



# Development Consent Order

Application Reference Number: WW010001

## Documents for Certification September 2014

We, Lindsay Speed and Sarah Fairbrother hereby certify that this is a true copy of the environmental statement referred to in Article 61 (1) (f) of the Thames Water Utilities Limited (Thames Tideway Tunnel) Order 2014.

*Lindsay Speed*

*Sarah Fairbrother*

September 2014

**Thames  
Tideway Tunnel**



Creating a cleaner, healthier River Thames

Thames Tideway Tunnel  
Thames Water Utilities Limited



# Application for Development Consent

Application Reference Number: WWO10001

## Environmental Statement

Doc Ref: **6.2.05**

### Volume 5: Hammersmith Pumping Station figures

APFP Regulations 2009: Regulation **5(2)(a)**

Hard copy available in  
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January 2013

Thames  
Tideway Tunnel   
Creating a cleaner, healthier River Thames

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# Thames Tideway Tunnel

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## Thames Tideway Tunnel

### Environmental Statement

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## Thames Tideway Tunnel

### Environmental Statement

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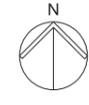
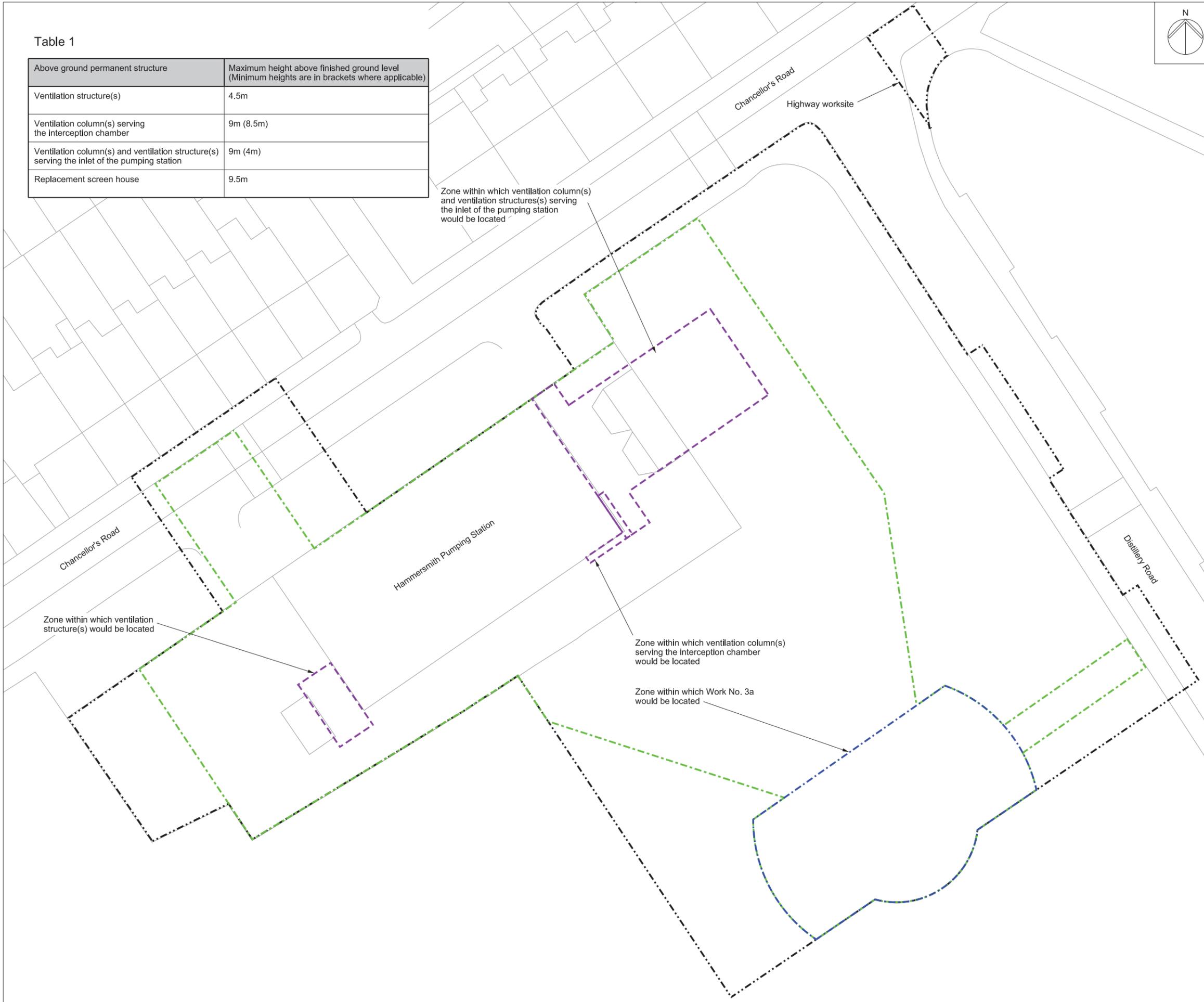
## **1 Plans from the *Book of Plans***

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Table 1

Above ground permanent structure	Maximum height above finished ground level (Minimum heights are in brackets where applicable)
Ventilation structure(s)	4.5m
Ventilation column(s) serving the interception chamber	9m (8.5m)
Ventilation column(s) and ventilation structure(s) serving the inlet of the pumping station	9m (4m)
Replacement screen house	9.5m

Zone within which ventilation column(s) and ventilation structures(s) serving the inlet of the pumping station would be located



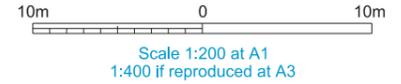
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Coordinates are to be Ordnance Survey Datum OSGB36. All levels are in metres and relate to the Tunnel Datum which is 100 metres below Ordnance Datum Newlyn.

- Key:**
- Limits of land to be acquired or used (LLAU)
  - - - Zone within which all permanent site structures would be located
  - . - Zone within which the shaft would be located
  - - - Zone within which permanent above ground structures would be located (those listed in Table 1)

- Notes:**
1. All dimensions and levels are approximate.
  2. The Site Works Parameter Key Plan identifies each zone independently.
  3. The zone within which the shaft would be located would include all permanent works including shaft walls (including appropriate allowances for construction tolerances) and if applicable under-reaming. Shaft construction temporary works may be located within or outside this zone provided they are located within the Limits of land to be acquired or used.



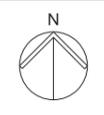
FOR APPROVAL

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Application for Development Consent**  
 Site works parameter plan

Book of plans - section 6  
 DCO-PP-03X-HAMPS-060005  
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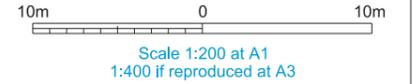
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- Key:
- Limits of land to be acquired or used (LLAU)
  - Trees to be removed
  - Above ground structures to be removed
  - Structure to be removed and relocated or reinstated

- Notes:
1. Minor items to be removed (e.g. barriers, bollards etc.) are not shown.
  2. General activities of site clearance such as removal of hardstanding and foundations, stripping of topsoil and clearance of minor vegetation not shown.



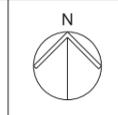
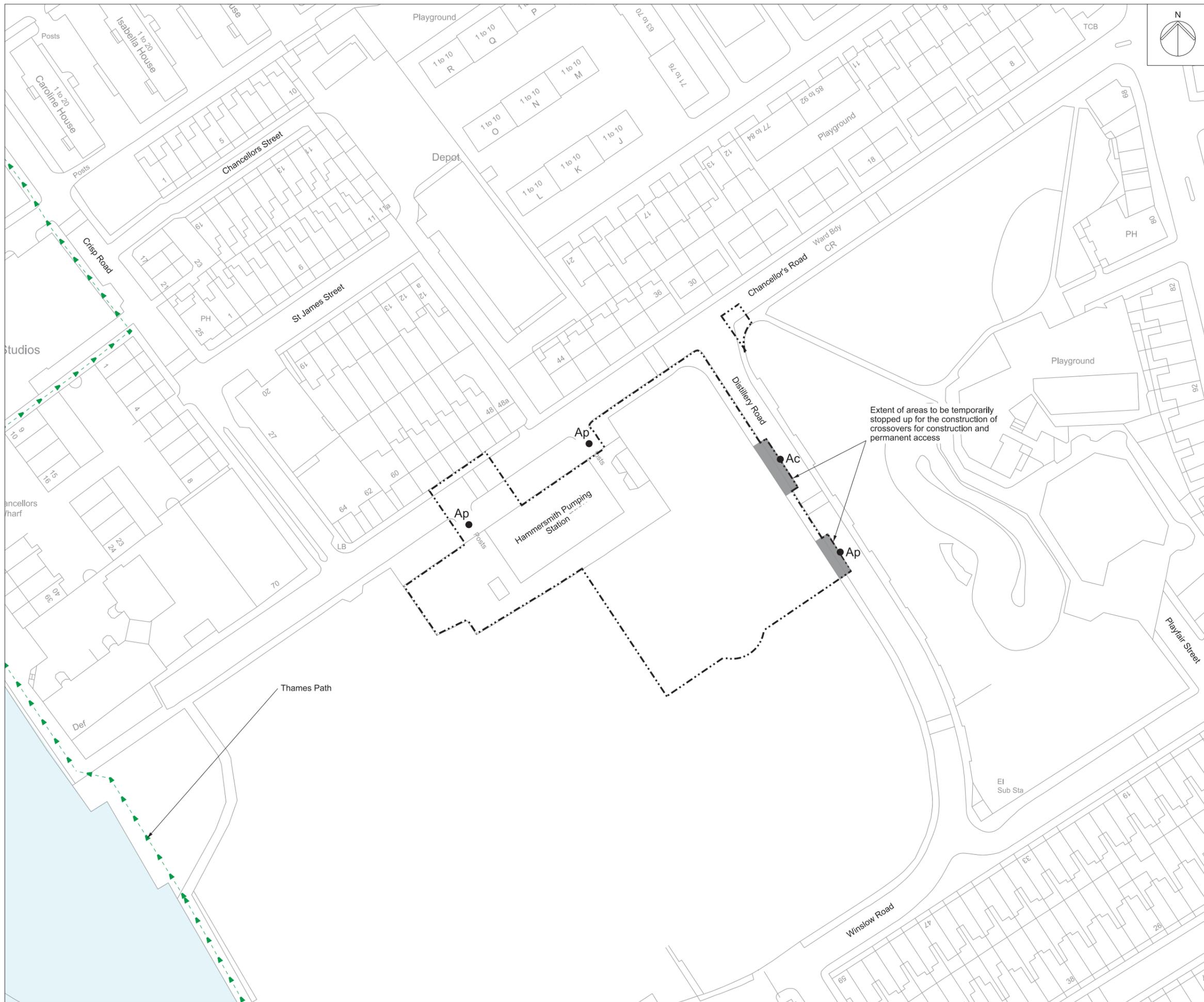
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**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Application for Development Consent**  
 Demolition and site clearance

Book of plans - section 6  
 DCO-PP-03X-HAMPS-060004  
 January 2013





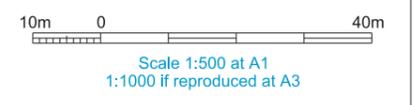
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- Key:**
- Limits of land to be acquired or used (LLAU)
  - Existing public right of way
  - Area of highway to be temporarily stopped up
  - Ap** ● Access to permanent works
  - Ac** ● Access to construction works

- Notes:**
1. This plan does not show stopping up and diversions of limited duration (eg hoarding erection, minor utility diversions and minor highway works).
  2. Only rights of way in or close to worksites are shown. The full extents of rights of way are not shown where they cease to be relevant to the project.



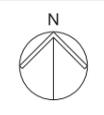
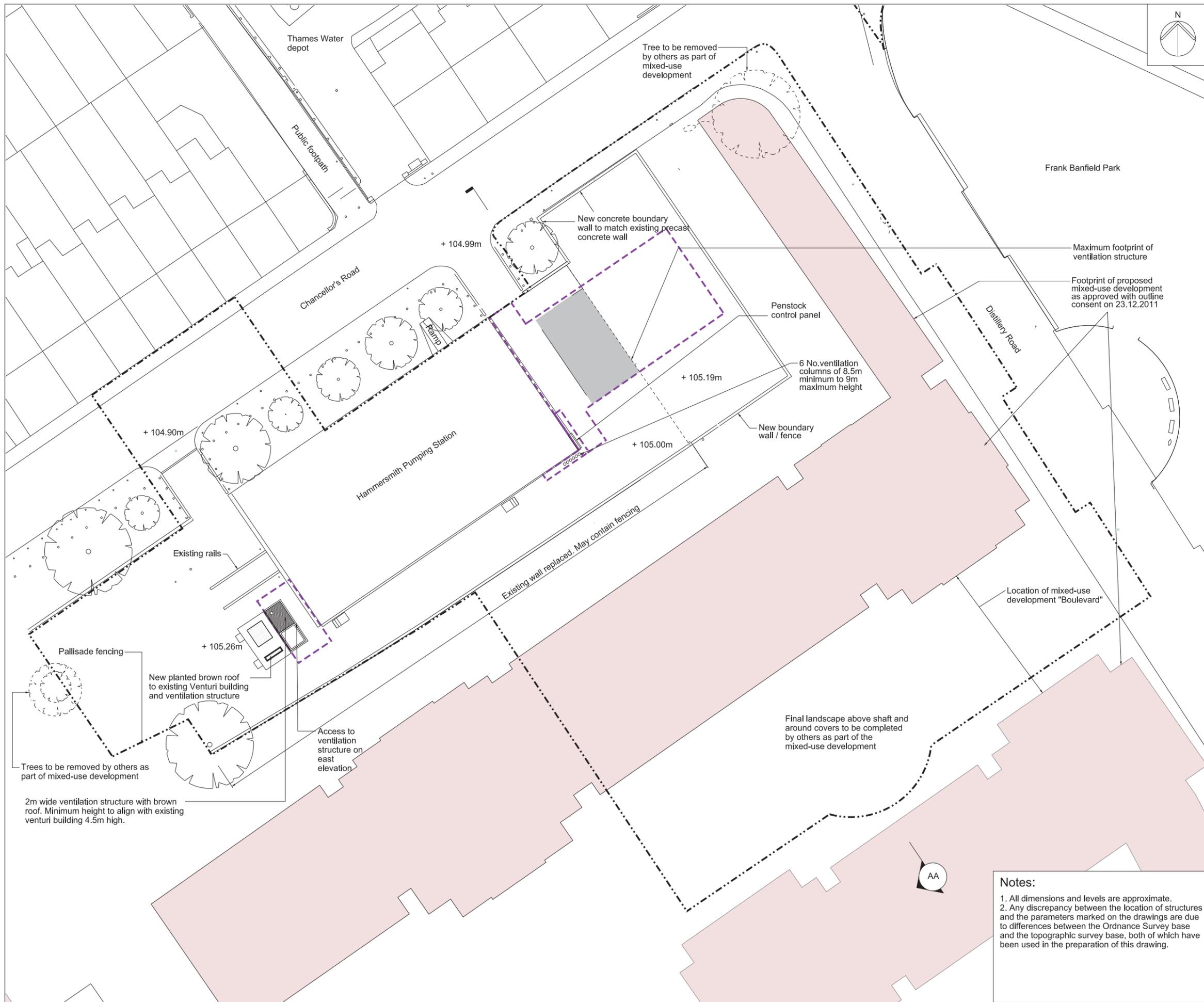
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**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Application for Development Consent**  
 Access plan

Book of plans - section 6  
 DCO-PP-03X-HAMPS-060003  
 January 2013



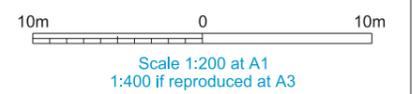


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- Key:**
- Limits of land to be acquired or used (LLAU)
  - - - Zone within which permanent above ground structures would be located
  - + 105.40m Existing levels (shown in metres above tunnel datum)
  - Consented development footprint (by others)
  - Existing trees within surveyed area (trunk sizes vary)



**ILLUSTRATIVE**  
Save for the scale of the ventilation structure(s) which is indicative

**Location**  
Hammersmith Pumping Station  
London Borough of Hammersmith & Fulham

**Document Information**  
Application for Development Consent

Proposed  
Site features plan  
Book of plans - section 6  
DCO-PP-03X-HAMPS-060008  
January 2013



**Notes:**

1. All dimensions and levels are approximate.
2. Any discrepancy between the location of structures and the parameters marked on the drawings are due to differences between the Ordnance Survey base and the topographic survey base, both of which have been used in the preparation of this drawing.

2m wide ventilation structure with brown roof. Minimum height to align with existing venturi building 4.5m high.

