Section 48
Proposed schedule of works

Summer 2012
THAMES WATER UTILITIES LIMITED

THAMES TIDEWAY TUNNEL

Section 48 of the Planning Act 2008
Regulation 4 of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

Proposed schedule of works

PART 1
PROPOSED DEVELOPMENT

A nationally significant infrastructure project as defined in sections 14 and 29(1A) of the Planning Act 2008 (as amended) ('the Act') comprising the works described in column (1) of the table below.

Associated development within the meaning of section 115(2) of the Act including the works described in column (2) of the table below.

<table>
<thead>
<tr>
<th>(1)</th>
<th>(2)</th>
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<tbody>
<tr>
<td>Works comprising a nationally significant infrastructure project as defined in sections 14 and 29(1A) of the Act</td>
<td>Works comprising associated development within the meaning of section 115(2) of the Act</td>
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<tr>
<td>Work Nos. 1a, 1b, 1c, 1d, 2a, 3a, 3b, 4a, 4b, 5a, 5b, 6a, 7, 8a, 9a, 10a, 10b, 11a, 11b, 12a, 12b, 13a, 14a, 14b, 15a, 15b, 16a, 16b, 17a, 19a, 20, 21a, 22a, 23a, 24a, and 26a. These works are marked with an asterisk in the description below.</td>
<td>Work Nos. 2b, 3c, 4c, 5c, 5d, 6b, 8b, 9b, 10c, 11c, 12c, 13b, 14c, 15c, 16c, 17b, 18, 19b, 21b, 22b, 23b, 24b, 25, 26b and 27.</td>
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In the London Boroughs of Ealing, Hounslow, Hammersmith and Fulham, Richmond and Wandsworth, the Royal Borough of Kensington and Chelsea, the London Borough of Lambeth, the City of Westminster and the City of London, and the London Boroughs of Southwark, and Lewisham, the Royal Borough of Greenwich and the London Boroughs of Tower Hamlets and Newham

MAIN TUNNEL

*Work No. 1a  Main tunnel (west): A tunnel with an approximate internal diameter of 6.5 metres and approximately 6950 metres\(^1\) in length between Acton Storm Tanks main tunnel shaft (Work No. 2a) and Carnwath Road Riverside main tunnel shaft (Work No. 6a).

*Work No. 1b  Main tunnel (west central): A tunnel with an approximate internal diameter of 7.2 metres and approximately 5000 metres\(^2\) in length between Carnwath Road Riverside main tunnel shaft (Work No. 6a) and Kirtling Street main tunnel shaft (Work No. 13a).

*Work No. 1c  Main tunnel (east central): A tunnel with an approximate internal diameter of 7.2 metres and approximately 7680 metres\(^3\) in length between Kirtling Street main tunnel shaft (Work No. 13a) and Chambers Wharf main tunnel shaft (Work No. 19a).

*Work No. 1d  Main tunnel (east): A tunnel with an approximate internal diameter of 7.2 metres and approximately 5530 metres\(^4\) in length between Chambers Wharf main tunnel shaft (Work No. 19a) and Abbey Mills Pumping Station main tunnel shaft (Work No. 26a).

In the London Borough of Ealing

ACTON STORM TANKS

*Work No. 2a:  Acton Storm Tanks main tunnel shaft – A shaft with an approximate internal diameter of 15 metres and an approximate depth (to invert level) of 31 metres.

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\(^1\) The linear distance of tunnels is measured down the centre line of the tunnel corridor from the centre of the shafts at the start and end points of the relevant tunnel section.

\(^2\) See footnote 1.

\(^3\) See footnote 1.

\(^4\) See footnote 1.
**Work No. 2b:** Acton Storm Tanks associated development - Works to intercept and divert flow from the Acton Storm Relief CSO to the Acton Storm Tanks main tunnel shaft (Work No. 2a) and into main tunnel (west) (Work No. 1a), including the following above and below ground works and structures:

(i) decommissioning, partial demolition and infilling of two existing storm tanks;

(ii) works to establish a main tunnel reception site;

(iii) construction of an interception chamber, CSO overflow structures, hydraulic structures, chambers with access covers and other structures including culverts, pipes and ducts to modify, connect, control, ventilate and intercept flow;

(iv) works to isolate the remaining four storm tanks from the existing system;

(v) construction of structures for air management plant and equipment, including filters and fans and ventilation columns and associated below ground ducts and chambers;

(vi) construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage;

(vii) construction of construction access points off Canham Road and Warple Way; and

(viii) construction of a permanent vehicle access off Canham Road.

**In the London Borough of Hammersmith and Fulham**

**HAMMERSMITH PUMPING STATION**

*Work No. 3a:* Hammersmith Pumping Station CSO drop shaft - A shaft with an approximate internal diameter of 11 metres and an approximate depth (to invert level) of 33 metres.

*Work No. 3b:* Hammersmith connection tunnel - A tunnel between Hammersmith Pumping Station CSO drop shaft (Work No. 3a) and the main tunnel (west) (Work No. 1a).
Work No. 3c: Hammersmith Pumping Station associated development - Works to intercept and divert flow from the Hammersmith Pumping Station CSO to the Hammersmith Pumping Station CSO drop shaft (Work No. 3a) and into the Hammersmith Pumping Station connection tunnel (Work No. 3b) including the following above and below ground works and structures:

(i) demolition or modification of existing screen house;

(ii) construction of an interception chamber, CSO overflow structures, hydraulic structures, chambers with access covers and other structures including culverts, pipes and ducts to modify, connect, control, ventilate and intercept flow;

(iii) construction of structures for air management plant and equipment, including filters and ventilation columns and associated below ground ducts and chambers;

(iv) construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage;

(v) construction of temporary construction access from Distillery Road;

(vi) construction of a permanent vehicle access off Distillery Road; and

(vii) junction improvements to junction of Chancellor’s Road and Distillery Road.

