk of damage category in accordance with the framework developed by Burland (1995) in Appendix A. Lots Road Pumping Station was given a risk of damage category of 2, 'slight' and Greenwich Pumping Station a risk of damage category of 3, 'moderate'. All 29 other buildings were given a risk of damage category of 0, 'negligible'.
- 4.1.5 The structural, condition and heritage sensitivities were assessed based on a methodology developed in consultation with the Historic Buildings and Monuments Commission for England and the relevant local authorities.
- 4.1.6 The structural sensitivity is based on a number of factors identified as significant in the anticipated response of the building to ground movement, as shown in the table in Appendix B. These factors are reviewed in relation to the predicted ground movements in order to provide a structural sensitivity score.
- 4.1.7 Each building was graded due to its current condition as either 'good', 'poor' or 'very poor'. This was then reviewed against the risk of damage to ascertain whether the building would be more sensitive to damage. A condition score was then assigned to the building.
- 4.1.8 The poorer the condition of a building, the higher its sensitivity is likely to be. However, if a building is in poor condition but is structurally sound and in an area where settlement is predicted to be minimal, then its sensitivity due to condition will be low and the proposed works would not be expected to produce any further deterioration.
- 4.1.9 A heritage sensitivity score was assigned to each building based on its structural form, sensitive features, fixtures and finishes in relation to the predicted risk of damage.
- 4.1.10 The matrix in Appendix B was developed as a guide to assist the scoring of the structural, condition and heritage sensitivities of each of the listed buildings. The scores from the risk of damage category, structural,

condition and heritage sensitivities were reviewed and combined to produce an overall score for each building.

- 4.1.11 Seven of the 31 listed buildings attained a combined score of 3 or more. Of these seven, all were assigned a risk of damage category of 0, except for Lots Road Pumping Station and Greenwich Pumping Station, as explained in para. 4.1.4. The scores for structural and heritage sensitivities were not greater than 1 and the condition scores allocated were generally 1 or less, except for one building in Tower Hamlets that was given a condition score of 2. One building in Lewisham was provisionally assigned a condition score of 2 as access was not available for inspection.
- 4.1.12 For these seven buildings mitigation measures would not be considered to be required or appropriate as intervention measures would be likely to be more intrusive and damaging to heritage fabric than a carefully managed process of survey and repair of minor defects, if required, using appropriate materials and techniques.

4.2 Listed bridges and tunnels

- 4.2.1 There are 24 listed bridges and one listed tunnel within the potential zone of influence. Detailed assessments were carried out for these assets, as described in Section 2.6. The results of these assessments were then reviewed and further inspections and assessments carried out by heritage specialists to ascertain the likely impact on the heritage aspects of these structures.
- 4.2.2 It is not anticipated that there would be any adverse impact on the heritage features of the listed bridges and tunnel. Appropriate measures would be put in place during construction to record and monitor these assets and if required carefully manage the repair of any minor defects.

5 Settlement deeds for buildings

5.1 Settlement deed

- 5.1.1 This paper sets out ~~the Employerundertaker's Thames Water's~~ obligations and responsibilities arising as a consequence of promoting a project to tunnel at depth beneath privately-owned property. Those obligations and responsibilities are to the property owners and are generally applicable throughout the timescale of the project. It has become best practice for promoters to encapsulate these responsibilities into a deed which owners are invited to enter into with ~~the EmployerundertakerThames Water~~.
- 5.1.2 Thames Water has developed a settlement deed. ~~that will be novated to the undertaker on the appointment of the undertaker.~~ When entered into between building owners and ~~the undertakerEmployer Thames Water~~ this shall form a formal legal undertaking concerning settlement, giving effect to the matters set out in this paper. The deed is already available and building owners can request an application for a deed now and qualified owners will receive a deed, otherwise ~~the undertakerEmployerThames Water~~ would notify building owners following the grant of the development consent order and the owners may then apply for a deed as set out in para. 5.1.5 and illustrated in Appendix C.
- 5.1.3 The settlement deed shall be provided to reassure property owners who, during the lifetime of the project, may from time to time require the benefit of a personal contract with ~~the EmployerundertakerThames Water~~ as a guarantee on their property. The owner applying for a deed must have a legal estate interest in all or part of a building within the potential zone of influence.
- 5.1.4 Qualifying criteria shall apply, which are set out below. The deed will incorporate the commitments made in this document. It will not be necessary to enter into a deed in order to benefit from the processes set out in this document.
- 5.1.5 ~~The EmployerundertakerThames Water must will give issue a reasonable notice to the owners within the potential zone of influence prior to commencing construction of the part of the main tunnel intended to pass beneath the property within six months of the DCO being granted.~~ The notice must provide sufficient information for the owner to ~~complete the application~~ apply for a deed. At this stage, ~~the undertakerEmployerThames Water~~ will confirm or refuse the owner's application for a deed. Otherwise it shall issue a deed within 14 days of receipt of the application. On receipt of a deed, the owner must return a completed counterpart within 21 days. Any dispute under ~~this paragraph -5.1.7~~ shall be referred for determination by the Independent Compensation Panel.
- 5.1.6 Where a qualifying building is in multiple ownership, each owner shall be entitled to a deed.
- 5.1.7 The deed may remain in place and be attached to the property so that the benefit of it can be assigned on any subsequent transfer.

- 5.1.8 ~~The deed shall at all times remain with (or transfer to) the relevant undertaker on the basis that in all other respects the conditions and obligations set out in the deed for the benefit of the owner will remain unaltered.~~ The deed shall provide as follows:
- a. Prior to commencing relevant construction activity in the area of the owner's property ~~the undertaker~~Employer Thames Water shall carry out an assessment of the property to determine what, if any, monitoring and surveying is necessary to accord with the terms of the deed. The results of this assessment will be made available to the owner prior to commencing relevant construction activity.
 - b. The owner shall allow ~~the Employer undertaker's~~ Thames Water personnel the required access to the qualifying building to carry out the assessments and any subsequent monitoring, surveying or preventative mitigation works.
 - c. If the owner wishes, ~~the Employer undertaker~~Thames Water shall instead reimburse the reasonable cost of repairing any damage caused to the qualifying building by the work carried out in connection with assessment, monitoring, surveying or mitigation.
 - d. If, as a consequence of ongoing monitoring, ~~the Employer undertaker~~Thames Water identifies the need to revisit the qualifying building to install additional monitoring or carry out preventative works, it shall be permitted to do so subject to prior agreement with the owner.
 - e. If, during the period of the deed, the owner becomes aware of damage to the property potentially caused by project construction activity they may contact ~~the Employer undertaker~~Thames Water and request a further assessment be carried out. This shall be conducted at ~~the Employer undertaker~~Thames Water's expense and may be triggered by the owner at any time.
 - f. This may result in the installation of additional monitoring equipment or additional preventative works to mitigate the effects of potential settlement.
 - g. On completion of the relevant construction activity, if any damage was caused or suspected, the qualifying building shall be subject to a post-construction condition survey and a report shall be prepared to identify and explain any differences from the pre-construction condition survey held on record by both ~~the Employer undertaker~~Thames Water and the property owner.
 - h. In the event of a dispute over liability for damage that may have occurred, the deed provides for arbitration, in accordance with the Housing Grants, Construction and Regeneration Act 1996 (as amended).
 - i. Two years after the published notice confirming completion of the works or after a period during which no further settlement as defined in para. 3.2.4 has occurred, the deed shall expire.

- 5.1.9 The deed has been available since the date of acceptance of application for development consent.

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Glossary

Term	Description
asset	An existing or proposed/planned physical object, whose stability, form or function is responsive to ground movements to such an extent that these responses need to be fully understood and investigated prior to commencing construction works.
combined sewer overflow (CSO)	A structure or series of structures, that allows sewers that carry both rainwater and wastewater to overflow into a river when at capacity during periods of heavy rainfall. The flows are discharged to river in order to prevent the sewers backing up and flooding streets or houses. Flows may discharge by gravity or by pumping.
condition survey	A survey of an asset that is undertaken prior to construction works that may affect the asset. A further survey can be carried out once construction is complete, if required.
connection tunnel	A tunnel that connects a drop shaft to the main tunnel.
construction site	The area of a site used during the construction phase.
development consent order (DCO)	An order under the Planning Act 2008 approving a development that is or forms part of a Nationally Significant Infrastructure project. The order can grant planning permission and compulsory purchase powers. The order is granted by the Government ministers.
dewatering	The removal of water from solid material or soil by wet classification, centrifugation, filtration, or similar solid-liquid separation processes, such as removal of residual liquid from a filter cake by a filter press as part of various industrial processes. Construction dewatering is a term used to describe removal or draining groundwater or surface water from a riverbed, construction site, caisson or mine shaft, by pumping or evaporation.
drive/drive option	A possible tunnelling option.
greenfield settlement	The term used to describe predicted movements at the ground surface, calculated on the premise that the ground is a 'green field' (ie, free of development) used as a starting point for ground movement calculations.
ground investigations	Information gathering and collation regarding existing geotechnical ground information to enable the design process (eg, boreholes, groundwater monitoring, trial holes, etc).
groundwater	All water below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil. Water contained in underground strata, predominantly in aquifers.

Glossary

Term	Description
Independent Compensation Panel	The independent panel that will be set up by Thames Water to manage claims for compensation and disputes arising from matters generally relating to mitigation, quantum and reimbursement of compensation.
listed buildings	A structure of architectural and/or historical interest included on the Secretary of State's list, which affords statutory protection. Such buildings are subdivided in to Grades I, II* and II (in descending importance).
main tunnel	The large diameter tunnel from Acton Storm Tanks to Abbey Mills.
mitigation measures	Proposed actions to prevent or reduce adverse effects arising from the whole or specific elements of a development.
monitoring	Monitoring, recording and collection of existing situation data prior to construction (eg, CSO spill frequency, vehicle or pedestrian traffic movements or building settlement monitoring before or during construction).
secondary lining	A second, internal lining of the tunnel to provide additional strength.
sensitive asset	An asset that has limited scope to accommodate the effects of ground movements without adverse effects. This may be due to age, value (heritage and financial), ownership, location, form, function and nature, and construction materials.
settlement	Ground movements arising from construction.
shaft	Duct, pipe or vertical tunnel.
Thames Water	The <i>Thames Water Utilities Limited Draft Development Consent Order</i> contains an ability for Thames Water to transfer powers to an Infrastructure Provider (as defined in article 2(1) of the development consent order) and/or another body, with the consent of the Secretary of State.
tunnel alignments	The horizontal and vertical routes of a tunnel.
tunnel boring machine (TBM)	A machine that has a circular cross-section used to excavate tunnels through a variety of geological conditions.
weir	A dam in a watercourse or sewer that alters and manages the flow.
works	All construction work associated with the construction of the Thames Tideway Tunnel project.

Appendix A

A.1 Risk of damage category for buildings

- A.1.1 The risk of damage to buildings classification system is based on a framework developed by Burland (1995). This framework appraises potential damage to buildings based on the calculated tensile strains for a deep beam and relates these to the likely approximate crack widths and degrees of damage severity based on ease of repair.
- A.1.2 Where an individual building does not fit within the Burland framework, consideration has been given to the applied displacements and the structural form of the building.

Table A.1 Building damage categorisation

Category of damage		Description of typical damage (<u>Ease of repair is underlined</u>)	Approx. crack width (mm)	ε_{lim} , Limiting tensile strain (%)
0	Negligible	Hairline cracks.	< 0.1	< 0.05
1	Very Slight	Fine cracks that can easily be treated during normal decoration. Perhaps isolated slight fracture in buildings. Cracks in external brickwork visible on inspection.	1	0.05 - 0.075
2	Slight	Cracks easily filled. Redecorating probably required. Several slight fractures showing inside of building. Cracks are visible externally and some repointing may be required externally to ensure weather tightness. Doors and windows may stick slightly.	5	0.075 - 0.15
3	Moderate	The cracks require some opening up and can be patched by a mason. Recurrent cracks can be masked by suitable linings. Repointing of external brickwork and possibly a small amount of brickwork to be replaced. Doors and windows sticking. Service pipes may fracture. Weather tightness often impaired.	5 - 15 or a number of cracks > 3	0.15 - 0.3
4	Severe	Extensive repair work involving breaking out and replacing sections of walls, especially over doors and windows. Windows and door frames distorted, floor sloping noticeably. Walls leaning and bulging noticeably, some loss of bearing in beams. Service pipes disrupted.	15 - 25 but also depends on number of cracks	> 0.3
5	Very severe	This requires a major repair job involving partial or complete rebuilding. Beams lose bearing, walls lean badly and require shoring. Windows broken due to distortion. Danger of instability.	Usually >25 but depends on number of cracks	
<p>Note: Crack width is only one factor in assessing category of damage and should not be used on its own as a direct measure of it.</p> <p>Note: Local deviation of slope, from the horizontal or vertical, of more than 1/100 will normally be clearly visible. Overall deviations in excess of 1/150 are undesirable.</p>				

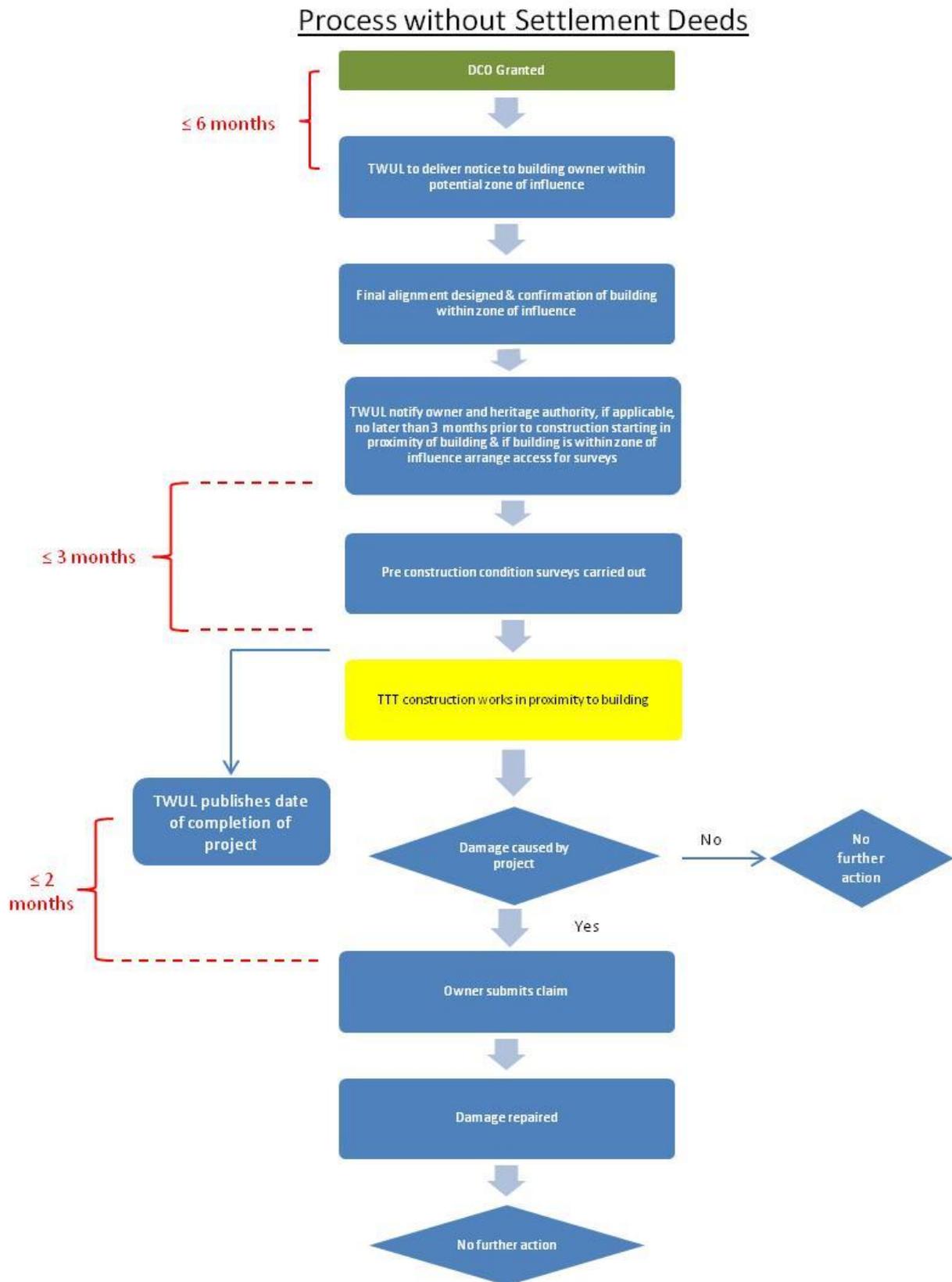
Appendix B

B.1 Listed building: Additional evaluation criteria

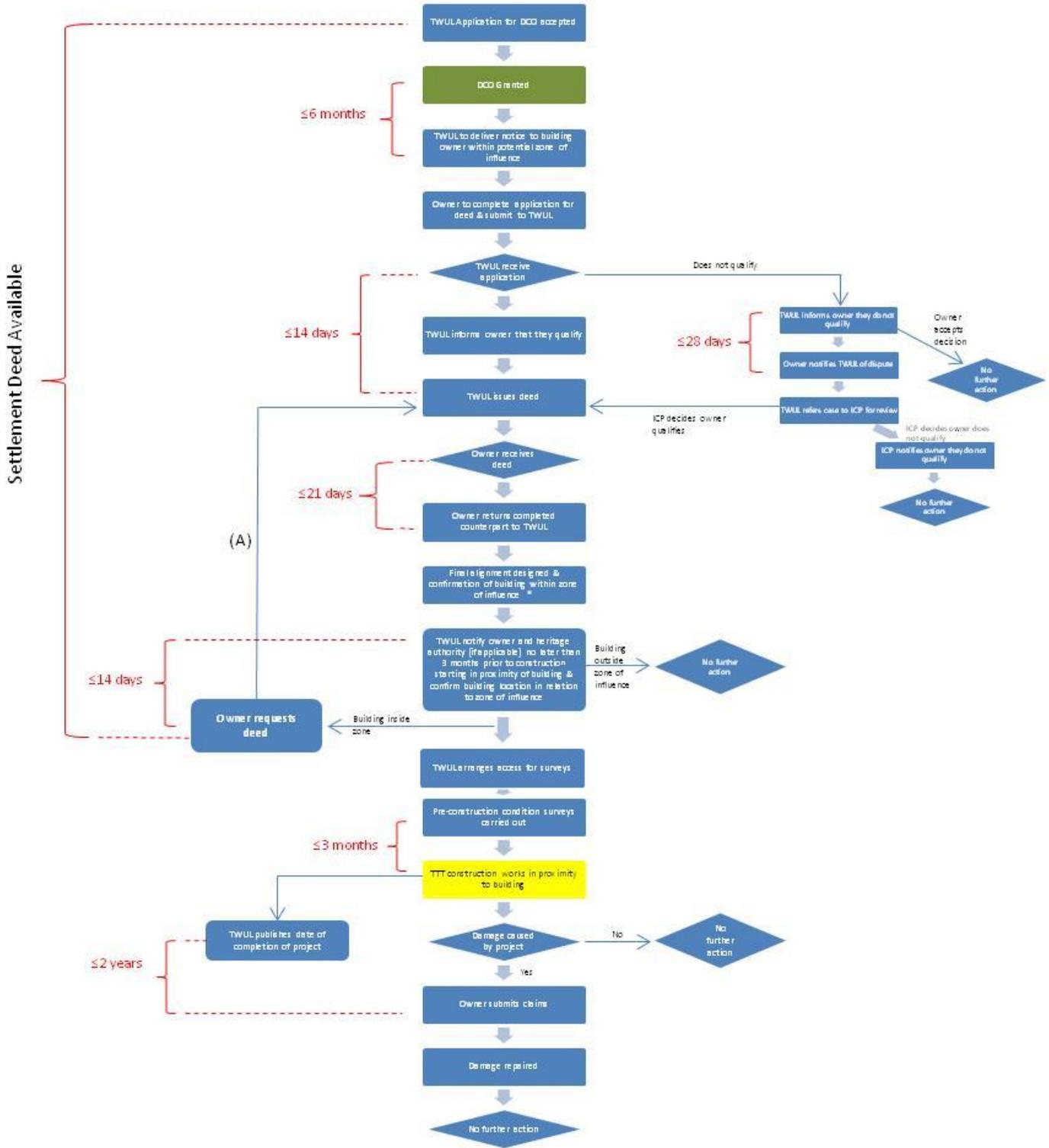
Table B.1 Structural, heritage and condition scoring matrix for listed buildings

Score	STRUCTURE Sensitivity of the structure to ground movements and interaction with adjacent buildings	HERITAGE FEATURES Sensitivity to calculated movement of particular features within the building	CONDITION Factors which may affect the sensitivity of structural or heritage features
0	Masonry buildings with lime mortar and regular openings, not abutted by other buildings, and therefore similar to the buildings on which the original Burland assessment was based.	No particular sensitive features	Good - not affecting the sensitivity of structural or heritage features
1	Buildings not complying with categories 0 or 2, but still with some sensitive structural features in the zone of settlement e.g.: cantilever stone staircases, long walls without joints or openings, existing cracks where further movements are likely to concentrate, mixed foundations	Brittle finishes, e.g. faience or tight-jointed stonework, which are susceptible to small structural movements and difficult to repair invisibly.	Poor - may change the behaviour of a building in cases of movement. Poor condition of heritage features and finishes. Evidence of previous movement.
2	Buildings which, by their structural form, will tend to concentrate all their movements in one location (e.g.: a long wall without joints and with a single opening).	Finishes which if damaged will have a significant effect on the heritage value of the building, e.g. Delicate frescos, ornate plasterwork ceilings.	Very poor – parlous condition of heritage features and finishes, or severe existing damage to structure including evidence of ongoing movement. Essentially buildings which are close to collapse or where finishes are loose such that even very small movements could lead to significant damage.

Appendix C: Process for settlement deeds



Process for Settlement Deeds



* Omitted if resulting from (A)

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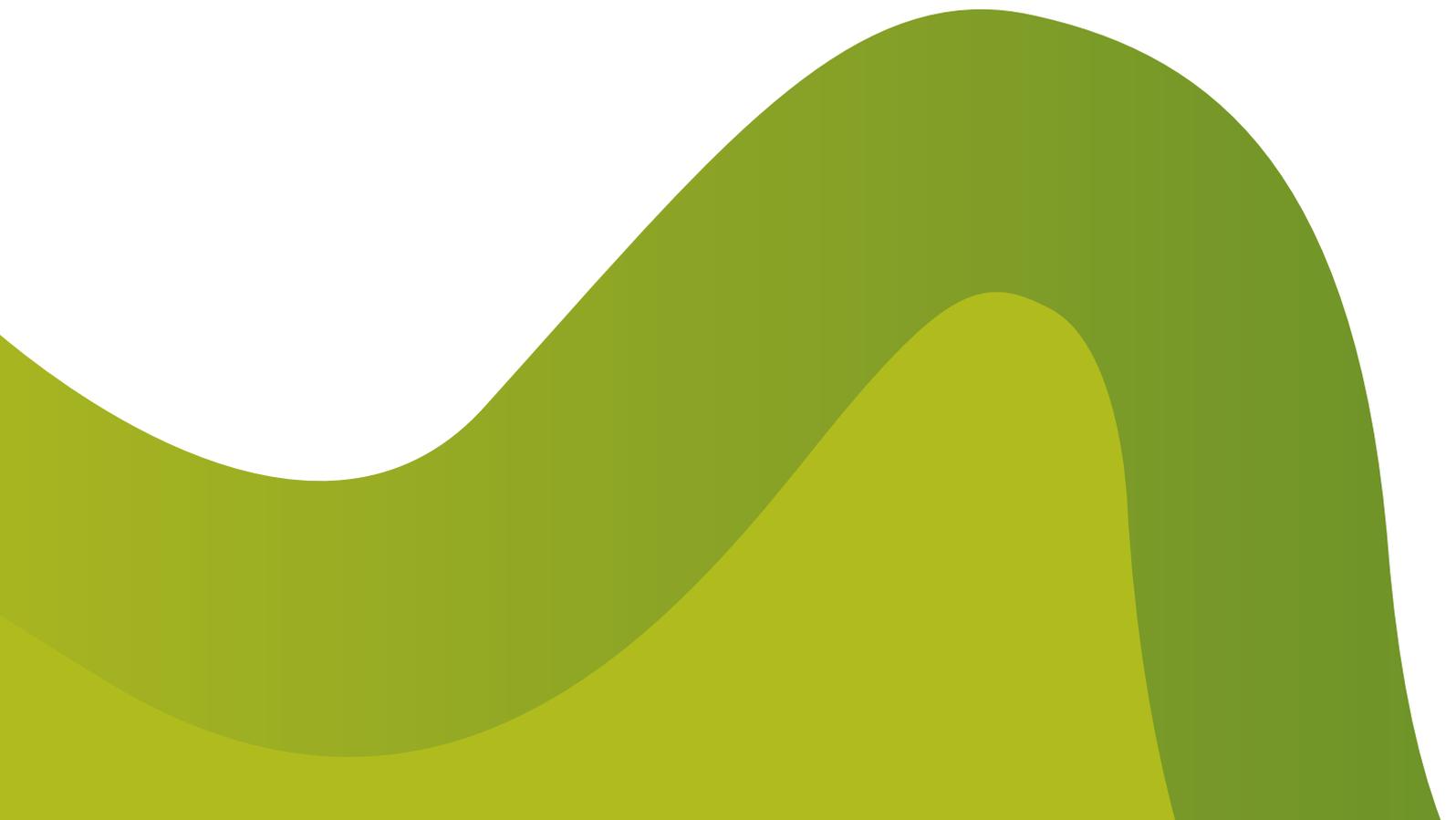
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Thames Water Utilities Limited

Clearwater Court, Vastern Road, Reading RG1 8DB

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Appendix 6
The First Memorandum of Understanding

DATED

2011

(1) THAMES WATER UTILITIES LIMITED

**(2) THE LONDON BOROUGHS OF EALING, GREENWICH, HAMMERSMITH & FULHAM, HOUNSLOW, LAMBETH, LEWISHAM, NEWHAM, RICHMOND upon THAMES, SOUTHWARK, TOWER HAMLETS, WANDSWORTH, THE CITY OF LONDON CORPORATION, THE COUNCIL OF THE ROYAL BOROUGH OF KENSINGTON AND CHELSEA
and
WESTMINSTER CITY COUNCIL**

(3) THE GREATER LONDON AUTHORITY

THAMES TUNNEL PROJECT

MEMORANDUM OF UNDERSTANDING REGARDING PLANNING



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DATED

of

2011

PARTIES

- (1) **THAMES WATER UTILITIES LIMITED** whose registered office is situate at Clearwater Court Vastern Road Reading Berkshire RG1 8DB Registered Company number 2366661 ("**Thames Water**"); and
- (2) **THE LONDON BOROUGHS OF EALING, GREENWICH, HAMMERSMITH & FULHAM, HOUNSLOW, LAMBETH, LEWISHAM, NEWHAM, RICHMOND upon THAMES, SOUTHWARK, TOWER HAMLETS, WANDSWORTH, THE CITY OF LONDON CORPORATION, THE COUNCIL OF THE ROYAL BOROUGH OF KENSINGTON and CHELSEA AND WESTMINSTER CITY COUNCIL** whose addresses are listed in Schedule 1 (the "**London Boroughs**")
- (3) **THE GREATER LONDON AUTHORITY** of City Hall The Queen's Walk More London SE1 2AA (the "**GLA**")

RECITALS AND CONTEXT OF THE MEMORANDUM

- (A) The UK is alleged to be in breach of the European Union Urban Waste Water Treatment Directive ("**UWWTD**") due to the unacceptable level of discharges of untreated wastewater from CSOs to the River Thames. Infraction proceedings for failure to comply with the UWWTD have been commenced against the UK Government by the European Commission.
- (B) Further to its statutory duties Thames Water must address the problem of discharges from the CSOs to the River Thames. It has been charged with doing this by the Government, by way of Ministerial statement on 22 March 2007. The Thames Tunnel has been identified by the Government as the preferred method to meet the UWWTD requirement to prevent unacceptable CSO discharges entering the River Thames, this was confirmed in the Ministerial Statement on 7 September 2010. Thames Water has an anticipated delivery date of 2020 for the Thames Tunnel and this has been communicated to the EU Commission, who are nevertheless proceeding with infraction proceedings.
- (C) Ministerial statements on 7 September and 16 November 2010 confirmed the intention to identify the Thames Tunnel as a Nationally Significant Infrastructure Project under the Planning Act that would consequently be the subject of an application to the Infrastructure Planning Commission for a Development Consent Order. That process requires that the application that Thames Water submits to the IPC must be comprehensive and complete. The application proposal for which consent is sought must address all issues relevant to the construction and operation of the Project. This includes the interface with areas of the Local Authorities through which the Project will pass. The application is to be submitted in 2012 by which point it is helpful for the Authorities and Thames Water to have agreed how the interface between Thames Tunnel construction and the Authorities' areas and concerns are to be managed. The applications, plans and the terms of the draft DCO in particular will need to reflect the outcome of those successful discussions.
- (D) The Parties wish to establish a framework for timely consultation review and comment during preparation of the Development Consent Order Application.