Trees to be removed by others as part of mixed-use development

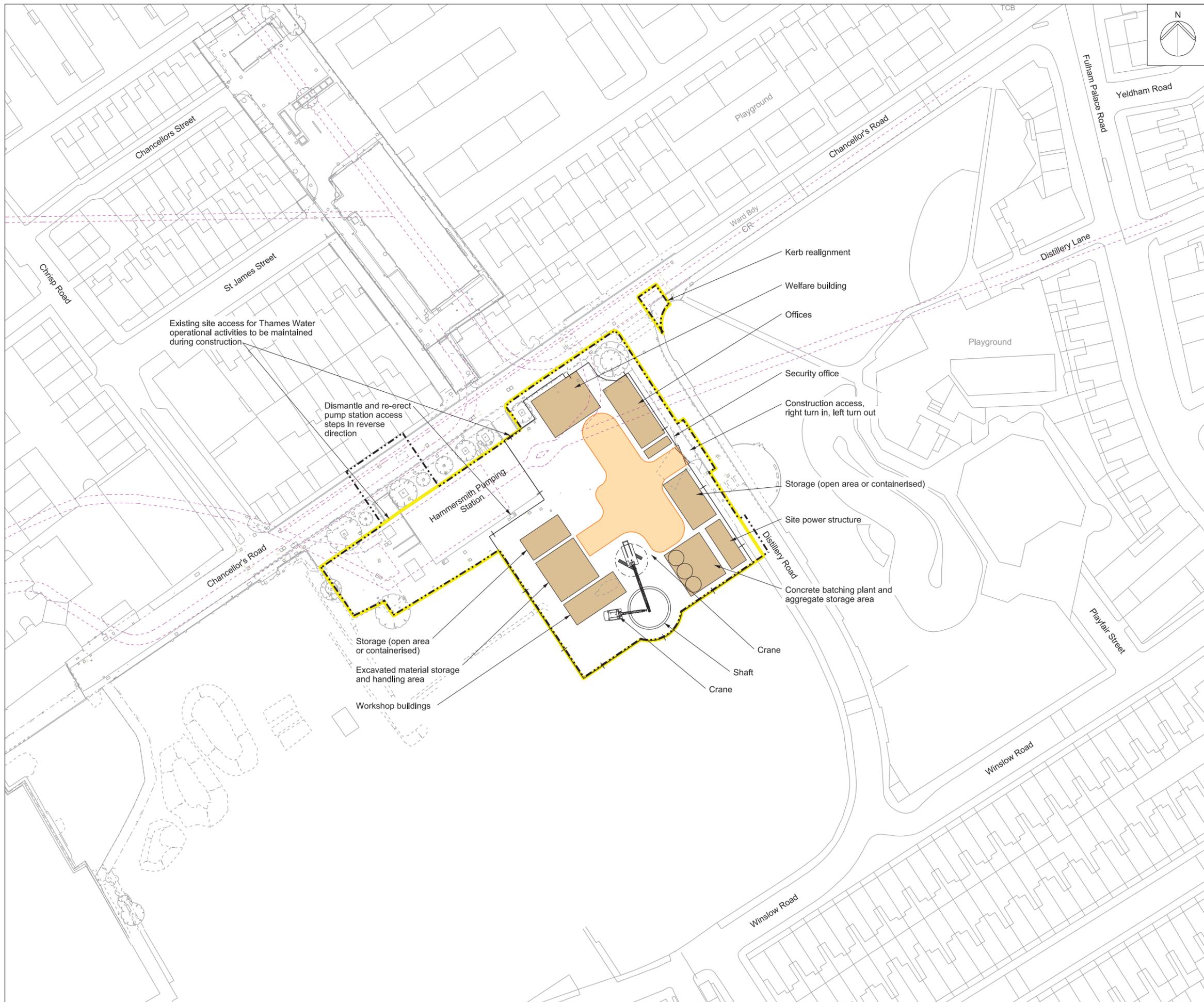
New planted brown roof to existing Venturi building and ventilation structure

Access to ventilation structure on east elevation

Existing wall replaced. May contain fencing

Final landscape above shaft and around covers to be completed by others as part of the mixed-use development





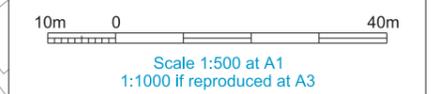
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- Key:**
- Limits of land to be acquired or used (LLAU)
  - Hoarding
  - Maximum extent of working area
  - Site access
  - Access / haul route
  - Existing sewers

- Notes :**
1. These construction phasing plans have been prepared to illustrate possible site layouts for the principle construction phases. Contractors may choose to lay sites out differently during construction depending on their preferred construction methods subject to any controls on layout imposed through the planning submission and approval process.
  2. Traffic management plans for construction phases of the work would be submitted to the appropriate authority for approval. Where appropriate, outline traffic management arrangements are shown.
  3. Utility supplies for the construction of the works would be agreed with the relevant utility company.
  4. Additional noise mitigation including noise barriers may be required but is not shown on this drawing.

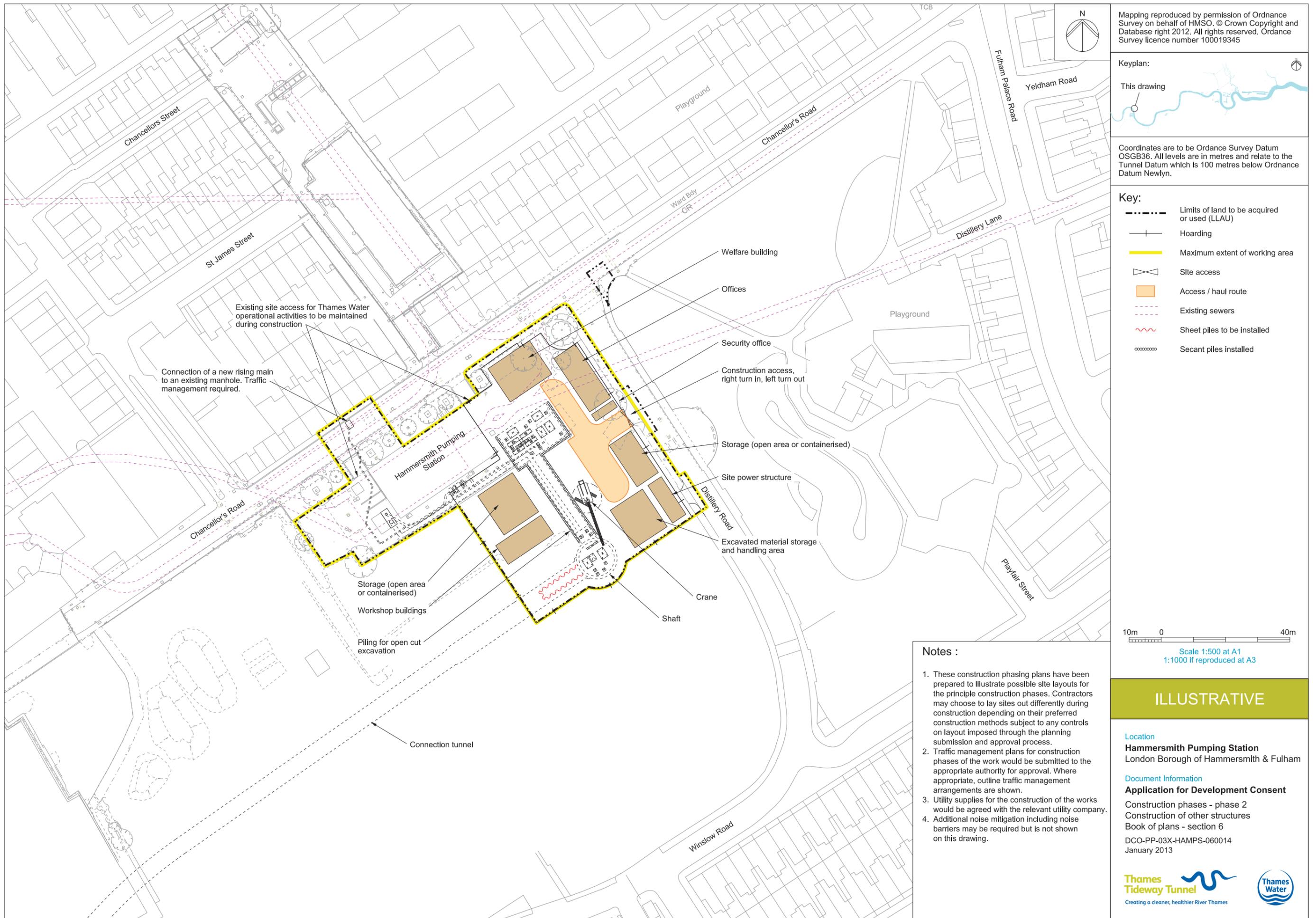


**ILLUSTRATIVE**

**Location**  
Hammersmith Pumping Station  
London Borough of Hammersmith & Fulham

**Document Information**  
Application for Development Consent  
Construction phases - phase 1  
Site setup, shaft construction & tunnelling  
Book of plans - section 6  
DCO-PP-03X-HAMPS-060013  
January 2013





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**Key:**

	Limits of land to be acquired or used (LLAU)
	Hoarding
	Maximum extent of working area
	Site access
	Access / haul route
	Existing sewers
	Sheet piles to be installed
	Secant piles installed



- Notes :**
1. These construction phasing plans have been prepared to illustrate possible site layouts for the principle construction phases. Contractors may choose to lay sites out differently during construction depending on their preferred construction methods subject to any controls on layout imposed through the planning submission and approval process.
  2. Traffic management plans for construction phases of the work would be submitted to the appropriate authority for approval. Where appropriate, outline traffic management arrangements are shown.
  3. Utility supplies for the construction of the works would be agreed with the relevant utility company.
  4. Additional noise mitigation including noise barriers may be required but is not shown on this drawing.

**ILLUSTRATIVE**

**Location**  
Hammersmith Pumping Station  
London Borough of Hammersmith & Fulham

**Document Information**  
**Application for Development Consent**  
Construction phases - phase 2  
Construction of other structures  
Book of plans - section 6  
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- Key**
- Existing**
- Parking restrictions
  - On street parking
  - Bus lane
  - Bus stop / stand
  - Pedestrian crossing
  - Cycle lane / advance stop line
- Revised**
- - - Limit of land to be acquired or used. (LLAU)

**On Street Parking**

Shared use (1) - Mon - Sat 8:30am - 6:30pm Permit holders A or pay and display max stay 4 hours

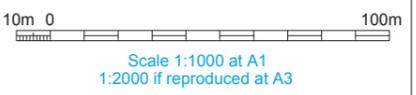
Shared use (2) - Permit holders T or pay at meter. Display ticket. 8 hour limit.

Shared use (3) - Mon - Fri 9:00am - 5:00pm Permit holders H or pay at meter. Display ticket.

**Stage**

Existing

- Standards**
- Design Manual For Roads And Bridges, Dft, 1992
  - Traffic Signs Regulations & General Directions, Tso, 2002
  - Traffic Signs Manual, Dft, 2006
  - Manual For Streets, Dft, 2007
  - Manual For Streets 2, Cilt, 2010
  - Designing For Deliveries, Fta, 1998
  - Cycle Infrastructure Design Ltn 2/08, Dft, 2008
  - Design Of Pedestrian Crossings Ltn 2/95, Dft, 1995
  - Guidance For The Use Of Tactile Paving, Dft, 1998
  - Accessible Bus Stop Design Guidance, TfL, 2006



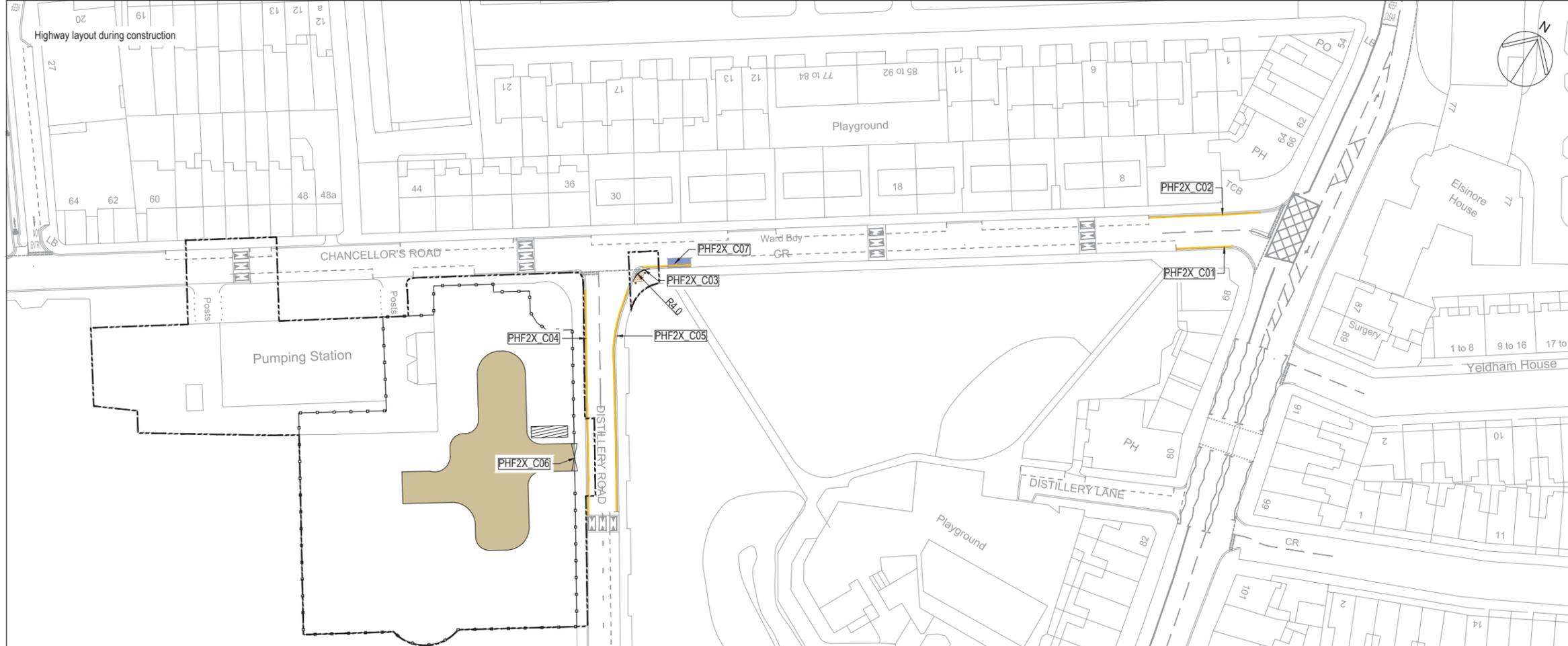
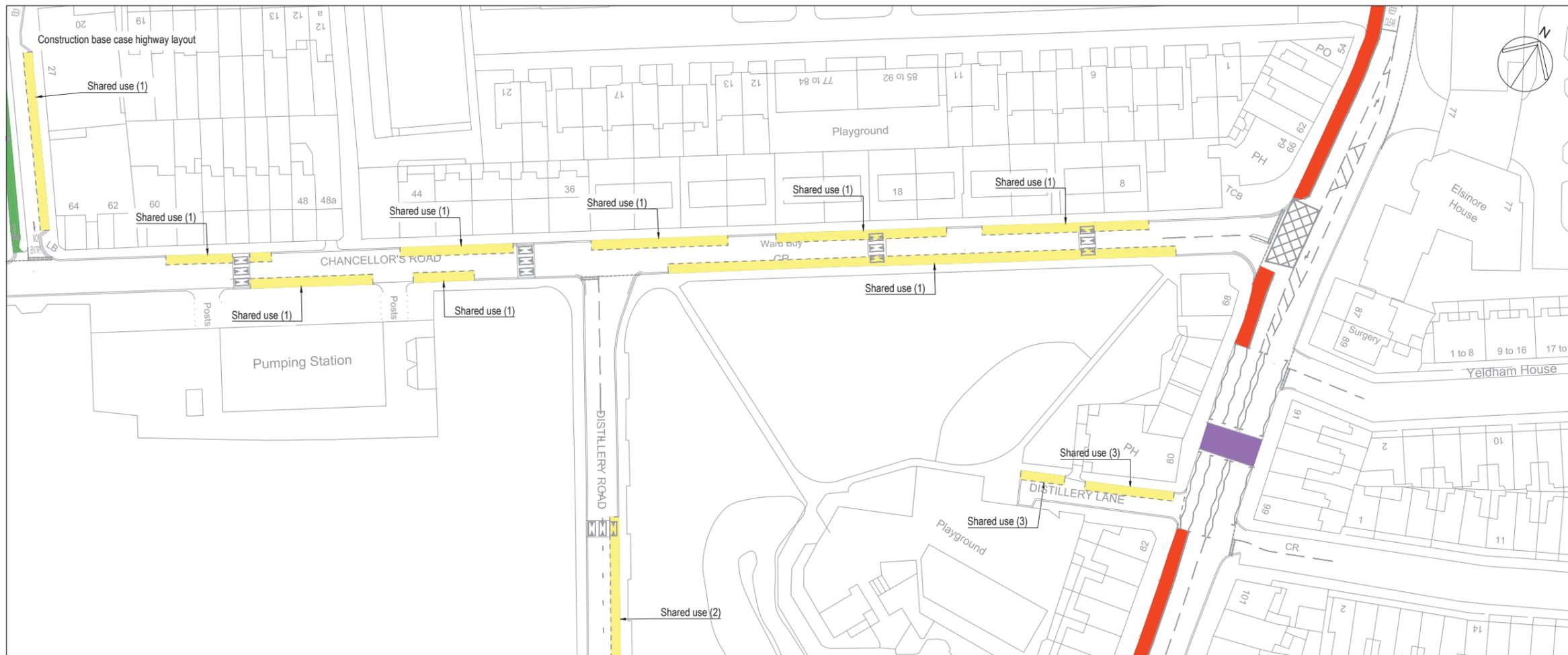
## FOR INFORMATION

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Application for Development Consent**  
 Existing highway layout

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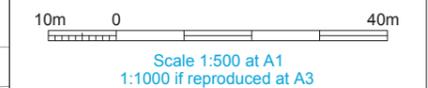
Coordinates are to be Ordnance Survey Datum OSGB36. All levels are in metres and relate to the Tunnel Datum which is 100 metres below Ordnance Datum Newlyn.

- Key**
- Existing**
- Parking restrictions
  - On street parking
  - Bus lane
  - Pedestrian crossing
  - Cycle lane / advance stop line
- Revised**
- Parking restrictions
  - Tactile paving
  - Bollard
  - Illustrative on site manoeuvring zone
  - Limit of land to be acquired or used (LLAU)
  - Suspended on street parking
  - Removal of footway
- PHF2X\_C00 See schedule of works

**Stage**  
Phase 1 and 2

**On Street Parking**  
 Shared use (1) - Mon - Sat 8:30am - 6:30pm Permit holders A or pay and display max stay 4 hours  
 Shared use (2) - Permit holders T or pay at meter. Display ticket. 8 hour limit.  
 Shared use (3) - Mon - Fri 9:00am - 5:00pm Permit holders H or pay at meter. Display ticket.