In the London Borough of Richmond

BARN ELMS

*Work No. 4a: Barn Elms CSO drop shaft - A shaft with an approximate internal diameter of 6 metres which extends approximately 1 metre above the existing ground level and which has an approximate depth (to invert level) of 34 metres.

*Work No. 4b: West Putney connection tunnel - A tunnel between Barn Elms CSO drop shaft (Work No. 4a) and the main tunnel (west) (Work No. 1a).

Work No. 4c: Barn Elms associated development - Works to intercept and divert flow from the West Putney Storm Relief CSO to the Barn Elms CSO drop
shaft (Work No. 4a) and into the Barn Elms connection tunnel (Work No. 4b) including the following above and below ground works and structures:

(i) demolition and replacement of existing changing rooms at Barn Elms Playing Fields;

(ii) formation of a new permanent construction vehicle access road to Queen Elizabeth Walk, permanent reconfiguration of the existing car park, modifications to the existing sports track and field facilities, diversion of the existing pedestrian access route to Barn Elms Schools Sports Centre;

(iii) construction of an interception chamber, CSO overflow structures, hydraulic structures, chambers with access covers and other structures including culverts, pipes and ducts to modify, connect, control, ventilate and intercept flow;

(iv) construction of structures for air management plant and equipment including filters and ventilation columns and associated below ground ducts and chambers;

(v) construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage;

(vi) construction of a permanent hardstanding area; and

(vii) construction of an integrated electrical and control kiosk, incorporating a habitat wall.

**In the London Borough of Wandsworth**

**PUTNEY EMBANKMENT FORESHORE**

*Work No. 5a:* Putney Embankment Foreshore CSO drop shaft - A shaft with an approximate internal diameter of 6 metres and an approximate depth (to invert level) of 36 metres.

*Work No. 5b:* Putney Bridge connection tunnel - A tunnel between Putney Bridge Foreshore CSO drop shaft (Work No. 5a) and the main tunnel (west) (Work No. 1a).
**Work No. 5c:** Putney Embankment Foreshore associated development - Works to intercept and divert flow from the Putney Bridge CSO to the Putney Bridge Foreshore CSO drop shaft (Work No. 5a) and into the Putney Bridge Foreshore connection tunnel (Work No. 5b) including the following above and below ground works and structures:

(i) dredging and construction of a temporary cofferdam including connection to the existing river wall and construction of a campshed;

(ii) partial demolition of existing river wall and construction of new river wall including connection to and alteration of the existing river wall to reclaim land and to enclose Work Nos. 5a and 5c(iii), (v), (vi) and (vii) and scour protection works including a new CSO outfall apron;

(iii) removal of existing CSO apron in the foreshore;

(iv) construction of an interception chamber, CSO overflow structures and apron including scour protection, hydraulic structures, chambers with access covers and other structures including culverts, pipes and ducts to modify, connect, control, ventilate and intercept flow;

(v) alterations to the listed Putney Bridge including installation of ventilation structures, kiosk, relocation and replacement of listed bollards and works to the bridge abutments;

(vi) construction of structures for air management plant and equipment including filters and ventilation columns and associated below ground ducts and chambers;

(vii) construction of electrical and control kiosks;

(viii) construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage;

(ix) reinstatement of public drawdock/slipway; and

(x) construction of a new permanent access off the Embankment.

**Work No. 5d:** Putney Embankment Foreshore temporary slipway – Works to provide a replacement temporary slipway, including demolition of part of the existing river wall and construction of the temporary public slipway and its subsequent removal and reinstatement of land.
In the London Borough of Hammersmith and Fulham

CARNWATH ROAD RIVERSIDE

Work No. 6a: Carnwath Road Riverside main tunnel shaft - A shaft with an approximate internal diameter of 25 metres and an approximate depth (to invert level) of 42 metres.

Work No. 6b: Carnwath Road Riverside associated development – Works to establish a tunnel drive and reception site for use in constructing, connecting and operating the main tunnel (west) (Work No. 1a) and the main tunnel (west central) (Work No. 1b), and the Frogmore connection tunnel (Work No. 7), including the following above and below ground works and structures:

(i) demolition of existing buildings and ground preparation works including land remediation;

(ii) dredging, strengthening and alteration of river wall, and construction of a temporary jetty and/or campsheds;

(iii) provision of areas for storage of construction materials and excavated materials including temporary enclosures and workshops, concrete batching plant, fixed and mobile craneage, plant and equipment for ground treatment and dewatering and facilities and equipment for the processing of excavated materials from shaft and tunnel excavation including silos, tanks and conveyors, office and welfare facilities and installations and equipment for monitoring the construction activity;

(iv) provision of conveyors with acoustic enclosures;

(v) construction of an acoustic enclosure building over Work No 6a for use in association with the construction of Work No. 1a;

(vi) construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage;

(vii) construction of a building to accommodate air management plant and equipment including filters and fans and construction of ventilation columns and associated below ground ducts and chambers;
(viii) construction of permanent vehicle access(s) off Carnwath Road; and

(ix) modifications to the Carnwath Road/Wandsworth Bridge Road junction.