- (E) The Authorities consider that the proper discharge of their various statutory functions arising as a result of and relating to the Project will require the deployment and allocation of resources by the Authorities. Consequently the Authorities consider that it is in the public's best interest that they complete this Memorandum.
- (F) The Project is of importance and significance. Thames Water and the Authorities agree to work in a co-ordinated fashion to facilitate the efficient preparation of the proposed Development Consent Order Application including dealing with site specific issues while allowing for the provision of pre application advice from the Authorities or any of them at each stage in the process.
- (G) Nothing in this Memorandum shall be taken to predetermine or prejudice the proper consideration and determination of any consent or application or override or fetter the statutory powers duties or responsibilities of the Authorities or Thames Water.

1 **DEFINITIONS AND INTERPRETATION**

- 1.1 In this Memorandum the following words shall have the following meanings unless otherwise stated:

"Authorities" means the London Boroughs and the GLA.

"Authorities Obligations" means the obligations and objectives set out in Clause 8 (*General Obligations of the Authorities*).

"Charging Principles" means those principles set out in Clause 10 (*Reimbursement of Costs and other expenses incurred by the Authorities*)

"Community Consultation Strategy" means the strategy bearing that name published by Thames Water on/in 13 September 2010 that supplements the Statement of Community Consultation including any amendment, supplement or update to the strategy that may be published by Thames Water.

"CSO" means combined sewer overflow.

"Development Consent" means consent as defined under section 31 of the Planning Act.

"Development Consent Order (DCO) Application" means a development consent order application in respect of the Project to be submitted to the IPC by Thames Water which subject to the acceptance by the IPC complies with the requirements of Section 55 of the Planning Act and is also in Thames Water's view compliant with Section 55 of the Planning Act.

"EIA" means environmental impact assessment.

"EIA Scoping Report" means the report on the intended scope of the environmental impact assessment of the Project prepared by Thames Water and provided to the Authorities with a request for their opinion on the appropriate scope for that assessment of the Project.

"Information Acts Protocol" means the protocol as set out at Schedule 3 for handling requests for information made to the Authorities under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004.

"Infrastructure Planning Commission" or **"IPC"** means the body corporate of that name established under section 1(1) of the Planning Act and any other such appointed government body with the function of receiving the Development Consent Order Application.

"London Boroughs" means the London Boroughs of Ealing, Greenwich, Hammersmith & Fulham, Hounslow, Lambeth, Lewisham, Newham, Richmond upon Thames, Southwark, Tower Hamlets, Wandsworth, The City of London Corporation, The Council of the Royal Borough of Kensington and Chelsea and Westminster City Council.

"Parties" means Thames Water and the Authorities and shall include their successors and assigns from time to time and "Party" shall be construed accordingly.

"Planning Act" means the Planning Act 2008 and subsequent amendments.

"Process Objectives" means the objectives set out in Clause 6 (*Process Objectives*).

"Project" means the project envisaged by Thames Water referred to in Clause 4 (*Project Description*).

"Project Programme" means the indicative programme for submission of the Development Consent Order Application set out in Schedule 2 (*Indicative Project Programme and Key Dates*).

"Statement of Community Consultation" means the statement published by Thames Water in the Evening Standard on 13 September 2010 under section 47 of the Planning Act including any amendment or update to the Statement that may be published by Thames Water under section 47.

"Thames Tunnel" means the Project.

"Thames Tunnel Forum" means the group established for coordinating the consultation process for the Project that comprises Thames Water, representatives from the Authorities, other part-London stakeholders, environmental bodies, the London Business Community and voluntary sector organisations the terms of reference for which are attached as Appendix 1.

"Thames Water's Obligations" means the obligations and objectives set out in Clause 7 (*General Obligations of Thames Water*).

"UWWTD" means the EU Urban Wastewater Treatment Directive.

"Vision" means the vision set out in Clause 5 (*Vision*).

"Working Days" means Monday to Friday each week but excludes Christmas Day, Boxing Day, Good Friday and bank holidays.

2 **PURPOSE AND LEGAL STATUS AND DURATION OF THIS MEMORANDUM**

- 2.1 This Memorandum is entered into by Thames Water and the Authorities voluntarily further to and reflecting the circumstances and aspirations recorded in the Recitals at paragraphs (A) to (G) above.

- 2.2 This Memorandum sets out the objectives for the Project in so far as they relate to the Authorities' involvement in the Development Consent Order Application process with procedural arrangements to seek to ensure that timely consultation, scrutiny, review and comment of draft application documentation and other matters during the Development Consent Order Application process can be achieved, having full regard to each Party's various duties, but in the case of the Authorities, subject to Clauses 3.1 and 3.3 below. Its purpose is to set out the manner in which the Project is being taken forward to the extent relevant to each Party's responsibilities.
- 2.3 The Parties agree that the overall objective of the Memorandum is to secure the timely and rigorous preparation of the Development Consent Order Application in accordance with the processes and procedures in the 2008 Act and the regulations, policy and procedure issued further to the 2008 Act including the preparation of the environmental statement as part of the EIA of the Project and the consideration of other draft documentation that will form part of the Development Consent Order Application without fettering any Party's ability to discharge their statutory functions, community engagement or leadership.
- 2.4 The intention of the Parties is to provide a framework that:
- (a) allows the Project Programme to be met and managed efficiently and effectively;
 - (b) results in an efficient interface between the Parties in relation to the Project generally and the preparation of the Development Consent Order Application and the Project Programme;
 - (c) secures meaningful and timely feedback to consultation documents or other material that Thames Water issues to the Authorities for comment in the process of preparing Development Consent Order Application;
 - (d) respects the duties and discretions of Thames Water including, but not limited to, the Development Consent Order Application;
 - (e) respects the duties and discretions of the Authorities in considering the Project and the Development Consent Order Application, including, but not limited to, preparation of any reports and obtaining of appropriate committee and / or officer authorisations;
 - (f) establishes a stable team of suitably experienced and senior representatives to provide the interface between Thames Water and the Authorities and between the Authorities;
 - (g) allows for more efficient project management, easier dispute avoidance and resolution in respect of the Development Consent Order Application and in working in accordance with the Project Programme;
 - (h) either sets out (with variations under permitted circumstances), or provides a mechanism for reaching consensus on, a set of objectives and milestones to be achieved.
- 2.5 This Memorandum does not cover works and/or applications that are not included within or part of the Development Consent Order Application.
- 2.6 Save for any payment due to an Authority further to the terms of Clause 10 the terms of this Memorandum shall lapse and be of no further effect upon acceptance

of the Development Consent Order Application by the IPC as a valid application for Development Consent for the Project further to section 55 of the Planning Act.

- 2.7 Thames Water confirms that after the submission of the Development Consent Order Application it shall review the desirability of entering a further Memorandum of Understanding concerning ongoing work directly related to the Authorities' consideration of the Development Consent Order Application and in that regard will work with the Authorities to understand their resource requirements in respect of the Project having regard to the desirability of the objectives of this Memorandum continuing to be met. For the avoidance of doubt however nothing in this clause will require Thames Water to fund:
- 2.7.1 the statutory duties of the Authorities in respect of a submitted application for development consent;
- 2.7.2 any work that the Authorities receive funding from another source of statutory or other derivation (including fees payable under statutory authority for the discharge of requirements on a development consent order (imposed further to section 120(1) of the Planning Act 2008)).

3 **NON FETTER OF DISCRETION**

- 3.1 The Authorities will at all times operate within their statutory powers and duties and in accordance with the legislation to which they are subject. No decision, advice, observation, consultation response, representation or submission by the Authorities in respect of the Project or the Development Consent Order Application, pursuant to their statutory powers and duties under the Planning Act or otherwise, including, but without limitation, Act of the United Kingdom Parliament, European Union legislation and principles of common law, shall be in any way prejudiced or fettered by the existence of this Memorandum.
- 3.2 Thames Water will at all times operate within its statutory powers and duties and in accordance with the legislation to which it is subject. No decision in respect of the Project shall be in any way prejudiced or fettered by the existence of this Memorandum. Nor shall this Memorandum be treated as formal policy so far as Thames Water's other dealings are concerned either in relation to the Project or any other part of Thames Water's business.
- 3.3 The parties also acknowledge that the existence of this Memorandum (or the interpretation of it) in no way predetermines any element of the process of achieving the requisite consents for the Project (including but not limited to any Development Consent Order Application and pre-application consultation) or the description of the Project.

4 **PROJECT DESCRIPTION**

- 4.1 The proposed Project will involve the installation of a main tunnel running from Acton Storm Tanks in West London to either Beckton STW or Abbey Mills Pumping Station in East London and a number of connection tunnels for the interception storage of and transfer discharges of stormwater from existing CSOs that would absent the Project enter the River Thames.
- 4.2 The Project is not yet accurately defined in terms of: the precise tunnel route and alignment; the tunnel drive and reception sites; CSO interception sites; and sites needed for its construction and operation. Therefore for the purposes of this Memorandum, where 'the Project' is used, it refers to the finalised content of the Development Consent Order Application.

4.3 The Project includes any associated and ancillary development that Thames Water includes within the draft Development Consent Order submitted as part of the Development Consent Order Application.

5 **VISION**

5.1 For the purpose of this Memorandum, the aims of the Project are to achieve the following:

- (a) compliance with the UWWTD in respect of CSO discharges to the River Thames;
- (b) compliance with construction and operational safety and security requirements;
- (c) the efficient and effective and fully resourced involvement of the Authorities in the preparation of the Development Consent Order Application;
- (d) a proper assessment and scrutiny of environmental, social and economic effects of the Project established through a robust evidence base;
- (e) the management of the effects of the Project on individuals and communities and the natural and built environment and an understanding of the measures that are reasonably required to mitigate the effects of the Project on individuals and communities and the natural and built environment having regard to the statutory duties and obligations of the Parties including requirements to be included in the draft Development Consent Order forming part of the Development Consent Order Application and any necessary planning obligations to be entered with the Authorities or any of them further to and in accordance with the provisions of Section 106 of the Town and Country Planning Act 1990 and Section 174 of the Planning Act;
- (f) promotion of effective, efficient and meaningful community engagement in the development of the design of the Project including any necessary mitigation for identified effects of the Project prior to submission of the Development Consent Order Application; and
- (g) submission by Thames Water of the proposed Development Consent Order Application to the IPC according to the Project Programme.

6 **PROCESS OBJECTIVES**

6.1 In return for the various commitments and obligations given in Clauses [7 to 10] the Parties agree to:

- (a) the mutual commitment of resources to meet the Vision and the Process Objectives and the processing of documentation relevant to the Development Consent Order Application in accordance with the Project Programme;
- (b) provide meaningful feedback in a timely manner and in accordance with the terms of the Memorandum to assist the process of preparing the Development Consent Order Application;

- (c) mutual participation along with other stakeholders and interested parties as may be necessary in meetings to enable progress of the Development Consent Order Application to be monitored and considerations and potential issues common to the Project, across administrative boundaries, to be identified, discussed and resolved wherever practicable;
- (d) generally act with reasonable care and skill including responding to requests as soon as reasonably practicable in order to achieve the submission by Thames Water of the Development Consent Order Application according to the Project Programme;
- (e) use their reasonable endeavours to comply with the Process Objectives.

6.2 These Process Objectives may be updated from time to time with the consent of the Parties.

7 **GENERAL OBLIGATIONS OF THAMES WATER**

7.1.1 In return for the Council observing the Council Obligations, Thames Water agrees to use its reasonable endeavours to:

- (a) continue to organise and convene meetings of the Thames Tunnel Forum in accordance with the terms of reference for the Forum as set out at Appendix 1;
- (b) comply with the Process Objectives and to help facilitate the other Parties' compliance with the Process Objectives;
- (c) comply with Clause 9 (*Review of Draft Development Consent Order Application Documentation and Other Documentation and Other Actions*) of this Memorandum.
- (d) pay the Authorities costs properly incurred and invoiced in accordance with the arrangements for the Reimbursement of Costs and other expenses incurred by the Authorities (Clause 10 *Reimbursement of Costs and Other Expenses Incurred by the Authorities*);
- (e) carry out public consultations and consult with the Authorities, other stakeholders and the public in accordance with Thames Water's "Statement of Community Consultation" and Community Consultation Strategy for the Project;
- (f) to observe the terms of the Information Act Protocol;
- (g) provide constructive input into pre-application discussions with the Authorities (or any of them);
- (h) provide agendas for meetings 5 Working Days in advance of the relevant meeting, and where there are substantive documents relevant to the agenda, to issue such documents in advance of meetings not later than the date on which it circulates the agenda for that meeting;
- (i) provide a copy of a Thames Water team directory, identifying the lead individuals and their responsibilities, to other Parties within ten working days of the date of this Memorandum, and to keep such team directory up to date (updates to be issued to the Authorities as and when necessary); and

- (j) provide robust project management of all relevant processes related to the Development Consent Order Application;

7.1.2 Thames Water will employ a person to manage the various activities required by this Memorandum. That person will in particular:

- (a) act as the lead contact for Thames Water in its dealings with the Authorities further to the terms of this Memorandum;
- (b) collect the comments and other documents the Authorities are to issue under the terms of the Memorandum;
- (c) manage and monitor performance of Thames Water and the Authorities against the requirements and stipulations of this Memorandum; and
- (d) collate contact details for the Parties and issue them further to clauses 7.1.1(i) and 8(m) of this Memorandum.

8 **GENERAL OBLIGATIONS OF THE AUTHORITIES**

The Authorities agree to use their reasonable endeavours to:

- (a) attend and contribute to the meetings of the Thames Tunnel Forum;
- (b) comply with the Process Objectives and to assist the other Parties compliance with the Process Objectives;
- (c) to comply with Clauses 9 (*Review of Draft Development Consent Order Application Documentation and Other Documentation and Other Actions*) and 10 (*Reimbursement of Costs and Other Expenses Incurred by the Authorities*);
- (d) support and assist Thames Water in engaging communities and assisting those communities themselves so that they understand how and when they can engage in the process of preparing the Development Consent Order Application and support Thames Water and its initiatives to engage those communities further to the Statement of Community Consultation and the Community Consultation Strategy or any necessary revision or amendment to the Statement of Community Consultation and / or the Community Consultation Strategy for the Project;
- (e) work with the community and statutory agencies to assess the adequacy of Thames Water's "Statement of Community Consultation" for the Project and to provide related advice to the Infrastructure Planning Commission further to section 55(4) of the Planning Act if requested by the IPC and/or in accordance with any response it makes to the consultation report pursuant to Section 37(7) of the Planning Act;
- (f) engage and participate in a co-ordinated fashion in pre-application discussions with Thames Water;
- (g) if Thames Water has issued documents in advance of a meeting further to Clause 7.1.1(h) to provide Thames Water with all documents relevant to the purpose of that meeting between the Parties not less than two Working Days prior to that meeting occurring or at such other time as may be agreed in writing by the Parties;

- (h) provide Thames Water with all documents relevant to the purpose of that meeting between the Parties with the substantive response of the Authority or Authorities to that meeting issued further to clause 9.4 or at such other time as may be agreed in writing by the Parties;
- (i) provide proactive communications capacity to co-ordinate requests for information by the media, and pursuant to the Environmental Information Regulations 2004 and the Freedom of Information Act 2000 on behalf of the Authorities in accordance with the Information Acts Protocol and to observe the terms of the Information Acts Protocol;
- (j) provide robust project management of all relevant processes related to the Development Consent Order Application;
- (k) respond substantively to all written communications and telephone calls other than those provided for or covered by the provision of Clause 9.4 with or from the other Parties within 10 working days of receipt, and to respond to all other communications associated with this Memorandum promptly and in any case within 20 working days from receipt or in either case within such other time as may be agreed by the Parties, or in both instances in accordance with such other timetable as the Authorities or any of them may agree with Thames Water (in respect of agreement with individual Authorities agreement shall be limited to Thames Water and the relevant Authority);
- (l) notify Thames Water no later than 10 working days prior to any Council, cabinet or public committee meeting at which any report of matter relevant to the Project will be considered, and provide all parties with the relevant minutes (which for the avoidance of doubt may be in draft form) or action points arising within 20 working days (minutes provided in draft will be provided in their final form upon adoption by the relevant Authority); and
- (m) provide a copy of a full team directory, identifying the lead individuals and their responsibilities, to the other Parties within 10 working days of the date of this Memorandum, and to keep such team directory up to date (updates to be issued to the Authorities as and when necessary).

9 **SPECIFIC REVIEW OF DRAFT DEVELOPMENT CONSENT ORDER APPLICATION DOCUMENTATION AND OTHER DOCUMENTATION AND OTHER ACTIONS**

- 9.1 Thames Water shall from time to time issue the following for review and comment by the Authorities:
 - 9.1.1 drafts of the documents or parts of those documents that will form part of the Development Consent Order Application; and
 - 9.1.2 other documentation produced to facilitate and/or inform the process of preparing the Development Consent Order Application; and
 - 9.1.3 may from time to time request the Authorities to participate in meetings and workshops concerning the Project including the Thames Tunnel Forum.
- 9.2 Thames Water will provide to the Authorities a predicted timetable for issue of documentation and the holding of meetings and workshops including the Thames Tunnel Forum further to Clause 9.1 within fifteen Working Days of this

Memorandum and will review and if necessary update it and provide these updates in writing to the Authorities for the purpose of Clause 10.

- 9.3 Thames Water will use its reasonable endeavours to give not less than 10 Working Days notice of the issue of documentation or the holding of meetings and workshops further to Clause 9.1 provided that Thames Water shall not be prevented from issuing documentation or holding a meeting or workshop under this Clause 9 by virtue of not being able to give that period of notice but in those circumstances the Parties will take account of whether this clause has been complied with when agreeing the timeframe for provision of comment on documents or meetings and workshops held issued further to Clause 9.1 under Clause 9.4.
- 9.4 Thames Water and the Authorities shall use their reasonable endeavours to agree timeframes for the review of documentation issued or responses to meetings and workshops held further to Clause 9.1 by the Authorities and the provision of responses to Thames Water having regard to the Project Programme and Clause 10 (*Reimbursement of Costs and other expenses incurred by the Authorities*). The following minimum and maximum periods for the provision of written responses shall apply unless (in the case of Clauses 9.4.2 to 9.4.4) the Parties agree in writing to waive them or agree such longer periods as the Parties may at their individual discretion agree:
- 9.4.1 for documents issued under Clauses 9.1.1 or 9.1.2 any minimum period established by statute or prescribed by regulation or specified by Thames Water as a period longer than the minimum period (where Thames Water is able to specify such longer period); and
- 9.4.2 for other documents issued under Clause 9.1.1 the period shall be 15 to 20 Working Days; or
- 9.4.3 for other documents issued under Clause 9.1.2 the period shall be 10 to 15 Working Days; or
- 9.4.4 for meetings or workshops held further to Clause 9.1.3 the period shall be 5 to 10 Working Days (but where Thames Water has confirmed in advance of the due date for documents that only an agenda will be issued in advance of the relevant meeting or workshop under clause 7.1.1 (h) the period will be 10 to 15 Working Days).
- 9.4.5 Without prejudice to Clauses 9.4.2 to 9.4.4 Thames Water may ask the Authorities or an Authority to consider a shorter time period for responses than that specified in those clauses in which case the Authorities or the Authority in question shall give reasonable consideration to the request and their ability to comply with it. The timeframe specified in Clauses 9.4.2 to 9.4.4 shall only be amended if the relevant Authorities or Authority confirm their agreement to the request from Thames Water in writing.
- 9.5 The Authorities shall use their reasonable endeavours to provide their response to documents issued and meetings or workshops held further to Clause 9.1 in accordance with the timeframes agreed further to Clause 9.4.
- 9.6 The Authorities responses to documents issued or meeting and workshops held under Clause 9.1 shall be provided in writing unless otherwise agreed in writing by Thames Water.

- 9.7 The Authorities if they wish to do so may identify a lead Authority or Authorities to co-ordinate responses in relation to documents issued under Clause 9.1 and the various topics which will be covered in the documentation and which are relevant to the preparation of the environmental statement as part of the EIA for the Project as part of the Development Consent Order Application including the following:
- (a) support the process of complying with and meeting the terms of this Memorandum and supporting the Authorities involvement in the Thames Tunnel Forum in which case the relevant employee of the authorised Authority shall work with the Co-ordinator appointed by Thames Water under clause 7.1.2;
 - (b) any revision that may be necessary to the Statement of Community Consultation consulted on and published under section 47 of the Planning Act and any related changes to the Community Consultation Strategy;
 - (c) odour and air management strategy for the Project;
 - (d) the approach to the assessment of noise and vibration effects that may arise from the project and the design of noise and vibration mitigation for the Project (as necessary);
 - (e) Code of Construction Practice and Construction Plan for the Project;
 - (f) Transportation and Transport Management Plan for the Project;
 - (g) the approach to land and townscape design and mitigation.

The purpose of identifying lead Authority is to enable the Authorities to respond to Thames water in a co-ordinated manner further and subject to Clause 9.8.

- 9.8 The lead Authority identified under Clause 9.7 shall arrange meetings with the other Authorities, and if necessary Thames Water (save that if Thames Water does not attend then minutes of the meeting shall be submitted to Thames Water within 5 Working Days of that meeting), for the purpose of providing the Authorities response to documentation issued or meetings and workshops under Clause 9.1. The lead Authority shall be responsible for providing the Authorities response further to Clause 9.6 taking account of the comments made at meetings held under this Clause 9.8 and the individual points made by the other Authorities to the lead Authority in writing PROVIDED THAT an Authority may provide a separate response to documentation issued under Clauses 9.1 further to Clause 9.6 to the extent it is inconsistent with or contains further information to the response provided by the lead Authority further to this Clause 9.8. In the event that a meeting is held under this Clause between Authorities, then the periods set out in Clauses 9.4.2 to 9.4.4 shall each be increased by 5 Working Days.
- 9.9 In the course of discharging their obligations under Clause 9.1 Thames Water and the Authorities shall use their reasonable endeavours to discuss, draft and agree (subject to Clause 3) the following matters:
- 9.9.1 the requirements in connection with the Project subject to which development consent should be granted (further to Clause 120(1) of the Planning Act) and which will be included in the draft development consent order to be included in the draft Development Consent Order Application;

9.9.2 heads of terms for any planning obligations Thames Water would be prepared to enter with the Authorities or an Authority further to section 106 of the Town and Country Planning Act 1990 (as amended by section 174 of the Planning Act);

9.9.3 statements of common ground in respect of the matters and topics listed at Clause 9.7 or any other matters that are relevant to the Development Consent Order Application

10 **REIMBURSEMENT OF COSTS AND OTHER EXPENSES INCURRED BY THE AUTHORITIES**

10.1 **Charging Principles**

10.1.1 Subject to the remainder of this Clause 10, any funding arrangements entered into between Thames Water and the Authorities or any of them shall be in accordance with the following principles:

- (a) the Authorities shall designate officers, or where resources of the necessary expertise or experience are not available may internally engage external consultants, and provide other appropriate resources and carry out other actions needed to secure the proper consideration of the Development Consent Order Application and its submission in accordance with the Project Programme further to their obligations under Clauses 8 (General Obligations of the Authorities) and 9 (Review of draft Development Consent Order Application Documentation and Other Documentation) and the Vision and the Process Objectives;
- (b) where external consultants are engaged by the Authorities the relevant Authority shall give Thames Water 15 working days notice of the appointment;
- (c) the sole basis for charging is to enable the Authorities to recover resources and costs expended by them to achieve submission of the Development Consent Order Application in accordance with the Project Programme;
- (d) the charging relates exclusively to each Authority's recovery of its costs for the provision of services further to Clause 10.1.1(a) that it is authorised but not required (by an enactment) to provide;
- (e) the payments are on a not-for profit basis (year by year) and, taking one year with another, the income from the charges for such services must not exceed the cost to the Authority of providing them;
- (f) there shall be full transparency with regard to costs incurred;
- (g) the Authorities and each individual one of them shall use all reasonable endeavours to keep costs payable by Thames Water under this Memorandum to a minimum including but not limited to:
 - (i) where practicable sharing resources between each Authority and avoiding the duplication and overlap of resources;
 - (ii) appointing a single person to coordinate work on behalf of the Authorities;
 - (iii) making the best use of the resources and expertise available within the Authorities and the information available to them;

- (h) regard shall be had to whether an Authority is providing or meeting a Lead Authority role under clause 9.7;
- (i) Authorities will estimate their costs and expenses for approval by Thames Water under clause 10.2 on a reasoned and reasonable worst case basis;
- (j) Thames Water shall not have to pay for any work undertaken by the Authorities or an Authority that Thames Water has not given its prior approval to under the provisions of this Clause 10.

10.2 **Agreement of Costs**

10.2.1 Each Authority shall submit to Thames Water an estimate of its costs in responding to documentation submitted to it or meetings and workshops held further to Clause 9.1 or other work it feels it is reasonably necessary for it to undertake to achieve the Process Objectives PROVIDED THAT

- (a) the estimate shall be in the form attached at Appendix 2;
- (b) the estimate shall have regard to the principles established in Clause 10.1 in particular Clause 10.1 (i);
- (c) there will be no limit on the number of estimates an Authority may issue in any particular year but each Authority shall use its reasonable endeavours to submit no more than two estimates per year (1 April to 31 March) and will review any estimates submitted and approved further this clause 10.2 on a quarterly basis and report to Thames Water if they anticipate that the costs they incur will exceed the approved estimate.

10.2.2 Thames Water will approve or reject (in whole or in part) any estimate received by them within 14 days of receipt of that estimate (or such other timescale as otherwise agreed with the relevant authority) and will issue a purchase order number in respect of any approved estimate within 14 days of the relevant estimate being approved (or such other timescale as otherwise agreed with the relevant authority). The estimate submitted and agreed in writing by Thames Water shall be in advance of any such work being undertaken or consultants to undertake any such work being appointed.

10.2.3 In submitting an estimate further to Clause 10.2.1 the individual Authorities shall:

- (a) insofar as reasonably possible provide comprehensive estimates for all activity reasonably expected to be required to meet the Process Objectives and the Project Programme and will not submit invoices on a task by task basis;
- (b) use for the calculation of the costs likely to be incurred by them in respect of officers and others their published hourly rates (from time to time in force) for pre-application advice by the Authority ;
- (c) where work is to be carried out by consultants appointed by the Authorities the estimate submitted shall include the cost estimated by the consultant, the assumptions made by the consultation in calculating that estimated cost including hourly rates for individuals and the number of hours assumed necessary for the tasks to be undertaken as part of the consultant's appointment;

- (d) estimates submitted under Clause 10.2.3 may include allowance for administration costs associated with provision of services to meet the Project Objectives but such time will be specified in accordance with Clause 10.2.3;
- (e) Thames Water shall confirm its agreement or otherwise of any estimate submitted by an Authority in writing and shall confirm in respect of any approved estimate:
 - (i) the approved purchase order number; and
 - (ii) the cap on the agreed level of costs approved further to the estimate supplied.
- (f) notify Thames Water promptly as soon as it is reasonably expected that the anticipated resource expenditure required to complete any Work Package is likely to exceed the authorised expenditure limit for that Work Package.

10.2.4 For the avoidance of doubt Thames Water offers no commitment to fund any part of the Authorities' or an Authority's expenditure:

- (a) which exceeds the authorised expenditure limit for that Work Package unless and until Thames Water has approved such expenditure but notwithstanding the Authorities shall be free to continue with any work under such Work Package as it sees fit and at its own cost;
- (b) where such expenditure would result in Thames Water exceeding its overall budget for the work being undertaken by the Authorities.

10.3 **Invoicing and payment**

10.3.1 An Authority may invoice Thames Water either quarterly in arrears (at the end of March, June, September and December in any calendar year) or monthly in arrears for work it has undertaken and completed further to an estimate approved under Clause 10.2. Any invoice submitted further to this Clause shall be accompanied by time sheets (or other evidence of the work completed) or consultant invoices and narratives or other written evidence as necessary to demonstrate that the work in respect of which the invoice is submitted has been completed.

10.3.2 Thames Water will pay any invoice validly submitted further to Clause 10.4.1 within thirty Working Days of that invoice being received.

10.4 **Legal Fees**

10.4.1 Thames Water will reimburse the Agreed Legal Fees to each relevant Authority.

10.4.2 "Agreed Legal Fees" are the reasonable and proper legal fees incurred by individual Authorities in completion of this MoU as supported by appropriate evidence of the time and resources applied and as agreed with Thames Water.