- Standards**
- Design Manual For Roads And Bridges, Dft, 1992
  - Traffic Signs Regulations & General Directions, Tso, 2002
  - Traffic Signs Manual, Dft, 2006
  - Manual For Streets, Dft, 2007
  - Manual For Streets 2, Cilt, 2010
  - Designing For Deliveries, Fla, 1998
  - Cycle Infrastructure Design Ltn 2/08, Dft, 2008
  - Design Of Pedestrian Crossings Ltn 2/95, Dft, 1995
  - Guidance For The Use Of Tactile Paving, Dft, 1998
  - Accessible Bus Stop Design Guidance, TfL, 2006



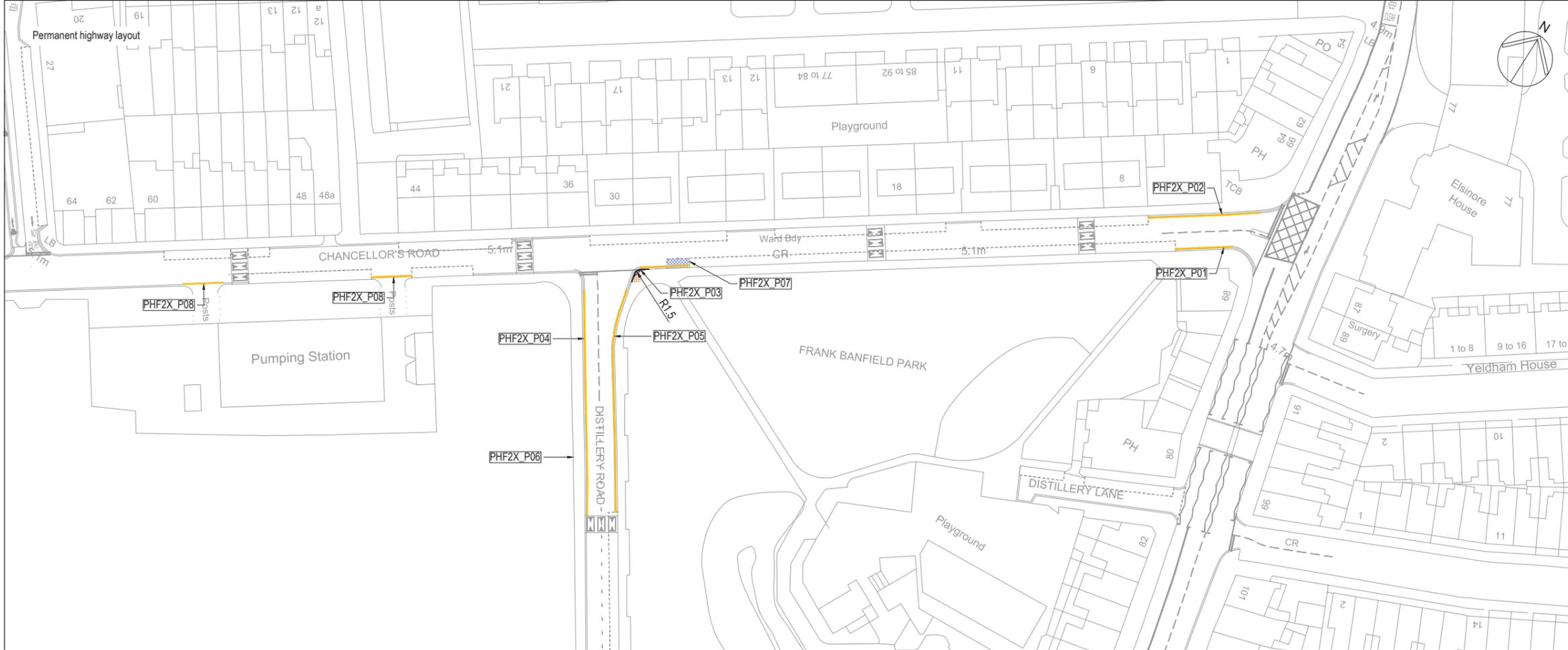
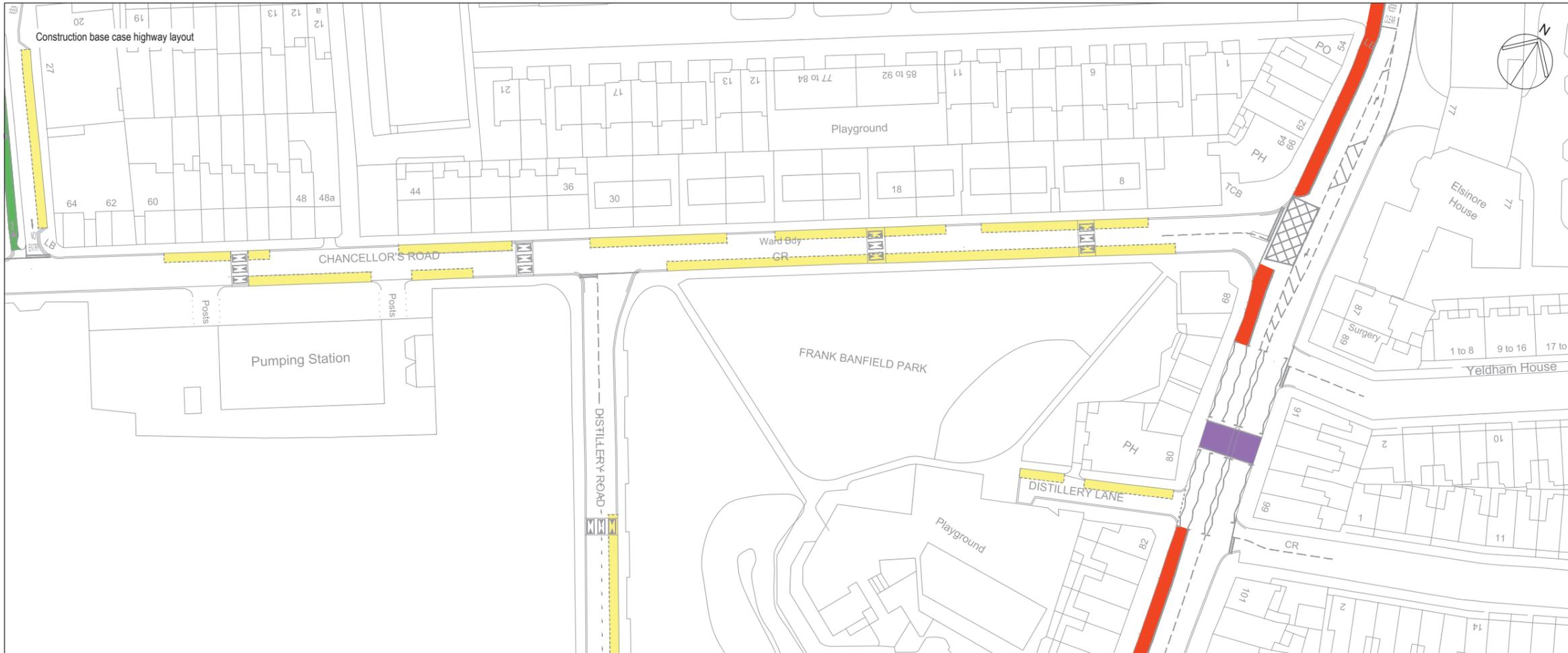
**ILLUSTRATIVE**

**Location**  
Hammersmith Pumping Station  
London Borough of Hammersmith & Fulham

**Document Information**  
Application for Development Consent  
Highway layout during construction (Area 1)

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- Key**
- Existing**
- Parking restrictions
  - On street parking
  - Bus lane
  - Pedestrian crossing
  - Cycle lane / advance stop line
- Revised**
- Parking restrictions
  - Footway reinstatement
  - Tactile paving
  - Reinstated on-street parking
- PHF2X\_P00 See schedule of works

**On Street Parking**

Shared use (1) - Mon - Sat 8:30am - 6:30pm Permit holders A or pay and display max stay 4 hours

Shared use (2) - Permit holders T or pay at meter. Display ticket. 8 hour limit.

Shared use (3) - Mon - Fri 9:00am - 5:00pm Permit holders H or pay at meter. Display ticket.

**Stage**  
Permanent phase

- Standards**
- Design Manual For Roads And Bridges, Dft, 1992
  - Traffic Signs Regulations & General Directions, Tso, 2002
  - Traffic Signs Manual, Dft, 2006
  - Manual For Streets, Dft, 2007
  - Manual For Streets 2, Cilt, 2010
  - Designing For Deliveries, Fla, 1998
  - Cycle Infrastructure Design Ltn 2/08, Dft, 2008
  - Design Of Pedestrian Crossings Ltn 2/95, Dft, 1995
  - Guidance For The Use Of Tactile Paving, Dft, 1998
  - Accessible Bus Stop Design Guidance, TfL, 2006



ILLUSTRATIVE

**Location**  
Hammersmith Pumping Station  
London Borough of Hammersmith & Fulham

**Document Information**  
Application for Development Consent  
Permanent highway layout - Area 1 work

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## 2 Environmental impact assessment figures

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Keyplan:



Key

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



Scale 1 : 1,500 at A3

## FOR INFORMATION

Location

**Hammersmith Pumping Station**  
London Borough of Hammersmith & Fulham

Document Information

**Environmental Statement**

Site location plan  
Vol. 5 Figure 2.1.1

1PL03-MG-00698  
January 2013

Thames Tideway Tunnel  
Creating a cleaner, healthier River Thames



LONDON BOROUGH OF  
HAMMERSMITH & FULHAM

LONDON BOROUGH OF  
RICHMOND UPON THAMES



- Key**
- Limits of Land to be Acquired or Used
  - Local Authority Boundary
- Land Use**
- Class A1-A5 (Shops, Financial & Professional Services, Restaurants, Drinking Establishments and Hot Food Takeaways)
  - Class B1 (Business (Offices except A2) Research and Development, Light Industry)
  - Class B2-B8 (General Industrial / Storage or Distribution)
  - Class C2-C2A (Residential Institutions)
  - Class C3-C4 (Dwelling Houses)
  - Class D1-D2 (Non Residential Institutions (Community Facilities) and Assembly and Leisure)
  - Mixed Use
  - Other
  - Open Space



Scale 1 : 2,000 at A3

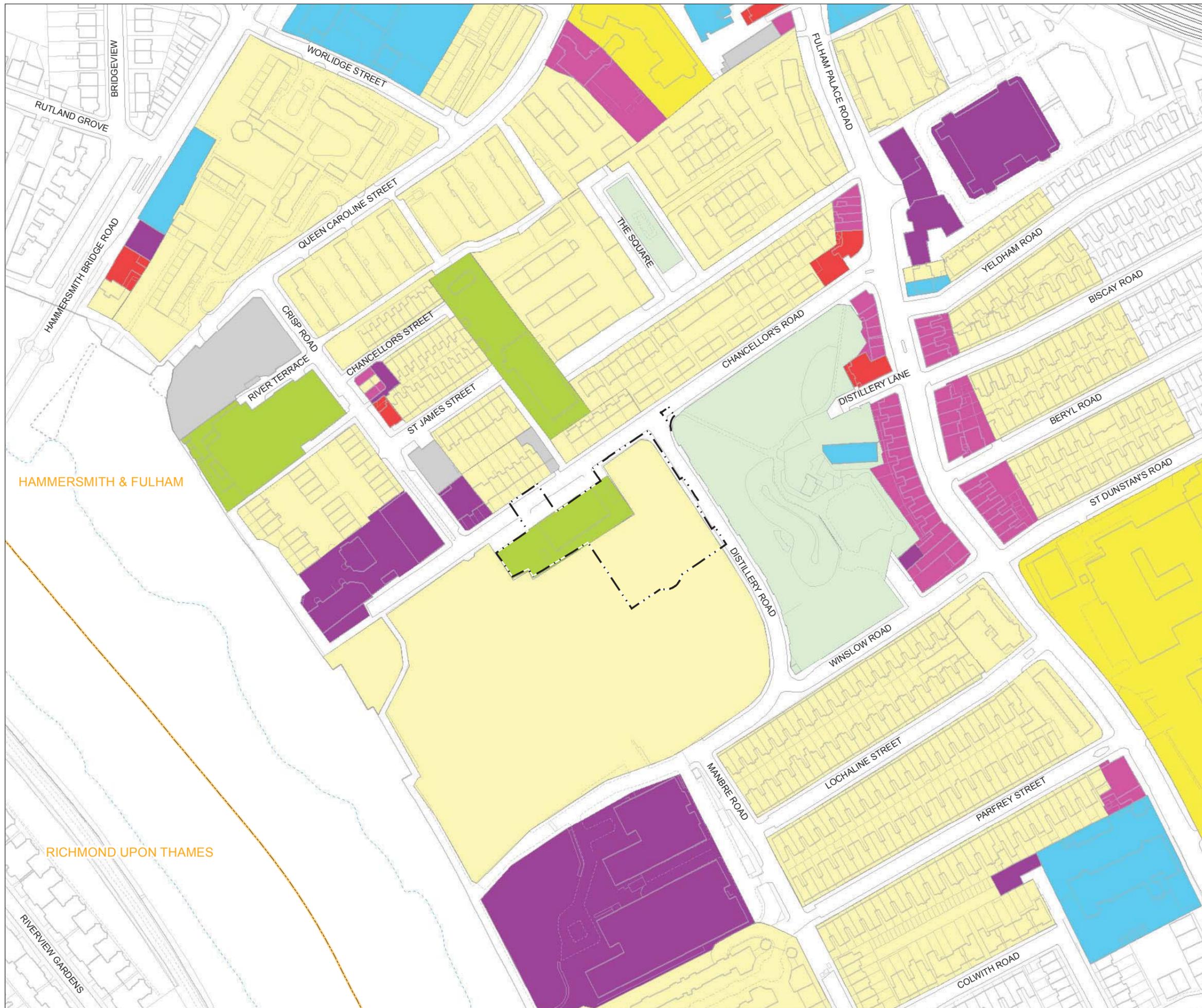
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**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**

Land use  
 Vol. 5 Figure 2.1.2

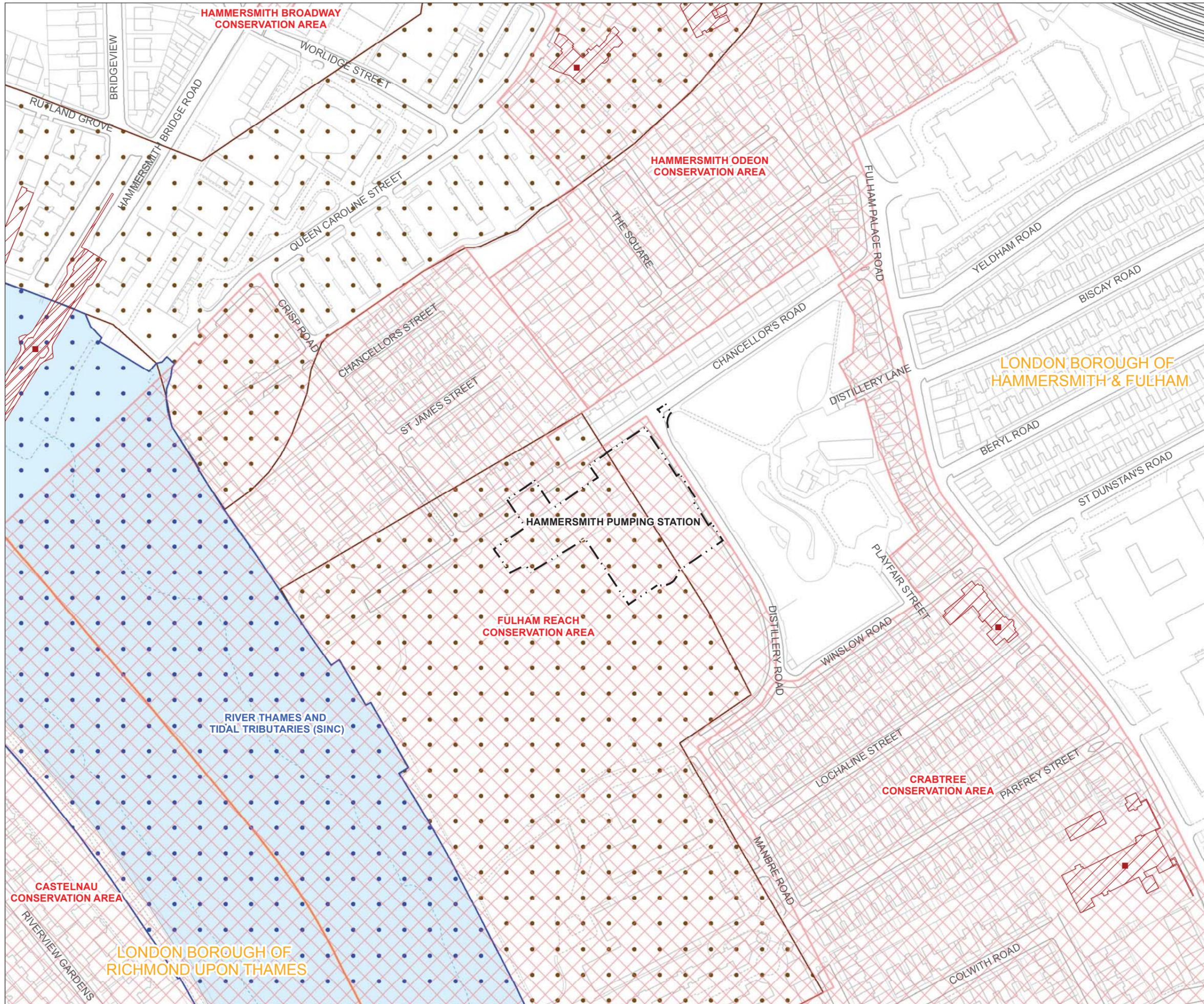
1PL03-MG-00764  
 January 2013



HAMMERSMITH & FULHAM

RICHMOND UPON THAMES

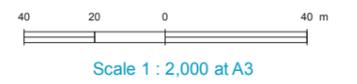
RIVERVIEW GARDENS



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- Key**
- Listed Building Point
  - Limits of Land to be Acquired or Used
  - Listed Building Area
  - LPA Conservation Area
  - LPA Archaeological Area
  - Local Authority Boundary
  - River Thames
- Sites of Importance for Nature Conservation (SINC)**
- Metropolitan Importance



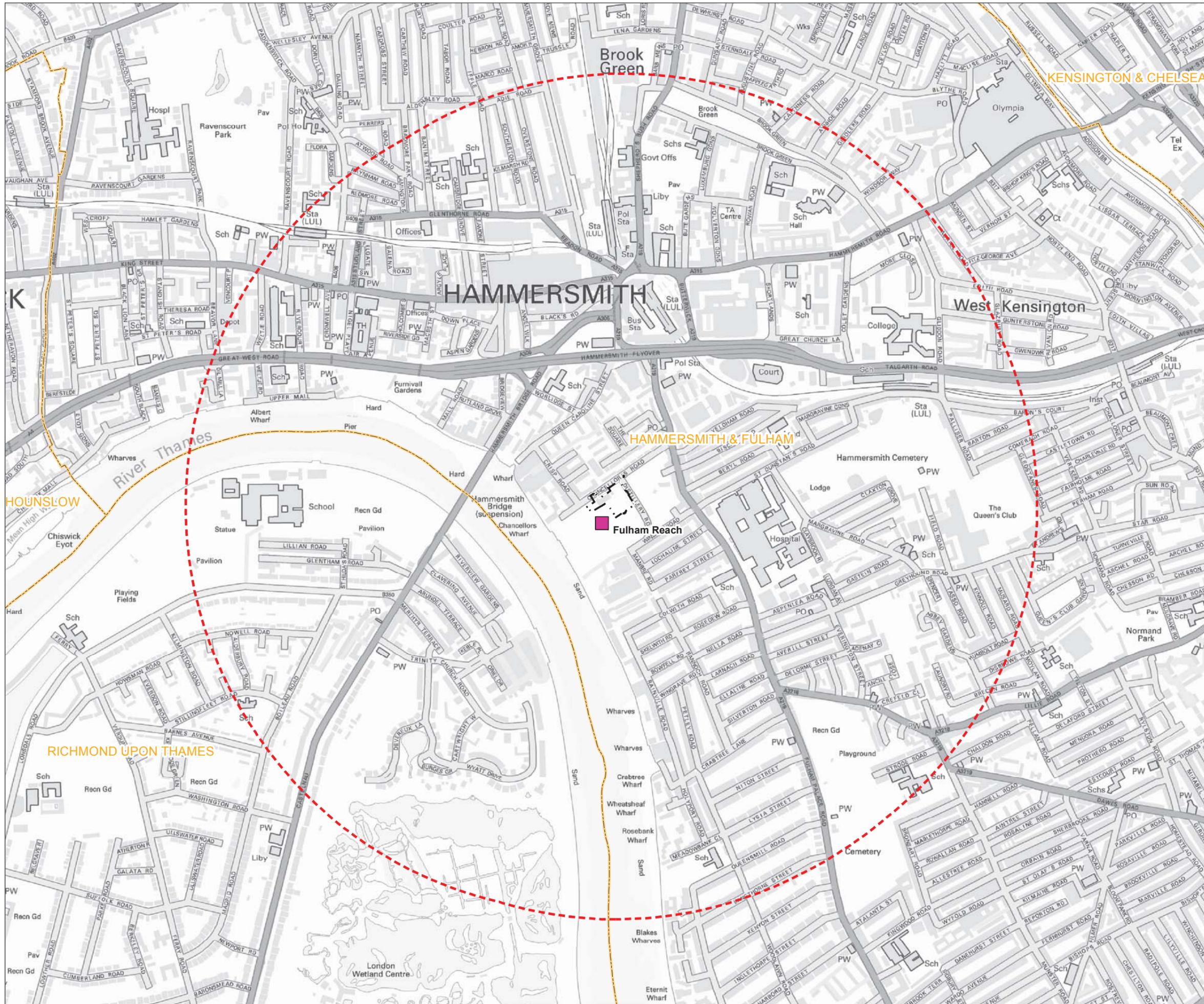
## FOR INFORMATION

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Environmental setting  
 Vol. 5 Figure 2.1.3

1PL03-MG-00688  
 January 2013



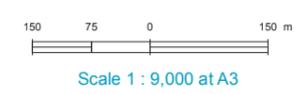


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- Key**
- Planning Application
  - Limits of Land to be Acquired or Used
  - Planning Application (1km Boundary)
  - Local Authority Boundary

Note: This plan does not show the full extent for each planning application, but a single point within the application site.