In the London Borough of Wandsworth

FROGMORE CONNECTION TUNNEL

*Work No. 7:  
Frogmore Connection tunnel - A tunnel with an approximate internal diameter of 2.6 metres and approximately 1133 metres\(^5\) in length between Carnwath Road Riverside main tunnel shaft (Work No. 6a) and King George’s Park CSO drop shaft (Work No. 9a).

DORMAY STREET (DSXX)

*Work No. 8a:  
Dormay Street CSO drop shaft - A shaft with an approximate internal diameter of 12 metres and which extends approximately 1 metre above the existing ground level and which has an approximate depth (to invert level) of 24 metres.

**Work No. 8b:  
Dormay Street associated development - Works to establish a tunnel drive site for use in constructing and operating the Frogmore Connection Tunnel (Work No. 7), including the following above and below ground works and structures:

(i) demolition of existing buildings and ground preparation works including land remediation;

(ii) strengthening and alteration of the existing river wall;

(iii) provision of areas for storage of construction materials and excavated materials including temporary enclosures and workshops, concrete batching plant, fixed and mobile craneage, plant and equipment for ground treatment and dewatering and facilities and equipment for the processing of excavated materials from shaft and tunnel excavation including silos, tanks and conveyors, office and welfare facilities and installations and equipment for monitoring the construction activity; and

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\(^5\) See footnote 1.
(iv) provision of conveyors with acoustic enclosures.

**Work No. 8c:** Dormay Street associated development - Works to intercept and divert flow from the Frogmore Storm Relief – Bell Lane Creek CSO to the Dormay Street CSO drop shaft (Work No. 8a) and into the Frogmore Connection Tunnel (Work No. 7) including the following above and below ground works and structures:

(i) construction of an interception chamber, CSO overflow structures, hydraulic structures, chambers with access covers and other structures including culverts, pipes and ducts to modify, connect, control, ventilate and intercept flow;

(ii) construction of structures for air management plant and equipment including filters and ventilation columns and associated below ground ducts and chambers;

(iii) construction of electrical and control kiosks;

(iv) construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage;

(vii) construction of new temporary access to the Causeway;

(v) construction of temporary vehicle bridge over Bell Lane Creek;

(vi) construction of permanent vehicular access off Dormay Street; and

(vii) alterations and junction improvements to the junction of Dormay Street, The Causeway and Armoury Way.

**KING GEORGE’S PARK**

*Work No. 9a:* King George’s Park CSO drop shaft - A shaft with an approximate internal diameter of 9 metres and an approximate depth (to invert level) of 21 metres.

**Work No. 9b:** King George’s Park associated development - Works to intercept and divert flow from the Frogmore Storm Relief – Buckhold Road CSO to the King George’s Park CSO drop shaft (Work No. 9a) and into the Frogmore Connection Tunnel (Work No. 7), including the following above and below ground works and structures:
(i) construction of an interception chamber, CSO overflow structures, hydraulic structures, chambers with access covers and other structures including culverts, pipes and ducts to modify, connect, control, ventilate and intercept flow;

(ii) construction of structures for air management plant and equipment including filters and ventilation columns and associated below ground ducts and chambers;

(iii) construction of electrical and control kiosks;

(iv) construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage;

(v) construction of permanent vehicular access off Neville Gill Close;

(vi) construction of permanent pedestrian access off the junction of Buckhold Road and Neville Gill Close;

(vii) junction alterations at the junction of Buckhold Road and Neville Gill Close; and

(viii) provision of swale for the purposes of flood compensation.

FALCONBROOK PUMPING STATION

*Work No. 10a:  
Falconbrook Pumping Station CSO drop shaft - A shaft with an approximate internal diameter of 9 metres which extends approximately 1 metre above the existing ground level and which has an approximate depth (to invert level) of 40 metres.

*Work No.10b:  
Falconbrook connection tunnel - A tunnel between Falconbrook Pumping Station CSO drop shaft (Work No. 10a) and the main tunnel (west central) (Work No. 1b).

Work No. 10c:  
Falconbrook Pumping Station associated development - Works to intercept and divert flow from the Falconbrook Pumping Station CSO to the Falconbrook Pumping Station CSO drop shaft (Work No. 10a) and into the Falconbrook Pumping Station connection tunnel (Work No. 10b) including the following above and below ground works and structures:
(i) demolition of existing screen house and toilet block;

(ii) construction of an interception chamber, CSO overflow structures, hydraulic structures, chambers with access covers and other structures including culverts, pipes and ducts to modify, connect, control, ventilate and intercept flow;

(iii) construction of structures for air management plant and equipment including filters and ventilation columns and associated below ground ducts and chambers as part of Work No. 10a;

(iv) construction of other structures for air management plant and equipment including filters and ventilation columns and associated below ground ducts and chambers;

(v) construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage;

(vi) relocation of existing Pumping Station vehicle access;

(vii) relocation of bus stop (including provision of new layby); and

(viii) construction of temporary access for construction from York Way.

In the Royal Borough of Kensington and Chelsea

CREMORNE WHARF DEPOT

*Work No. 11a:* Cremorne Wharf Depot CSO drop shaft – A shaft with an approximate internal diameter of 8 metres and an approximate depth (to invert level) of 42 metres.

*Work No. 11b:* Lots Road connection tunnel - A tunnel between Cremorne Wharf Depot CSO drop shaft (Work No. 11a) and the main tunnel (west central) (Work No. 1b).