11 **DISPUTE RESOLUTION**

11.1 Where there is a dispute between Thames Water and the Authorities or a group of them that arises out of the terms of the MoU generally or which relates to the agreement of costs further to Clause 10 of the dispute, the dispute is in the first instance to be referred to:

- 11.1.1 Thames Water's Thames Tunnel Planning Projects Manger (Development) (or equivalent person) or its nominee and the relevant Authorities Head of Development Control (or equivalent position) or its nominee;

and in the event that resolution of the dispute cannot be achieved to:

- 11.1.2 the Chief Executives of the Authorities involved in the dispute or his or her nominee and the Managing Director of the Thames Tunnel Project or his nominee.

- 11.2 The Parties agree that any agreement reached further to paragraphs 11.1.1 or 11.1.2 shall be binding upon them.

- 11.3 Dispute resolution further to this paragraph shall not act as a fetter on the statutory role and responsibilities or powers of Thames Water or the Authorities.

12 **DETERMINATION OF DISPUTE AS TO COSTS**

The Parties agree that nothing in this Memorandum shall require Thames Water to fund any mitigation related to the Project. Such matters are to be dealt with separately as appropriate.

13 **CONFIDENTIALITY**

- 13.1 Information held by public authorities is subject to the provisions of the Freedom of Information Act 2000 and the Environmental Information Regulations 2004. Each Party will co-operate as may be necessary and practicable prior to and in order to fulfil any statutory obligations relating to the disclosure of information.

- 13.2 Although such bodies are not parties to this Memorandum the Parties may, wherever practicable, and subject to the agreement of such bodies, enter into an arrangement in which the bodies agree to work in accordance with the principles of this Memorandum with a view to achieving the Process Objectives, insofar as this is compatible with the powers, duties and responsibilities of the bodies concerned.

14 **TERMINATION**

- 14.1 Any Party may at any time and at its own discretion choose not to follow the arrangements set out in this Memorandum (and any of the processes that flow from it) with one or more of the Parties and withdraw from this Memorandum by giving not less than 10 working days notice in writing to the other Parties ("**Notice of Withdrawal**"). Where an Authority withdraws from this Memorandum, then Thames Water will pay costs incurred by that Authority up to the date of the Notice of Withdrawal, so long as in all cases such costs would otherwise have been payable by Thames Water pursuant to Clause 10.

- 14.2 If Thames Water serves a Notice of Withdrawal then it will pay the costs approved under Clause 10 incurred or committed by the Authorities or Authority at the date the Authorities or the relevant Authority received the Notice of Withdrawal so long as in all cases such costs would otherwise have been payable by Thames Water pursuant to Clause 10.

15 **COUNTERPARTS**

- 15.1 This Memorandum may be executed in any number of counterparts, which shall each constitute an original and together constitute one Memorandum.

Schedule 1
Addresses of the London Boroughs

LONDON BOROUGH	ADDRESS
Ealing	Percival House, 14/16 Uxbridge Road, Ealing W5 2HL
Greenwich	Town Hall Wellington Street Woolwich SE18 6PW
Hammersmith & Fulham	Town Hall King Street Hammersmith London W6 9JU
Hounslow	Civic Centre Lampton Road Hounslow TW3 4DN
Lambeth	Town Hall London SW2 1RW
Lewisham	Town Hall Catford London SE6 4RU
Newham	Newham Dockside 1000 Dockside Road London E16 2QU
Richmond upon Thames	Civic Centre 44 York Street Twickenham Middlesex TW1 3BZ
Southwark	224/236 Walworth Road London SE17 1JE
Tower Hamlets	Town Hall Mulberry Place 5 Clove Crescent E14 2BG
Wandsworth	The Town Hall Wandsworth High Street London SW18 2PU
The City of London Corporation	Guildhall London EC2P 2EJ
Royal Borough of Kensington and Chelsea	The Town Hall Hornton Street London W8 7NX

Westminster	Westminster City Hall 64 Victoria Street London SW1E 6QP
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Schedule 2

Indicative Project Programme and Key Dates

- 1 Thames Tunnel Forum meetings to be held in accordance with the terms of reference for the Forum and other meetings associated with the environmental impact assessment of the Project:
 - 1.1 24 June 2011;
 - 1.2 21 September 2011; and
 - 1.3 quarterly thereafter.
- 2 Request for Environmental Impact Scoping Opinion published - end February 2011
- 3 Stage 1 Consultation Report published - end March 2011
- 4 Updated Statement of Community Consultation and Community Consultation Strategy published - Autumn 2011
- 5 Phase 2 Consultation commence and Phase 2 Proposed Scheme Report published - Autumn 2011
- 6 Phase 2 Consultation finishes - Early 2012
- 7 Preliminary Environmental Information published - Autumn 2011
- 8 Section 48 publicity - Summer 2012
- 9 Environmental Impact Statement completed - TBA
- 10 Heads of Terms for Planning Obligations agreed - TBA
- 11 Submission of Development Consent Order Application - TBA

The above dates offer a guide to how the timeframe might run for the Development Consent Order Application. They are not intended to capture each and every part of the Development Consent Order process and all dates may be subject to change due to various factors including (but not limited to) consultation responses and guidance from the IPC and other organisations.

Schedule 3 Information Acts Protocol

2 BACKGROUND

- 2.1 Under the Information Acts the Authorities may receive requests for disclosure of information it holds which may comprise information provided to it by Thames Water pursuant to this MoU, or be derived from such information (together, the "**Information**").
- 2.2 The Authorities acknowledges that the risk of disclosure of such information by the Authorities might inhibit the degree, nature, quality, quantity of information that Thames Water provides to it under this MoU.
- 2.3 The Parties have agreed the terms set out in this Protocol as a means of addressing the concerns of Thames Water, whilst recognising the statutory position of the Authorities under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004.
- 2.4 Thames Water will mark all Information that it provides to the Authorities and which it wishes the Authorities to consider under this Memorandum with the following wording;
- 2.4.1 Written reports and other written documentation - "Draft - Confidential Information";
- 2.4.2 Plans and drawings - "This is an indicative working draft plan which has been produced for the purpose of confidential consultation only. Accordingly, the draft plan must not be copied, distributed or shown to any third party without the express written permission of Thames Water Utilities Limited. It provides an indication of sites that, following discussions with local authorities and other stakeholders, may be confirmed as being on the shortlist of construction sites for the proposed Thames Tunnel. Inclusion of a site on this draft plan should not be taken to mean that such site will be selected as a construction site to form part of the Thames Tunnel scheme."

3 PROCESS

- 3.1 The Authorities agree that Thames Water shall be consulted in all cases where disclosure of Information is being considered under the Information Acts.
- 3.2 Where the relevant Authority consider that refusal to disclose Information falls within a relevant exemption or exception under the Act and Regulations and the Authority is satisfied that the public interest in maintaining the exception outweighs the public interest in disclosing the information it shall refuse disclosure and notify Thames Water accordingly.
- 3.3 For the avoidance of doubt the final decision on whether to release the information shall rest with the relevant Authority

4 EXEMPTION AND EXCEPTIONS

- 4.1 By way of background, the Freedom of Information Act includes a number of exemptions which if applicable permit the Authorities to withhold Information from disclosure, and the Environmental information regulations include similar, but different, exceptions.

- 4.2 This Protocol notes some of the likely key exemptions and exceptions, and the Authorities agree to consider each of these carefully.
- 4.3 **FOIA exemptions**
- 4.3.1 Section 22 - the Information is in draft form and will, once finalised, be published;
- 4.3.2 Section 24 - national security;
- 4.3.3 Section 36(2)(b)(ii) - disclosure would, or would be likely to, inhibit the free and frank exchange of views for the purpose of deliberation;
- 4.3.4 Section 41 - confidentiality; and
- 4.3.5 Section 43 - disclosure would, or would be likely to, prejudice the commercial interests of Thames Water or of the Authorities.
- 4.4 **EIR exceptions**
- 4.4.1 Regulation 12(4)(d) - material in the course of completion, unfinished documents and incomplete data;
- 4.4.2 Regulation 12(4)(e) - disclosure of internal communications;
- 4.4.3 Regulation 12(5)(c) - adverse effect on the intellectual property rights of Thames Water;
- 4.4.4 Regulation 12(5)(e) - adverse effect on the confidentiality of commercial information; and
- 4.4.5 Regulation 12(5)(f) - adverse effect on the interests of Thames Water, where Thames Water was not obliged to provide the Information, did not supply it such that the Authorities are entitled to disclose it and does not consent to its disclosure.
- 4.5 In any event, the Authorities will ask Thames Water:
- 4.5.1 whether it believes it would be likely to be harmed by release in any way if the Information and, if so, for what reasons;
- 4.5.2 the chances that the harm might occur;
- 4.5.3 the seriousness of the harm; and
- 4.5.4 whether the risk of harm will apply now or in the future.
- 4.6 If Thames Water wishes to make a case for non-disclosure of the Information it must set out its reasons objectively. A simple objection is not sufficient to help the Authorities make their decision.
- 4.7 Wherever there is a view that harm might be suffered, it is important to establish to which specific parts of the Information this applies, so that redaction (i.e. removal) of just that part of the Information can be considered by the Authorities. Thames Water might make out a case for withholding the whole of the Information too.
- 4.8 After this consultation, should the Authorities decide to disclose Information against the wishes of Thames Water, Thames Water shall be notified of the decision at

least 5 working days prior to disclosure. The notification will allow Thames Water the opportunity to consider legal action to prevent disclosure or to make further representations to the Authorities.

5 CONSULTING FOR REVIEWS OR APPEALS

- 5.1 Thames Water must also be consulted where a decision on disclosure of Information supplied by them or related to them is subject to a request for internal review by the Authorities or an appeal to the Information Commissioner's Office or to the First-tier Tribunal (Information Rights) (formerly, the Information Tribunal).
- 5.2 Before a decision is taken by the Authorities to appeal to the Tribunal on a matter involving Thames Water, the Authorities will discuss with Thames Water if it is willing to be actively involved in the appeal and provide evidence to the Tribunal. The Parties may also agree to seek to join Thames Water as a party to the appeal.

EXECUTION PAGE

Signed on behalf of **Thames Water**)
Utilities Limited by:)
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Signature:)
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Name:)
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Position:)

Signed on behalf of the **London Borough**)
of Ealing by:)
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Signed on behalf of the **London Borough**)
of Greenwich by:)
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Signed on behalf of the **London Borough**)
of Hounslow by:)

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Signed on behalf of the **London Borough**)
of Lambeth by:)

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of Lewisham by:)

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of Newham by:)

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of Southwark by:)

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of Tower Hamlets by:)

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Signed on behalf of the **London Borough**)
of Wandsworth by:)

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Signed on behalf of the **City of London**)
Corporation by:)

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Signed on behalf of **Westminster City**)
Council by:)
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Signed on behalf of **The Greater London Authority** by:)
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Appendix 1

Thames Tunnel Forum Terms of Reference

Purpose

The Forum is the top-tier of the consultative process for the planning and delivery of the proposed Thames Tunnel.

Membership

The membership of the Forum will include:

- Chairman (Richard Aylard, Thames Water Director).
- Senior officer leadership from the local authorities likely to be affected by the proposed tunnel.
- Senior representatives from consent granting bodies and other pan-London statutory stakeholders.
- Senior representatives from environmental bodies.
- Representatives from the London business community.
- Representatives from London voluntary sector organisations.

The maximum membership of the Forum shall be 30 (excluding Thames Tunnel staff).

Structure

The Forum will be set up to discuss strategic pan-London issues, initiating various working sub-groups where needed. The sub-groups will take forward specific matters relating to working methods and practices and feed back to the Forum.

Functions

1. To facilitate understanding and promote communication across a wide variety of stakeholders with an interest in the Thames Tunnel.
2. To encourage agreement around interpretation of the policies, guidance and best practice behind the planning.
3. To ensure stakeholders are well informed and involved in the project's progress and are able to influence the thinking and direction of the project at both practical and strategic levels.
4. To promote open, constructive discussion between the Thames Water Project Team, the relevant London local authorities and pan-London stakeholders around planning and delivery.

Activities

The principal activities of the Forum are to:

- Share information and agree approaches for the planning and delivery of the Thames Tunnel with the project's stakeholders.
- Consider pan-London issues of principal and practice relating to the planning and delivery of the Thames Tunnel.
- Consider the development proposals for the Thames Tunnel in relation to other major works taking place along the route.
- Resolve differences of approach around the implementation of the site selection and consultation processes.
- Monitor and receive reports from the activities of the various sub-fora established.

Outputs

The principal outputs of the high-level Forum will be:

- Regular information exchange and feedback on specific topics.
- Feedback on methodologies for the site selection and consultation processes and agreed interpretation.
- Feedback on approach to strategic matters relating to site planning and environmental permitting.
- Feedback on protocols for methods of working on development sites.

Conduct

The chair will encourage full and frank debate, identify areas of consensus, summarise differences and the possible solutions emerging or needing to be investigated further.

The agenda and papers for meetings will be circulated not less than seven days prior to the meeting and minutes of the meeting will be taken and distributed two weeks after a meeting.

Meetings

The Forum will meet at regular intervals. Initially, meetings will be held every three months. The frequency can be changed to meet the needs of Forum members.

Appendix 2
Approved Form of Fee Estimate - Clause

Action	Start date / completion date	Total time allowed (hours)	Officer(s) responsible	Officer grades and cost per hour	Overall Cost

Assumptions underpinning the Fee Estimate and on which it depends:

- 1 ...
- 2 ...
- 3 ...
- etc

Appendix 7
The Second Memorandum of Understanding

DATED

2013

(1) THAMES WATER UTILITIES LIMITED

**(2) THE LONDON BOROUGHS OF EALING, HAMMERSMITH & FULHAM,
HOUNSLOW, LAMBETH, LEWISHAM, NEWHAM, RICHMOND upon THAMES,
SOUTHWARK, TOWER HAMLETS, WANDSWORTH,
THE CITY OF LONDON CORPORATION,
THE COUNCIL OF THE ROYAL BOROUGH OF KENSINGTON AND CHELSEA, THE
COUNCIL OF THE ROYAL BOROUGH OF GREENWICH
and
WESTMINSTER CITY COUNCIL**

(3) THE GREATER LONDON AUTHORITY

(4) LONDON LEGACY DEVELOPMENT CORPORATION

THAMES TIDEWAY TUNNEL PROJECT

MEMORANDUM OF UNDERSTANDING REGARDING PLANNING



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DATED

of

2013

PARTIES

- (1) **THAMES WATER UTILITIES LIMITED** whose registered office is situate at Clearwater Court Vastern Road Reading Berkshire RG1 8DB Registered Company number 2366661 ("**Thames Water**"); and
- (2) **THE LONDON BOROUGHS OF EALING, HAMMERSMITH & FULHAM, HOUNSLOW, LAMBETH, LEWISHAM, NEWHAM, RICHMOND upon THAMES, SOUTHWARK, TOWER HAMLETS, WANDSWORTH, THE CITY OF LONDON CORPORATION, THE COUNCIL OF THE ROYAL BOROUGH OF KENSINGTON and CHELSEA, THE COUNCIL OF THE ROYAL BOROUGH OF GREENWICH AND WESTMINSTER CITY COUNCIL** whose addresses are listed in Schedule 1 (the "**London Boroughs**")
- (3) **THE GREATER LONDON AUTHORITY** of City Hall The Queen's Walk More London SE1 2AA (the "**GLA**")
- (4) **LONDON LEGACY DEVELOPMENT CORPORATION** of Level 10 1 Stratford Place Montfichet Road London E20 1EJ (the "**LLDC**")

RECITALS AND CONTEXT OF THE MEMORANDUM

- (A) Infraction proceedings for failure to comply with the UWWTD have been taken against the UK Government by the European Commission. The UK has been found by the European Court to be in breach of the European Union Urban Waste Water Treatment Directive ("**UWWTD**") due to the unacceptable level of discharges of untreated wastewater from CSOs to the River Thames and the UK is required to take the necessary measures to comply with the judgment of the Court.
- (B) Further to its statutory duties Thames Water must address the problem of discharges from the CSOs to the River Thames. It has been charged with doing this by the Government, by way of Ministerial statement on 22 March 2007. The Thames Tideway Tunnel has been identified by the Government as the preferred method to meet the UWWTD requirement to prevent unacceptable CSO discharges entering the River Thames, this was confirmed in the Ministerial Statement on 7 September 2010. Subject to the grant of a Development Consent Order for the Project Thames Water has an anticipated delivery date of 2022 for the Thames Tideway Tunnel and this has been communicated to the EU Commission.
- (C) Ministerial statements on 7 September and 16 November 2010 confirmed the intention to identify the Thames Tideway Tunnel as a Nationally Significant Infrastructure Project (NSIP) under the Planning Act that would consequently be the subject of an application to the Planning Inspectorate for a Development Consent Order. On 3 November 2011, a further Ministerial statement was made in Parliament, re-affirming the Government's support for the proposed Thames Tideway Tunnel as the most cost-effective and quickest currently available solution for the environmental problems in the Thames Tideway. The Government therefore laid a draft Order before Parliament on 26 March 2012 to amend Section 14 of the Planning Act to include major new sewer developments such as the Thames Tideway Tunnel as NSIPs. Following Parliamentary approval, the Section 14 Order came into effect on 23 June 2012.

- (D) The Development Consent Order Application was submitted to the Planning Inspectorate on [●].
- (E) A memorandum of understanding between the Parties dated [●] 2011 agreed how the interface between the Thames Tideway Tunnel and the Authorities' areas and concerns were to be managed during the pre-application stage of the Project. This Memorandum of Understanding supersedes the aforementioned memorandum and covers the period of the Project starting from the acceptance of the Development Consent Order Application by the Planning Inspectorate and ending with the close of the Examination.
- (F) The Authorities consider that the proper discharge of various statutory and non-statutory functions arising as a result of and relating to the Project will require the deployment and allocation of resources by the Authorities. Consequently the Authorities consider that it is in the public's best interest that they complete this Memorandum.
- (G) The Project is of importance and significance. Subject always to Clause 3 below Thames Water and the Authorities agree to work in a co-ordinated fashion to facilitate the efficient progression and examination of the Development Consent Order Application including dealing with site specific issues while allowing for the provision of advice from the Authorities or any of them at each stage in the process.
- (H) Nothing in this Memorandum shall be taken to predetermine or prejudice the proper consideration and determination of any consent or application or override or fetter the statutory powers duties or responsibilities of the Authorities or Thames Water or representations made or evidence produced by any of the Parties in connection with the Project.

1 DEFINITIONS AND INTERPRETATION

- 1.1 In this Memorandum the following words shall have the following meanings unless otherwise stated:

"Authorities" means the London Boroughs, the GLA and the LLDC.

"Authorities Obligations" means the obligations and objectives set out in Clause 8 (*General Obligations of the Authorities*).

"Charging Principles" means those principles set out in Clause 10 (*Reimbursement of Costs and other expenses incurred by the Authorities*).

"Community Consultation Strategy" means the strategies bearing that name published by Thames Water on/in 13 September 2010 and [●] which supplement the Statement of Community Consultation including any amendment, supplement or update to the strategy that may be published by Thames Water.

"CSO" means combined sewer overflow.

"Development Consent" means consent as defined under section 31 of the Planning Act.

"Development Consent Order (DCO) Application" means the development consent order application in respect of the Project submitted by Thames Water and accepted by the Planning Inspectorate pursuant to Section 55 of the Planning Act.

“Examination” means the examination pursuant to Chapter 4 of Part 6 of the Planning Act relating to the Development Consent Order Application.

“Information Acts Protocol” means the protocol as set out at Schedule 2 for handling requests for information made to the Authorities under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004.

“London Boroughs” means the London Boroughs of Ealing, Hammersmith & Fulham, Hounslow, Lambeth, Lewisham, Newham, Richmond upon Thames, Southwark, Tower Hamlets, Wandsworth, The City of London Corporation, The Council of the Royal Borough of Kensington and Chelsea, The Council of the Royal Borough of Greenwich and Westminster City Council.

“MoU” or “Memorandum” means this Memorandum of Understanding between the Parties.

“Parties” means Thames Water and the Authorities and shall include their successors and assigns from time to time and "Party" shall be construed accordingly.

“Planning Act” means the Planning Act 2008 and subsequent amendments.

“Planning Inspectorate” means the Planning Inspectorate for England and Wales which on 1 April 2012 became the agency responsible for operating the planning process for NSIPs and shall include any successor body thereto.

“Process Objectives” means the objectives set out in Clause 6 (*Process Objectives*).

“Project” means the Thames Tideway Tunnel project envisaged by Thames Water referred to in Clause 4 (*Project Description*).

“Section 14 Order” means The Infrastructure Planning (Waste Water Transfer and Storage) Order 2012 made by the Secretary of State pursuant to Section 14 of the Planning Act;

“Statement of Community Consultation” means the statements published by Thames Water in the Evening Standard on 13 September 2010 and [●] under section 47 of the Planning Act including any amendment or update to the Statement that may be published by Thames Water under section 47.

“Thames Tideway Tunnel” means the Project.

“Thames Tideway Tunnel Forum” means the group established for coordinating the consultation process for the Project that comprises Thames Water, representatives from the Authorities, other part-London stakeholders, environmental bodies, the London Business Community and voluntary sector organisations the terms of reference for which are attached as Appendix 1.

“Thames Water’s Obligations” means the obligations and objectives set out in Clause 7 (*General Obligations of Thames Water*).

“UWWTD” means the EU Urban Wastewater Treatment Directive.

“Work Package” means the work outlined and agreed pursuant to a fee estimate in accordance with the principles and process set out in Clause 10.

“Vision” means the vision set out in Clause 5 (*Vision*).

“Working Days” means Monday to Friday each week but excludes Christmas Day, Boxing Day, Good Friday and bank holidays.

2 **PURPOSE AND LEGAL STATUS AND DURATION OF THIS MEMORANDUM**

- 2.1 This Memorandum is entered into by Thames Water and the Authorities voluntarily further to and reflecting the circumstances recorded in the Recitals at paragraphs (A) to (H) above.
- 2.2 This Memorandum sets out the objectives for the Project in so far as they relate to the Authorities’ involvement in the Development Consent Order Application process, from the date of acceptance of that application by the Planning Inspectorate to the close of the Examination, with procedural arrangements to seek to ensure that timely consultation, scrutiny, review and comment of/on application documentation (including (but not limited to) any planning obligations and/or statements of common ground between any of the Parties) and other matters during the Development Consent Order Application process can be achieved, having full regard to each Party’s various duties, but in the case of the Authorities, subject to Clauses 3.1 and 3.3 below. Its purpose is to set out the manner in which the Project is being taken forward to the extent relevant to each Party’s responsibilities.
- 2.3 The Parties agree that the overall objective of the Memorandum is to secure the timely and rigorous progression of the Development Consent Order Application in accordance with the processes and procedures in the Planning Act and the regulations, policy and procedure issued further to the Planning Act including the consideration of the Development Consent Order Application at the Examination without fettering any Party’s ability to discharge their statutory functions, community engagement or leadership.
- 2.4 The intention of the Parties is to provide a framework that:
- (a) results in an efficient interface between the Parties in relation to the Project generally and as the Development Consent Order Application progresses;
 - (b) secures meaningful and timely feedback to documents or other material that Thames Water issues to the Authorities for comment in the process of progressing the Development Consent Order Application through to the close of the Examination (including where appropriate the negotiation between the Parties of any necessary planning obligations and/or statements of common ground);
 - (c) respects the duties and discretions of Thames Water including, but not limited to, those in relation to the Development Consent Order Application and the Examination;
 - (d) respects the duties and discretions of the Authorities in relation to the Project, the Development Consent Order Application, and the Examination, including, but not limited to, preparation of any reports and obtaining of appropriate committee and / or officer authorisations;
 - (e) establishes a stable team of suitably experienced and senior representatives to provide the interface between Thames Water and the Authorities and between the Authorities;

- (f) allows for more efficient project management, easier dispute avoidance and resolution in respect of the Development Consent Order Application process;
 - (g) either sets out (with variations under permitted circumstances), or provides a mechanism for reaching consensus on, a set of objectives and milestones to be achieved.
- 2.5 This Memorandum does not cover works and/or applications that are not included within or part of the Development Consent Order Application.
- 2.6 Save for any payment due to an Authority further to the terms of Clause 10 the terms of this Memorandum shall lapse and be of no further effect upon the close of the Examination further to section 99 of the Planning Act.
- 2.7 For the avoidance of doubt nothing in this Memorandum will require Thames Water to fund:
- 2.7.1 the statutory duties of the Authorities in respect of a submitted application for development consent (including (but not limited to) preparation of the Authorities' local impact reports pursuant to section 60 of the Planning Act, the preparation of any written representations by the Authorities on the Development Consent Order Application and the Authorities' participation in the Examination itself (and for the avoidance of doubt the Authorities shall not be entitled to recover from Thames Water the costs of any Counsel or consultants instructed by the Authorities in relation to the same));
 - 2.7.2 any work for which the Authorities receive funding from another source of statutory or other derivation (including fees payable under statutory authority for the discharge of requirements on a development consent order (imposed further to section 120(1) of the Planning Act));
 - 2.7.3 any work that is covered by another agreement or arrangement with Thames Water.
- 3 NON FETTER OF DISCRETION**
- 3.1 The Authorities will at all times operate within their statutory powers and duties and in accordance with the legislation to which they are subject. No decision, advice, observation, consultation response, representation or submission by the Authorities in respect of the Project or the Development Consent Order Application, pursuant to their statutory powers and duties under the Planning Act or otherwise, including, but without limitation, Act of the United Kingdom Parliament, European Union legislation and principles of common law, shall be in any way prejudiced or fettered by the existence of this Memorandum.
 - 3.2 Thames Water will at all times operate within its statutory powers and duties and in accordance with the legislation to which it is subject. No decision in respect of the Project shall be in any way prejudiced or fettered by the existence of this Memorandum. Nor shall this Memorandum be treated as formal policy so far as Thames Water's other dealings are concerned either in relation to the Project or any other part of Thames Water's business.
 - 3.3 The parties also acknowledge that the existence of this Memorandum (or the interpretation of it) in no way predetermines any element of the process of achieving the requisite consents for the Project (including but not limited to any Development Consent Order Application and subsequent Examination).

4 **PROJECT DESCRIPTION**

- 4.1 The Project will involve the installation of a wastewater storage and transfer tunnel running from Acton Storm Tanks in West London to Abbey Mills Pumping Station in East London and a number of connection tunnels for the interception storage of and transfer discharges of stormwater from existing CSOs that would, absent the Project, enter the River Thames.
- 4.2 For the purposes of this Memorandum, where 'the Project' is used, it refers to the content of the accepted Development Consent Order Application.
- 4.3 The Project includes any associated development and ancillary works that Thames Water includes within the draft Development Consent Order submitted as part of the Development Consent Order Application.

5 **VISION**

- 5.1 For the purpose of this Memorandum, the aims of the Project are to achieve the following:
- (a) compliance with the UWWTD in respect of CSO discharges to the River Thames;
 - (b) compliance with construction and operational safety and security requirements;
 - (c) the efficient and effective and fully resourced involvement of the Authorities in the progression of the Development Consent Order Application;
 - (d) a proper assessment and scrutiny of environmental, social and economic effects of the Project established through a robust evidence base;
 - (e) the management and mitigation of the effects of the Project on individuals and communities and the natural and built environment and an understanding of the measures that are reasonably required to mitigate the effects of the Project on individuals and communities and the natural and built environment having regard to the statutory duties and obligations of the Parties including requirements to be included in the draft Development Consent Order forming part of the Development Consent Order Application and any necessary planning obligations to be entered with the Authorities or any of them further to and in accordance with the provisions of Section 106 of the Town and Country Planning Act 1990 and Section 174 of the Planning Act; and
 - (f) progression of the Development Consent Order Application to the close of the Examination.

6 **PROCESS OBJECTIVES**

- 6.1 In return for the various commitments and obligations given in Clauses 7 to 10 the Parties agree to:
- (a) the mutual commitment of resources to meet the Vision and the Process Objectives and the processing of documentation relevant to the Development Consent Order Application and the Examination (including

where appropriate the negotiation between the Parties of any necessary planning obligations and/or statements of common ground);

- (b) provide meaningful feedback in a timely manner and in accordance with the terms of the Memorandum to assist the process of progressing the Development Consent Order Application to the close of the Examination in accordance with the applicable statutory time limits and the procedural timetable for the Examination issued by the Planning Inspectorate;
- (c) mutual participation along with other stakeholders and interested parties as may be necessary in meetings to enable progress of the Development Consent Order Application to be monitored and considerations and potential issues common to the Project, across administrative boundaries, to be identified, discussed and resolved wherever practicable;
- (d) generally act with reasonable care and skill including responding to requests as soon as reasonably practicable in order to achieve the progression of the Development Consent Order Application through the Examination; and
- (e) use their reasonable endeavours to comply with the Process Objectives.