## FOR INFORMATION

**Location**  
**Hammersmith Pumping Station**  
 London Borough Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Base case and cumulative development projects  
 Vol. 5 Figure 3.5.1  
 1PL03-MG-00746  
 January 2013

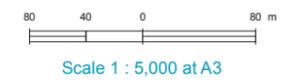




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- Key
- Limits of Land to be Acquired or Used
  - Existing Local Authority Continuous Monitors
  - Existing Local Authority Diffusion Tubes
  - New Diffusion Tubes (Project)

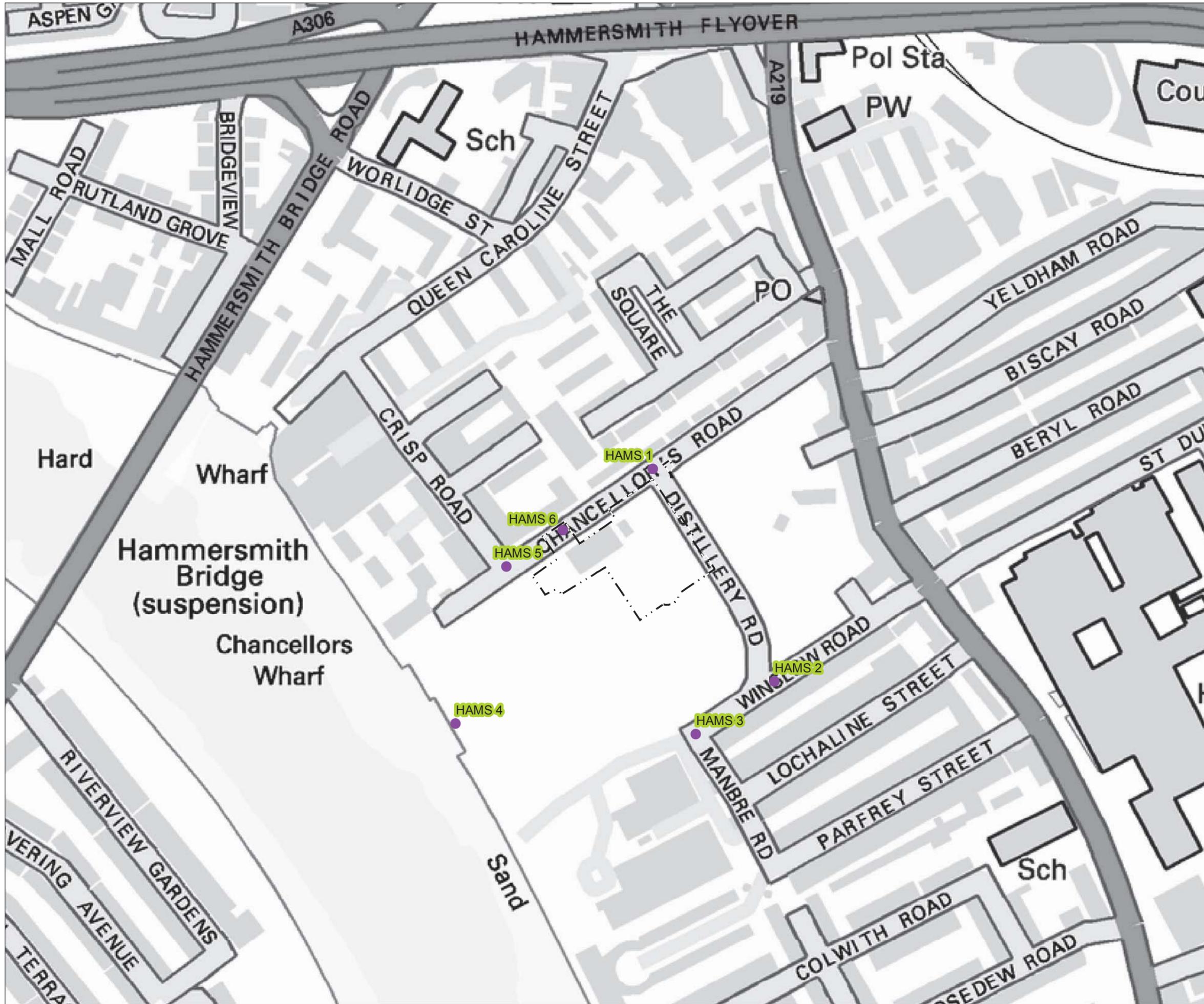


## FOR INFORMATION

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Air quality and odour - air quality monitoring sites  
 Vol.5 Figure 4.4.1  
 1PL03-AQ-10739  
 January 2013



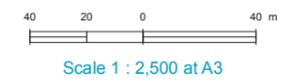


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Key

- - - Limits of Land to be Acquired or Used
- H<sub>2</sub>S Monitoring Locations

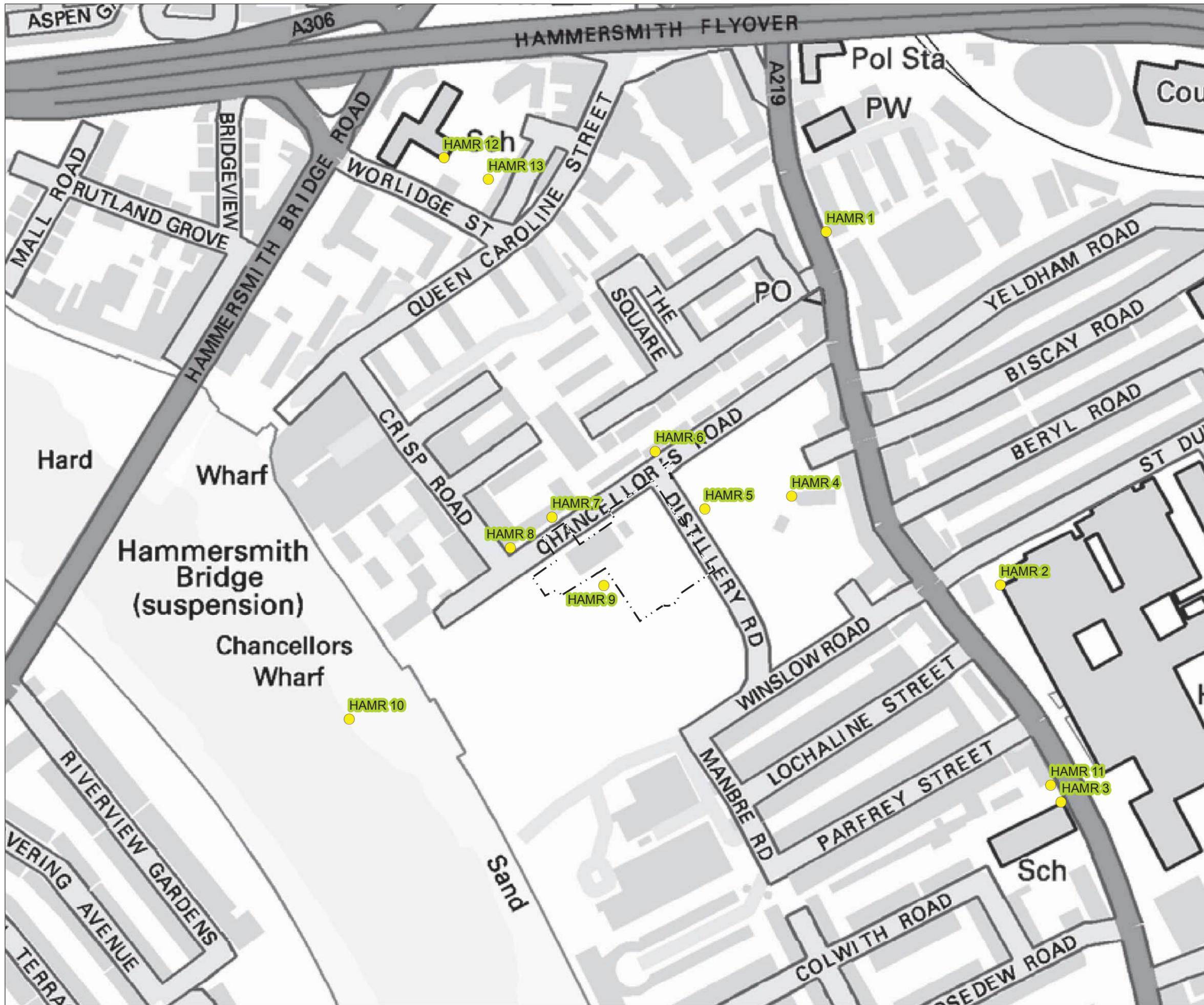


### FOR INFORMATION

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Air quality and odour - H<sub>2</sub>S monitoring locations  
 Vol.5 Figure 4.4.2  
 1PL03-AQ-10740  
 January 2013





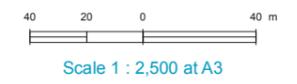
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- Key**
- - - Limits of Land to be Acquired or Used
  - Modelled Receptors

Note: The receptors are selected on the basis that they are representative of sensitive land uses closest to the site.

- HAMR 1 - Guinness Trust Building
- HAMR 2 - Charing Cross Hospital
- HAMR 3 - Melcombe Primary School Building
- HAMR 4 - Distillery Play Centre
- HAMR 5 - Frank Banfield Park
- HAMR 6 - 28/30 Chancery's Road
- HAMR 7 - 52/54 Chancery's Road
- HAMR 8 - Jac Travel Chancery's Road
- HAMR 9 - Fulham Reach (Proposed)
- HAMR 10 - River Thames
- HAMR 11 - Melcombe Primary School Playground
- HAMR 12 - St Pauls CE Primary School Building
- HAMR 13 - St Pauls CE Primary School Playground

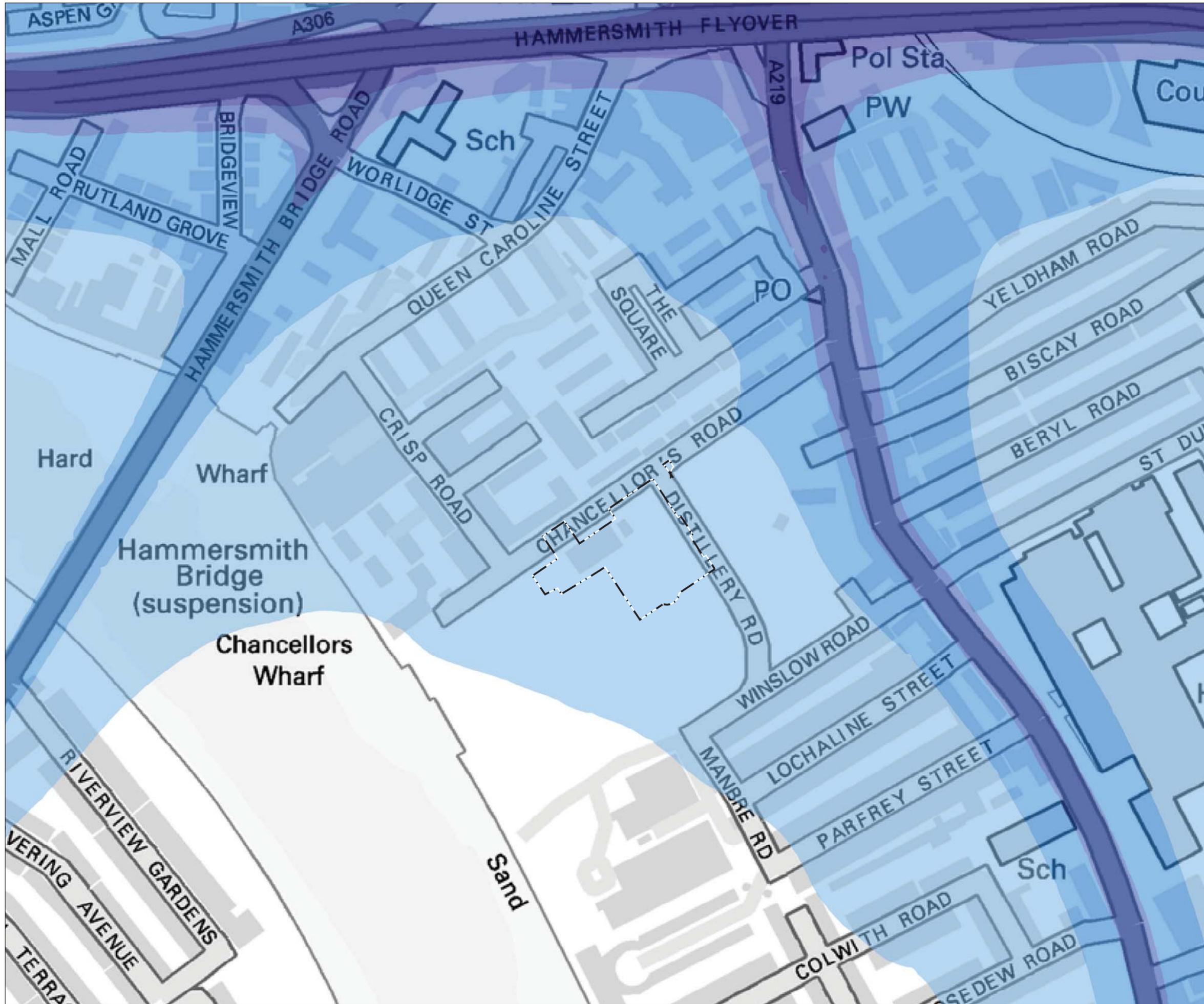


## FOR INFORMATION

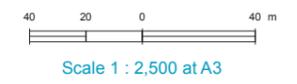
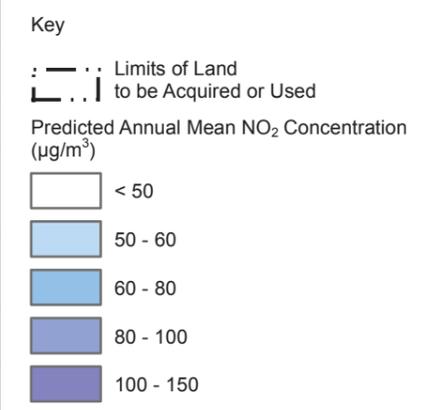
**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Air quality and odour - modelled air quality receptors  
 Vol.5 Figure 4.4.3  
 1PL03-AQ-10741  
 January 2013