Work No. 11c: Cremorne Wharf Depot associated development – Works to intercept and divert flow from the Lots Road Pumping Station CSO to the Cremorne Wharf Depot CSO drop shaft (Work No. 11a) and into the Cremorne Wharf Depot connection tunnel (Work No. 11b) including the following above and below ground works:

(i) demolition of existing depot building;
(ii) construction of a campshed;

(iii) construction of an interception chamber, CSO overflow structures, hydraulic structures, chambers with access covers and other structures including culverts, pipes and ducts to modify, connect, control, ventilate and intercept flow;

(iv) construction of structures for air management plant and equipment including filters and ventilation columns and associated below ground ducts and chambers;

(v) installation of electrical and control equipment within the Lots Road Pumping Station including a below ground penetration through the external wall south-east elevation and modifications to the interior of the pumping station and provision of a local control pillar outside the pumping station;

(vi) construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage;

(vii) construction of replacement waste management (or wharf related use) depot building and associated structures to replace that demolished under paragraph (i) above following completion of Work Nos. 11a and 11b; and

(viii) alterations of existing access from Lots Road.

CHELSEA EMBANKMENT FORESHORE

*Work No. 12a:* Chelsea Embankment Foreshore CSO drop shaft – A shaft with an approximate internal diameter of 12 metres and an approximate depth (to invert level) of 46 metres.

*Work No. 12b:* Ranelagh connection tunnel - A tunnel between Chelsea Embankment Foreshore CSO drop shaft (Work No. 12a) and the main tunnel west (Work No. 1b).

Work No. 12c: Chelsea Embankment Foreshore associated development - Works to intercept and divert flow from the Ranelagh CSO and connect the northern Low Level Sewer No.1 to the Chelsea Embankment Foreshore CSO drop shaft (Work No. 12a) and into the Chelsea Embankment
Foreshore connection tunnel (Work No. 12b) including the following above and below ground works:

(i) partial demolition of existing river wall and construction of new river wall including connection to and alteration of the existing river wall to reclaim land and to enclose Work Nos. 12a and 12c (iv), (v), (vi) and (vii) and scour protection works including a new CSO outfall apron;

(ii) removal of existing CSO apron in foreshore;

(iii) dredging and construction of a temporary cofferdam including connection to the existing river wall and construction of a campshed;

(iv) construction of an interception chamber, CSO overflow structures, hydraulic structures, chambers with access covers and other structures including culverts, pipes and ducts to modify, connect, control, ventilate and intercept flow;

(v) construction of structures for air management plant and equipment including filters and ventilation columns and associated below ground ducts and chambers;

(vi) construction of electrical and control equipment kiosks;

(vii) construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage;

(viii) provision of construction access from Chelsea Embankment;

(ix) provision of permanent access from Chelsea Embankment;

(x) provision of temporary signalised pedestrian crossing and its subsequent removal;

(xi) permanent relocation of existing pedestrian traffic island;

(xii) realignment of existing kerb line of the Bull Ring; and

(xiii) removal and subsequent reinstatement of existing wall to frontage of Ranelagh Gardens, with new gate to provide access to diverted utilities.
In the London Borough of Wandsworth

KIRTLING STREET

*Work No. 13a:* Kirtling Street main tunnel shaft – A shaft with an approximate internal diameter of 30 metres and an approximate depth (to invert level) of 48 metres.

*Work No. 13b:* Kirtling Street associated development - Works to establish a main tunnel drive site for use in constructing, connecting and operating the main tunnel (west central) (Work No. 1b) and main tunnel (east central) (Work No. 1c), including the following above and below ground works and structures:

(i) demolition of existing office and warehouse buildings, to the north of Kirtling Street, to the north and south of Cringle Street and demolition of structures within Cringle Wharf (also known as Kirtling Wharf) including existing concrete batching plant, offices and electricity sub-station and ground preparation works including land remediation;

(ii) provision of temporary concrete batching plant including offices and electricity sub-station to accommodate the relocation of the existing batching facility at Cringle Wharf and its subsequent relocation back to the site of the existing concrete batching plant on Cringle Wharf;

(iii) construction of temporary jetty including conveyors with acoustic enclosures;

(iv) provision of areas for storage of construction materials and excavated materials including temporary enclosures and workshops, concrete batching plant, fixed and mobile craneage, plant and equipment for ground treatment and dewatering and facilities and equipment for the processing of excavated materials from shaft and tunnel excavation including silos, tanks and conveyors, office and welfare facilities and installations and equipment for monitoring the construction activity;

(v) construction of an acoustic enclosure building over Work No. 13a for use in association with the construction of Work Nos. 1b and 1c;
(vi) construction of structures for air management plant and equipment including filters and ventilation columns and associated below ground ducts and chambers;

(vii) construction of electrical and control kiosks;

(viii) construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage; and

(ix) construction of a permanent vehicle access off Kirtling Street.

HEATHWALL PUMPING STATION

*Work No. 14a: * Heathwall Pumping Station CSO drop shaft – A shaft with an approximate internal diameter of 16 metres and an approximate depth (to invert level) of 46 metres.

*Work No. 14b: * Heathwall / South West Storm Relief connection tunnel - A tunnel between Heathwall Pumping Station CSO drop shaft (Work No. 14a) and the main tunnel (east central) (Work No. 1c).