6.2 These Process Objectives may be updated from time to time with the consent of the Parties.

7 **GENERAL OBLIGATIONS OF THAMES WATER**

7.1 In return for each of the Authorities observing their obligations in this Memorandum, Thames Water agrees to use its reasonable endeavours to:

- (a) continue to organise and convene meetings of the Thames Tideway Tunnel Forum in accordance with the terms of reference for the Forum as set out at Appendix 1;
- (b) comply with the Process Objectives and to help facilitate the other Parties' compliance with the Process Objectives;
- (c) comply with Clause 9 (*Review of Development Consent Order Application Documentation and Other Documentation and Other Actions*) of this Memorandum.
- (d) pay the Authorities' costs properly incurred and invoiced in accordance with the arrangements for the Reimbursement of Costs and other expenses incurred by the Authorities (Clause 10 *Reimbursement of Costs and Other Expenses Incurred by the Authorities*);
- (e) to observe the terms of the Information Act Protocol;
- (f) provide constructive input into discussions with the Authorities (or any of them);
- (g) provide a copy of an updated Thames Water team directory, identifying the lead individuals and their responsibilities, to other Parties within ten working days of the date of this Memorandum, and to keep such team directory up to date (updates to be issued to the Authorities as and when necessary); and

- (h) provide robust project management of all relevant processes related to the Development Consent Order Application and the Examination;

7.2 Thames Water will employ a person to manage the various activities required by this Memorandum. That person will in particular:

- (a) act as the lead contact for Thames Water in its dealings with the Authorities further to the terms of this Memorandum;
- (b) collect the comments and other documents the Authorities are to issue under the terms of the Memorandum;
- (c) manage and monitor performance of Thames Water and the Authorities against the requirements and stipulations of this Memorandum; and
- (d) collate contact details for the Parties and issue them pursuant to clauses 7.1(g) and 8(h) of this Memorandum.

8 **GENERAL OBLIGATIONS OF THE AUTHORITIES**

In return for Thames Water observing its obligations in this Memorandum the Authorities agree to use their reasonable endeavours to:

- (a) attend and contribute to the meetings of the Thames Tideway Tunnel Forum;
- (b) comply with the Process Objectives and to assist the other Parties' compliance with the Process Objectives;
- (c) comply with Clauses 9 (*Review of Development Consent Order Application Documentation and Other Documentation and Other Actions*) and 10 (*Reimbursement of Costs and Other Expenses Incurred by the Authorities*);
- (d) support and assist Thames Water in engaging communities and assisting those communities themselves so that they understand how and when they can engage in the Development Consent Order Application process (including Examination) and support Thames Water and its initiatives to engage those communities further to the Statement of Community Consultation and the Community Consultation Strategy or any necessary revision or amendment to the Statement of Community Consultation and / or the Community Consultation Strategy for the Project;
- (e) engage and participate in a co-ordinated fashion in discussions with Thames Water during the Development Consent Order Application process and the Examination;
- (f) provide proactive communications capacity to co-ordinate requests for information by the media, and pursuant to the Environmental Information Regulations 2004 and the Freedom of Information Act 2000 on behalf of the Authorities in accordance with the Information Acts Protocol and to observe the terms of the Information Acts Protocol;
- (g) provide robust project management of all relevant processes related to the Development Consent Order Application; and
- (h) provide a copy of an updated full team directory, identifying the lead individuals and their responsibilities, to the other Parties within 10 working

days of the date of this Memorandum, and to keep such team directory up to date (updates to be issued to the Authorities as and when necessary).

- 9 **SPECIFIC REVIEW OF DEVELOPMENT CONSENT ORDER APPLICATION DOCUMENTATION AND OTHER DOCUMENTATION AND OTHER ACTIONS**
- 9.1 Thames Water may from time to time issue the following for review and comment by the Authorities:
- 9.1.1 drafts of any further documents that relate to the Examination of the Development Consent Order Application; and
- 9.1.2 other documentation (including any drafts) produced to facilitate and/or inform the Development Consent Order Application process and the Examination (including (but not limited to) any necessary planning obligations to be entered into by the Parties and/or any draft statements of common ground between Thames Water and any of the Parties in respect of any of the matters and topics listed in clause 9.8 or any other matters that are relevant to the Development Consent Order Application); and
- 9.1.3 may from time to time request the Authorities to participate in meetings and workshops concerning the Project including the Thames Tideway Tunnel Forum.
- 9.2 Thames Water will provide to the Authorities a predicted timetable for issue of further documentation and the holding of meetings and workshops including the Thames Tideway Tunnel Forum further to Clause 9.1 within fifteen Working Days of this Memorandum and will review and if necessary update it and provide these updates in writing to the Authorities for the purpose of Clause 10.
- 9.3 Thames Water will use its reasonable endeavours to give not less than 15 Working Days notice of the issue of documentation or the holding of meetings and workshops further to Clause 9.1 provided that Thames Water shall not be prevented from issuing documentation or holding a meeting or workshop under this Clause 9 by virtue of not being able to give that period of notice but in those circumstances the Parties will take account of whether this clause has been complied with when agreeing under Clause 9.4 the timeframe for provision of comment on documents or meetings and workshops held issued further to Clause 9.1
- 9.4 Thames Water and the Authorities shall use their reasonable endeavours to agree timeframes for the review of documentation issued or responses to meetings and workshops held further to Clause 9.1 by the Authorities and the provision of responses to Thames Water having regard to Clause 10 (*Reimbursement of Costs and other expenses incurred by the Authorities*). The following minimum and maximum periods for the provision of written responses shall apply unless (in the case of Clauses 9.4.2 to 9.4.4) the Parties agree in writing to waive them or agree such longer periods as the Parties may at their individual discretion agree:
- 9.4.1 for documents issued under Clauses 9.1.1 or 9.1.2 any minimum period established by statute or prescribed by regulation or specified by Thames Water as a period longer than the minimum period (where Thames Water is able to specify such longer period); and
- 9.4.2 for other documents issued under Clause 9.1.1 the period shall be 15 to 20 Working Days; or

- 9.4.3 for other documents issued under Clause 9.1.2 the period shall be 10 to 15 Working Days; or
- 9.4.4 for meetings or workshops held further to Clause 9.1.3 the period shall be 10 to 15 Working Days PROVIDED ALWAYS THAT:
- (a) Thames Water shall use its reasonable endeavours to provide agendas for meetings 5 Working Days in advance of the relevant meeting, and where there are substantive documents relevant to the agenda, to issue such documents in advance of meetings not later than the date on which it circulates the agenda for that meeting; and
 - (b) if Thames Water has issued documents in advance of a meeting the Authorities shall use reasonable endeavours to provide Thames Water with all documents relevant to the purpose of that meeting between the Parties not less than two Working Days prior to that meeting occurring or at such other time as may be agreed in writing by the Parties;
- 9.4.5 Without prejudice to Clauses 9.4.2 to 9.4.4 Thames Water may ask the Authorities or an Authority to consider a shorter time period for responses than that specified in those clauses in which case the Authorities or the Authority in question shall give reasonable consideration to the request and their ability to comply with it. The timeframe specified in Clauses 9.4.2 to 9.4.4 shall only be amended if the relevant Authorities or Authority confirm their agreement to the request from Thames Water in writing.
- 9.5 The Authorities shall use their reasonable endeavours to provide their response to documents issued and meetings or workshops held pursuant to Clause 9.1 in accordance with the timeframes agreed further to Clause 9.4.
- 9.6 The Authorities' responses to documents issued or meeting and workshops held under Clause 9.1 shall be provided in writing unless otherwise agreed in writing by Thames Water.
- 9.7 The Authorities shall use their reasonable endeavours to:
- 9.7.1 respond substantively to all written communications and telephone calls other than those provided for or covered by the provision of Clause 9.4 with or from the other Parties within 10 Working Days of receipt, and to respond to all other communications associated with this Memorandum promptly and in any case within 20 Working Days from receipt or in either case within such other time as may be agreed by the Parties, or in both instances in accordance with such other timetable as the Authorities or any of them may agree with Thames Water (PROVIDED THAT in respect of agreement with individual Authorities agreement shall be limited to Thames Water and the relevant Authority); and
- 9.7.2 notify Thames Water no later than 10 Working Days prior to any Council, cabinet or public committee meeting at which any report or matter relevant to the Project will be considered, and provide all parties with the relevant minutes (which for the avoidance of doubt may be in draft form) or action points arising within 20 Working Days (minutes provided in draft will be provided in their final form upon adoption by the relevant Authority).
- 9.8 The Authorities if they wish to do so may identify a lead Authority or Authorities to co-ordinate responses in relation to documents issued under Clause 9.1 or other appropriate matters relating to the Examination of the Development Consent Order Application including the following:

- (a) supporting the process of complying with and meeting the terms of this Memorandum and supporting the Authorities' involvement in the Thames Tideway Tunnel Forum in which case the relevant employee of the authorised Authority shall work with the Co-ordinator appointed by Thames Water under clause 7.1.2;
- (b) any revision to the Community Consultation Strategy;
- (c) odour and air management strategy for the Project;
- (d) the approach to the assessment of noise and vibration effects that may arise from the Project and the design of noise and vibration mitigation for the Project (as necessary);
- (e) Code of Construction Practice and Construction Plan for the Project;
- (f) Transportation and Transport Management Plan for the Project;
- (g) the approach to land and townscape design and mitigation.

The purpose of identifying a lead Authority is to enable the Authorities to respond to Thames water in a co-ordinated manner further and subject to Clause 9.9

- 9.9 The lead Authority identified under Clause 9.8 shall arrange meetings with the other Authorities, and if necessary Thames Water (save that if Thames Water does not attend then minutes of the meeting shall be submitted to Thames Water within 5 Working Days of that meeting), for the purpose of providing the Authorities' response to documentation issued or meetings and workshops under Clause 9.1. The lead Authority shall be responsible for providing the Authorities' response pursuant to Clause 9.9 taking account of the comments made at meetings held under this Clause 9.9 and the individual points made by the other Authorities to the lead Authority in writing PROVIDED THAT an Authority may provide a separate response to documentation issued under Clause 9.1 pursuant to Clause 9.6 to the extent it is inconsistent with or contains further information to the response provided by the lead Authority pursuant to this Clause 9.9. In the event that a meeting is held under this Clause between Authorities, then the periods set out in Clauses 9.4.2 to 9.4.4 shall each be increased by 5 Working Days.
- 9.10 In the course of discharging their obligations under Clause 9.1 Thames Water and the Authorities shall use their reasonable endeavours to discuss, draft and agree (subject to Clause 3) the following matters:
 - 9.10.1 the requirements in connection with the Project subject to which development consent should be granted (pursuant to Clause 120(1) of the Planning Act);
 - 9.10.2 legal documentation to secure any planning obligations Thames Water would be prepared to enter into with the Authorities or an Authority further to section 106 of the Town and Country Planning Act 1990 (as amended by section 174 of the Planning Act);
 - 9.10.3 statements of common ground in respect of the matters and topics listed at Clause 9.8 or any other matters that are relevant to the Examination of the Development Consent Order Application; and

9.10.4 any other draft documents that Thames Water the lead Authority and/or any of the Authorities agree as being necessary in the course of progressing the Development Consent Order Application.

9.11 In the event that any of the Authorities wish to request Thames Water to participate in meetings and workshops concerning the Project the relevant Authority or Authorities shall give not less than 10 Working Days' notice to Thames Water of such meetings or workshops and shall provide all relevant agendas and documentation with such notice.

10 **REIMBURSEMENT OF COSTS AND OTHER EXPENSES INCURRED BY THE AUTHORITIES**

10.1 **Charging Principles**

10.1.1 Subject to the remainder of this Clause 10, any funding arrangements entered into between Thames Water and the Authorities or any of them shall be in accordance with the following principles:

- (a) the Authorities shall designate officers, or where resources of the necessary expertise or experience are not available internally may engage external consultants, and provide other appropriate resources and carry out other actions needed to secure the proper consideration of the Development Consent Order Application further to their obligations under Clauses 8 (General Obligations of the Authorities) and 9 (Review of Development Consent Order Application Documentation and Other Documentation) and the Vision and the Process Objectives;
- (b) where external consultants are engaged by the Authorities the relevant Authority shall give Thames Water 15 Working Days notice of the appointment;
- (c) the sole basis for charging is to enable the Authorities to recover resources and costs expended by them in relation to the period leading up to the Examination and the Examination of the Development Consent Order Application in accordance with the Authorities' obligations in this Memorandum (and for the avoidance of doubt this does not include the resources and costs expended by the Authority in respect of those matters referred to in clause 2.7 above);
- (d) the charging relates exclusively to each Authority's recovery of its costs for the provision of services further to Clause 10.1.1(a) that it is authorised but not required (by an enactment) to provide;
- (e) the payments are on a not-for profit basis (year by year) and, taking one year with another, the income from the charges for such services must not exceed the cost to the Authority of providing them;
- (f) there shall be full transparency with regard to costs incurred;
- (g) the Authorities and each individual one of them shall use all reasonable endeavours to keep costs payable by Thames Water under this Memorandum to a minimum including but not limited to:
 - (i) where practicable sharing resources between each Authority and avoiding the duplication and overlap of resources;

- (ii) appointing a single person to coordinate work on behalf of the Authorities;
- (iii) making the best use of the resources and expertise available within the Authorities and the information available to them;
- (h) regard shall be had to whether an Authority is providing or meeting a Lead Authority role under clause 9.8;
- (i) Authorities will estimate their costs and expenses for approval by Thames Water under clause 10.2 on a reasoned and reasonable worst case basis;
- (j) Thames Water shall not have to pay for any work undertaken by the Authorities or an Authority that Thames Water has not given its prior approval to under the provisions of this Clause 10.

10.2 **Agreement of Costs**

10.2.1 Each Authority shall submit to Thames Water an estimate of its costs in responding to documentation submitted to it or meetings and workshops held further to Clause 9.1 or other work it feels it is reasonably necessary for it to undertake to achieve the Process Objectives PROVIDED THAT

- (a) the estimate shall be in the form attached at Appendix 2 and shall comply with clause 10.2.3 below;
- (b) the estimate shall have regard to the principles established in Clause 10.1 in particular Clause 10.1 (i);
- (c) the estimate will be provided to Thames Water as soon as reasonably practicable and in any event 10 Working Days prior to the work to which it relates being undertaken or the consultant(s) to undertake such work being appointed;
- (d) there will be no limit on the number of estimates an Authority may issue in any particular year but each Authority shall use its reasonable endeavours to submit no more than two estimates per year (1 April to 31 March) and will review any estimates submitted and approved further to this clause 10.2 on a quarterly basis and report to Thames Water if they anticipate that the costs they incur will exceed the approved estimate.

10.2.2 Thames Water will approve or reject (in whole or in part) any estimate received by them within 10 Working Days of receipt of that estimate (or such other timescale as otherwise agreed with the relevant authority) and will issue a purchase order number in respect of any approved estimate within 10 Working Days of the relevant estimate being approved (or such other timescale as otherwise agreed with the relevant authority). The estimate shall be submitted and agreed in writing by Thames Water in advance of any such work being undertaken or consultants to undertake any such work being appointed.

10.2.3 In submitting an estimate further to Clause 10.2.1 the individual Authorities shall adhere to the following requirements:

- (a) insofar as reasonably possible provide comprehensive estimates for all activity reasonably expected to be required to meet the Process Objectives and will not submit invoices on a task by task basis;

- (b) use for the calculation of the costs likely to be incurred by them in respect of officers and others their published hourly rates (from time to time in force) for pre-application advice by the Authority ;
- (c) where work is to be carried out by consultants appointed by the Authorities the estimate submitted shall include the cost estimated by the consultant, the assumptions made by the consultant in calculating that estimated cost including hourly rates for individuals and the number of hours assumed necessary for the tasks to be undertaken as part of the consultant's appointment;
- (d) estimates submitted under this Clause 10.2.3 may include allowance for administration costs associated with provision of services to meet the Project Objectives but such time will be specified in accordance with Clause 10.2.1;
- (e) Thames Water shall confirm its agreement or otherwise of any estimate submitted by an Authority in writing and shall confirm in respect of any approved estimate:
 - (i) the approved purchase order number; and
 - (ii) the cap on the agreed level of costs approved further to the estimate supplied.
- (f) The Authority shall notify Thames Water promptly as soon as it is reasonably expected that the anticipated resource expenditure required to complete any Work Package is likely to exceed the authorised expenditure limit for that Work Package.

10.2.4 For the avoidance of doubt Thames Water offers no commitment to fund any part of the Authorities' or an Authority's expenditure:

- (a) which exceeds the authorised expenditure limit for that Work Package unless and until Thames Water has approved such expenditure but notwithstanding this restriction the Authorities shall be free to continue with any work under such Work Package as it sees fit and at its own cost;
- (b) where such expenditure would result in Thames Water exceeding its overall budget for the work being undertaken by the Authorities.

10.3 **Invoicing and payment**

10.3.1 The Authorities shall individually agree a process for the recording of time with Thames Water within 14 days of the date of this Memorandum (or such alternative time scales as may be agreed by Thames Water with each individual Authority) and Thames Water will make use reasonable endeavours to assist the Authorities in recording the agreed time expended under the terms of this Memorandum in order to track cost and assist in the undertaking of the Authorities' requirements under section 10.3.2.

10.3.2 Prior to the submission of any invoice, an Authority will submit to Thames Water time sheets (or other evidence of the work completed) or consultant invoices and narratives or other written evidence as necessary to demonstrate that the work in respect of the invoice period has been completed.

- 10.3.3 Thames Water will agree or reject in writing any timesheets submitted pursuant to clause 10.3.2 within 14 days of receipt.
- 10.3.4 Following the agreement of time sheet/evidence of work by Thames Water pursuant to clause 10.3.3 an Authority may invoice Thames Water either quarterly in arrears (at the end of March, June, September and December in any calendar year) or monthly in arrears for work it has undertaken and completed further to an estimate approved under Clause 10.2.
- 10.3.5 Thames Water will pay any invoice validly submitted pursuant to Clause 10.3.4 within thirty Working Days of that invoice being received.

10.4 **Legal Fees**

- 10.4.1 Thames Water will reimburse the Agreed Legal Fees to each relevant Authority.
- 10.4.2 "Agreed Legal Fees" are the reasonable and proper legal fees incurred by individual Authorities in completion of this MoU as supported by appropriate evidence of the time and resources applied and as agreed with Thames Water.
- 10.4.3 Where Thames Water and any of the Authorities agree to enter into an agreement pursuant to Section 106 of the Town and Country Planning Act (1990) (as amended by Section 174 of the Planning Act) to secure planning obligations in connection with the Project Thames Water shall be responsible for the reasonable and proper legal fees incurred by the relevant Authorities in drafting, negotiating and completing such legal agreement PROVIDED THAT the relevant Authorities follow the process set out in clauses 10.2 and 10.3 in respect of such fees.

11 **DISPUTE RESOLUTION**

- 11.1 Where there is a dispute between Thames Water and the Authorities or a group of them that arises out of the terms of the MoU generally or which relates to the agreement of costs further to Clause 10 of the dispute, the dispute is in the first instance to be referred to:
- 11.1.1 Thames Water's Thames Tideway Tunnel Planning Projects Manager (Development) (or equivalent person) or its nominee and the relevant Authorities' Head of Development Control (or equivalent position) or its nominee;
- and in the event that resolution of the dispute cannot be achieved to:
- 11.1.2 the Chief Executive of each of the Authorities involved in the dispute or his or her nominee and the Managing Director of the Thames Tideway Tunnel Project or his nominee.
- 11.2 The Parties agree that any agreement reached further to paragraphs 11.1.1 or 11.1.2 shall be binding upon them.
- 11.3 Dispute resolution further to this paragraph shall not act as a fetter on the statutory role and responsibilities or powers of Thames Water or the Authorities.

12 **DETERMINATION OF DISPUTE AS TO COSTS**

The Parties agree that nothing in this Memorandum shall require Thames Water to fund any mitigation related to the Project. Such matters are to be dealt with separately as appropriate.

13 **CONFIDENTIALITY**

- 13.1 Information held by public authorities is subject to the provisions of the Freedom of Information Act 2000 and the Environmental Information Regulations 2004. Each Party will co-operate as may be necessary and practicable prior to and in order to fulfil any statutory obligations relating to the disclosure of information and will adhere to the Information Acts Protocol.
- 13.2 Where public bodies are not parties to this Memorandum the Parties may, wherever practicable, and subject to the agreement of such bodies, enter into an arrangement in which the bodies agree to work in accordance with the principles of this Memorandum with a view to achieving the Process Objectives, insofar as this is compatible with the powers, duties and responsibilities of the bodies concerned.

14 **TERMINATION**

- 14.1 Any Party may at any time and at its own discretion choose not to follow the arrangements set out in this Memorandum (and any of the processes that flow from it) with one or more of the Parties and withdraw from this Memorandum by giving not less than 10 working days' notice in writing to the other Parties ("**Notice of Withdrawal**"). Where an Authority withdraws from this Memorandum, then Thames Water will pay costs incurred by that Authority up to the date of the Notice of Withdrawal, so long as in all cases such costs would otherwise have been payable by Thames Water pursuant to Clause 10.
- 14.2 If Thames Water serves a Notice of Withdrawal then it will pay the costs approved under Clause 10 incurred or committed by the Authorities or Authority at the date the Authorities or the relevant Authority received the Notice of Withdrawal so long as in all cases such costs would otherwise have been payable by Thames Water pursuant to Clause 10.

15 **COUNTERPARTS**

- 15.1 This Memorandum may be executed in any number of counterparts, which shall each constitute an original and together constitute one Memorandum.

Schedule 1
Addresses of the London Boroughs

LONDON BOROUGH	ADDRESS
Ealing	Percival House, 14/16 Uxbridge Road, Ealing W5 2HL
Royal Borough of Greenwich	Town Hall Wellington Street Woolwich SE18 6PW
Hammersmith & Fulham	Town Hall King Street Hammersmith London W6 9JU
Hounslow	Civic Centre Lampton Road Hounslow TW3 4DN
Lambeth	Town Hall London SW2 1RW
Lewisham	Town Hall Catford London SE6 4RU
Newham	Newham Dockside 1000 Dockside Road London E16 2QU
Richmond upon Thames	Civic Centre 44 York Street Twickenham Middlesex TW1 3BZ
Southwark	160 Tooley Street London SE1 2QH
Tower Hamlets	Town Hall Mulberry Place 5 Clove Crescent E14 2BG
Wandsworth	The Town Hall Wandsworth High Street London SW18 2PU
The City of London Corporation	Guildhall London EC2P 2EJ
Royal Borough of Kensington and Chelsea	The Town Hall Hornton Street London W8 7NX

Westminster	Westminster City Hall 64 Victoria Street London SW1E 6QP
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Schedule 2 Information Acts Protocol

1 BACKGROUND

- 1.1 Under the Information Acts the Authorities may receive requests for disclosure of information they hold which may comprise information provided to them by Thames Water pursuant to this MoU, or be derived from such information (together, the "**Information**").
- 1.2 The Authorities acknowledges that the risk of disclosure of such information by the Authorities might inhibit the degree, nature, quality, quantity of information that Thames Water provides to it under this MoU.
- 1.3 The Parties have agreed the terms set out in this Protocol as a means of addressing the concerns of Thames Water, whilst recognising the statutory position of the Authorities under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004.
- 1.4 Thames Water will mark all Information that it provides to the Authorities and which it wishes the Authorities to consider under this Memorandum with the following wording;
 - 1.4.1 Written reports and other written documentation - "Draft - Confidential Information";
 - 1.4.2 Draft plans and drawings - "This is an indicative working draft plan which has been produced for the purpose of confidential consultation only. Accordingly, the draft plan must not be copied, distributed or shown to any third party without the express written permission of Thames Water Utilities Limited. It provides an indication of sites that, following discussions with local authorities and other stakeholders, may be confirmed as being on the shortlist of construction sites for the proposed Thames Tunnel. Inclusion of a site on this draft plan should not be taken to mean that such site will be selected as a construction site to form part of the Thames Tunnel scheme."

2 PROCESS

- 2.1 The Authorities agree that Thames Water shall be consulted in all cases where disclosure of Information is being considered under the Information Acts.
- 2.2 Where the relevant Authority consider that refusal to disclose Information falls within a relevant exemption or exception under the Act and Regulations and the Authority is satisfied that the public interest in maintaining the exception outweighs the public interest in disclosing the information it shall refuse disclosure and notify Thames Water accordingly.
- 2.3 For the avoidance of doubt the final decision on whether to release the information shall rest with the relevant Authority

3 EXEMPTION AND EXCEPTIONS

- 3.1 By way of background, the Freedom of Information Act includes a number of exemptions which if applicable permit the Authorities to withhold Information from disclosure, and the Environmental Information Regulations include similar, but different, exceptions.

3.2 This Protocol notes some of the likely key exemptions and exceptions, and the Authorities agree to consider each of these carefully.

3.3 **FOIA exemptions**

3.3.1 Section 22 - the Information is in draft form and will, once finalised, be published;

3.3.2 Section 24 - national security;

3.3.3 Section 36(2)(b)(ii) - disclosure would, or would be likely to, inhibit the free and frank exchange of views for the purpose of deliberation;

3.3.4 Section 41 - confidentiality; and

3.3.5 Section 43 - disclosure would, or would be likely to, prejudice the commercial interests of Thames Water or of the Authorities.

3.4 **EIR exceptions**

3.4.1 Regulation 12(4)(d) - material in the course of completion, unfinished documents and incomplete data;

3.4.2 Regulation 12(4)(e) - disclosure of internal communications;

3.4.3 Regulation 12(5)(c) - adverse effect on the intellectual property rights of Thames Water;

3.4.4 Regulation 12(5)(e) - adverse effect on the confidentiality of commercial information; and

3.4.5 Regulation 12(5)(f) - adverse effect on the interests of Thames Water, where Thames Water was not obliged to provide the Information, did not supply it such that the Authorities are entitled to disclose it and does not consent to its disclosure.

3.5 In any event, the Authorities will ask Thames Water:

3.5.1 whether it believes it would be likely to be harmed by release in any way of the Information and, if so, for what reasons;

3.5.2 the chances that the harm might occur;

3.5.3 the seriousness of the harm; and

3.5.4 whether the risk of harm will apply now or in the future.

3.6 If Thames Water wishes to make a case for non-disclosure of the Information it must set out its reasons objectively. A simple objection is not sufficient to help the Authorities make their decision.

3.7 Wherever there is a view that harm might be suffered, it is important to establish to which specific parts of the Information this applies, so that redaction (i.e. removal) of just that part of the Information can be considered by the Authorities. Thames Water might make out a case for withholding the whole of the Information too.

3.8 After this consultation, should the Authorities decide to disclose Information against the wishes of Thames Water, Thames Water shall be notified of the

decision at least 5 working days prior to disclosure. The notification will allow Thames Water the opportunity to consider legal action to prevent disclosure or to make further representations to the Authorities.

4 **CONSULTING FOR REVIEWS OR APPEALS**

- 4.1 Thames Water must also be consulted where a decision on disclosure of Information supplied by them or related to them is subject to a request for internal review by the Authorities or an appeal to the Information Commissioner's Office or to the First-tier Tribunal (Information Rights) (formerly, the Information Tribunal).
- 4.2 Before a decision is taken by the Authorities to appeal to the Tribunal on a matter involving Thames Water, the Authorities will discuss with Thames Water if it is willing to be actively involved in the appeal and provide evidence to the Tribunal. The Parties may also agree to seek to join Thames Water as a party to the appeal.

EXECUTION PAGE

Signed on behalf of **Thames Water**)
Utilities Limited by:)
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Signature:)
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Name:)
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Position:)

Signed on behalf of the **London Borough**)
of Ealing by:)
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Signed on behalf of the **Council of the**)
Royal Borough of Greenwich by:)
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Signed on behalf of the **London Borough**)
of Hounslow by:)

Signature:)

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Signed on behalf of the **London Borough**)
of Lambeth by:)

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Signed on behalf of the **London Borough**)
of Lewisham by:)

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Signed on behalf of the **London Borough**)
of Newham by:)

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Signed on behalf of the **London Borough**)
of Southwark by:)

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Signed on behalf of the **London Borough**)
of Tower Hamlets by:)

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Signed on behalf of the **London Borough**)
of Wandsworth by:)

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Signed on behalf of the **City of London**
Corporation by:)

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Signed on behalf of **Westminster City**)
Council by:)
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Signed on behalf of **The Greater London Authority** by:)
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Signed on behalf of **London Legacy**)
Development Corporation by:)
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Appendix 1

Thames Tideway Tunnel Forum Terms of Reference

Purpose

The Forum is the top-tier of the consultative process for the planning and delivery of the proposed Thames Tideway Tunnel.

Membership

The membership of the Forum will include:

- Chairman (Richard Aylard, Thames Water Director).
- Senior officer leadership from the local authorities likely to be affected by the proposed tunnel.
- Senior representatives from consent granting bodies and other pan-London statutory stakeholders.
- Senior representatives from environmental bodies.
- Representatives from the London business community.
- Representatives from London voluntary sector organisations.

The maximum membership of the Forum shall be 30 (excluding Thames Tideway Tunnel staff).