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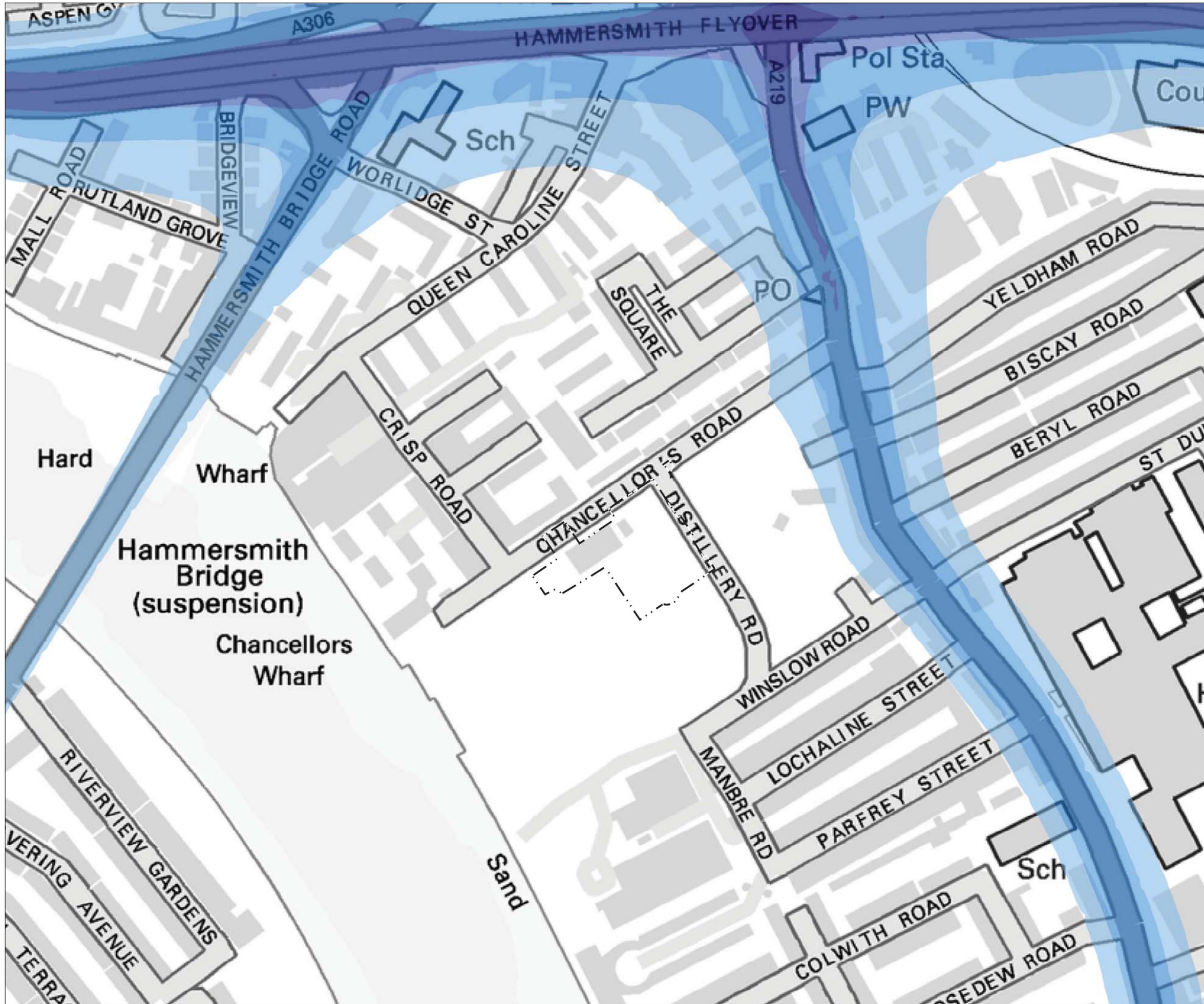


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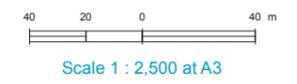
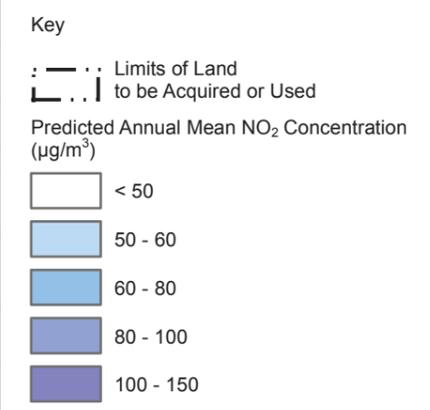
**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Air quality and odour - annual mean NO<sub>2</sub> for 2010 baseline  
 Vol.5 Figure 4.5.1  
 1PL03-AQ-10742  
 January 2013





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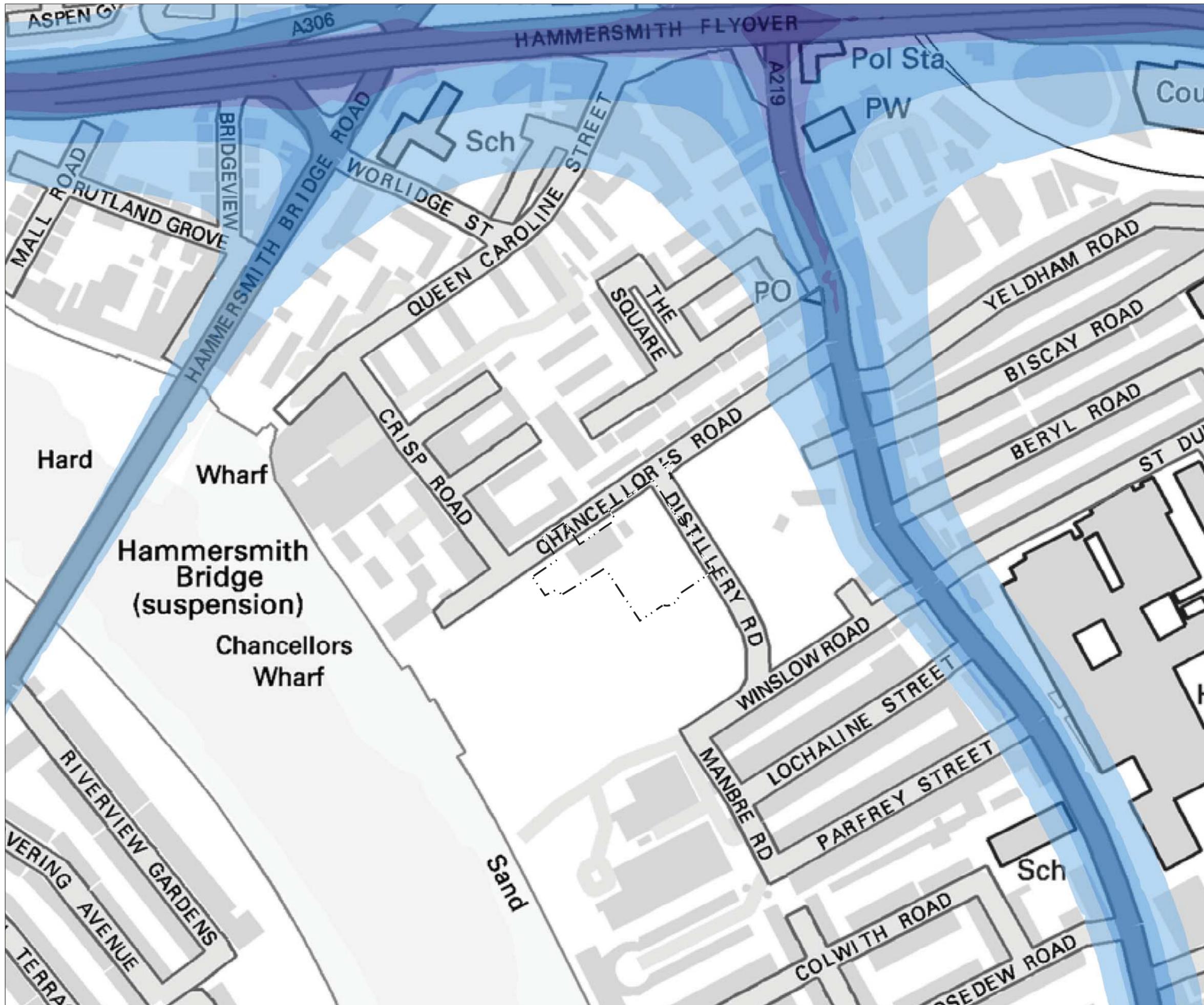


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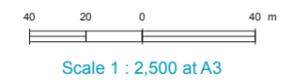
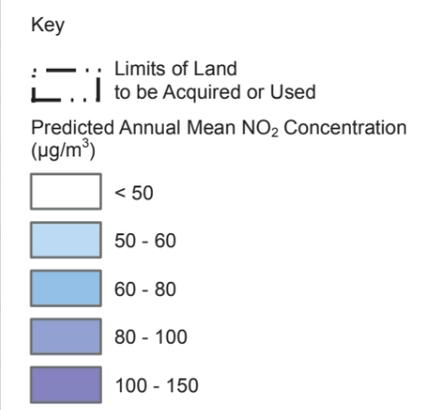
**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Air quality and odour - annual mean NO<sub>2</sub> for peak construction year base case  
 Vol.5 Figure 4.5.2  
 1PL03-AQ-10743  
 January 2013





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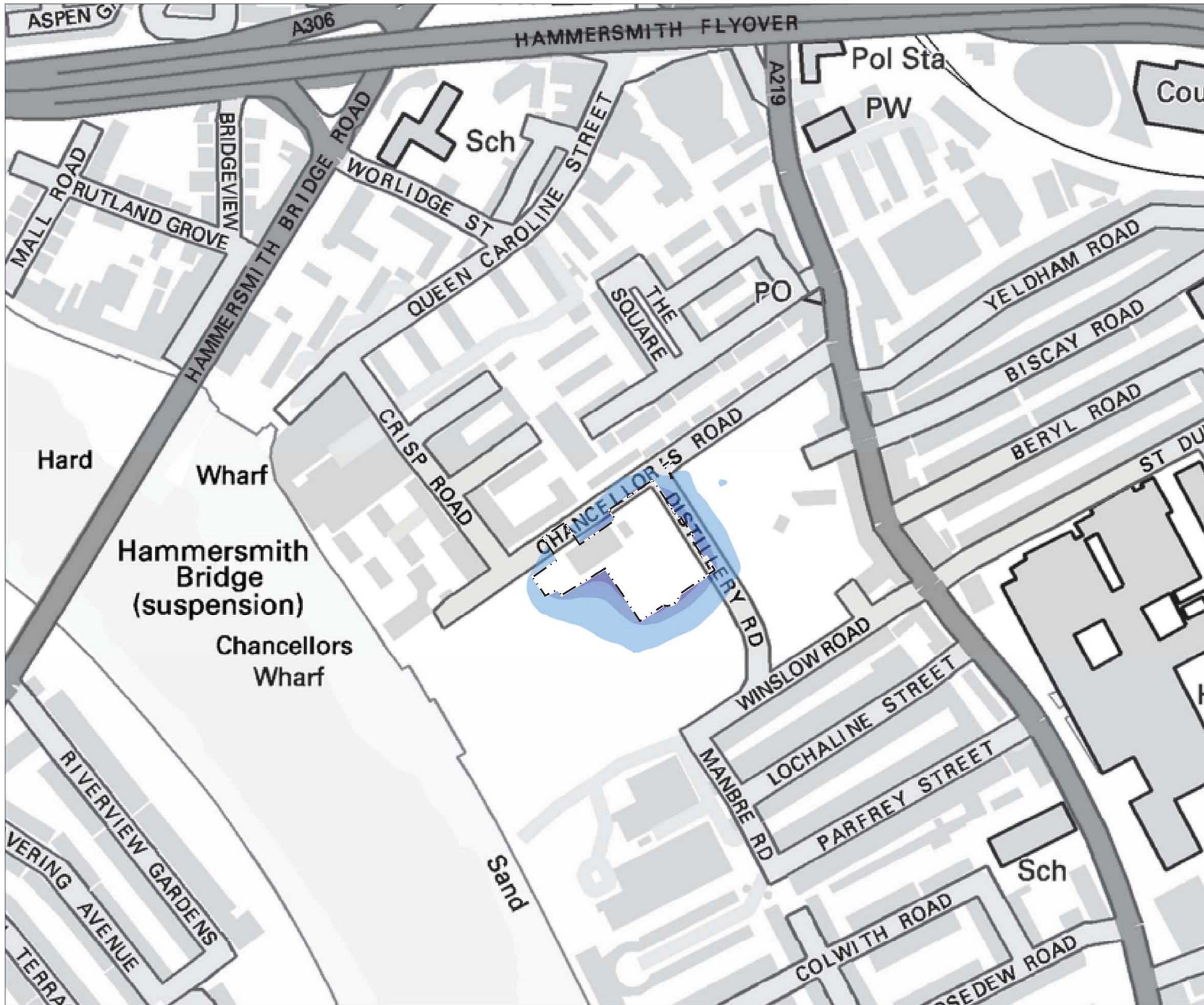


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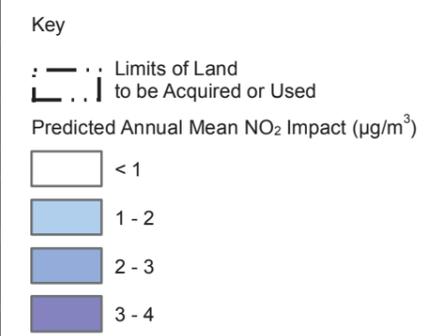
**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Air quality and odour - annual mean NO<sub>2</sub> for peak construction year development case  
 Vol.5 Figure 4.5.3  
 1PL03-AQ-10744  
 January 2013





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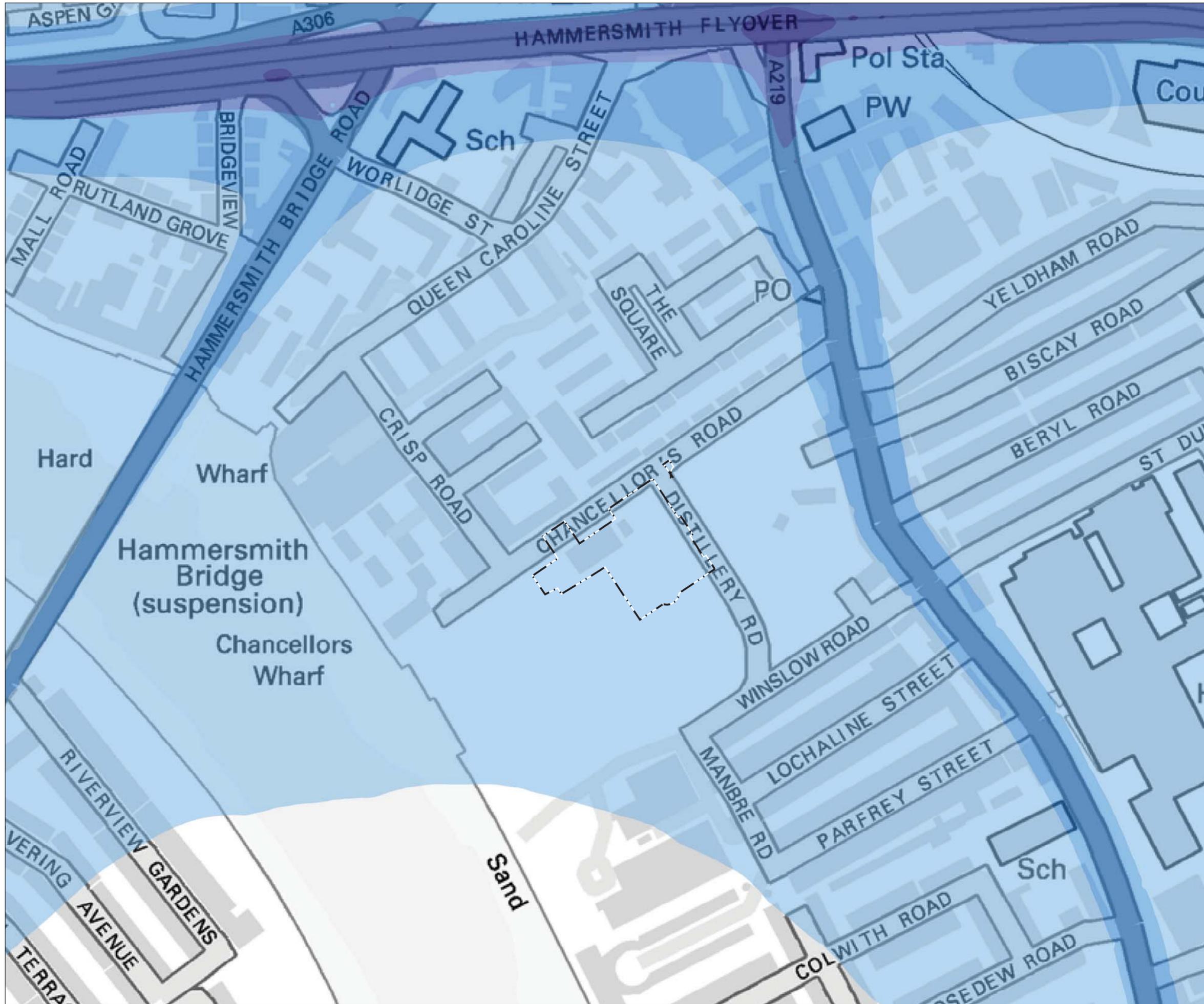


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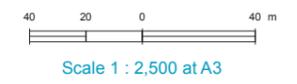
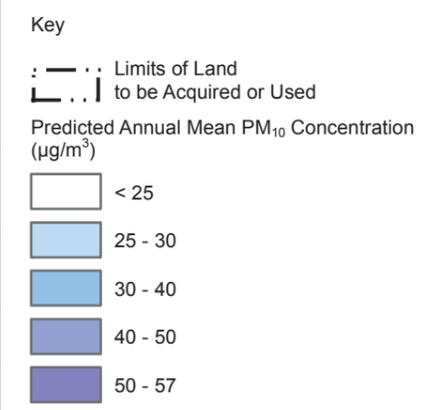
**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Air quality and odour - annual mean NO<sub>2</sub> impact for peak construction year  
 Vol.5 Figure 4.5.4  
 1PL03-AQ-10745  
 January 2013





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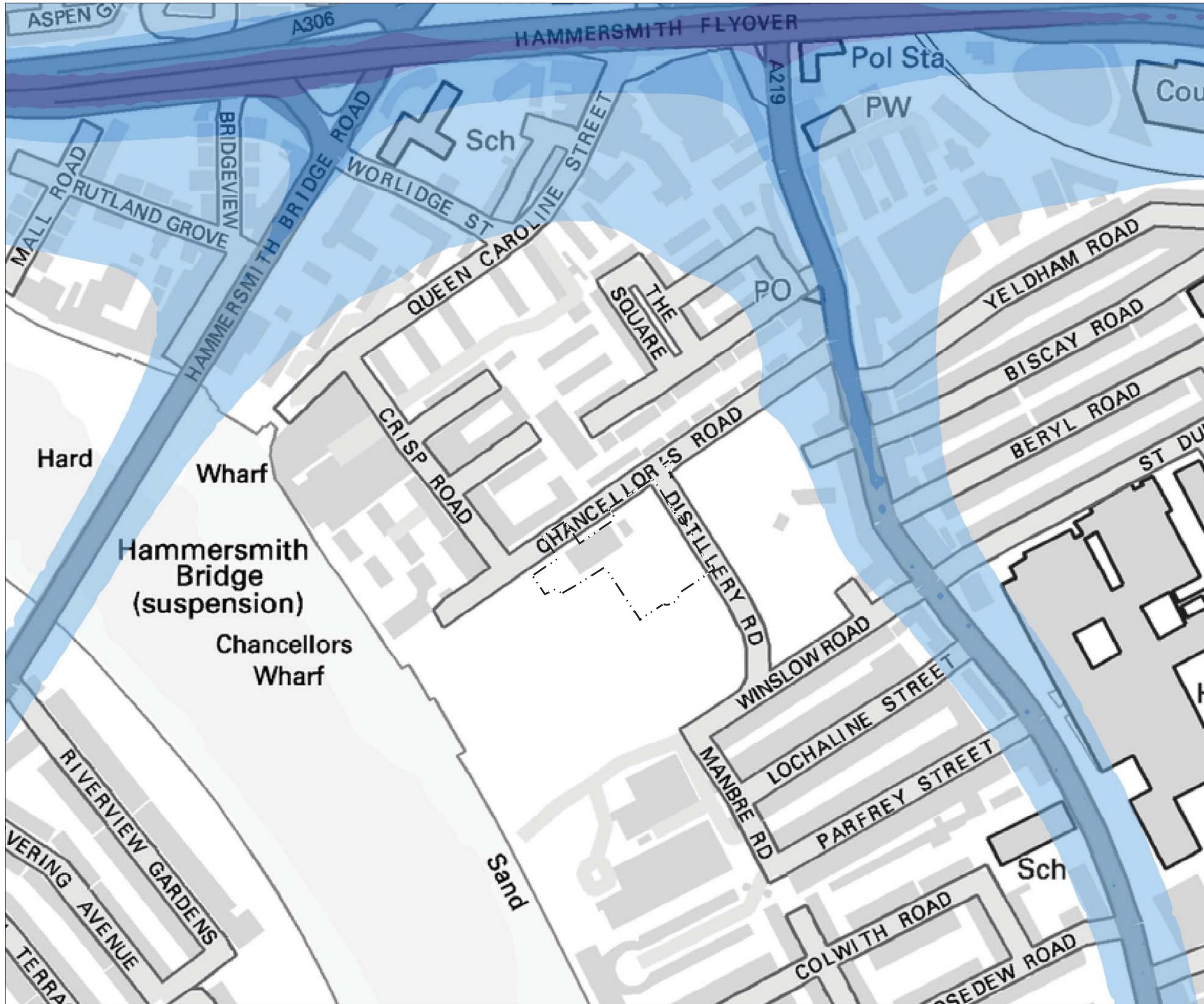