Work No. 14c: Heathwall Pumping Station associated development - Works to intercept and divert flow from the Heathwall Pumping Station CSO and South West Storm Relief CSO to the Heathwall Pumping Station CSO drop shaft (Work No. 14a) and into the Heathwall Pumping Station connection tunnel (Work No. 14b), including the following above and below ground works and structures:

(i) dredging and construction of a temporary cofferdam including connection to the existing river wall and construction of a campshed;

(ii) partial demolition of existing river wall and construction of new river wall including connection to and alteration of the existing river wall to reclaim land and to enclose Work No. 14c(iii), (iv) and (v) and scour protection works including a new CSO outfall apron;

(iii) construction of an interception chamber, CSO overflow structures, hydraulic structures, chambers with access covers and other structures including culverts, pipes and ducts to modify, connect, control, ventilate and intercept flow;
(iv) construction of structures for air management plant and equipment including filters and ventilation columns and associated below ground ducts and chambers and local control pillar;

(v) construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage;

(vi) temporary relocation of the Battersea Barge to the west including provision of associated mooring and access; and

(vii) provision of permanent vehicle access off Nine Elms Lane.

In the London Borough of Lambeth

ALBERT EMBANKMENT FORESHORE

*Work No. 15a: Albert Embankment Foreshore CSO drop shaft – A shaft with an approximate internal diameter of 16 metres and an approximate depth (to invert level) of 47 metres.

*Work No. 15b: Clapham / Brixton connection tunnel – A tunnel between Albert Embankment Foreshore CSO drop shaft (Work No. 15a) and the main tunnel (east central) (Work No. 1c).

Work No. 15c: Albert Embankment Foreshore associated development - Works to intercept and divert flow from the Brixton Storm Relief CSO and the Clapham Storm Relief CSO to the Albert Embankment Foreshore CSO drop shaft (Work No. 15a) and into the Clapham / Brixton connection tunnel (Work No. 15b) including the following above and below ground works:

(i) partial demolition of existing river wall and construction of new river wall including connection to and alteration of the existing river wall to reclaim land and to enclose elements of Work No. 15c(v), (vii) and (viii) under and adjacent to Vauxhall Bridge and scour protection works including new CSO outfall aprons;

(ii) partial demolition of existing river wall and construction of new river wall including connection to and alteration of the existing river wall to reclaim land and to enclose Work No. 15a and elements of Work No. 15c(v), (vii) and (viii) to the north of Lacks Dock slipway and scour protection works;
(iii) removal of existing CSO aprons in the forshore;

(iv) dredging and construction of two temporary cofferdams (relating to Works Nos. 15c(i) and 15c(ii)) including connection to the existing river wall and construction of campshed(s) adjacent to both cofferdams;

(v) construction of an interception chamber, CSO overflow structures, hydraulic structures, chambers with access covers and other structures including culverts, pipes and ducts to modify, connect, control, ventilate and intercept flow;

(vi) works to the listed Vauxhall Bridge abutments in connection with Work Nos. 15c(i), (iv) and (v);

(vii) construction of structures for air management plant and equipment including filters and ventilation columns and associated below ground ducts and chambers;

(viii) construction of electrical and control kiosks and local control pillars;

(ix) construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage;

[and either]

(x) works to create construction access from Albert Embankment via the existing Lacks Dock;

[or]

(x) works to create a new construction access from Albert Embankment between Camelford House and Tintagel House;\(^6\)

(xi) provision of permanent access from Albert Embankment via Lacks Dock; and

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\(^6\) Both of these options will be included in the application for development consent. The Secretary of State will be asked to confirm which option should be provided in any decision to grant development consent for the project. Only that option would be granted development consent. Pre-application consultation has been completed on both options. The Environmental Statement for the project will report on the likely significant environmental effects of both options.
(xii) temporary relocation of existing vehicle control barrier and security kiosk at entrance to Lacks Dock from Albert Embankment and temporary provision of traffic control measures.

In the City of Westminster

VICTORIA EMBANKMENT FORESHORE

*Work No. 16a:* Victoria Embankment Foreshore CSO drop shaft – A shaft with an approximate internal diameter of 13 metres and an approximate depth (to invert level) of 50 metres.

*Work No. 16b:* Regent Street connection tunnel – A tunnel between Victoria Embankment Foreshore CSO drop shaft (Work No. 16a) and the main tunnel (east central) (Work No. 1c).

Work No. 16c: Victoria Embankment Foreshore associated development - Works to control and divert flow from the northern Low Level Sewer No.1 to the Victoria Embankment CSO drop shaft (Work No. 16a) and into the Victoria Embankment Foreshore connection tunnel (Work No. 16b) including the following above and below ground works:

(i) dredging and construction of temporary cofferdam, including connection to the existing river wall and construction of campsheds;

(ii) partial demolition of existing river wall and construction of new river wall including connection to and alteration of the existing river wall to reclaim land and to enclose Work Nos. 16a and 16c(iii), (v), (vi) and (vii) and scour protection works including a new CSO outfall apron;

(iii) construction of an interception chamber, CSO overflow structures, hydraulic structures, chambers with access covers and other structures including culverts, pipes and ducts to modify, connect, control, ventilate flow;

(iv) removal and subsequent reinstatement of existing listed features including lamp standards and benches;

(v) construction of structures for air management plant and equipment including filters and ventilation columns and associated below ground ducts and chambers;
(vi) construction of electrical and control kiosks;

(vii) construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage including reinstatement of pipe subway;

(viii) provision of construction access from Victoria Embankment;

(ix) provision of permanent access from Victoria Embankment;

(x) removal of a section of central reservation and its subsequent reinstatement;

(xi) removal of existing mooring for the Tattershall Castle in listed wall (and associated access ramps), temporary relocation of mooring (in listed wall) to the south, and construction of new permanent mooring in listed wall to the south of Work No. 16c(ii) and means of access including access brows, bank seats and gangways;

(xii) temporary removal and then reinstatement of the service mooring / service pontoon to the south of the junction of Victoria Embankment and Horse Guards Avenue;

(xiii) permanent removal of service mooring / service pontoon to the north of the junction of Victoria Embankment and Horse Guards Avenue; and

(xiv) construction of kiosk for commercial use and associated storage kiosk.