Structure

The Forum will be set up to discuss strategic pan-London issues, initiating various working sub-groups where needed. The sub-groups will take forward specific matters relating to working methods and practices and feed back to the Forum.

Functions

1. To facilitate understanding and promote communication across a wide variety of stakeholders with an interest in the Thames Tideway Tunnel.
2. To encourage agreement around interpretation of the policies, guidance and best practice behind the planning.
3. To ensure stakeholders are well informed and involved in the project's progress and are able to influence the thinking and direction of the project at both practical and strategic levels.
4. To promote open, constructive discussion between the Thames Water Project Team, the relevant London local authorities and pan-London stakeholders around planning and delivery.

Activities

The principal activities of the Forum are to:

- Share information and agree approaches for the planning and delivery of the Thames Tideway Tunnel with the project's stakeholders.
- Consider pan-London issues of principal and practice relating to the planning and delivery of the Thames Tideway Tunnel.
- Consider the development proposals for the Thames Tideway Tunnel in relation to other major works taking place along the route.
- Resolve differences of approach around the implementation of the site selection and consultation processes.
- Monitor and receive reports from the activities of the various sub-fora established.

Outputs

The principal outputs of the high-level Forum will be:

- Regular information exchange and feedback on specific topics.
- Feedback on methodologies for the site selection and consultation processes and agreed interpretation.
- Feedback on approach to strategic matters relating to site planning and environmental permitting.
- Feedback on protocols for methods of working on development sites.

Conduct

The chair will encourage full and frank debate, identify areas of consensus, summarise differences and the possible solutions emerging or needing to be investigated further.

The agenda and papers for meetings will be circulated not less than seven days prior to the meeting and minutes of the meeting will be taken and distributed two weeks after a meeting.

Meetings

The Forum will meet at regular intervals. Initially, meetings will be held every three months. The frequency can be changed to meet the needs of Forum members.

Appendix 2
Approved Form of Fee Estimate - Clause

Action	Start date / completion date	Total time allowed (hours)	Officer(s) responsible	Officer grades and cost per hour	Overall Cost

Assumptions underpinning the Fee Estimate and on which it depends:

- 1 ...
- 2 ...
- 3 ...
- etc

Appendix 5
The Unilateral Undertaking

DATED [●]

THAMES WATER UTILITIES LIMITED

as the Undertaker

TO

**THE COUNCIL OF THE LONDON BOROUGH OF EALING;
LONDON BOROUGH OF HOUNSLOW;
LONDON BOROUGH OF HAMMERSMITH AND FULHAM;
LONDON BOROUGH OF RICHMOND-UPON-THAMES;
THE MAYOR AND BURGESSES OF THE LONDON BOROUGH OF WANDSWORTH;
THE MAYOR AND BURGESSES OF THE ROYAL BOROUGH OF KENSINGTON AND
CHELSEA;
LONDON BOROUGH OF LAMBETH;
THE LORD MAYOR AND CITIZENS OF THE CITY OF WESTMINSTER;
THE MAYOR AND COMMONALTY AND CITIZENS OF THE CITY OF LONDON;
THE MAYOR AND BURGESSES OF THE LONDON BOROUGH OF SOUTHWARK;
LONDON BOROUGH OF LEWISHAM;
ROYAL BOROUGH OF GREENWICH;
THE MAYOR AND BURGESSES OF THE LONDON BOROUGH OF TOWER HAMLETS;
THE MAYOR AND BURGESSES OF THE LONDON BOROUGH OF NEWHAM;
LONDON LEGACY DEVELOPMENT CORPORATION**
as the Councils

**UNILATERAL UNDERTAKING PURSUANT TO
SECTION 106 OF THE TOWN AND COUNTRY PLANNING ACT 1990**

securing off-site mitigation and compensation policies relating to the Thames Tideway Tunnel
and financial resources for the Councils



Berwin Leighton Paisner LLP

Adelaide House London Bridge London EC4R 9HA

Tel: +44 (0)20 3400 1000 Fax: +44 (0)20 3400 1111

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THIS UNDERTAKING is given the [•] day of [•] [20[•]]

BY

- (1) **THAMES WATER UTILITIES LIMITED**, a company incorporated in England with registered number 02366661 whose registered office is at Clearwater Court, Vastern Road, Reading, Berkshire RG1 8DB (the "**Undertaker**")

TO

- (2) **THE COUNCILS**

BACKGROUND

- (A) The Councils are the local planning authorities for the purposes of Section 106 of the 1990 Act for the area within which the DCO Land is situated.
- (B) The Undertaker has a Qualifying Interest in the DCO Land pursuant to the DCO.
- (C) The Undertaker submitted the Application to the Secretary of State on 28 February 2013 and the Application was accepted by the Secretary of State on 27 March 2013.
- (D) The Undertaker entered into the Original Agreement with the Councils listed in Part 2 (*The Councils with whom the Undertaker entered into the Original Agreement*) of Schedule 1 (*The Councils and the Original Agreement*) in which the Undertaker covenanted to the Councils to enter this Undertaking following the grant of the DCO and prior to the Implementation of the Development. The Undertaker confirmed in writing to those of the Councils listed in Part 1 (*The Councils*) of Schedule 1 (*The Councils and the Original Agreement*) that it would observe the terms of the Original Agreement including the covenant to enter this Undertaking following the grant of the DCO and prior to the Implementation of the Development.
- (E) The DCO was made by the Secretary of State on [•]. Article 60 of the DCO provides that the Undertaker cannot Implement the Development until it has entered into this Undertaking.
- (F) The Undertaker acknowledges that that the obligations in this Undertaking are compliant with Regulation 122 of the CIL Regulations 2010 and that they meet the following tests:-
- They are necessary to make the Development acceptable in planning terms; and
 - They are directly related to the Development; and
 - They are fairly and reasonably related in scale and kind to the Development.
- (G) The Undertaker has agreed that the Development shall be carried out only in accordance with the DCO and the rights and obligations set out in this Undertaking.
- (H) This Undertaking is intended to be enforceable by the Councils in respect of their respective administrative areas and subject to Clause 2, Clause 4, and Clause 6 to be binding on the Undertaker, and on the DCO Land, and the Undertaker's Successors to that land.

OPERATIVE PROVISIONS

1 STATUTORY POWERS

- 1.1 This Undertaking entered into by deed contains planning obligations that are development consent obligations for the purposes of section 106 of the 1990 Act and is entered into pursuant also to section 111 of the Local Government Act 1972 and section 1 of the Localism Act 2011 and all other powers so enabling.
- 1.2 The Undertaker acknowledges that the obligations contained within this Undertaking are enforceable by the Councils as local planning authority in respect of their respective areas against:
- (a) the Undertaker in respect of its Qualifying Interest in the DCO Land as bound under Clause 2 of this Undertaking; and
 - (b) the Undertaker's Successors to its Qualifying Interest in the DCO Land as bound under Clause 2 of this Undertaking.

2 LAND BOUND

Subject to Clause 4 and Clause 6, the planning obligations in this Undertaking bind the DCO Land.

3 INTERPRETATION

- 3.1 In this Undertaking unless the context otherwise requires the following terms (arranged in alphabetical order) shall have the following meanings:

"**1990 Act**" means the Town and Country Planning Act 1990 (as amended);

"**2008 Act**" means the Planning Act 2008 (as amended);

"**Application**" means the application for development consent made pursuant to the 2008 Act submitted by Thames Water Utilities Limited to the Secretary of State (application reference number WW010001);

"**Councils**" means the individual local planning authorities listed in Part 1 (*The Councils*) of Schedule 1 (*The Councils and the Original Agreement*);

"**Construction Phase**" means the period from Implementation of the Development at each Development Site until the Construction Phase Completion Date;

"**Construction Phase Completion Date**" means the date on which "completion of construction" (as defined in the DCO) occurs in relation to each Development Site;

"**DCO**" means the order granting development consent for the Development to be made under the 2008 Act pursuant to the Application;

"**DCO Land**" means the means the land described at Schedule 3;

"**Development**" means the Thames Tideway Tunnel comprising the development and associated development described in Part 1, Schedule 1 of the DCO and any other development authorised by the DCO which is development within the meaning of Section 32 of the Planning Act 2008;

"Development Sites" means each of the worksites at Acton Storm Tanks, Hammersmith Pumping Station, Barn Elms, Putney Embankment Foreshore, Dormay Street, King George's Park, Carnwath Road Riverside, Falconbrook Pumping Station, Cremorne Wharf Depot, Chelsea Embankment Foreshore, Kirtling Street, Heathwall Pumping Station, Albert Embankment Foreshore, Victoria Embankment Foreshore, Blackfriars Bridge Foreshore, Shad Thames Pumping Station, Chambers Wharf, Earl Pumping Station, Deptford Church Street, Greenwich Pumping Station, King Edward Memorial Park Foreshore, Bekesbourne Street, Abbey Mills Pumping Station, and Beckton Sewage Treatment Plant;

"Implementation" means commencement of development pursuant to the DCO by the carrying out of a "material operation" (as defined in section 56(4) of the 1990 Act) save that for the purposes of this Agreement the term shall not include works of surveys, and works of archaeological or ground investigation or remediation (and in this Agreement **"Implement"** and **"Implemented"** shall be construed accordingly);

"Judicial Review" means judicial review of a decision by the Secretary of State to grant the DCO in respect of the Development brought further to section 118 of the 2008 Act;

"Necessary Consents" means any landowner, tenant, statutory or other consents required or necessary for the lawful carrying out of the mitigation and compensation measures pursuant to the NSOMCP;

"NSOMCP" means the paper entitled 'Non-statutory offsite mitigation and compensation policy' dated March 2014 at Appendix 3 of the Original Agreement and any approved amendments and including any Trigger Action Plans approved further to paragraph 2 or 3 of Schedule 5 of the Original Agreement;

"NSOMCP Process Timescales" means such timescales and deadlines for the offering or provision of mitigation and compensation measures as may be set out further to the terms of the NSOMCP including TAPs agreed and approved further to the NSOMCP;

"Original Agreement" means the agreement at Appendix 2 which it entered with the Councils detailed in Part B of Schedule 1 and in respect of which it indicated in writing to the remaining Councils not listed on Part B of Schedule 1 that it would observe the obligations in that Agreement including the obligation to enter this Undertaking and the other obligations set out in Clause 2 and Schedule 2 of the Original Agreement;

"Plans" means the plans at Appendix 1 comprising the Overview Site Plan (Parts 1 to 4), and the DCO Land Plans;

"Qualifying Interest" means such interest in the DCO Land sufficient to meet the requirements of Section 106(1) of the 1990 Act which shall include the Developer's status as undertaker for the purposes of the DCO in accordance with the provisions of paragraph 10 (3) of Schedule 19 of the DCO whereby the undertaker is deemed to be a person interested in the DCO Land for the purposes of section 106(1) of the 1990 Act;

"Successor" means any person deriving title from the Undertaker in respect of its Qualifying Interest and for the purposes of Section 106(3)(b) of the 1990 Act shall include any person to whom powers are transferred further to Article 9 of the DCO;

"Undertaker" means Thames Water Utilities Limited and any Successors and statutory assignees;

“Undertaking” means this unilateral undertaking under section 106 of the 1990 Act.

“Working Day(s)” means a day other than a Saturday or Sunday or public holiday in England.

- 3.2 References in this Undertaking to the “Undertaker” shall include its Successors and its respective successors in respect of its Qualifying Interest in the Land and its assigns.
- 3.3 References to “Work Nos” or to a “Work No” are references to the works forming part of the Development listed in Schedule 1 of the DCO;
- 3.4 References in this Undertaking to the “Councils” shall include any successor to their functions as local planning authorities.
- 3.5 References in this Undertaking to any statutes or statutory instruments include any statute or statutory instrument amending, consolidating or replacing them respectively from time to time in force and references to a statute include statutory instruments and regulations made pursuant to it.
- 3.6 The clause headings in this Undertaking are for convenience only and do not form part of the Undertaking.
- 3.7 References to clauses paragraphs schedules or recitals shall (unless the context otherwise requires) be references to clauses paragraphs and schedules or recitals in this Undertaking.
- 3.8 References to the singular shall include the plural and vice versa.

4 **CONDITIONALITY**

The obligations in this Undertaking are effective from the date of this Undertaking.

5 **UNDERTAKER’S COVENANTS**

- 5.1 The Undertaker **COVENANTS** with the Councils that it will observe and perform the covenants on its part contained in Schedule 2.
- 5.2 The Undertaker acknowledges that the obligations on the part of the Undertaker contained in this Clause 5 (*Undertaker’s Covenants*) are planning obligations for the purpose of section 106 of the 1990 Act and are enforceable by the Councils as local planning authorities against the Undertaker so as to bind the Undertaker’s interest in the DCO Land with the obligations of the Undertaker in Schedule 2 (*Undertaker’s Covenants*) of this Undertaking and Clause 2 and Schedule 2 of the Original Agreement.

6 **RELEASE AND LAPSE**

- 6.1 The Undertaker shall not be liable for a breach of any of its obligations under this Undertaking or obligations relating to any part of the DCO Land after it has parted with all of its interests in the DCO Land (including Qualifying Interests) or the part in respect of which the breach arises (as the case may be) save in either case for antecedent breaches.
- 6.2 This Undertaking shall lapse and be of no further effect if:
 - (a) the DCO lapses without having been Implemented; or

- (b) the DCO is amended or repealed otherwise than with the consent of the Undertaker; or
 - (c) the DCO is quashed following Judicial Review (or any other successful legal challenge) (following the expiration of any period within which an appeal to a higher Court could be made or following the Developer notifying the Councils that it does not intend to contest such overturn by appeal to a higher Court).
- 6.3 Nothing in this Undertaking shall prohibit or limit the right to develop any part of the DCO Land in accordance with a planning permission or development consent (other than the DCO) granted (whether or not on appeal) after the date of this Undertaking.
- 6.4 Any obligation under the terms of this Undertaking which is expressed to be binding on a particular area of land shall be binding on the Undertaker's Successors but only insofar as they are Successors to that area of land or relevant part of it and on the basis that such Successors benefit from 6.1 in (*mutatis mutandis*) the same way as the Undertaker.
- 6.5 No Successor to the Undertaker shall be liable for any breach of any obligation which occurs in relation to any area of the DCO Land which that Successor does not own or control or occurs in relation to development which is carried out by any person other than that Successor.
- 6.6 Upon the performance discharge or other fulfilment of the covenant obligations (or any of them) of the Undertaker, any Successor, or the Councils under the terms of this Undertaking such covenant obligation or obligations shall absolutely cease and determine save in respect of any antecedent breach.
- 6.7 Unless specified otherwise, upon the Construction Phase Completion Date the Undertaker shall cease to be liable to comply with any of its obligations in Schedule 2 and shall from that date cease to be liable for any breach of the same save for any antecedent breach relating to these obligations.

7 **LOCAL LAND CHARGE**

- 7.1 This Undertaking is a local land charge and may be registered as such by the Councils.
- 7.2 The Undertaker hereby consents to the Councils (if they so elect) applying to note this Undertaking at the Land Registry against the relevant titles and at its expense to take reasonable steps as are necessary to assist the Councils in doing so.

8 **SEVERABILITY**

If any part of this Undertaking shall be declared unlawful or invalid by a Court of competent jurisdiction then (to the extent possible) the offending provisions will be severed from the Undertaking and the remainder of this Undertaking shall continue in full force and effect.

9 **CONTRACTS (RIGHTS OF THIRD PARTIES) ACT 1999**

Notwithstanding the provisions of the Contracts (Rights of Third Parties) Act 1999 no part of this Undertaking shall be enforceable by a third party who is not a party to the Undertaking and for the avoidance of any doubt the terms of the Undertaking may be varied by agreement between the parties without the consent of any third party being required.

10 **NOTICES**

10.1 Any notices required to be served by one party on another under this Undertaking shall be served in writing by first class prepaid recorded delivery post or by hand (providing proof of delivery is always obtained) in the following manner:

- (a) on the Councils at the address specified in Schedule 1 (*The Councils and the Original Agreement*), Part 1 (*The Councils*) and shall in the case of all the Councils be marked for the attention of the "Chief Executive" or similar person holding the equivalent position, and quoting reference: WW010001; and
- (b) on the Undertaker at the address shown above or the registered office of any Successor marked "For the attention of [the Company Secretary]" [and bearing reference "[●]";

save that any of the parties may by written notice notify the other parties of an alternative address and/or reference for the service of subsequent written notices in which case those details shall be substituted for the details in Clause 10.1(a) to Clause 10.1(b) above.

10.2 Any such notice shall be deemed to have been received as follows:

- (a) if delivered by hand, upon delivery on all relevant addresses;
- (b) if sent by first class post, on the second Working Day after the date of posting.

11 **APPROVALS**

The obligations given in this Undertaking are provided on the condition that where under this Undertaking any approval, agreement or other form of consent, waiver or endorsement is required from the Councils it shall not be unreasonably withheld or delayed and if it is unreasonably withheld or delayed, it shall be deemed to have been given save where expressly stated otherwise in this Undertaking.

12 **JURISDICTION**

This Undertaking is governed by and interpreted in accordance with English law and the parties agree to submit to the exclusive jurisdiction of the English courts.

This Undertaking has been executed as a deed and delivered on the date stated at the beginning of this Undertaking.

Schedule 1
The Councils and the Original Agreement

Part 1
The Councils

- 1 **THE COUNCIL OF THE LONDON BOROUGH OF EALING** of Perceval House, 14-16 Uxbridge Road, Ealing, London, W5 2HL;
- 2 **LONDON BOROUGH OF HOUNSLOW** of Civic Centre, Lampton Road, Hounslow, Middlesex TW3 4DN;
- 3 **LONDON BOROUGH OF HAMMERSMITH AND FULHAM** of Town Hall, King Street, Hammersmith, London W6 9JU”;
- 4 **LONDON BOROUGH OF RICHMOND-UPON-THAMES** of Civic Centre, 44 York Street, Twickenham, Middlesex TW1 3BZ”;
- 5 **THE MAYOR AND BURGESSES OF THE LONDON BOROUGH OF WANDSWORTH** of Town Hall, Wandsworth High Street, London SW18 2PU;
- 6 **THE MAYOR AND BURGESSES OF THE ROYAL BOROUGH OF KENSINGTON AND CHELSEA** of Town Hall, Hornton Street, London W8 7NX;
- 7 **LONDON BOROUGH OF LAMBETH** of Lambeth Town Hall, Brixton Hill, London SW2 1RW;
- 8 **THE LORD MAYOR AND CITIZENS OF THE CITY OF WESTMINSTER** of City Hall, 64 Victoria Street, London SW1E 6QP;
- 9 **THE MAYOR AND COMMONALTY AND CITIZENS OF THE CITY OF LONDON** of Guildhall, PO Box 270, London, EC2P 2EJ
- 10 **THE MAYOR AND BURGESSES OF THE LONDON BOROUGH OF SOUTHWARK** of 160 Tooley Street London SE1 2TZ;
- 11 **LONDON BOROUGH OF LEWISHAM** of Laurence House, Catford Road, SE6 4RU;
- 12 **ROYAL BOROUGH OF GREENWICH** of Town Hall, Wellington Street, Woolwich, London SE18 6PW;
- 13 **THE MAYOR AND BURGESSES OF THE LONDON BOROUGH OF TOWER HAMLETS** of the Town Hall, Mulberry Place, 5 Clove Crescent, London E14 2BG; and
- 14 **THE MAYOR AND BURGESSES OF THE LONDON BOROUGH OF NEWHAM** of Newham Dockside, 1000 Dockside Road, London E16 2QU` .
- 15 **THE LONDON LEGACY DEVELOPMENT CORPORATION** of Level 10, 1 Stratford Place, Mountfichet Road, London E20 1EJ.

Part 2
The Councils with whom the Undertaker entered into the Original Agreement

[To be completed before Undertaking completed]

Council	Date Original Agreement entered

Schedule 2 Undertaker's Covenants

- 1 The Undertaker covenants with the Councils that it shall:
- (a) comply with its obligations set out in Clause 2 and Schedule 2 of the Original Agreement (which shall be deemed to be incorporated in this Undertaking) as if the same were set out in full in this Undertaking); and
 - (b) not cause or permit the construction of any individual work or works forming part of the Development in respect of which mitigation or compensation measures are required to be implemented further to the NSOMCP unless and until those measures have been fully implemented further to the terms of the NSOMCP PROVIDED THAT where the Undertaker has complied with the NSOMCP Process Timescales this restriction shall not apply where:
 - (i) any person entitled to the measures fails to comply with the NSOMCP Process Timescales;
 - (ii) any owner or occupier of the property which qualifies for mitigation or compensation measures further to the NSOMCP objects to such measures being commenced or completed;
 - (iii) access to property for the purpose of completing the mitigation or compensation measures required under the terms of the NSOMCP is refused or unreasonably delayed beyond the deadlines set in the NSOMCP Process Timescales by the owner or occupier of the property to which access is required;
 - (iv) the owner or occupier of the property which qualifies for mitigation or compensation measures under the terms of the NSOMCP confirms in writing to the Undertaker that they do not wish those measures to be provided;
 - (v) any Necessary Consents required for the completion of works required under the terms of the NSOMCP are not forthcoming, which for the purposes of this Undertaking shall mean received from the relevant organisation or authority within the timescales set for the giving or grant of such Necessary Consents PROVIDED THAT the Undertaker shall have no obligation to refer the Consents to dispute resolution, arbitration, or to appeal the refusal of any of the Consents (as applicable) in the event that any of the Necessary Consents are refused by the relevant person, organisation or authority; or
 - (vi) any owner or occupier of the property refuses to be re-housed in circumstances where that is the mitigation or compensation that they would be due under the terms of the NSOMCP,

and for the avoidance of doubt the Undertaker (or anyone authorised by the Undertaker) shall not be prevented under this paragraph from commencing or carrying out any works forming part of the Development in respect of which no such mitigation or compensation measures are required under the NSOCMP.

**Schedule 3
DCO Land**

The DCO Land is the land edged in the dotted black line and hatched black on the DCO Land Plans.

EXECUTION PAGE

Executed as a deed by **THAMES WATER**)
UTILITIES LIMITED by the affixing of its)
Common Seal in the presence of:)

Authorised Signatory

Appendix 1 Plans

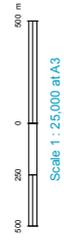
Overall Site Plan (Parts 1 to 4) - Plans showing Main Tunnel and sites for information purposes only;

Individual DCO Land Plans – 24 (twenty four) plans showing the DCO Land for each Development Site.

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Key
Order Limits
Local Authority Boundary



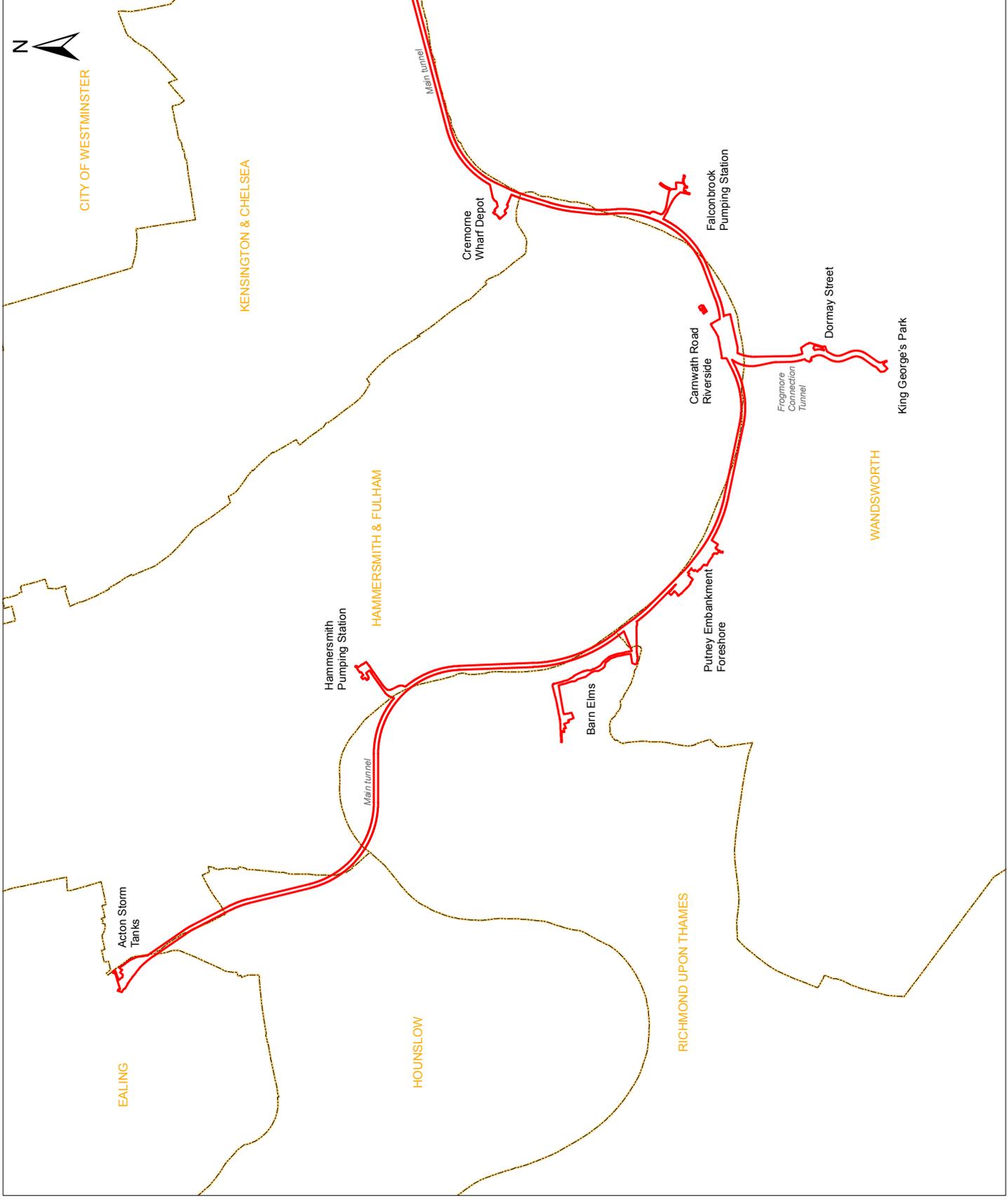
Location
Project wide

Document Information
Section 106 Agreement
Overview Site Plan
Part 1 of 4

1PL04-PN-00176
December 2013



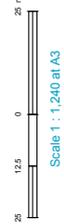
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- Key**
- Local Authority Boundary
 - Limits of Land
 - to Be Acquired or Used
 - DCO Land



Scale 1 : 1,240 at A3

Location
Acton Storm Tanks
London Borough of Ealing

Document Information
Section 106 Agreement
DCO Land Plan

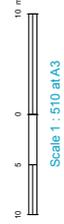
1PL04-PN-00324
December 2013



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- Key**
- Local Authority Boundary
 - Limits of Land to be Acquired or Used
 - DCO Land



Scale 1 : 510 at A3

Location
Hammersmith Pumping Station
London Borough of Hammersmith & Fulham

Document Information
Section 106 Agreement
DCO Land Plan

1PL04-PN-00325
December 2013

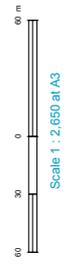


HAMMERSMITH & FULHAM

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- Key**
- Local Authority Boundary
 - Limits of Land
 - to Be Acquired or Used
 - DCO Land