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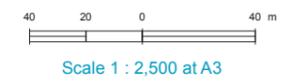
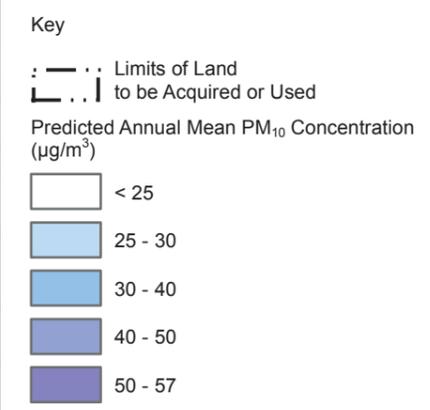
**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Air quality and odour - annual mean PM<sub>10</sub>  
 for 2010 baseline  
 Vol.5 Figure 4.5.5  
 1PL03-AQ-10746  
 January 2013





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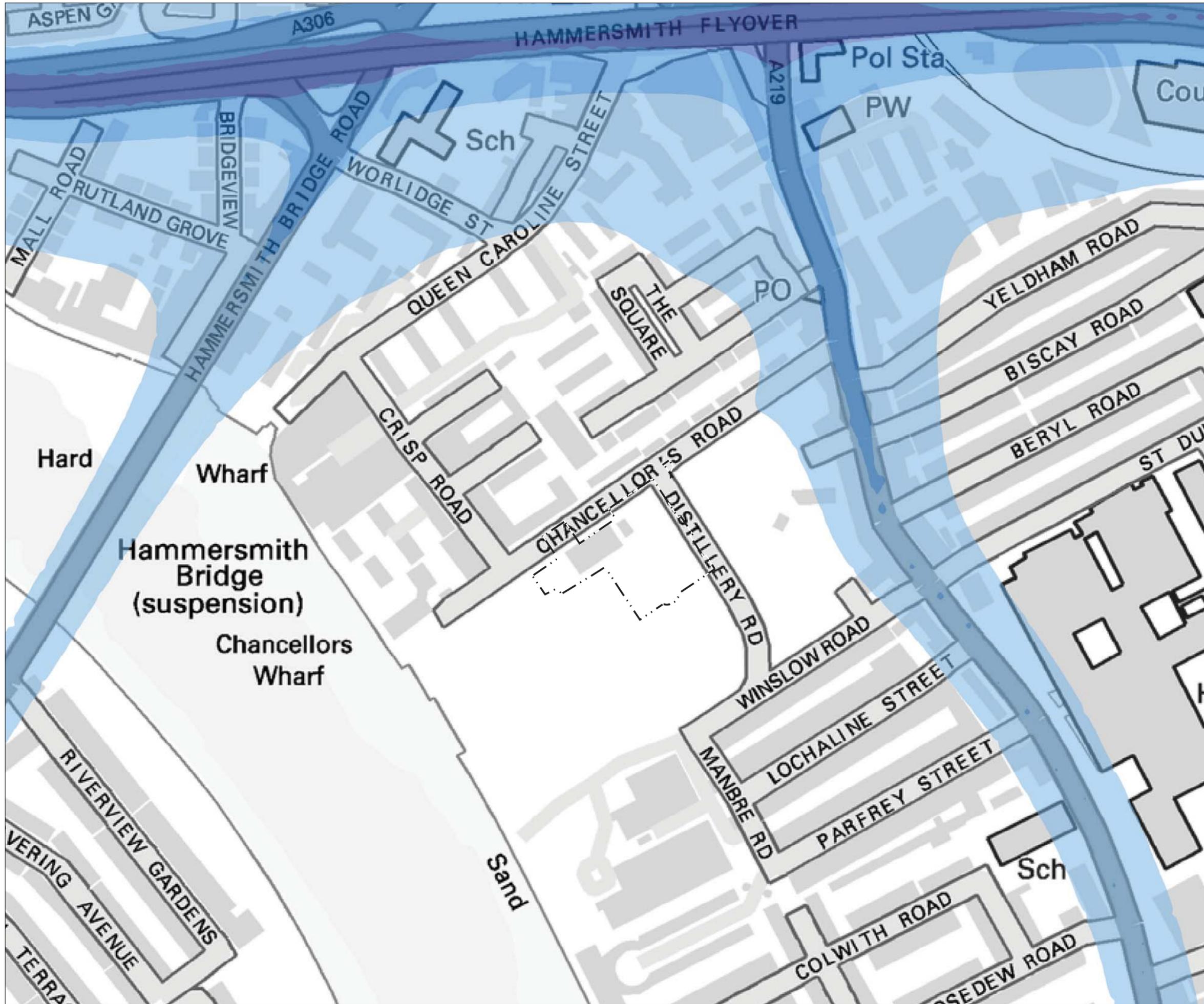


## FOR INFORMATION

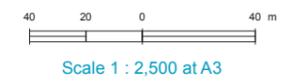
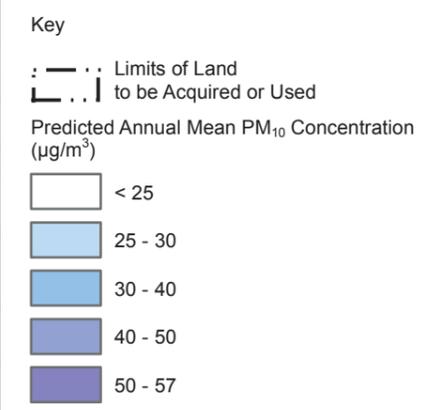
**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Air quality and odour - annual mean PM<sub>10</sub>  
 for peak construction year base case  
 Vol.5 Figure 4.5.6  
 1PL03-AQ-10747  
 January 2013





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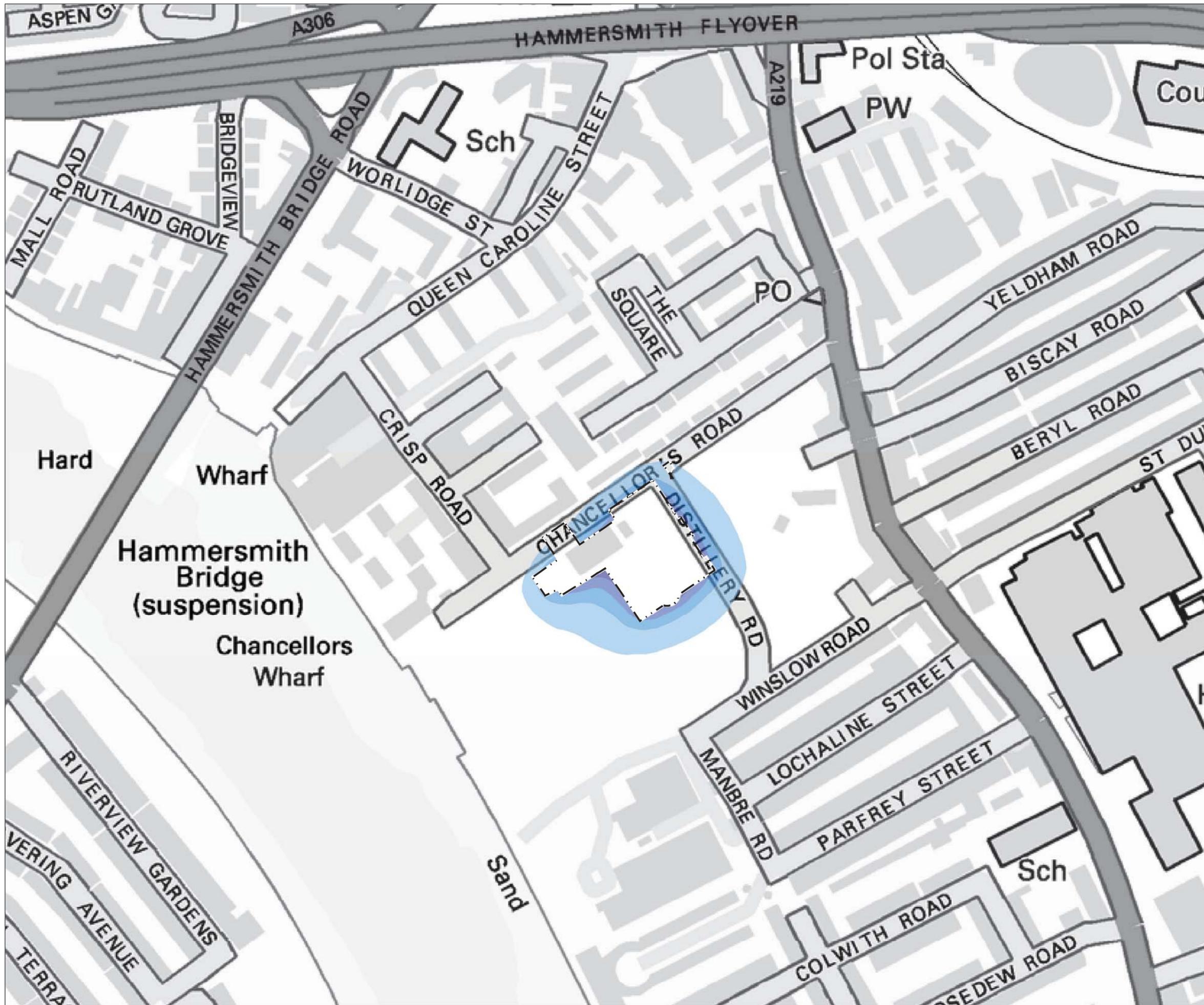


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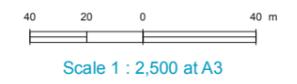
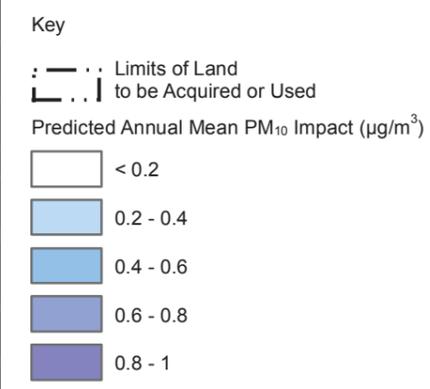
**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Air quality and odour - annual mean PM<sub>10</sub>  
 for peak construction year development case  
 Vol.5 Figure 4.5.7  
 1PL03-AQ-10748  
 January 2013





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## FOR INFORMATION

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Air quality and odour - annual mean PM<sub>10</sub> impact for peak construction year  
 Vol.5 Figure 4.5.8  
 1PL03-AQ-10749  
 January 2013





- Key**
- Limits of Land to be Acquired or Used
  - Sampling Area for Fish and Benthic Invertebrates
  - Coordinates of Sampling Area
  - CSO (Directly Controlled)
  - CSO (Indirectly Controlled)
  - River Wall
- Habitats**
- ▨ Pebbles, Cobbles, Shingle and Sand
  - Pebbles, Shingle and Sand
  - Vegetation
- Fish**
- Boat Fish Trawl
  - Seine Netting
- Invertebrates**
- Airlift
  - Quadrat
  - ▲ Sweep/Kick Sample



## FOR INFORMATION

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**

Aquatic ecology - habitats and sampling locations  
 Vol.5 Figure 5.4.1  
 1PL03-AE-20081  
 January 2013



Keyplan:



- Key - Limits of Land  
I. - to be Acquired or Used
- 250m from site
  - Local Authority Boundary
- Sites of Importance for Nature Conservation (SINC)
- Metropolitan Importance
  - Local Importance

Note:  
Aerial Imagery taken in 2010, before assessment.



Scale 1 : 2,500 at A3

## FOR INFORMATION

### Location

**Hammersmith Pumping Station**  
London Borough of Hammersmith & Fulham

### Document Information

#### Environmental Statement

Terrestrial ecology - designated sites

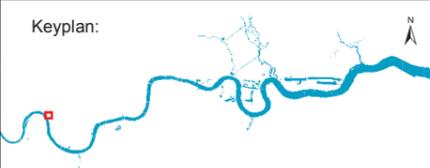
Vol. 5 Figure 6.4.1

1PL03-TE-40152  
January 2013

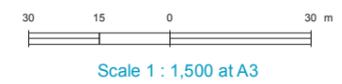




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- Key**
- Limits of Land to be Acquired or Used
  - Survey Area
  - Local Authority Boundary
  - X Cultivated/Disturbed Land - Ephemeral/Short Perennial
  - Bare Ground
  - Built-Up Areas - Buildings
  - ▨ Cultivated/Disturbed Land - Introduced Shrub
  - ▨ Hard Standing
  - Parkland/Scattered Trees - Mixed
  - ✕ Scrub - Scattered
  - Scattered Trees



## FOR INFORMATION

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Terrestrial ecology – Phase 1 Habitat Survey

Vol. 5 Figure 6.4.2  
 1PL03-TE-40168  
 January 2013

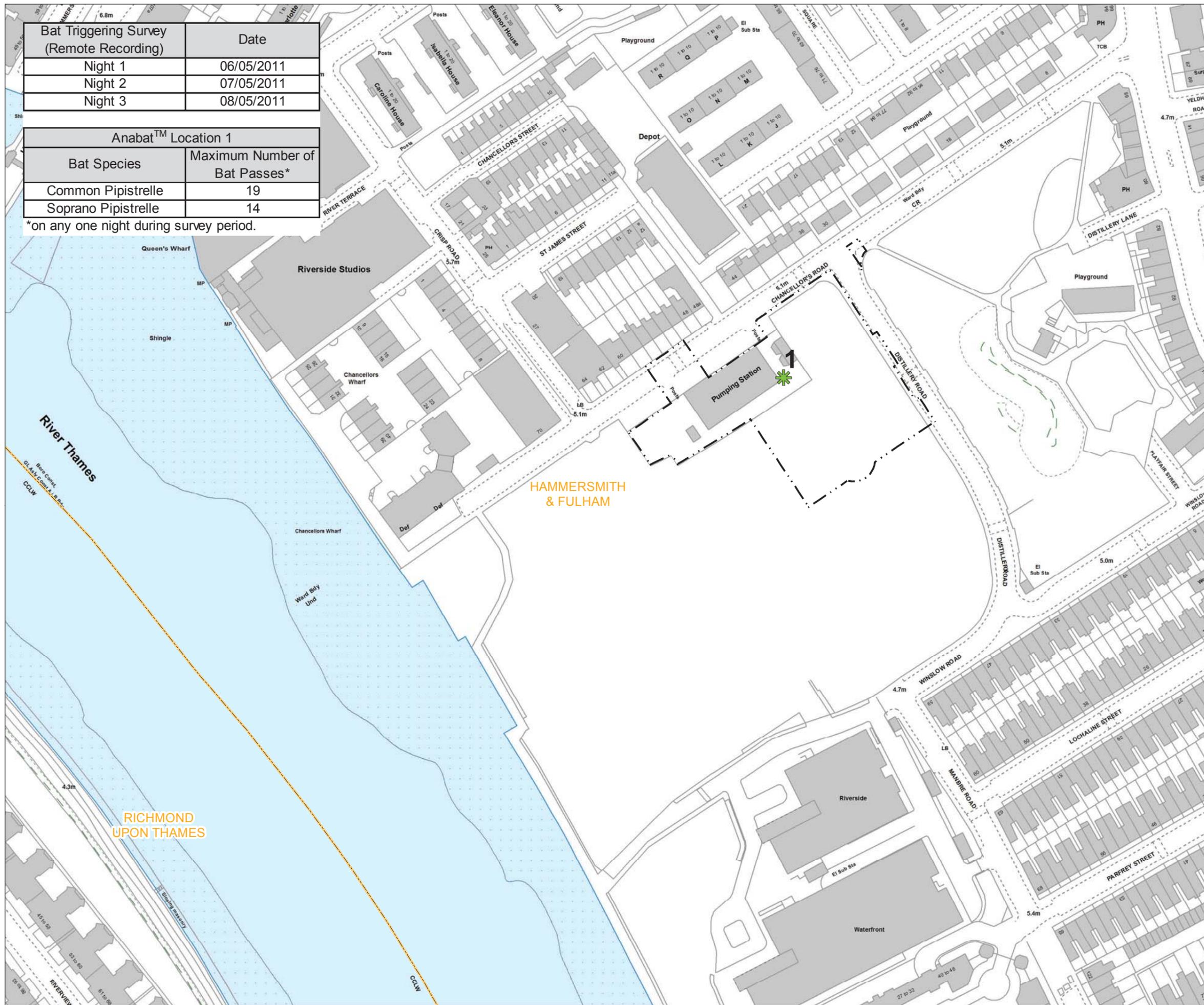


**RICHMOND UPON THAMES**

Bat Triggering Survey (Remote Recording)	Date
Night 1	06/05/2011
Night 2	07/05/2011
Night 3	08/05/2011

Anabat™ Location 1	
Bat Species	Maximum Number of Bat Passes*
Common Pipistrelle	19
Soprano Pipistrelle	14

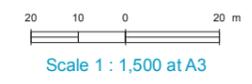
\*on any one night during survey period.