In the City of London

BLACKFRIARS BRIDGE FORESHORE

*Work No. 17a:* Blackfriars Bridge Foreshore CSO drop shaft – A shaft with an approximate internal diameter of 24 metres and an approximate depth (to invert level) of 53 metres.

Work No. 17b: Blackfriars Bridge Foreshore associated development – Works to intercept and divert flow from the Fleet Main CSO and connect the northern Low Level Sewer No.1 to the Blackfriars Bridge Foreshore
CSO drop shaft (Work No. 17a) and into the main tunnel (east central) (Work No. 1c), including the following above and below ground works:

(i) demolition of the existing Blackfriars Millennium Pier (including associated ramps, steps, and offices adjacent to the Pier) and relocation to the east of Blackfriars Bridge, including construction of a new pontoon and means of access including access brows, bank seats and gangways;

(ii) removal of section of wall to the north of Work No. 17b(i) and construction of pedestrian gate for emergency services access to the relocated pier;

(iii) dredging and construction of a temporary cofferdam including connection to the existing river wall;

(iv) partial demolition of existing river wall and construction of new river wall including connection to and alteration of the existing river wall to reclaim land and to enclose Work Nos. 17a and 17b(v), (x), (xi) and (xii) and scour protection works including a new CSO outfall apron;

(v) construction of an interception chamber, CSO overflow structures, hydraulic structures, chambers with access covers and other structures including culverts, pipes and ducts to modify, connect, control, ventilate and intercept flow;

(vi) demolition of existing west bound Victoria Embankment on-slip ramp and its subsequent reconstruction;

(vii) Removal of existing mooring for the President including pontoon and means of access over listed river wall, including access brows, bank seats and gangways, and subsequent reinstatement after construction of Work Nos. 17a and 17b. Modification to the pontoon at Chrysanthemum Pier to accommodate temporary mooring of the President.

(viii) works to the listed Blackfriars Bridge to create stairs (temporary and permanent) and provision of temporary lifts;

(ix) removal and reinstatement of listed features including lamp standards;
(x) construction of structures for air management plant and equipment including filters and ventilation columns and associated below ground ducts and chambers;

(xi) construction of electrical and control kiosks;

(xii) construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage;

(xiii) provision of temporary access from Victoria Embankment;

(xiv) provision of permanent access from Victoria Embankment;

(xv) construction of kiosk for commercial use; and

(xvi) works to reprovide access to public toilets and sports club.

In the London Borough of Southwark

SHAD THAMES PUMPING STATION

Work No. 18: Shad Thames Pumping Station upgrade - works to the existing Shad Thames Pumping Station including:

(i) demolition of existing three storey facilities building and boundary wall and construction of new electrical switchgear and facilities building including new ventilation column;

(ii) excavation within the pumping station;

(iii) modifications to existing sewers and the provision of new pumping main including chambers and ducts within Maguire Street and Gainsford Street;

(iv) construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage; and

(v) construction of new permanent access to Maguire Street and alterations to the external appearance of the pumping station building.
CHAMBERS WHARF

*Work No. 19a:* Chambers Wharf main tunnel shaft – A shaft with an approximate internal diameter of 25 metres which extends approximately 1 metre above the existing ground level and which has an approximate depth (to invert level) of 57 metres.

*Work No. 19b:* Chambers Wharf associated development – Works to establish a main tunnel drive and reception site for use in constructing, connecting and operating the main tunnel (east central) (Work No. 1c) and main tunnel (east) (Work No. 1d) and the Greenwich Connection Tunnel (Work No. 20) including the following above and below ground works and structures:

(i) demolition of existing river wall and part of existing jetty and construction of temporary cofferdam and new river wall and flood defence wall on remaining sections of jetty and ground preparation works including land remediation;

(ii) demolition of existing underground structure and ground preparation works including land remediation;

(iii) provision of areas for storage of construction materials and excavated materials including temporary enclosures and workshops, concrete batching plant, fixed and mobile craneage, plant and equipment for ground treatment and dewatering and facilities and equipment for the processing of excavated materials from shaft and tunnel excavation including silos, tanks and conveyors, office and welfare facilities and installations and equipment for monitoring the construction activity;

(iv) construction of structures for air management plant and equipment including filters and ventilation column(s) and associated below ground ducts and chambers;

(v) provision of conveyor(s) with acoustic enclosure(s);

(vi) construction of an acoustic enclosure building over Work No. 19a for use in association with the construction of Work No. 1d;

(vii) construction of electrical and control kiosks;
(viii) construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage;

(ix) construction of permanent means of access from Loftie Street and hard standing area; and

(x) works to the highway (Bevington Street).

In the London Boroughs of Southwark and Lewisham and the Royal Borough of Greenwich

GREENWICH CONNECTION TUNNEL

*Work No. 20: Greenwich Connection Tunnel – A tunnel with an approximate internal diameter of 5.0 metres and approximately 4615 metres in length between Chambers Wharf main tunnel site (Work No. 19a) and Greenwich Pumping Station CSO drop shaft (Work No. 23a).

In the London Borough of Lewisham

EARL PUMPING STATION

*Work No. 21a: Earl Pumping Station CSO drop shaft – A shaft with an approximate internal diameter of 17 metres which extends approximately 3 metres above the existing ground level and which has an approximate depth (to invert level) of 51 metres.