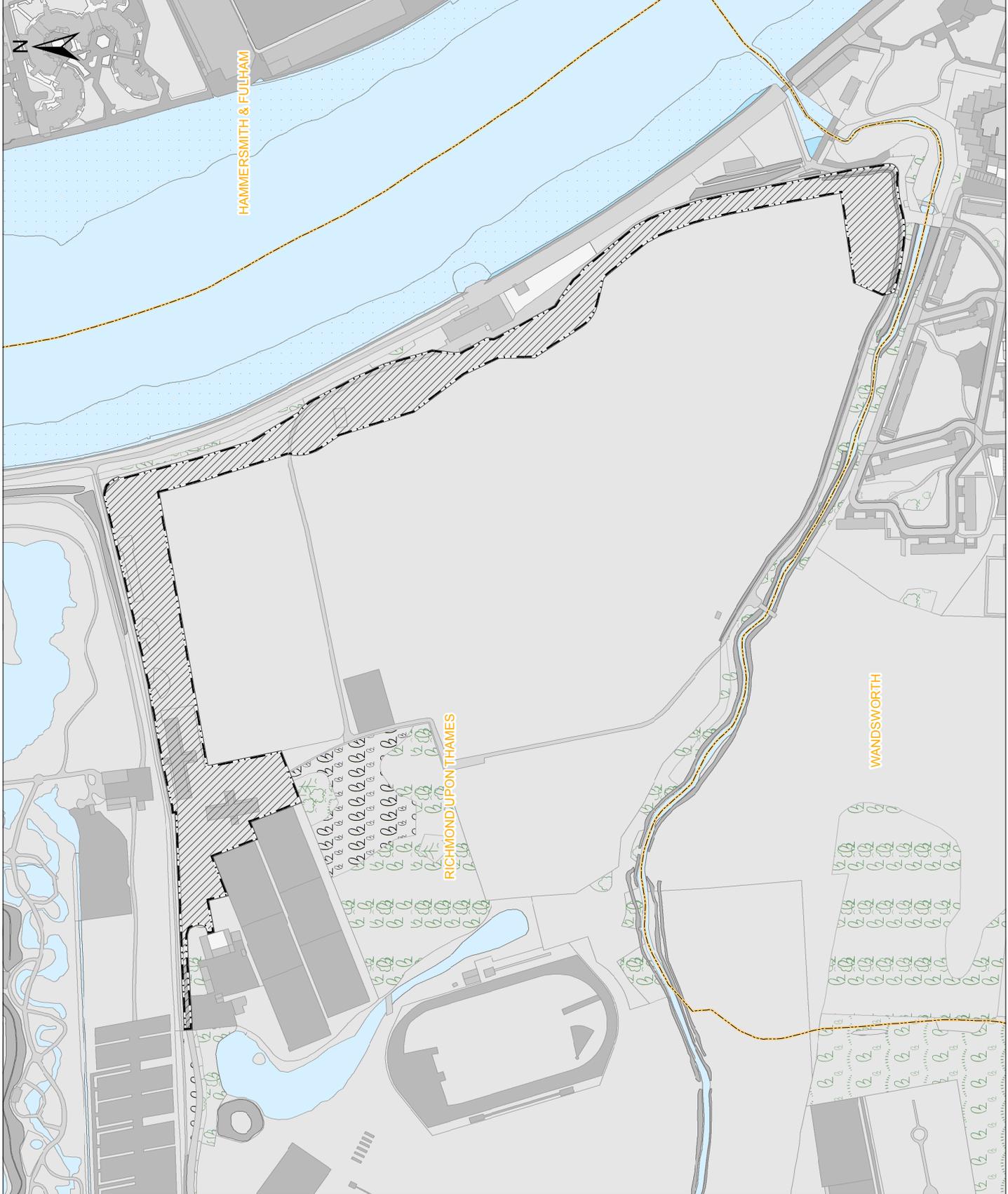


Scale 1 : 2,650 at A3

Location
London Borough of Richmond upon Thames

Document Information
Section 106 Agreement
DCO Land Plan

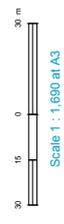
1PL04-PN-00326
December 2013



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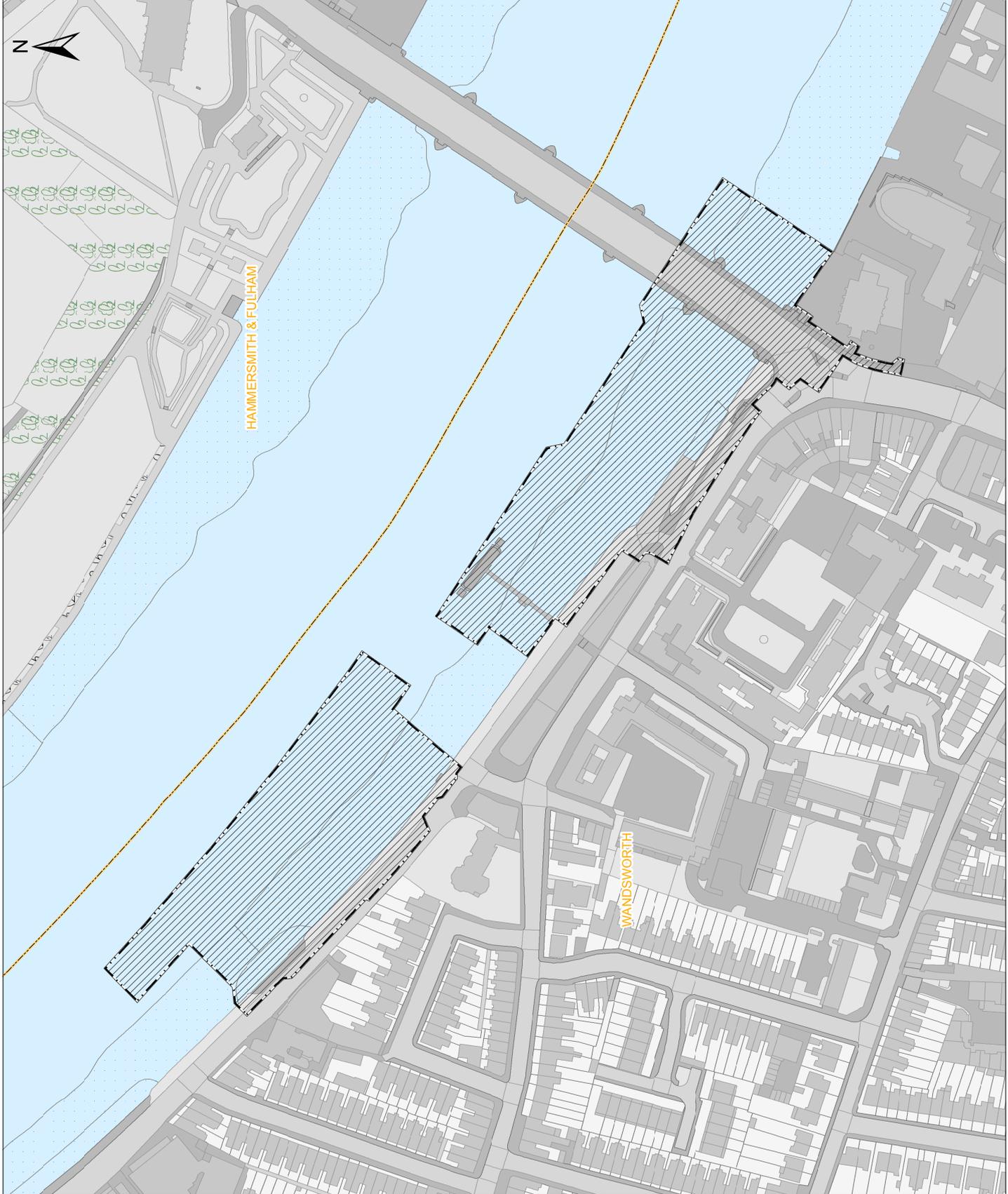
- Key**
- Local Authority Boundary
 - Limits of Land
 - to Be Acquired or Used
 - DCO Land



Location
Purney Embankment Foreshore
London Borough of Wandsworth

Document Information
Section 106 Agreement
DCO Land Plan

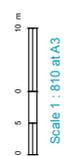
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December 2013



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- Key**
- Local Authority Boundary
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 - DCO Land

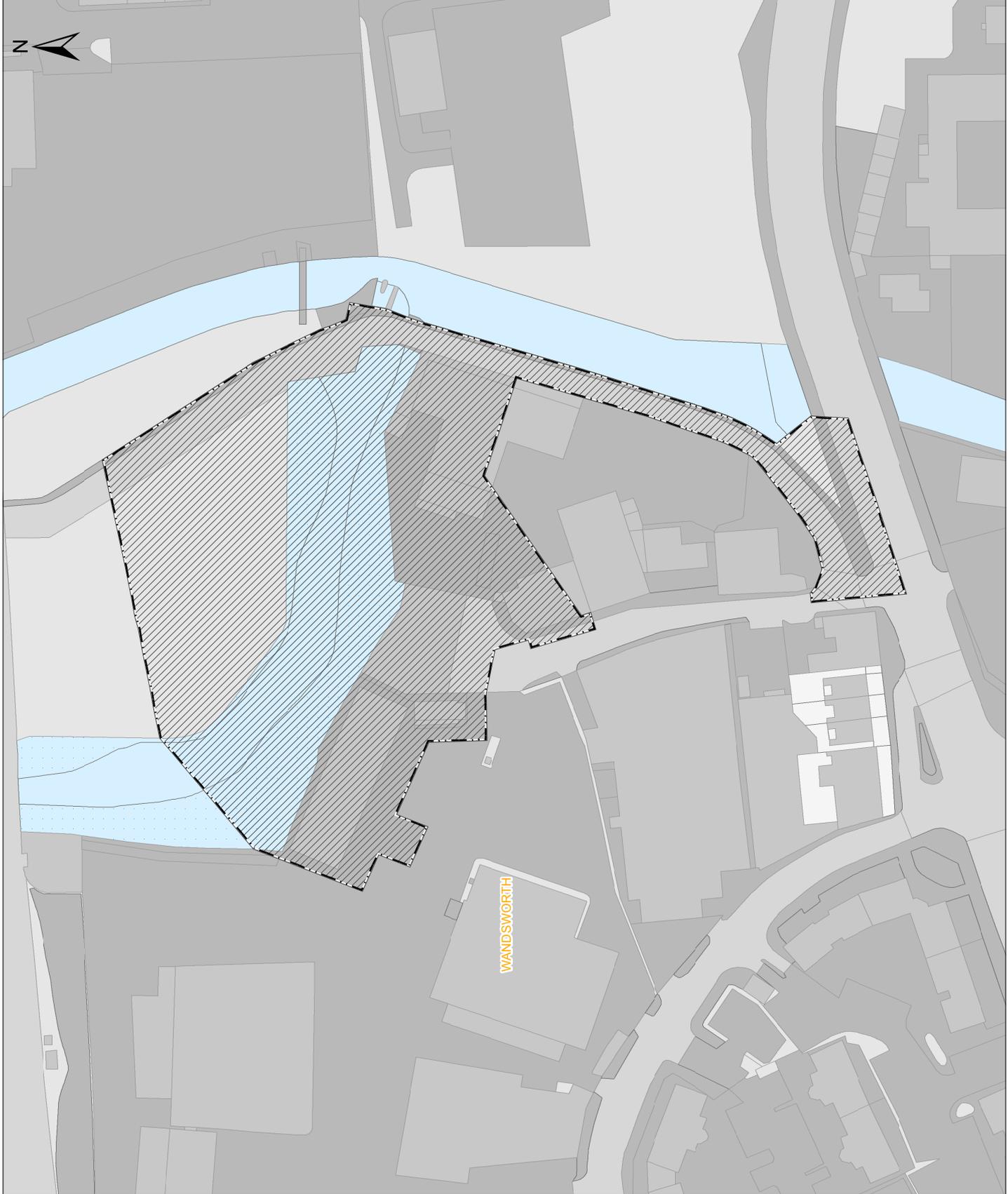


Location
Dormay Street
London Borough of Wandsworth

Document Information
Section 106 Agreement
DCO Land Plan

1PL04-PN-00328
December 2013

Thames Tideway Tunnel
Creating a cleaner, healthier River Thames

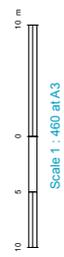


WANDSWORTH

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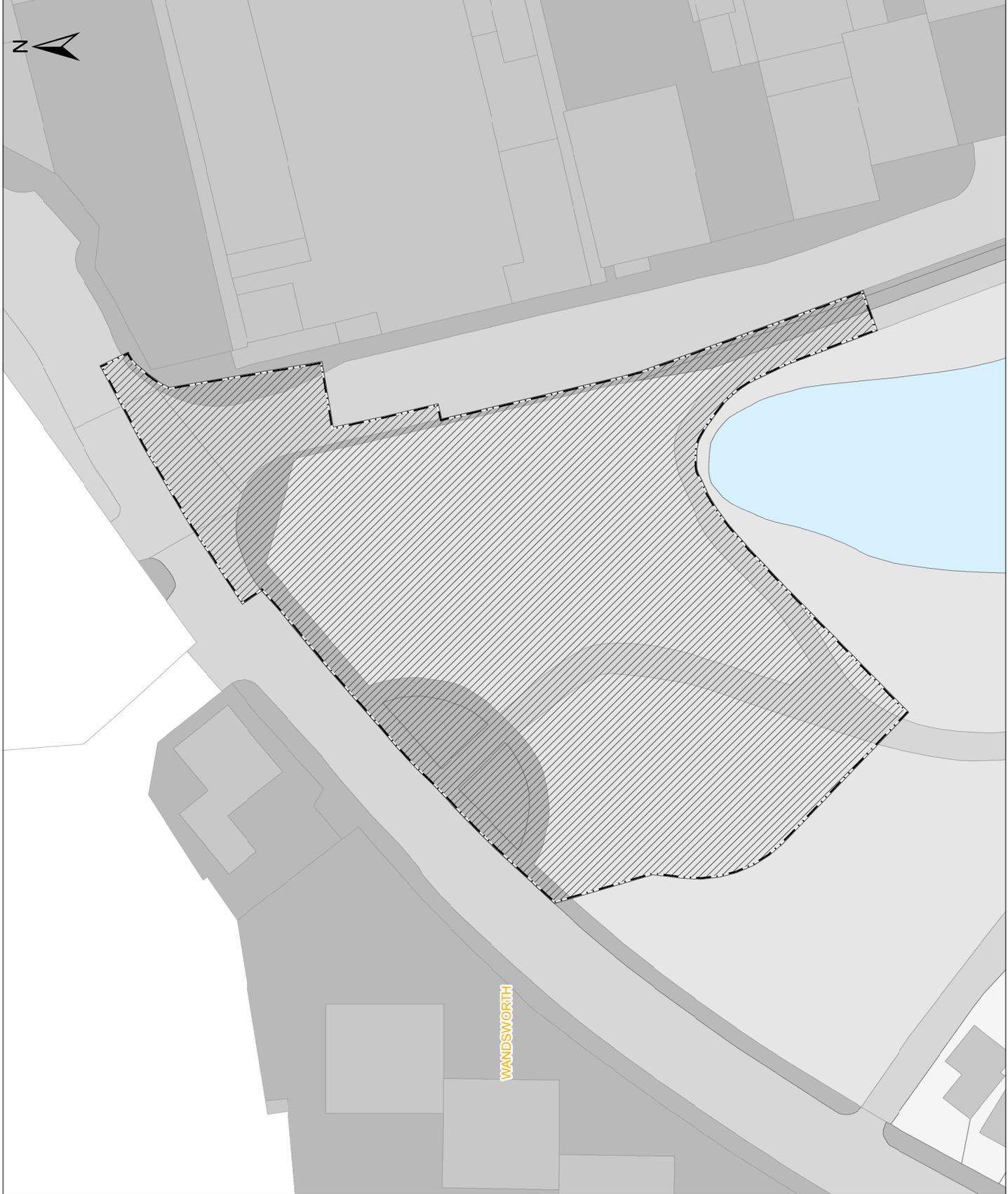
- Key**
- Local Authority Boundary
 - Limits of Land to be Acquired or Used
 - DCO Land



Location
King George's Park
London Borough of Wandsworth

Document Information
Section 106 Agreement
DCO Land Plan

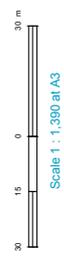
1PL04-PN-00329
December 2013



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- Key**
- Local Authority Boundary
 - Limits of Land to be Acquired or Used
 - DCO Land



Location
Carrwath Road Riverside
London Borough of Hammersmith & Fulham

Document Information
Section 106 Agreement
DCO Land Plan

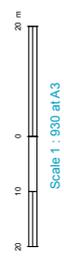
1PL04-PN-00330
December 2013



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- Key**
- Local Authority Boundary
 - Limits of Land
 - to Be Acquired or Used
 - DCO Land

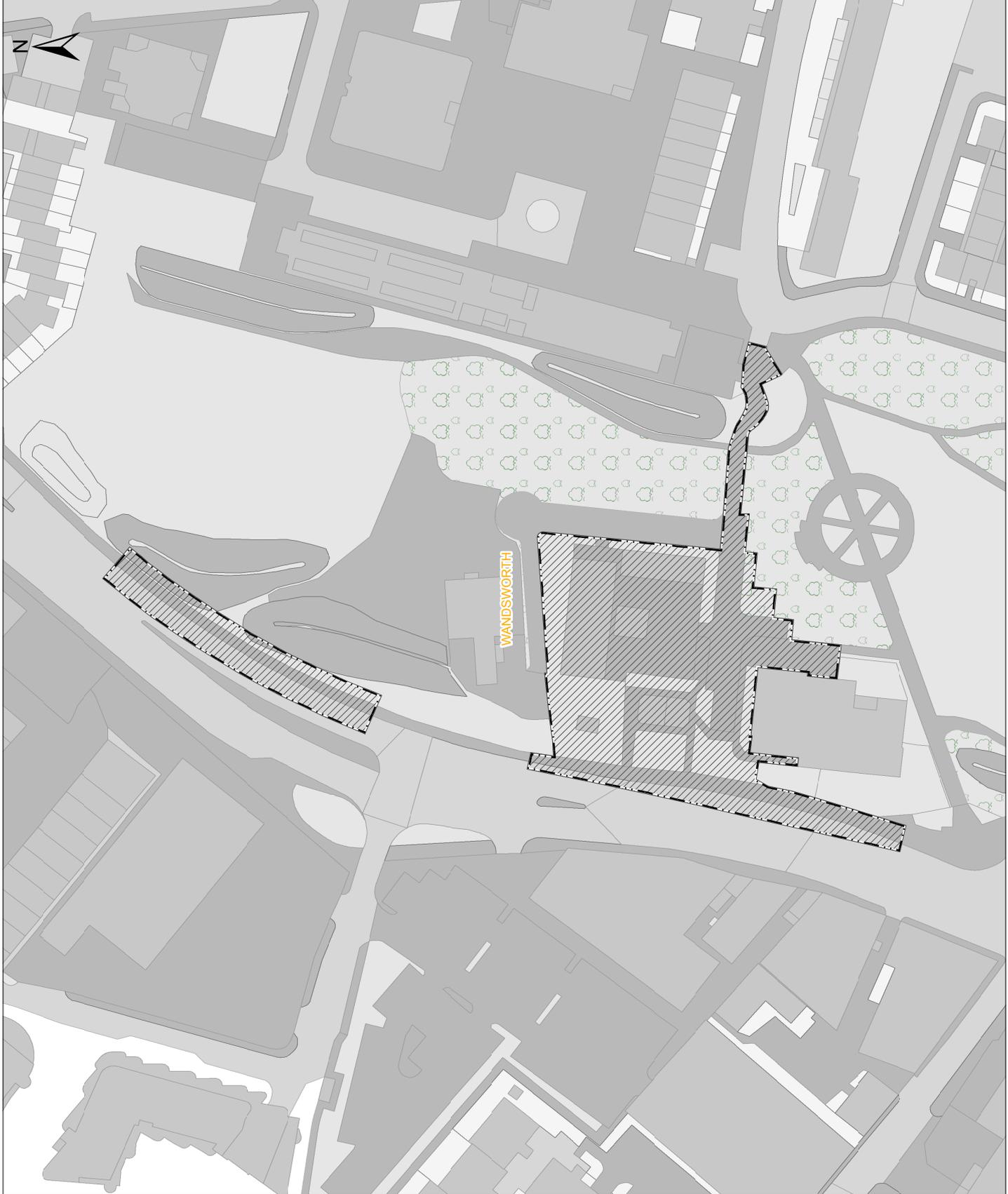


Scale 1 : 900 at A3

Location
Falconbrook Pumping Station
London Borough of Wandsworth

Document Information
Section 106 Agreement
DCO Land Plan

1PL04-PN-00331
December 2013



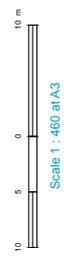
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Keyplan:



Key

- Local Authority Boundary
- Limits of Land to Be Acquired or Used
- DCO Land



Scale 1 : 460 at A3

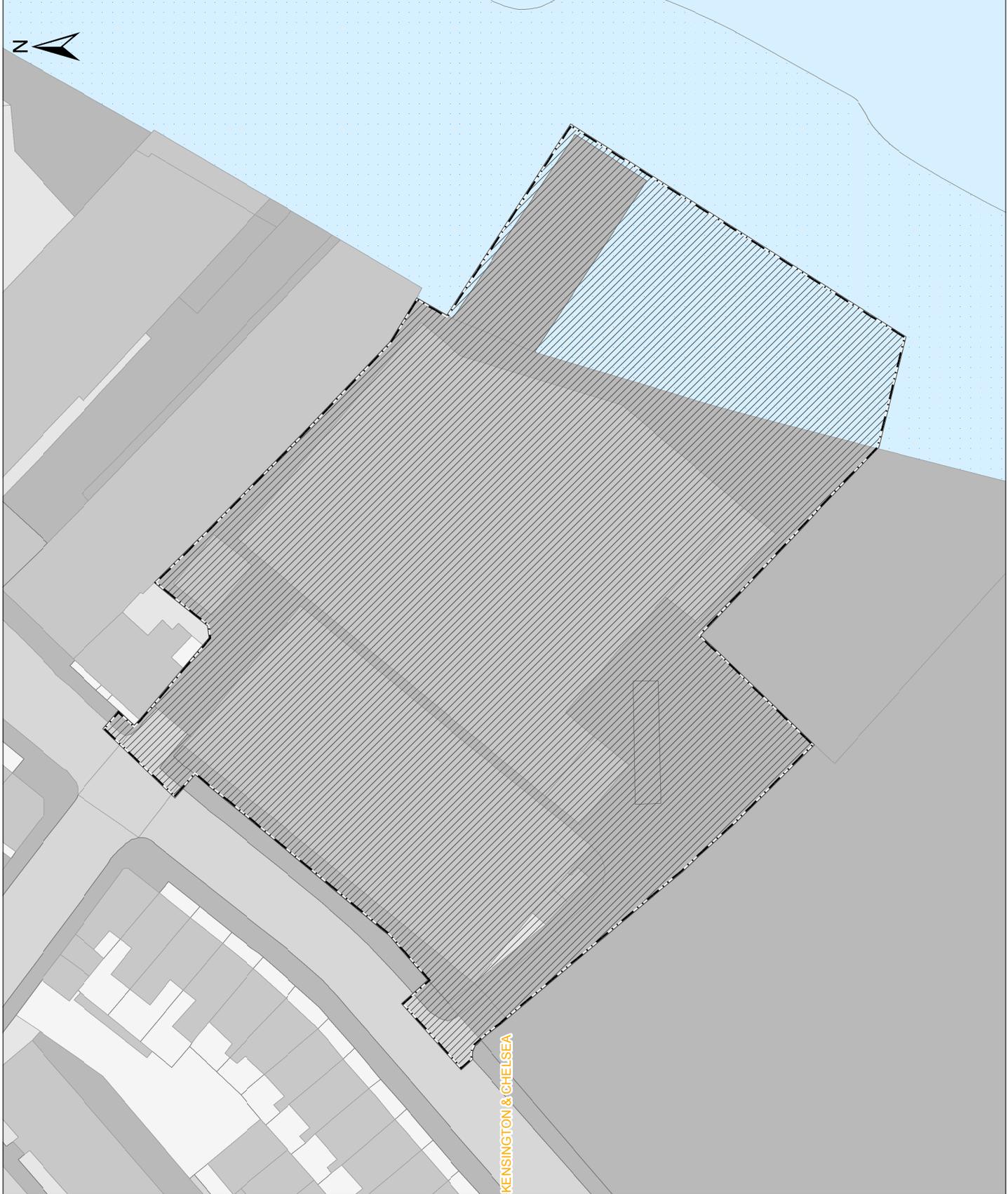
Location

Cremorne Wharf Depot
Royal Borough of Kensington and Chelsea

Document Information

Section 106 Agreement
DCO Land Plan

1PL04-PN-00332
December 2013



KENSINGTON & CHELSEA

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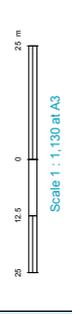
Keyplan:



Key

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-  Limits of Land
-  to Be Acquired or Used
-  DCO Land

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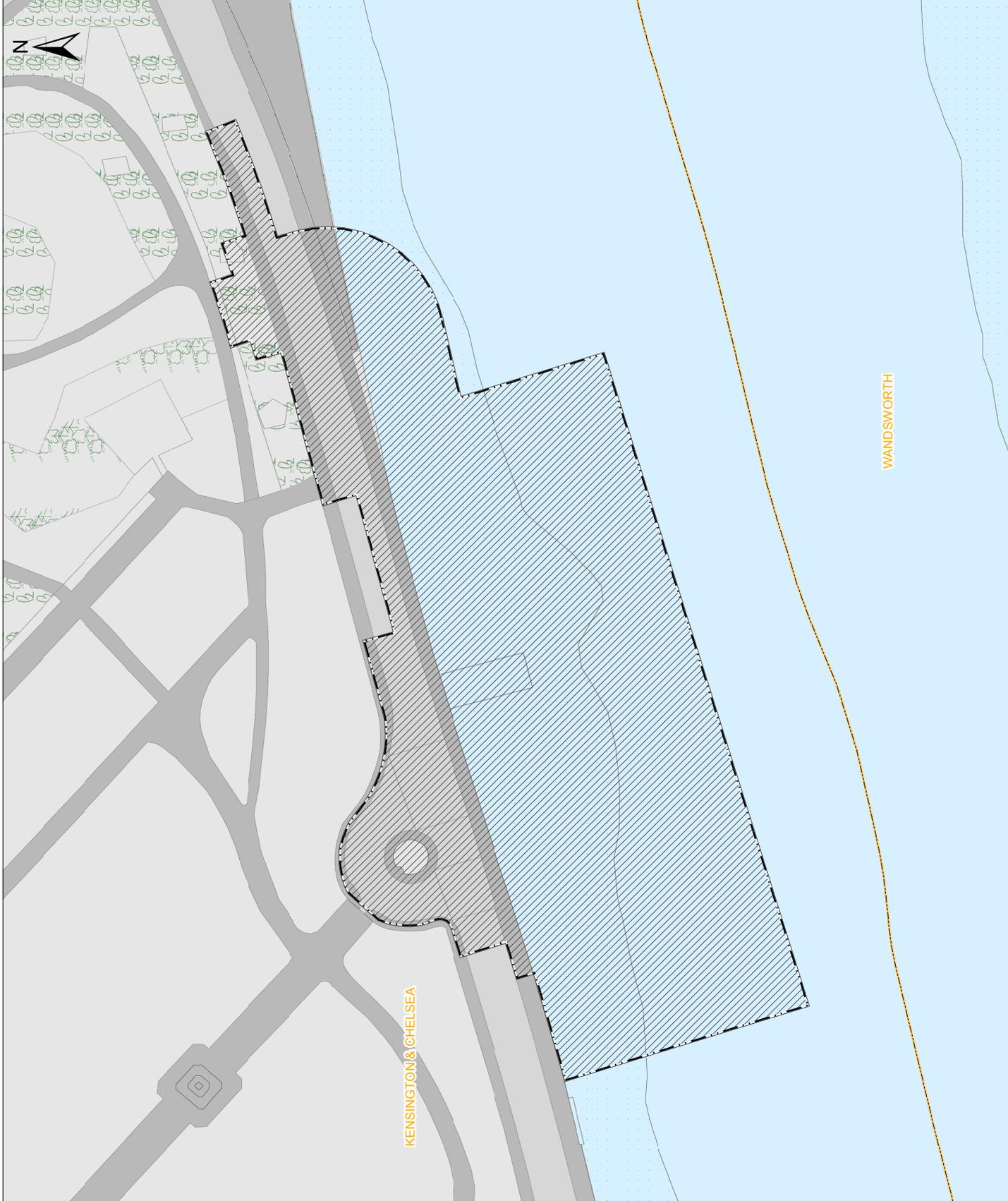


Location
Chelsea Embankment Foreshore
 Royal Borough of Kensington and Chelsea

Document Information
Section 106 Agreement
DCO Land Plan

1PL04-PN-00333
 December 2013

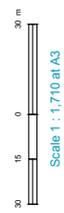
Thames Tideway Tunnel
 Creating a cleaner, healthier River Thames

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- Key**
- Local Authority Boundary
 - Limits of Land to be Acquired or Used
 - DCO Land