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- Key**
- Limits of Land to be Acquired or Used
  - Local Authority Boundary
  - Bat Triggering Survey (Remote Recording)
  - Anabat™ Location (1)



## FOR INFORMATION

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Terrestrial ecology – bat triggering (remote recording) survey  
 Vol. 5 Figure 6.4.3  
 1PL03-TE-40196  
 January 2013



Keyplan:



Key

- Limits of Land to be Acquired or Used
- Assessment Area
- Heritage Feature/Findspot
- Past Archaeological Investigation
- Statutorily Listed Building
- Bazalgette Sewer
- Heritage Feature
- Past Archaeological Investigation

The reference numbers for historic environment features correspond to the descriptions in the 'Gazetteer of known heritage assets' in Environmental Statement Vol. 5 Appendix E.1

Note: Archaeological Priority Zones/ Conservation Areas not shown



Scale 1 : 2,500 at A3

## FOR INFORMATION

Location

**Hammersmith Pumping Station**  
London Borough of Hammersmith & Fulham

Document Information

**Environmental Statement**

Historic environment -  
historic environment features map  
Vol.5 Figure 7.4.1

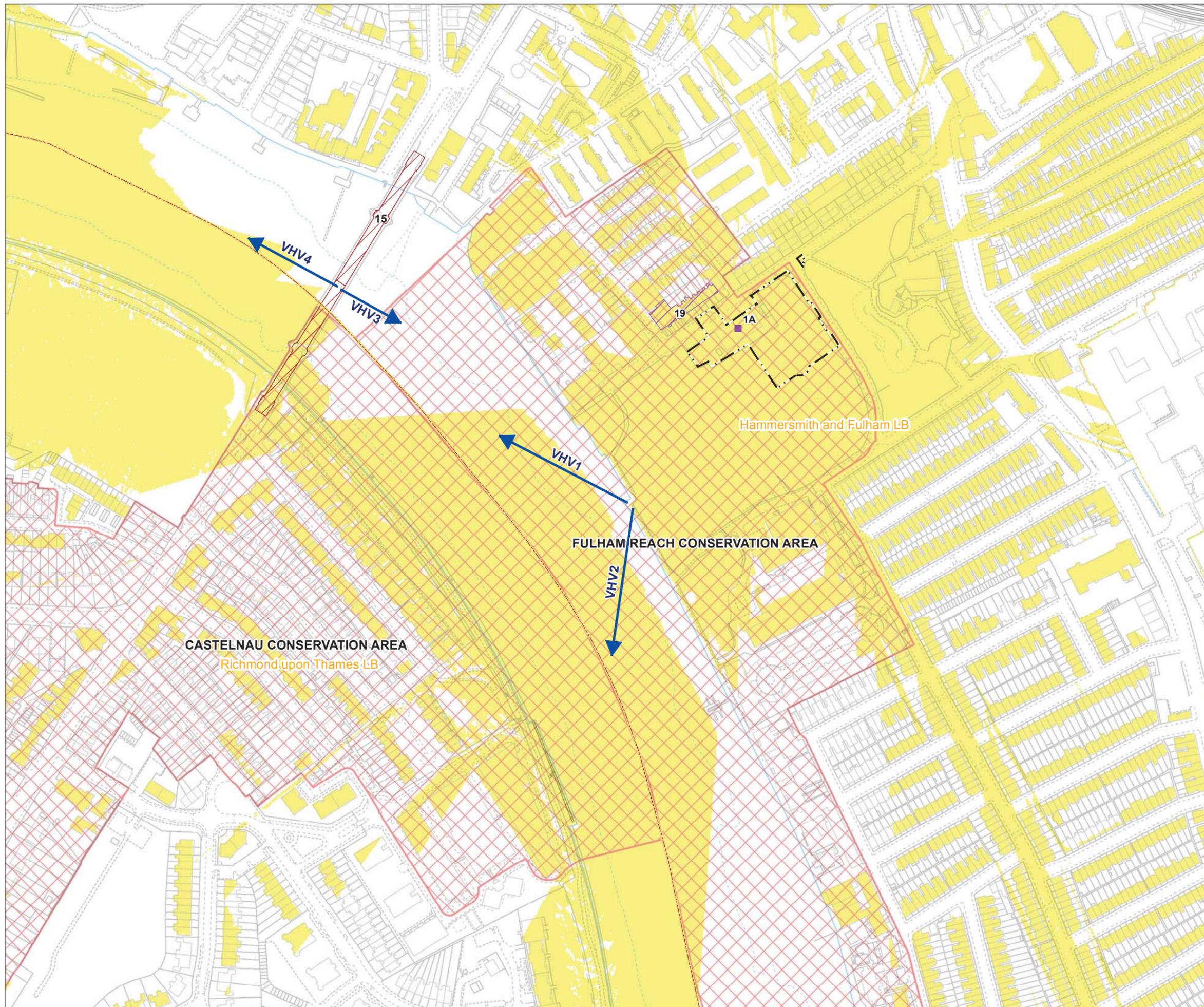
1PL03-HE-60083  
January 2013

Keyplan:



Key

- Limits of Land to be Acquired or Used
- Local Authority Boundary
- Statutorily Listed Building
- Locally Listed Building
- Locally Listed Building
- Conservation Area
- View of Heritage Value (VHV)
- Construction phase ZTV



The reference number for historic environment features correspond to the descriptions in the 'Gazetteer of known heritage assets' in Environmental Statement Vol. 5 Appendix E.1



Scale 1 : 3,000 at A3

## FOR INFORMATION

Location

**Hammersmith Pumping Station**  
London Borough of Hammersmith & Fulham

Document Information

**Environmental Statement**

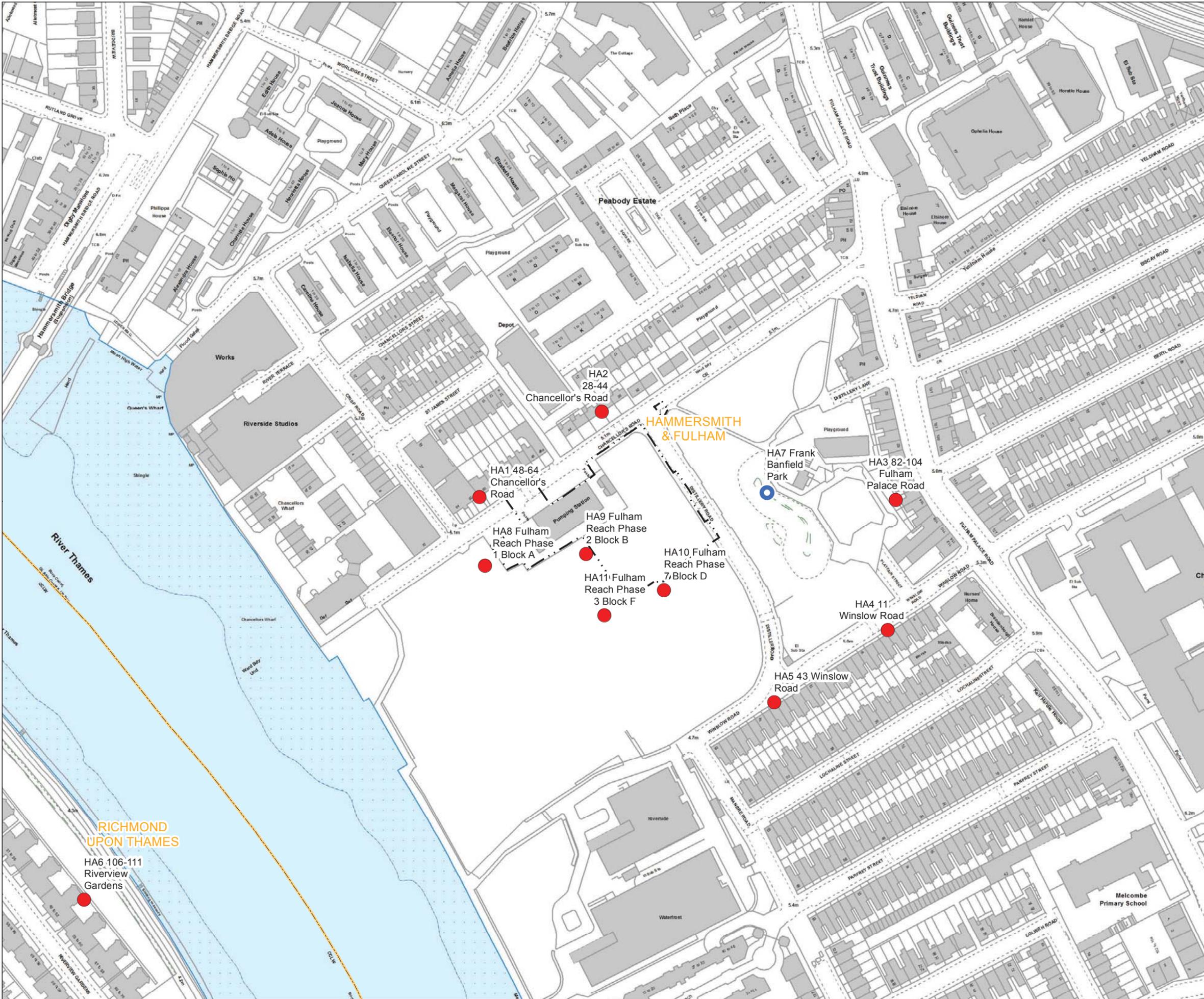
Historic environment - historic character and setting of heritage assets  
Vol. 5 Figure 7.4.2

1PL03-HE-65211  
January 2013

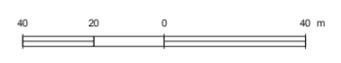




- Key**
- Limits of Land to be Acquired or Used
  - Local Authority Boundary
- Representative Receptor Locations:**
- Residential
  - Non-residential



**Note:**  
The receptors are selected on the basis that they are representative of sensitive land uses closest to the site.



Scale 1 : 2,000 at A3

## FOR INFORMATION

**Location**  
Hammersmith Pumping Station  
London Borough of Hammersmith & Fulham

**Document Information**  
Environmental Statement  
Noise and vibration - receptor locations

Vol.5 Figure 9.4.1  
1PL03-NV-40127  
January 2013

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Keyplan:



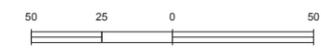
Key

- Limits of Land to be Acquired or Used
- Thames Path
- Receptors and Site Context Features

Receptors and Site Context Features

1. Child Play Space
2. Frank Banfield Park
3. Distillery Play Centre

Note: Residential receptors have been identified on land use plans for this site.



Scale 1 : 2,500 at A3

## FOR INFORMATION

Location

**Hammersmith Pumping Station**  
London Borough of Hammersmith & Fulham

Document Information

**Environmental Statement**

Socio-economics - context plan

Vol.5 Figure 10.4.1

1PL03-SE-20042

January 2013

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





- Key:**
- Limits of Land to be Acquired or Used
  - Local Authority boundary
  - ▭ Extents of construction phase townscape assessment area
  - ▭ River Thames and tidal tributaries
- Building heights**
- 0 - 20m
  - 20 - 40m
  - 40 - 60m
  - 60 - 80m
  - 80 - 100m
  - >100m

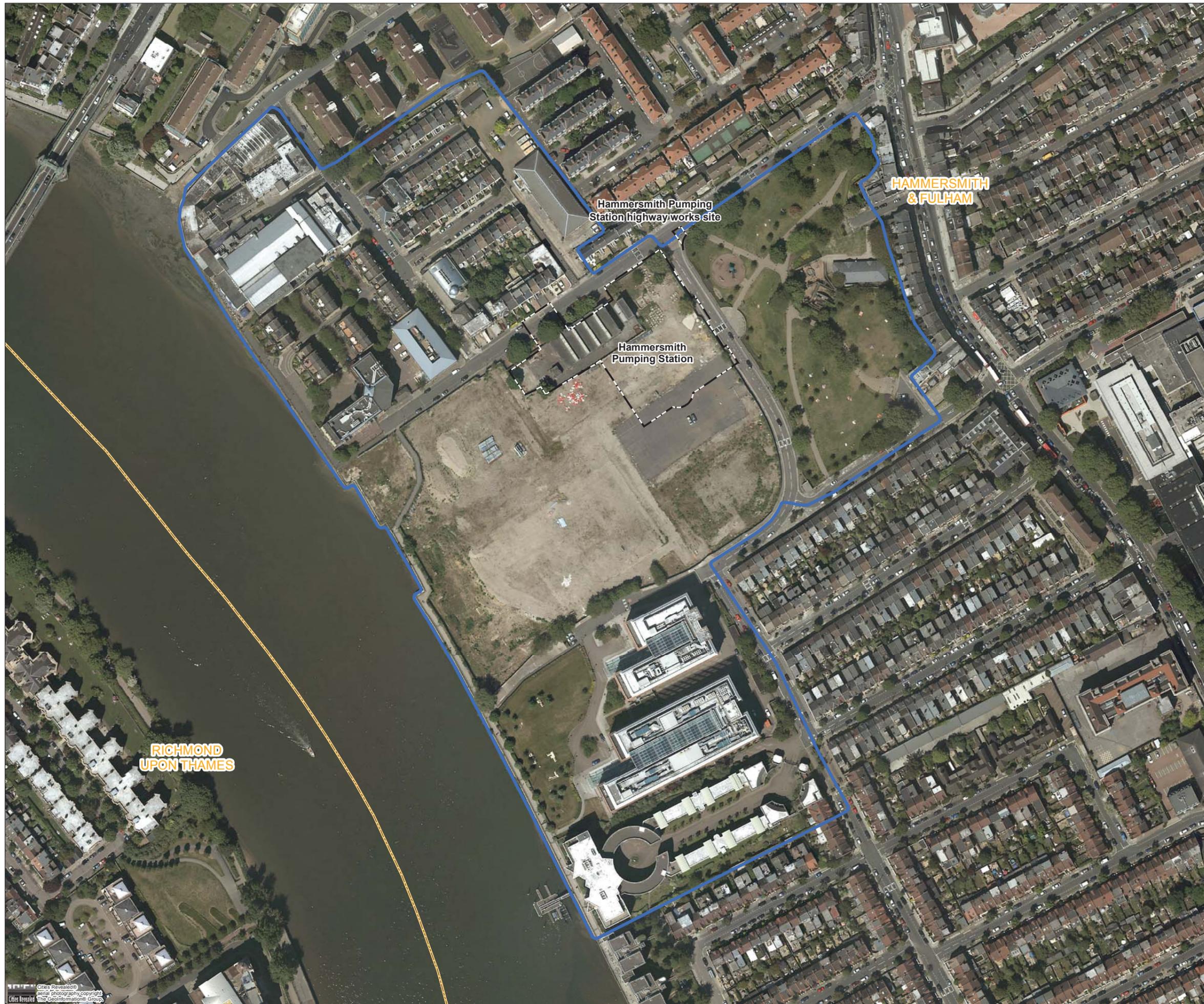


## FOR INFORMATION

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Townscape and visual  
 Development pattern and scale  
 Vol. 5 Figure 11.4.1  
 1PL03-TS-40354  
 January 2013

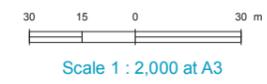




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- Key:
- Limits of Land to be Acquired or Used
  - Local Authority boundary
  - Extents of construction phase townscape assessment area



## FOR INFORMATION

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**

Townscape and visual  
 Aerial photo showing pattern of vegetation  
 Vol. 5 Figure 11.4.2  
 1PL03-TS-40355  
 January 2013





- Key:**
- Limits of Land to be Acquired or Used
  - Local Authority boundary
  - ▭ Extents of construction phase townscape assessment area
  - ▬ Provision for cyclists alongside busy roads
  - ▬ London cycle routes
  - ▬ A roads
  - ▭ River Thames and tidal tributaries



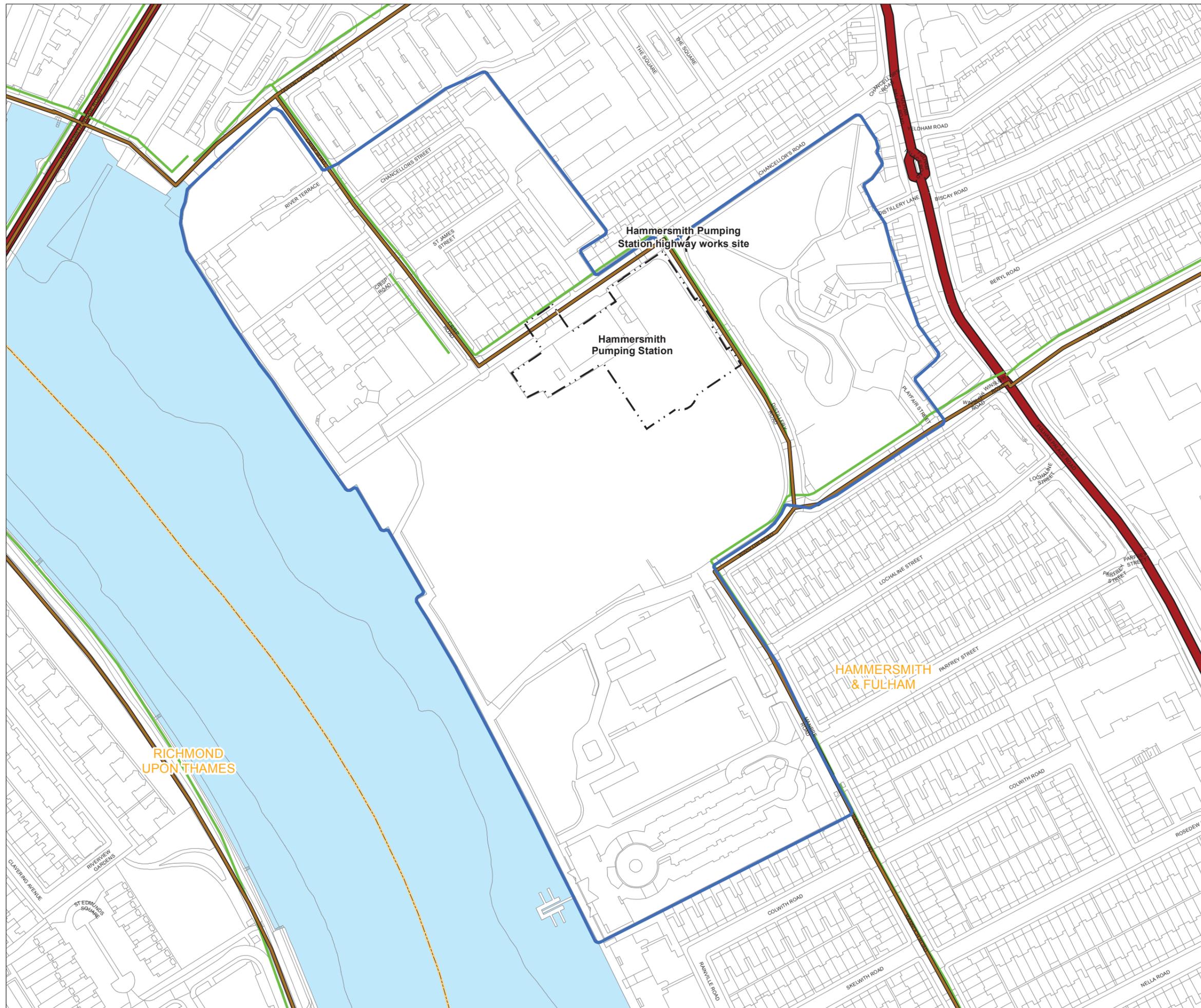
Scale 1 : 2,000 at A3

## FOR INFORMATION

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**

Townscape and visual  
 Transport routes  
 Vol. 5 Figure 11.4.3  
 1PL03-TS-40356  
 January 2013



RICHMOND  
UPON THAMES

HAMMERSMITH  
& FULHAM

Hammersmith Pumping Station highway works site

Hammersmith Pumping Station

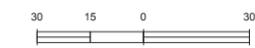
Keyplan:



Key:

- Limits of Land
- to be Acquired or Used
- Local Authority boundary
- Extents of construction phase townscape assessment area
- Conservation areas

The colour fills shown on the plan are used to differentiate between townscape character areas



Scale 1 : 2,000 at A3

## FOR INFORMATION

Location

**Hammersmith Pumping Station**  
London Borough of Hammersmith & Fulham

Document Information

**Environmental Statement**

Townscape and visual  
Townscape character areas  
Vol. 5 Figure 11.4.4

1PL03-TS-40357  
January 2013

Thames Tideway Tunnel  
Creating a cleaner, healthier River Thames



Keyplan:



Key:

The zone of theoretical visibility (ZTV) is a computer generated model which indicates the theoretical visibility of the construction works (including cranes) and operational structures. As described in Volume 2 the ZTV is a starting point for defining the assessment area and for informing the assessment of likely significant effects. Theoretical visibility does not necessarily mean a location would be subject to adverse effects.