Work No. 21b: Earl Pumping Station associated development – Works to intercept and divert flow from the Earl Pumping Station CSO to the Earl Pumping Station CSO drop shaft (Work No. 21a) and into the Greenwich Connection Tunnel (Work No. 20) including the following above and below ground works and structures:

(i) demolition of existing industrial buildings, weighbridge and other structures and ground preparation works including land remediation;

(ii) construction of an interception chamber, CSO overflow structures, hydraulic structures, chambers with access covers and other structures including culverts, pipes and ducts to modify, connect, control, ventilate and intercept flow;

7 See footnote 1.
(iii) construction of structures for air management plant and equipment including filters and ventilation columns and associated below ground ducts and chambers, as part of Work No. 21a;

(iv) construction of other structures for air management plant and equipment including filters and ventilation columns and associated below ground ducts and chambers;

(v) construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage;

(vi) construction of permanent access from Croft Street and Yeoman Street; and

(vii) modification of existing access on Chiltern Grove.

DEPTFORD CHURCH STREET

*Work No. 22a:* Deptford Church Street CSO drop shaft – A shaft with an approximate internal diameter of 17 metres and an approximate depth (to invert level) of 48 metres.

Work No. 22b: Deptford Church Street associated development – Works to intercept and divert flow from the Deptford Storm Relief CSO to the Deptford Church Street CSO drop shaft (Work No. 22a) and into the Greenwich Connection Tunnel (Work No. 20) including the following above and below ground works and structures:

(i) demolition of existing wall;

(ii) construction of an interception chamber, CSO overflow structures, hydraulic structures, chambers with access covers and other structures including culverts, pipes and ducts to modify, connect, control, ventilate and intercept flow;

(iii) construction of structures for air management equipment including filters and ventilation columns and associated below ground ducts and chambers;

(iv) construction of electrical and control kiosks;
(v) construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage;

(vi) construction of permanent access from Coffey Street and Crossfield Street;

(vii) temporary alterations to highway layout of Crossfield Street; and

(viii) temporary relocation of existing pedestrian crossing on Deptford Church Street.

In the Royal Borough of Greenwich

GREENWICH PUMPING STATION

*Work No. 23a: Greenwich Pumping Station CSO drop shaft – A shaft with an approximate internal diameter of 17 metres which extends approximately 1 metre above the existing ground level and which has an approximate depth (to invert level) of 46 metres.

Work No. 23b: Greenwich Pumping Station associated development - Works to create a tunnel drive site for use in constructing and operating the Greenwich Connection Tunnel (Work No. 20), including the following above and below ground works and structures:

(i) demolition of existing industrial buildings and ground preparation works including land remediation;

(ii) provision of areas for storage of construction materials and excavated materials including temporary enclosures and workshops, concrete batching plant, fixed and mobile craneage, plant and equipment for ground treatment and dewatering and facilities and equipment for the processing of excavated materials from shaft and tunnel excavation including silos, tanks and conveyors, office and welfare facilities and installations and equipment for monitoring the construction activity;

(iii) construction of an acoustic enclosure building over Work No. 23a for use in association with the construction of Work No. 20; and

(iv) provision of conveyors with acoustic enclosures.
**Work No. 23c:** Greenwich Pumping Station associated development – Works to intercept and divert flow from the Greenwich Pumping Station CSO to the Greenwich CSO drop shaft (Work No. 23a) and into the Greenwich Connection Tunnel (Work No. 20) including the following above and below ground works and structures:

(i) construction of an interception chamber, CSO overflow structures, hydraulic structures, chambers with access covers and other structures including culverts, pipes and ducts to modify, connect, control, ventilate and intercept flow;

(ii) alterations to the east Beam Engine House to accommodate ventilation equipment and including the dismantling, storage and reconstruction of entrance steps;

(iii) construction of structures for air management plant and equipment including filters, fans, and ventilation columns and associated below ground ducts and chambers;

(iv) installation of electrical control equipment into Greenwich Pumping Station buildings;

(v) construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage; and

(v) alteration of accesses off Norman Road.

**In the London Borough of Tower Hamlets**

**KING EDWARD MEMORIAL PARK FORESHORE**

*Work No. 24a:* King Edward Memorial Park CSO drop shaft – A shaft with an approximate internal diameter of 20 metres and an approximate depth (to invert level) of 60 metres.

**Work No. 24b:** King Edward Memorial Park Foreshore associated development – Works to intercept and divert flow from the North East Storm Relief Sewer CSO to the King Edward Memorial Park Foreshore drop shaft (Work No. 24a) and to the main tunnel (east) (Work No. 1d), including the following above and below ground works and structures:

(i) demolition of existing park maintenance buildings;
(ii) dredging and construction of a temporary cofferdam including connection to the existing river wall and construction of a campshed;

(iii) removal of existing CSO apron in the foreshore;

(iv) partial demolition of existing river wall and construction of new river wall including connection to and alteration of the existing river wall to reclaim land and to enclose Work Nos. 24a and 24(b)(iv), (v) and (vii) and scour protection works and including a new CSO outfall apron;

(v) construction of an interception chamber, CSO overflow structures, hydraulic structures, chambers with access covers and other structures including culverts, pipes and ducts to modify, connect, control, ventilate and intercept flow;

(vi) construction of structures for air management equipment including filters and ventilation columns and associated below ground ducts and chambers;

(vii) construction of electrical and control kiosk;

(viii) construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage;

(ix) construction of permanent access from Glamis Road;

(x) dismantling and re-erection of the band stand within the park; and

(xi) demolition of existing children’s playground and construction of new playground within park.