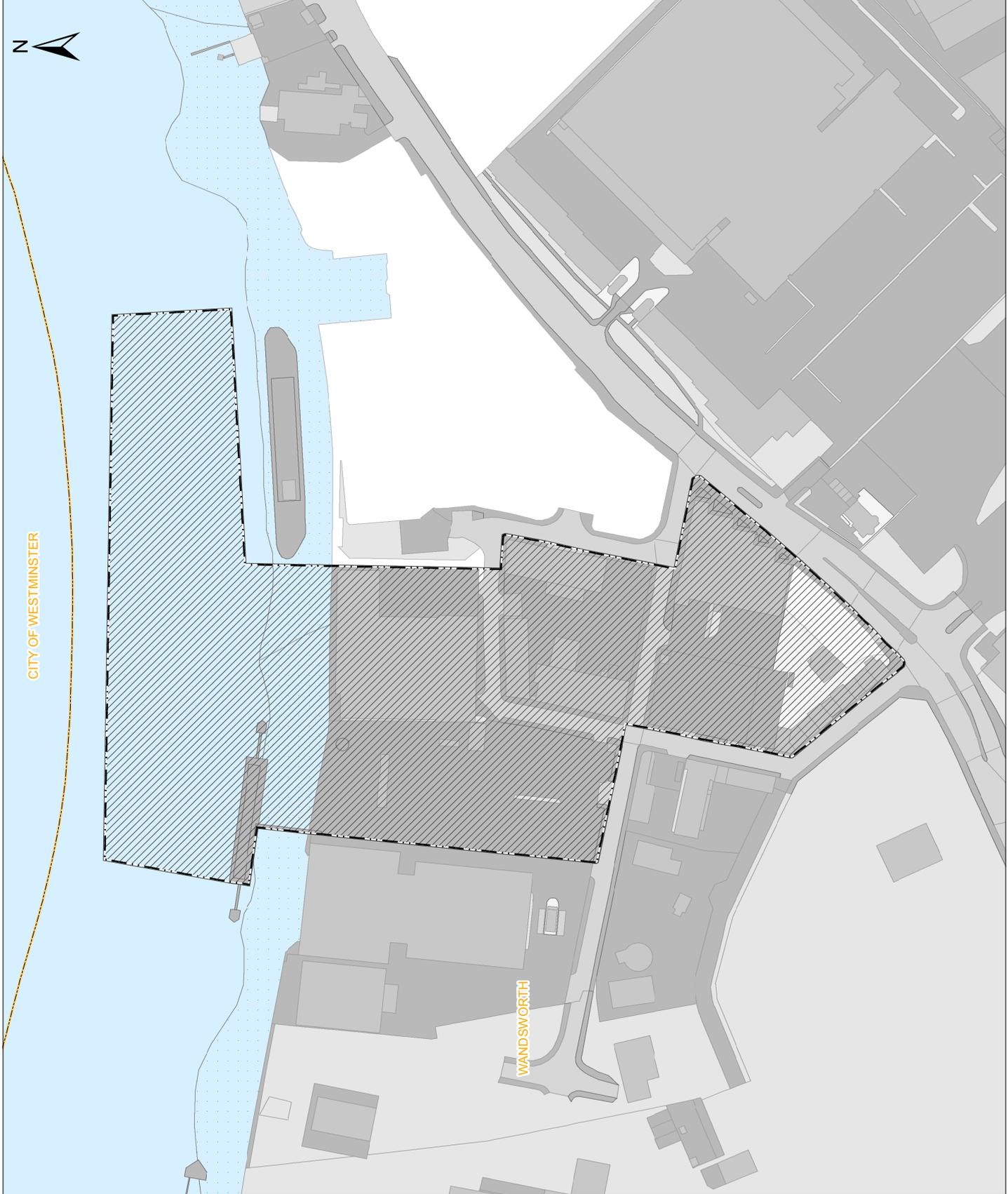


Location
Kirtling Street
London Borough of Wandsworth

Document Information
Section 106 Agreement
DCO Land Plan

1PL04-PN-00334
December 2013

Thames Tideway Tunnel
Creating a cleaner, healthier River Thames



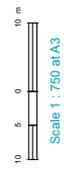
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Keyplan:



Key

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- DCO Land



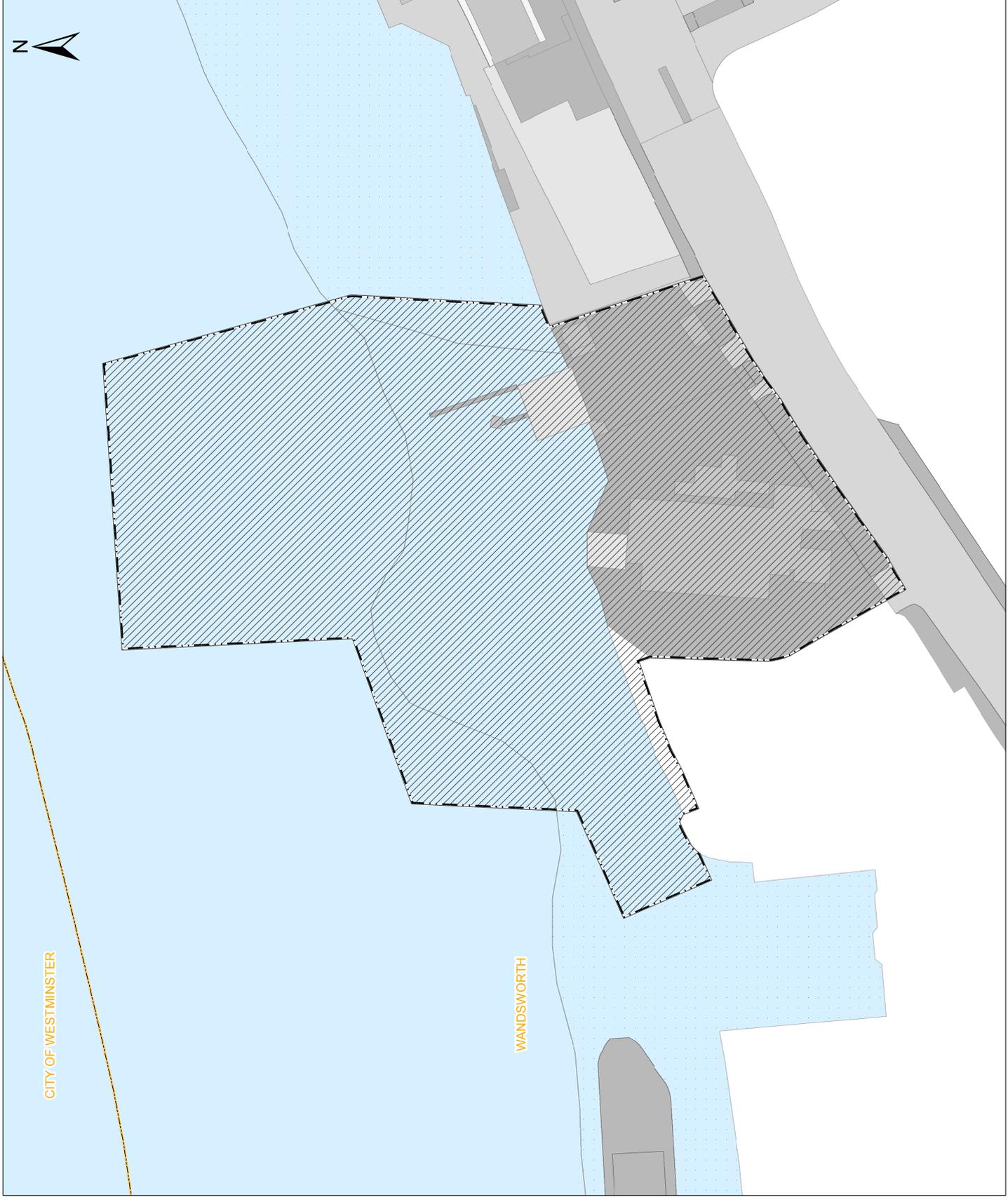
Scale 1 : 750 at A3

Location
Heathwall Pumping Station
London Borough of Wandsworth

Document Information

Section 106 Agreement
DCO Land Plan

1PL04-PN-00335
December 2013



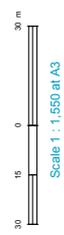
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Keyplan:



Key

- Local Authority Boundary
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- DCO Land

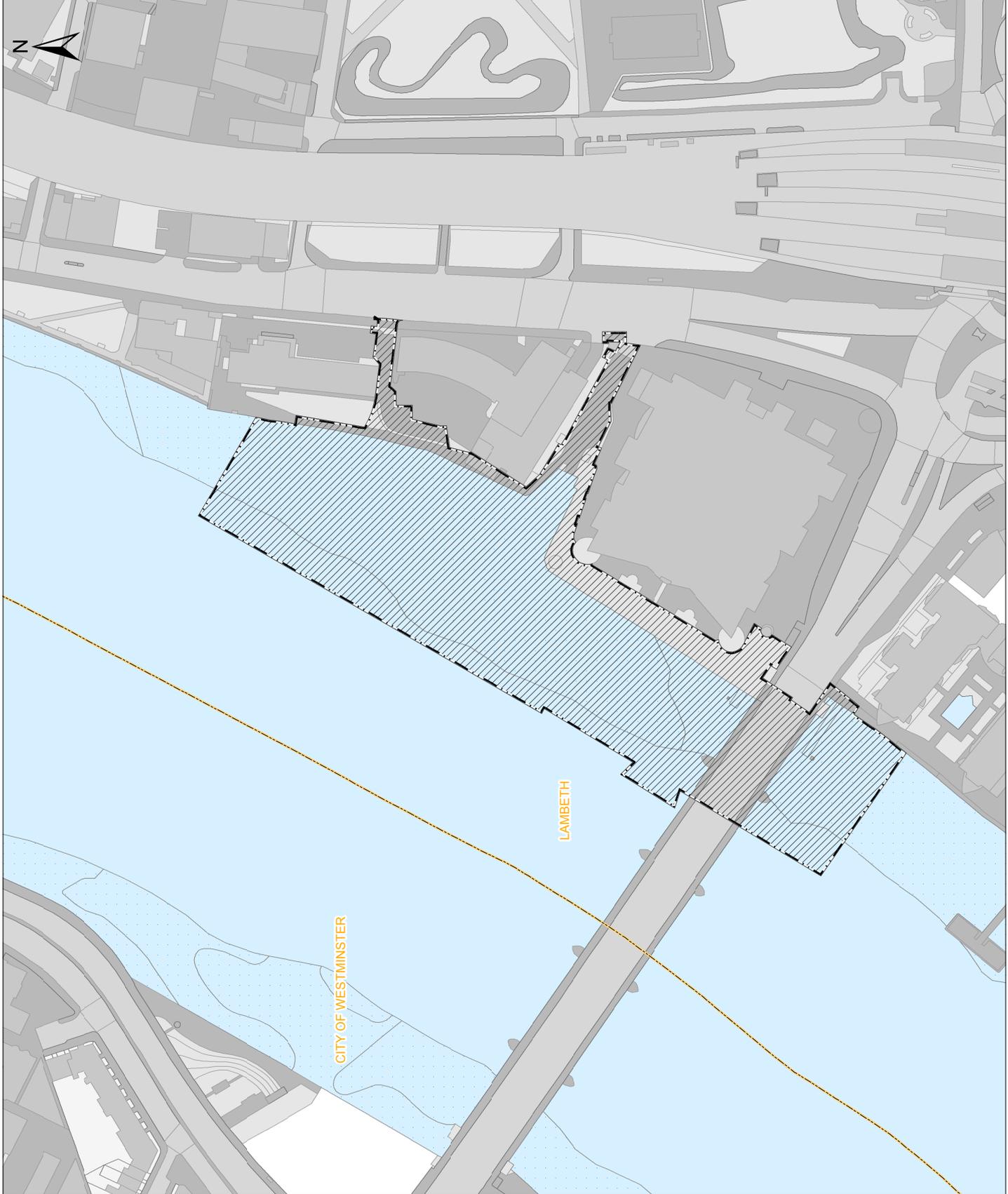


Scale 1 : 1,550 at A3

Location
Albert Embankment Foreshore
London Borough of Lambeth

Document Information
Section 106 Agreement
DCO Land Plan

1PL04-PN-00336
December 2013



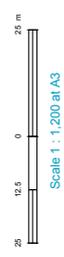
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Keyplan:



Key

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- DCO Land

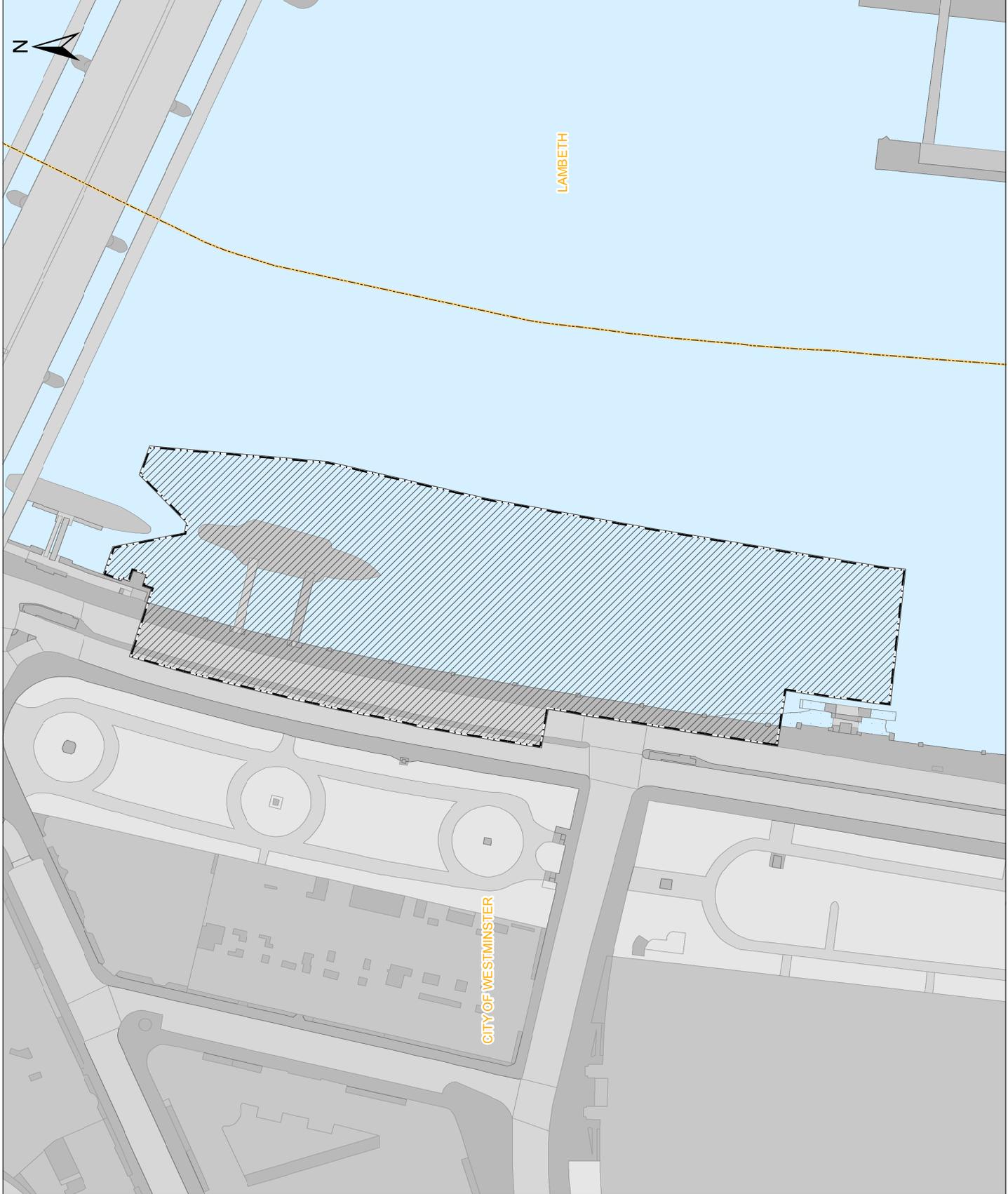


Scale 1 : 1,200 at A3

Location
Victoria Embankment Foreshore
City of Westminster

Document Information
Section 106 Agreement
DCO Land Plan

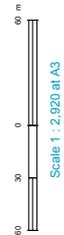
1PL04-PN-00337
December 2013



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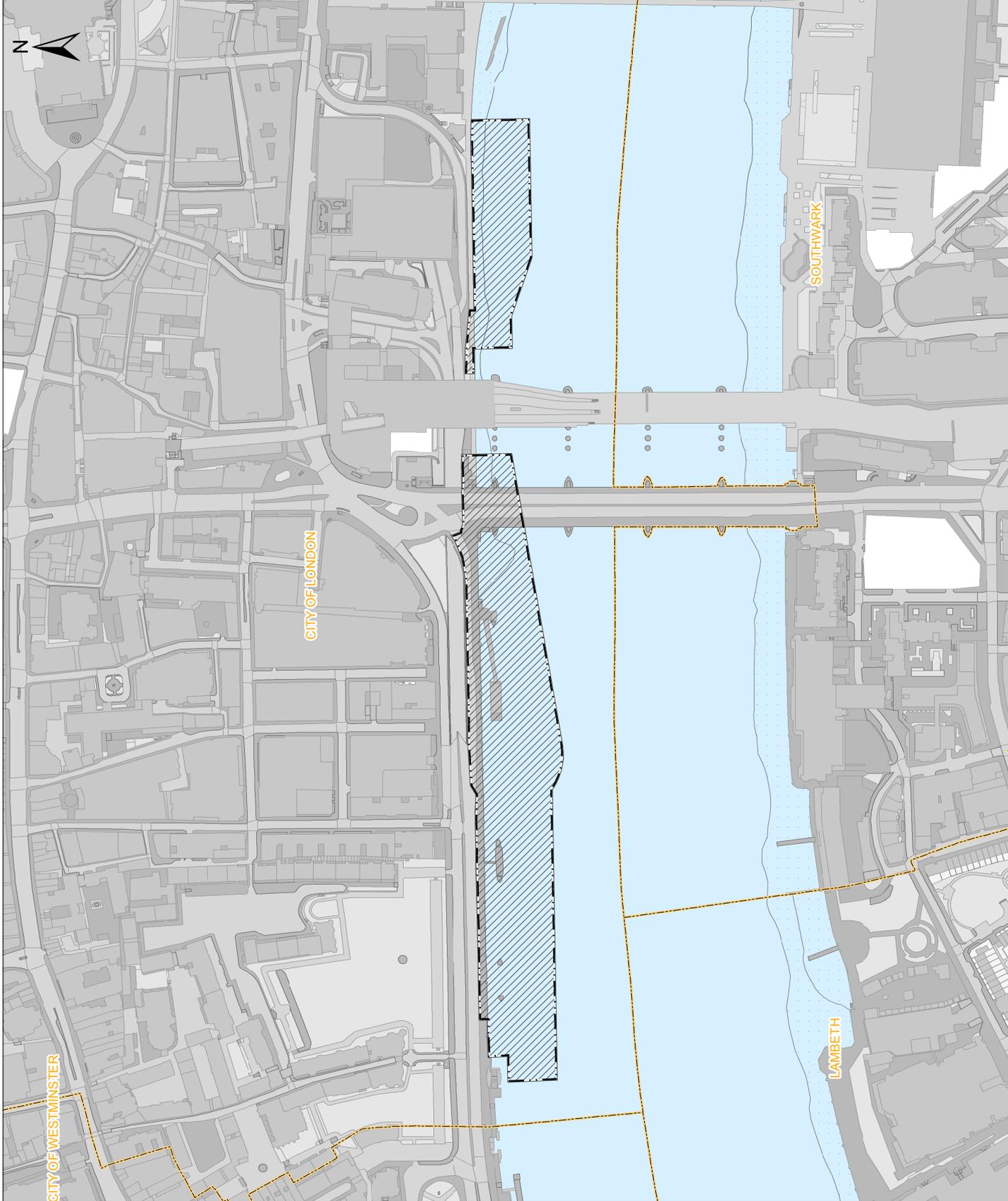
- Key**
- Local Authority Boundary
 - Limits of Land to be Acquired or Used
 - DCO Land



Location
Blackfriars Bridge Foreshore
City of London

Document Information
Section 106 Agreement
DCO Land Plan

1PL04-PN-00338
December 2013



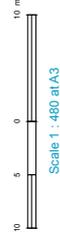
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Keyplan:



Key

-  Local Authority Boundary
-  Limits of Land to Be Acquired or Used
-  DCO Land



Location

Shad Thames Pumping Station
London Borough of Southwark

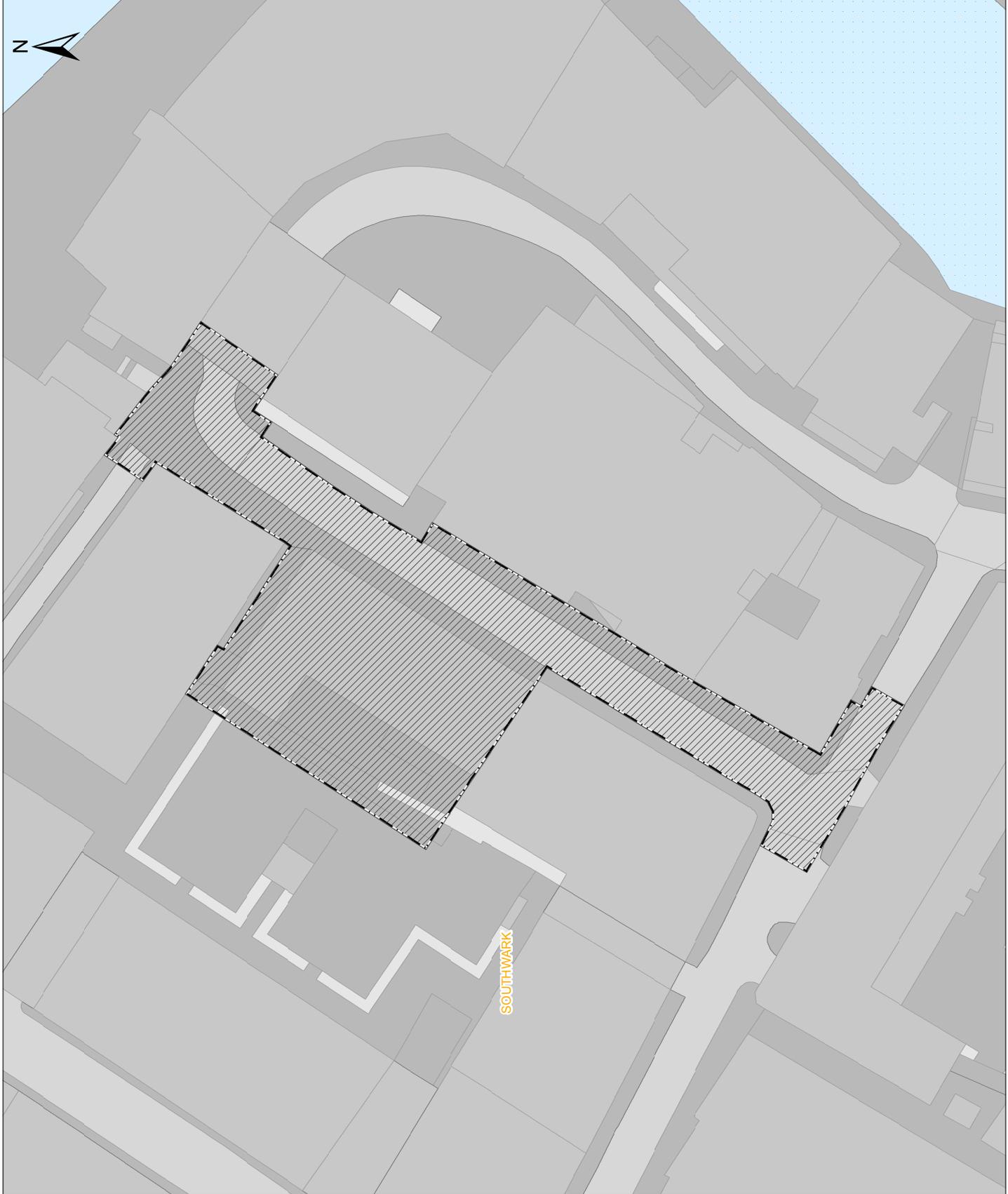
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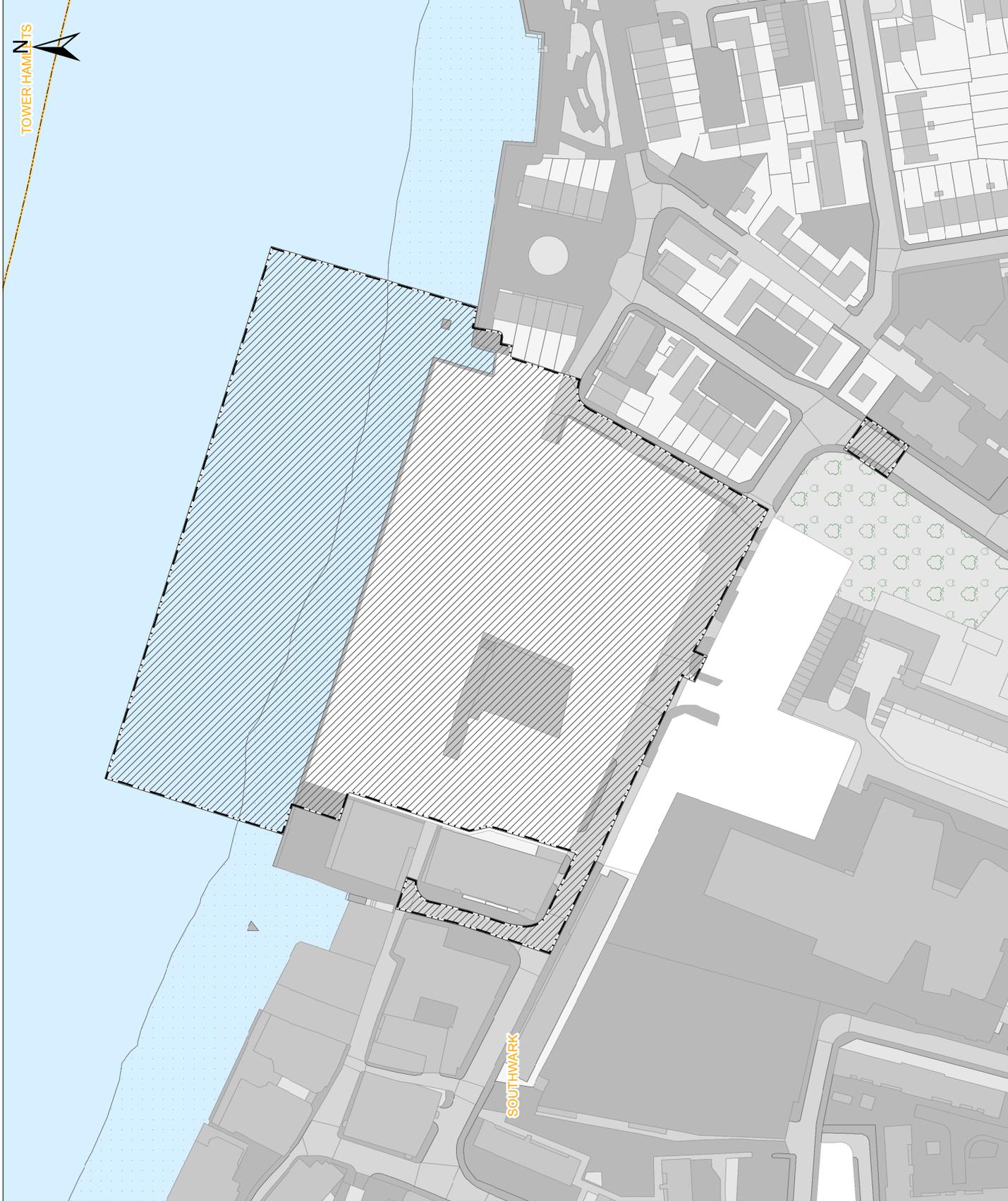
Section 106 Agreement
DCO Land Plan

1PL04-PN-00339
December 2013



SOUTHWARK





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Keyplan:

Key

- Local Authority Boundary
- Limits of Land
- to be Acquired or Used
- DCO Land

Scale 1 : 1,190 at A3

Location
Chambers Wharf
 London Borough of Southwark

Document Information
Section 106 Agreement
 DCO Land Plan

1PL04-PN-00340
 December 2013

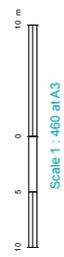
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Keyplan:



Key

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- Limits of Land to be Acquired or Used
- DCO Land

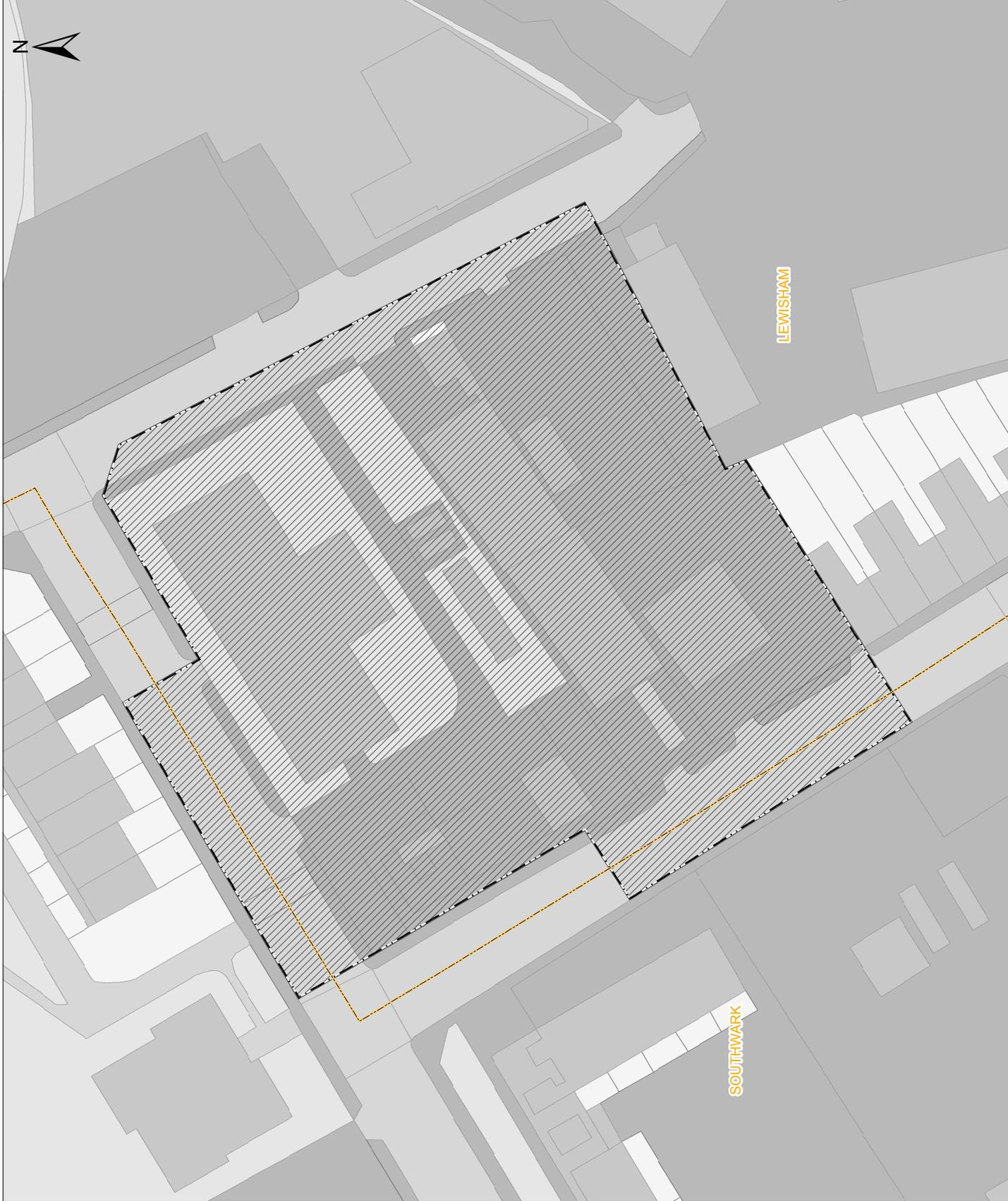


Scale 1 : 460 at A3

Location
Earl Pumping Station
London Borough of Lewisham

Document Information
Section 106 Agreement
DCO Land Plan

1PL04-PN-00341
December 2013



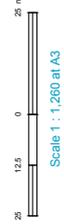
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Keyplan:



Key

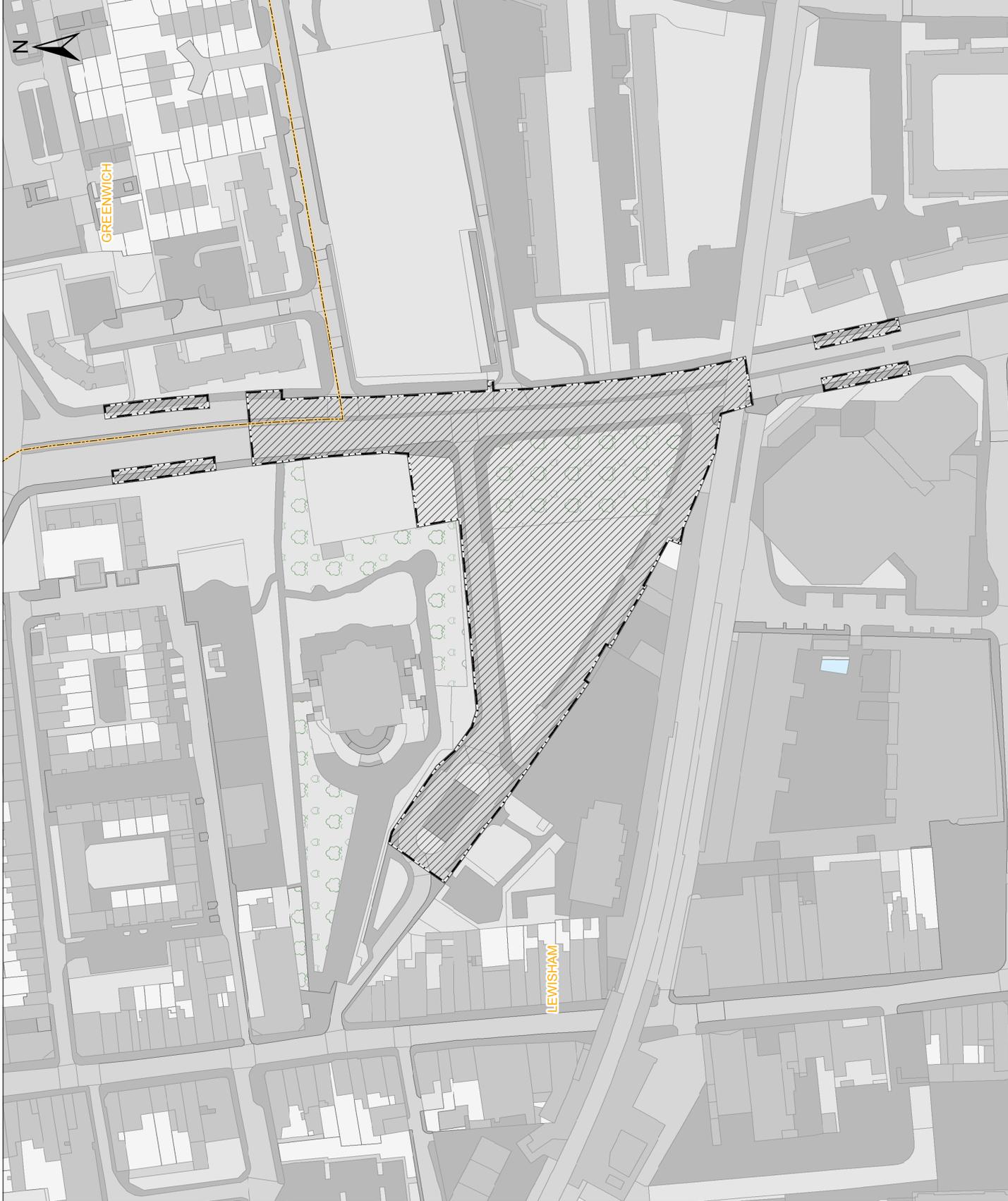
- Local Authority Boundary
- Limits of Land to be Acquired or Used
- DCO Land



Location
Deptford Church Street
London Borough of Lewisham

Document Information
Section 106 Agreement
DCO Land Plan

1PL04-PN-00342
December 2013



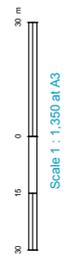
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Keyplan:



Key

- Local Authority Boundary
- Limits of Land
- to Be Acquired or Used
- DCO Land

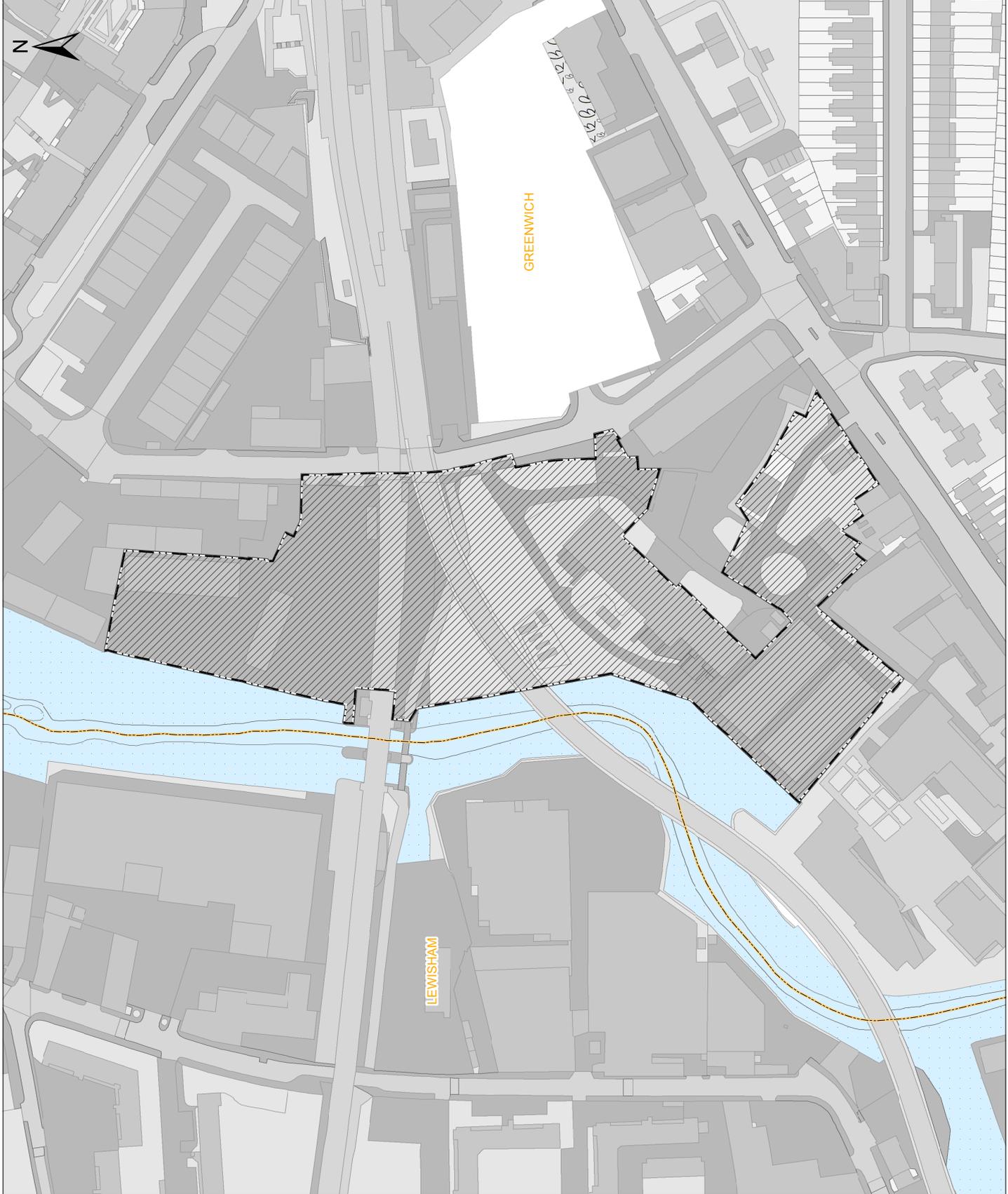


Scale 1 : 1,350 at A3

Location
Greenwich Pumping Station
Royal Borough of Greenwich

Document Information
Section 106 Agreement
DCO Land Plan

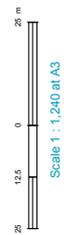
1PL04-PN-00343
December 2013



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- Key**
- Local Authority Boundary
 - Limits of Land to Be Acquired or Used
 - DCO Land



Location
King Edward Memorial Park Foreshore
London Borough of Tower Hamlets

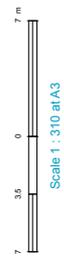
Document Information
Section 106 Agreement
DCO Land Plan



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- Key**
- Local Authority Boundary
 - Limits of Land to be Acquired or Used
 - DCO Land



Scale 1 : 310 at A3

Location
Bekesbourne Street
London Borough of Tower Hamlets

Document Information
Section 106 Agreement
DCO Land Plan

1PL04-PN-00345
December 2013

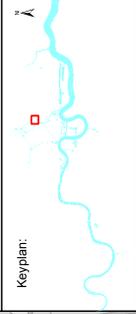


TOWER HAMLETS



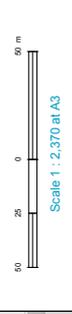
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Keyplan:



- Key**
-  Local Authority Boundary
 -  Limits of Land
 -  to Be Acquired or Used
 -  DCO Land

Scale 1 : 2,370 at A3

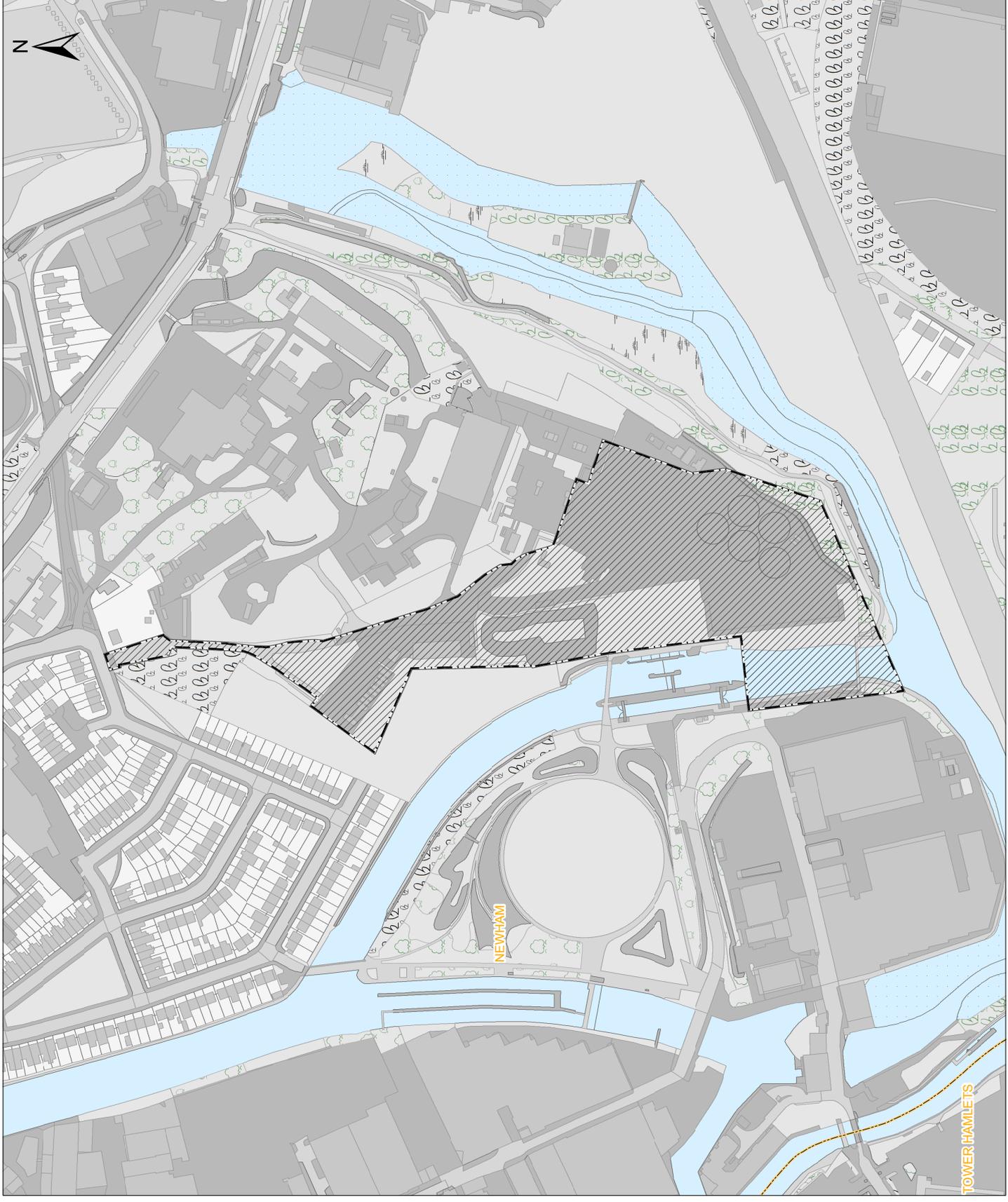


Location
Abbey Mills Pumping Station
 London Borough of Newham

Document Information
Section 106 Agreement
DCO Land Plan

1PL04-PN-00346
 December 2013

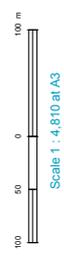
Thames Tideway Tunnel
Creating a cleaner, healthier River Thames

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- Key**
- Local Authority Boundary
 - Limits of Land
 - to be Acquired or Used
 - DCO Land

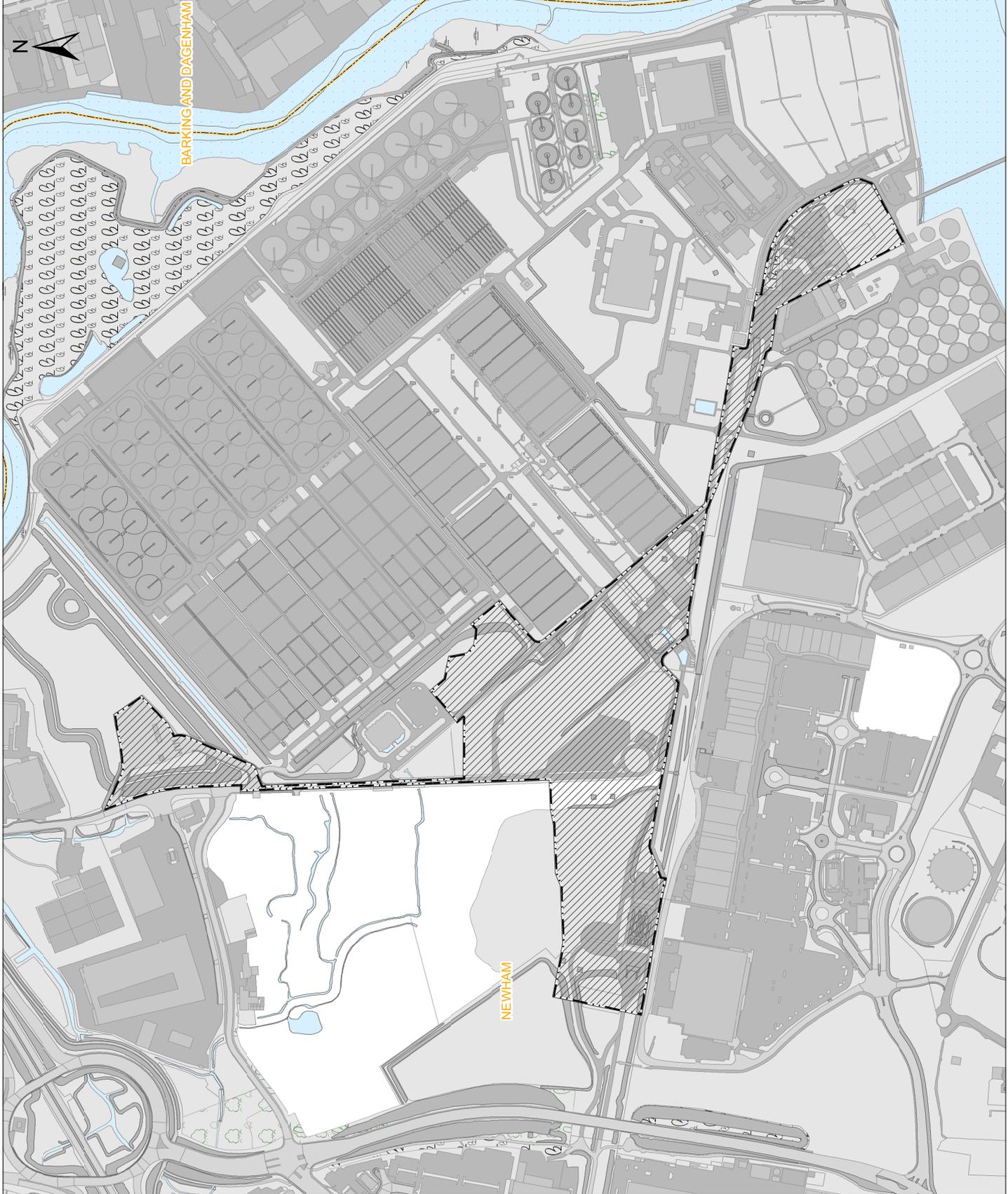


Scale 1 : 4,810 at A3

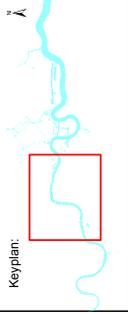
Location
Beckton Sewage Treatment Works
London Borough of Newham

Document Information
Section 106 Agreement
DCO Land Plan

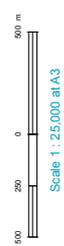
1PL04-PN-00347
December 2013



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Key
Order Limits
Local Authority Boundary



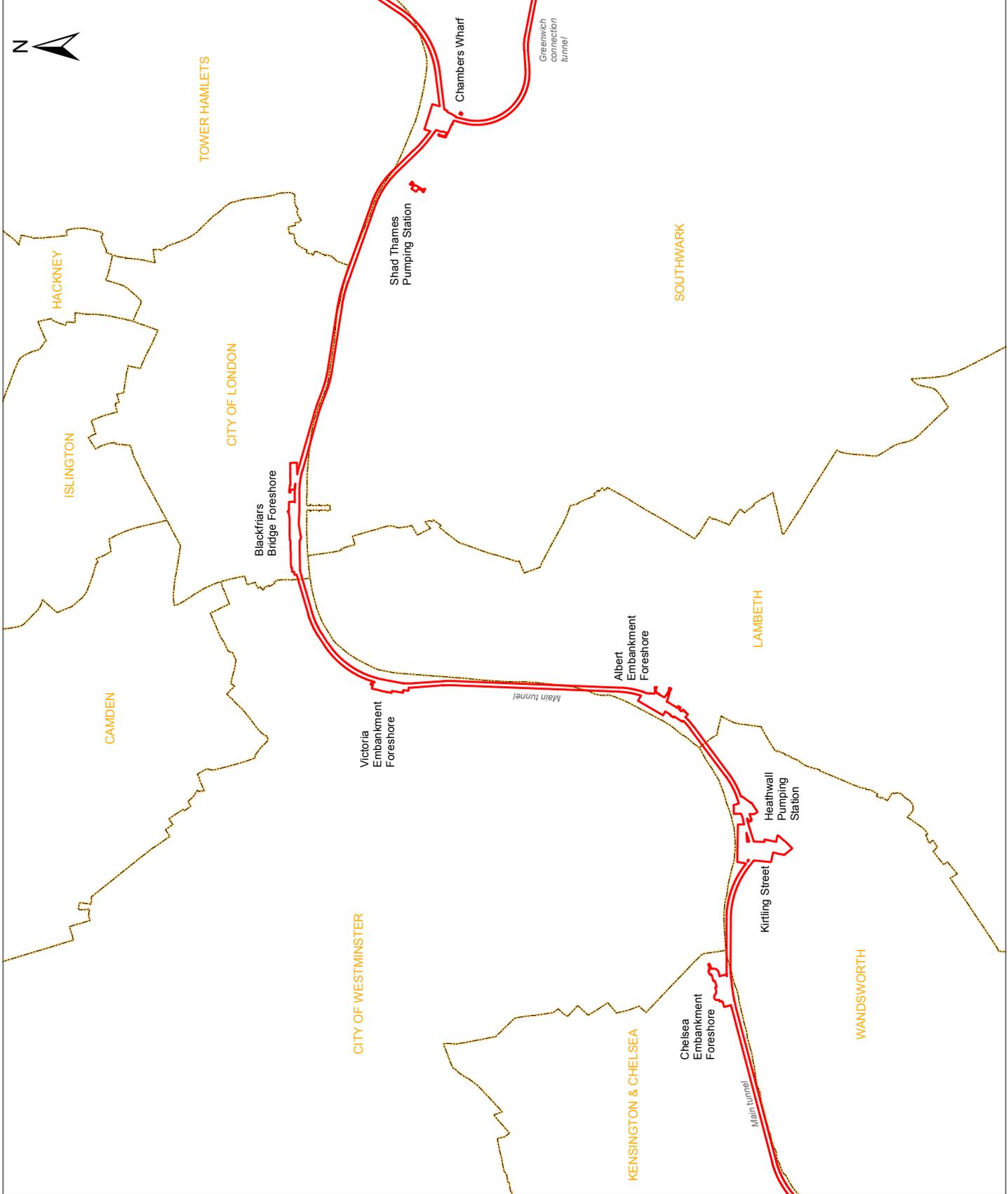
Location
Project wide

Document Information
Section 106 Agreement
Overview Site Plan
Part 2 of 4

1PL04-PN-00177
December 2013



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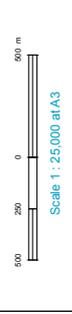
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Keyplan:



Key

- Order Limits
- Local Authority Boundary



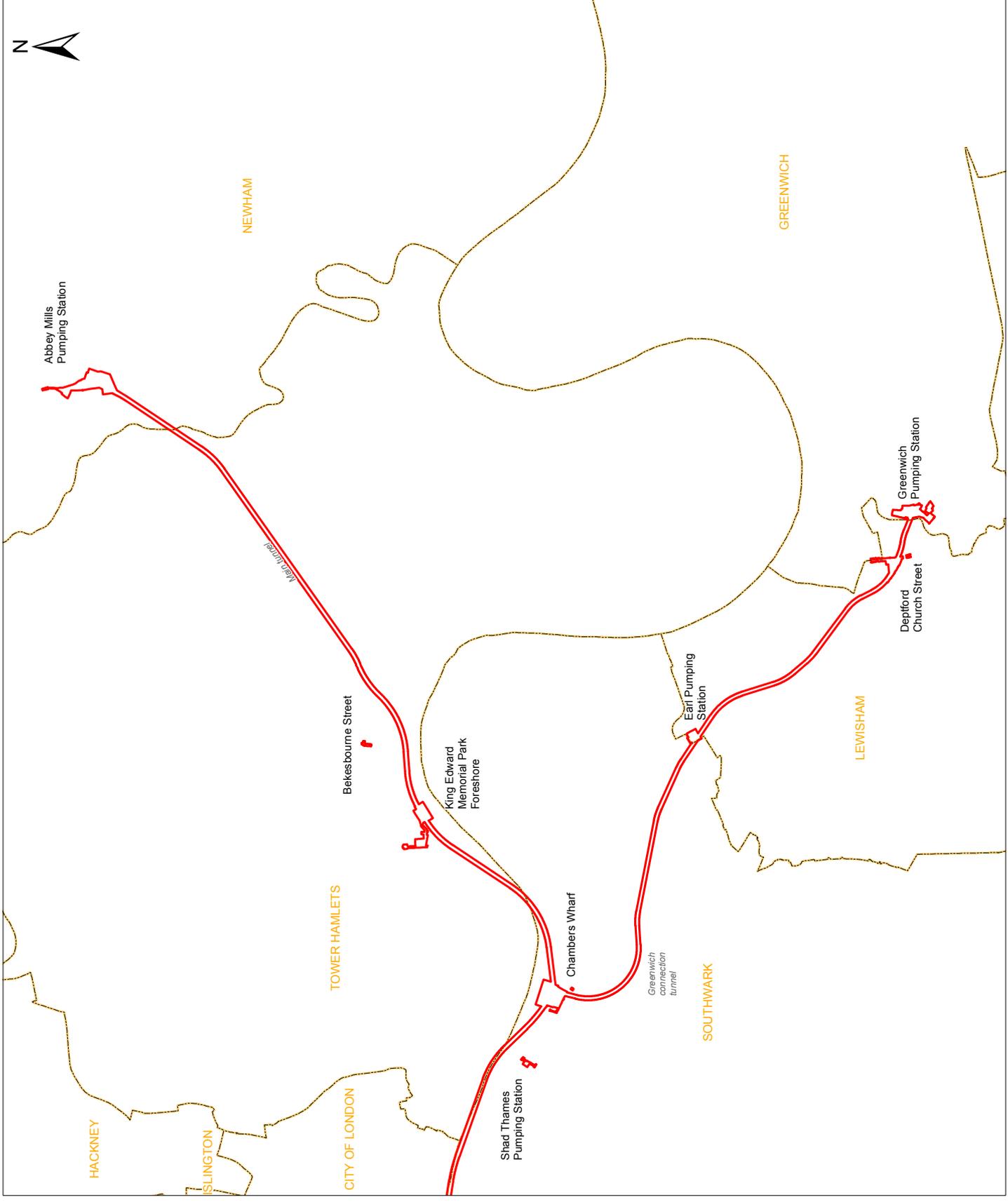
Location
Project wide

Document Information
Section 106 Agreement
Overview Site Plan
Part 3 of 4

1PL04-PN-00178
December 2013



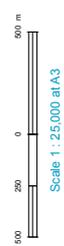
Thames Tideway Tunnel
Creating a cleaner, healthier River Thames

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Key
Order Limits
Local Authority Boundary



BARKING AND DAGENHAM

NEWHAM



Beckton Sewage Treatment Works

GREENWICH

Location
Project wide

Document Information
Section 106 Agreement
Overview Site Plan
Part 4 of 4

1PL04-PN-00179
December 2013



Appendix 2
Original Agreement

[signed copy to be included prior to completion of the deed]

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