**BEKESBOURNE STREET**

**Work No. 25:** Bekesbourne Street sewer modifications associated development – works to modify the existing sewer including a chamber with approximate internal dimensions of 4.6 metres by 5 metres and an approximate depth (to invert level) of 8 metres to allow introduction of hydraulic structures within the sewer, installation of an electrical and control kiosk and ventilation column including provision of ducts, including construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage.
In the London Borough of Newham

ABBREY MILLS PUMPING STATION

*Work No. 26a:* Abbey Mills Pumping Station main tunnel shaft – A shaft with an approximate internal diameter of 20 metres and an approximate depth (to invert level) of 67 metres and provision of connection to the Lee Tunnel.

*Work No. 26b:* Abbey Mills Pumping Station associated development – Works to establish a main tunnel reception site for use in constructing, connecting and operating the main tunnel (east) (Work No. 1d), including the following above and below ground works and structures:

(i) provision of temporary footbridge over Prescott Channel;

(ii) construction of structures for air management equipment, including filters and ventilation columns and associated below ground ducts and chambers, above Work No. 26a, and ducts to connect to the existing Lee Tunnel equipment; and

(iii) construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage.

BECKTON SEWAGE TREATMENT WORKS

*Work No. 27:* Beckton Sewage Treatment Works associated development – modifications to the sewage treatment works to cater for sewage flows from the Thames Tideway Tunnel Project, including:

(i) construction of works above and below ground to transfer flows from the Tideway Pumping Station to the inlet works of the sewage treatment works;

(ii) installation of additional equipment at the inlet works; and

(iii) construction of a siphon tunnel inlet shaft with an approximate internal diameter of 9 metres which extends approximately 1 metre above the existing ground level and which has an approximate depth (to invert level) of 32 metres;
(iv) construction of a siphon tunnel outlet shaft with an approximate internal diameter of 7 metres which extends approximately 5 metres above the existing ground level and which has an approximate depth (to invert level) of 30 metres;

(v) construction of a siphon tunnel with superstructure above the siphon inlet shaft from the Tideway Pumping Station to the siphon tunnel outlet shaft; and

(vi) construction of pits, chambers, ducts and pipes for cables, hydraulic pipelines, utility connections, utility diversions and drainage.

And in connection with Work Nos. 1 to 27, to the extent that they do not otherwise form part of any such work, the following further works, being associated development within the meaning of section 115(2) of the Act, including:-

(a) establishment of temporary construction areas at each works site to include, as necessary, site hoardings/means of enclosure, demolition (including of existing walls, fences, planters, and other structures) and ground preparation works including land remediation and groundwater de-watering;

(b) provision of welfare/office accommodation, workshops and stores, storage and handling areas, treatment enclosures and other temporary facilities, plant, cranes, machinery, temporary bridges and accesses, and any other temporary works required;

(c) in connection with Work Nos. 5, 6, 11, 12, 13, 14, 15, 16, 17, 19 and 24 the provision of temporary moorings (including dolphins) and other equipment and facilities for temporary use by barges, pontoons and other floating structures and apparatus (including as necessary piling for support of such structures) for use in construction of those works;

(d) temporary removal of coach and car parking bays and creation of temporary replacement coach and car-parking as required and temporary footpath diversions;

(e) restoration of temporary construction areas;

(f) works to trees and works to create temporary or permanent landscaping, including drainage and flood compensation, means of enclosure, and reinstatement / replacement of, or construction of, boundary walls;

(g) formation of construction vehicle accesses and provision of temporary gated or other site accesses and other works to streets;
(h) diversions (both temporary and permanent) of existing pedestrian access routes and subsequent reinstatement of existing pedestrian routes, and works to create permissive rights of way;

(i) modifications of existing accesses, railings and pedestrian accesses;

(j) relocation of existing bus stops and provision of temporary bus lay-bys;

(k) construction of new permanent moorings and piers, including access brows, bank seats, gangways and means of access;

(l) works for the benefit or protection of land affected by the authorised project (including protective works to buildings and other structures); and

(m) such other works as may be necessary or expedient for the purposes of or in connection with the construction of the authorised project which are within the scope of the environmental impact assessment recorded in the Environmental Statement.
PART 2

ANCILLARY WORKS

At the Shad Thames Pumping Station:

(a) modifications to the pumps and internal pipe work; and

(b) provision of new pumps.

At the Beckton Sewage Treatment Works:

(a) installation of pumps and associated equipment and power supply within Tideway Pumping Station;

Generally:

(a) works within the sewers, chambers, weirs and culverts and other structures that comprise the existing sewerage network for the purposes of enabling the authorised project, including reconfiguring, modifying, altering, repairing or reinstating the existing network;

(b) installation of electrical and control equipment in existing buildings and kiosks;

(c) installation of pumps in chambers and existing buildings; and

(d) works to trees and landscaping works not comprising development.

Seaward of mean high water, works comprising:

(a) the relocation of boats;

(b) temporary landing places, moorings or other means of accommodating vessels in the construction and/or maintenance of the authorised project;

(c) buoys, beacons, fenders and other navigational warning or ship impact protection works; and

(d) temporary works for the benefit or protection of land or structures affected by the authorised project.

8 These works are not "development" as defined in section 32 of the Planning Act 2008, they do however form part of the Thames Tideway project for which development consent will be sought.
For further information or to comment on our proposals please see our website: www.thamestunnelconsultation.co.uk

It is very important that you understand the information we have provided. If you need further information in another language, braille, large print or audio format please contact us on 0800 0721 086.