- Limits of Land
- to be Acquired or Used
- Local Authority boundary
- Visual assessment points
- Construction phase ZTV
- River Thames and tidal tributaries



Scale 1 : 2,000 at A3

## FOR INFORMATION

Location

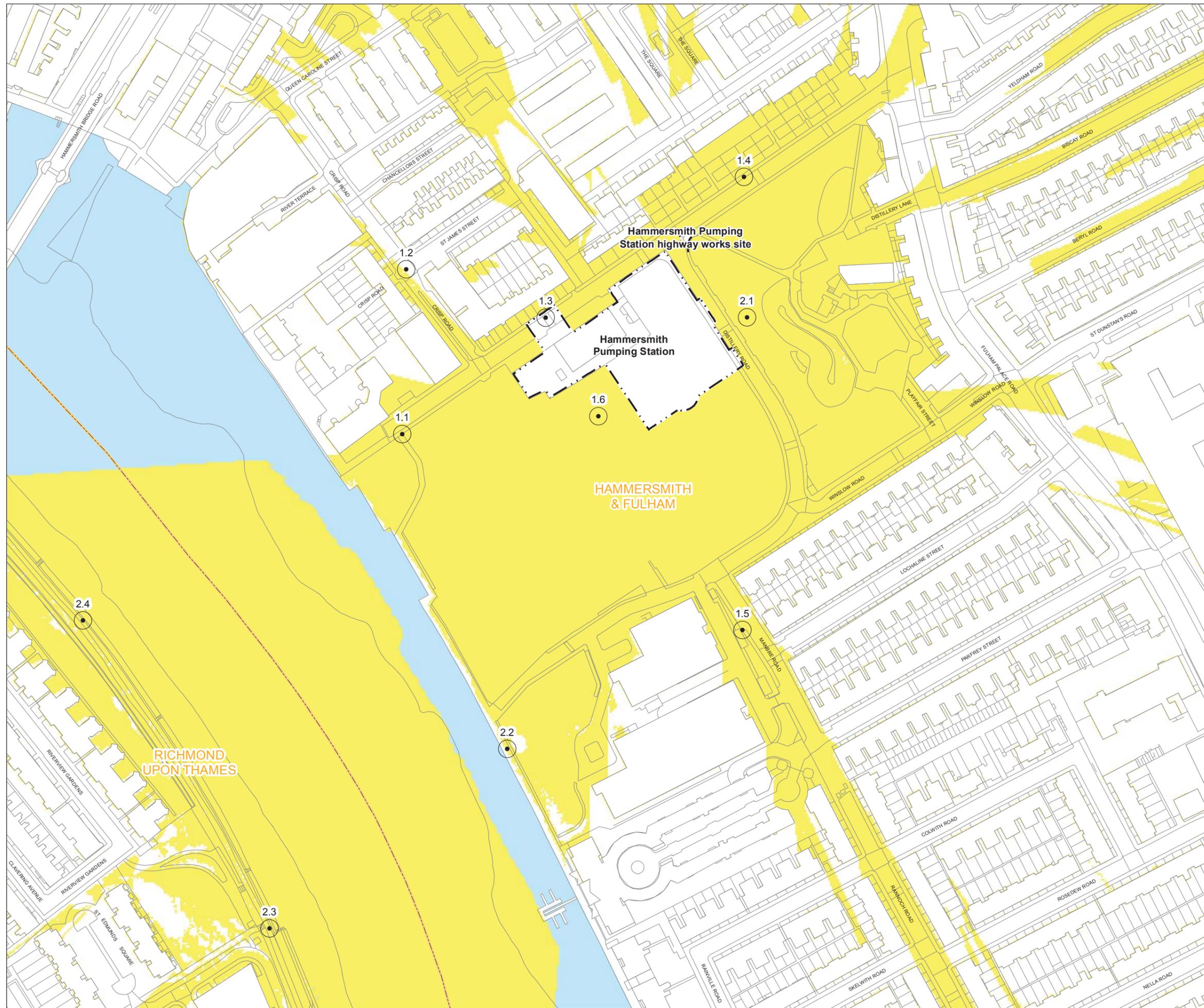
**Hammersmith Pumping Station**  
London Borough of Hammersmith & Fulham

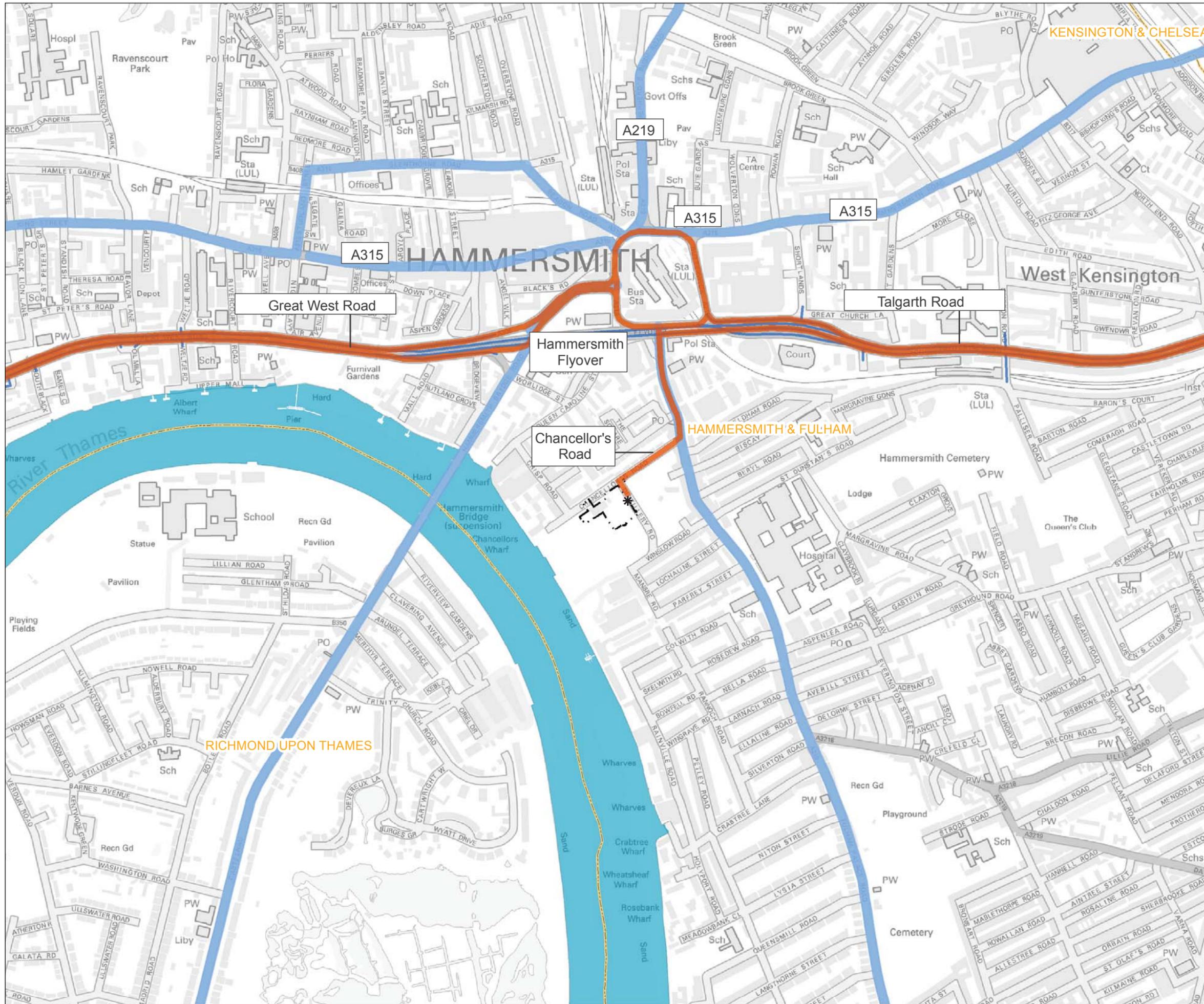
Document Information

**Environmental Statement**

Townscape and visual  
Viewpoints  
Vol. 5 Figure 11.4.5

1PL03-TS-40358  
January 2013





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- Key
- \* Site access
  - TFL road network
  - Strategic road network
  - Primary construction route
  - Limits of Land to be Acquired or Used
  - Local authority boundary



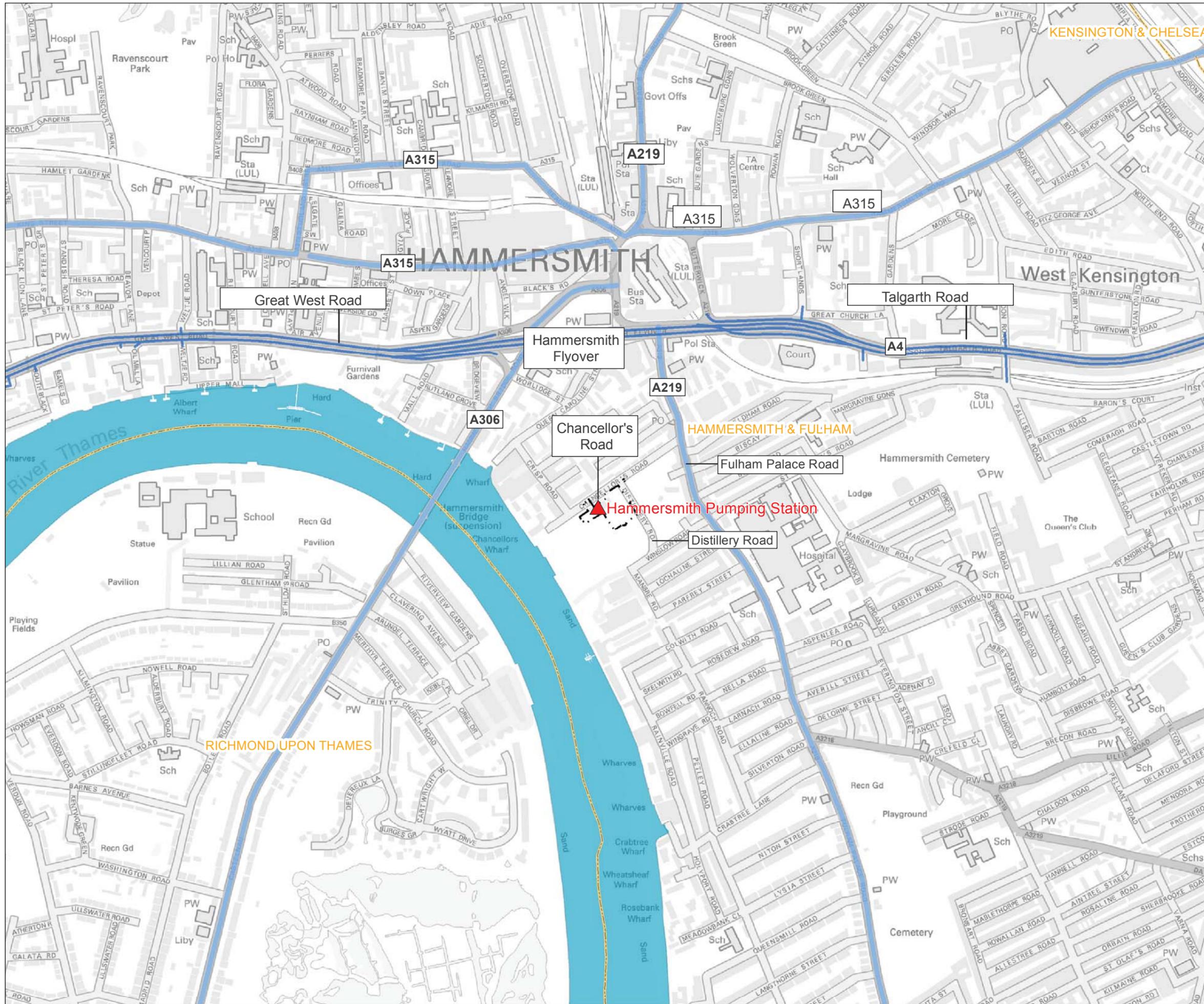
## FOR INFORMATION

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Transport - construction traffic routes

Vol.5 Figure 12.2.1  
 1PL03-TT-50405  
 January 2013





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- Key
- Pumping station
  - TFL road network
  - Strategic road network
  - Limits of Land to be Acquired or Used
  - Local authority boundary



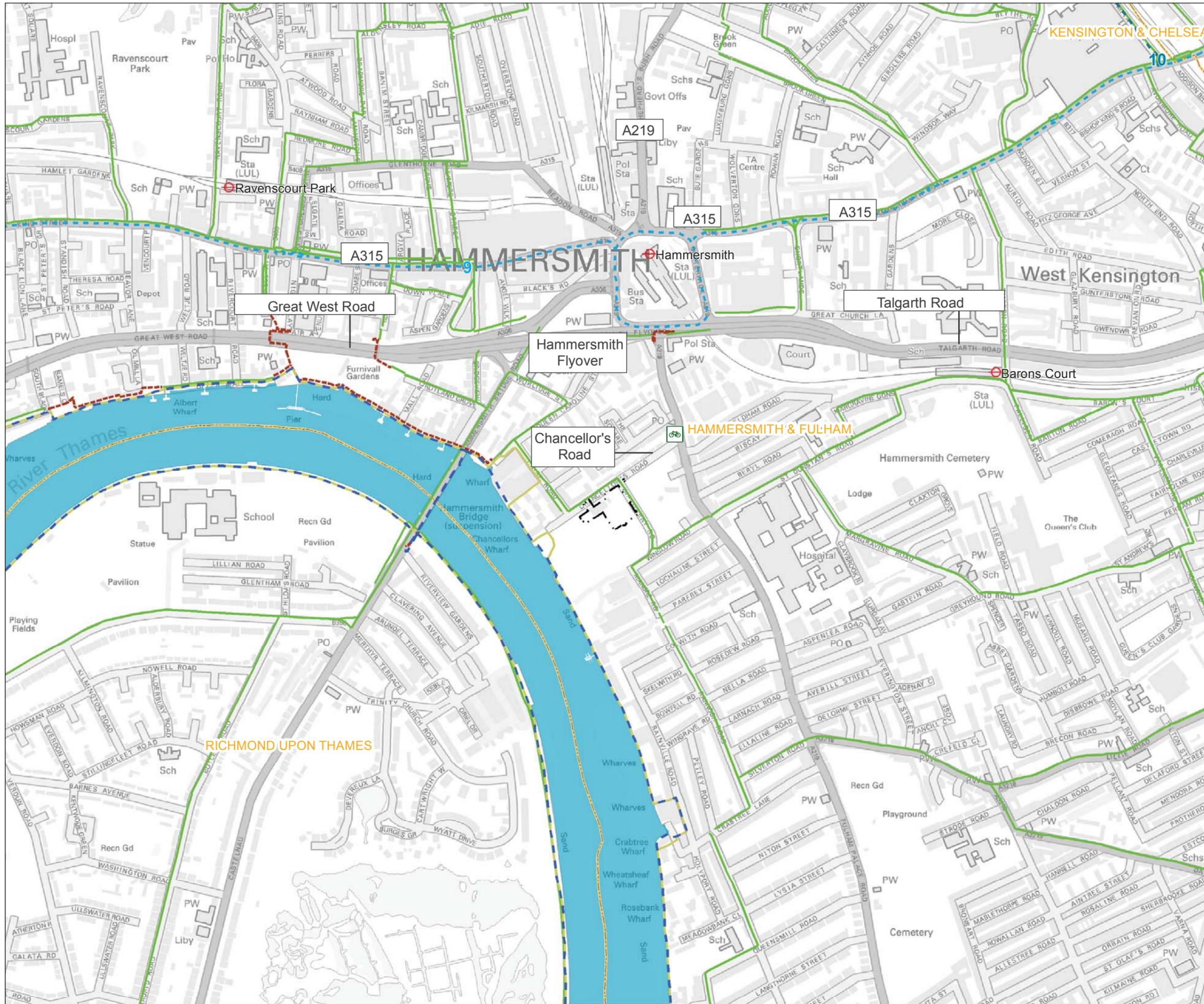
## FOR INFORMATION

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Transport - site location plan

Vol.5 Figure 12.4.1  
 1PL03-TT-50413  
 January 2013





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- Key**
- Cycle parking
  - Underground stations with cycle parking
  - London strategic walk network
  - London cycle routes
  - Cycle superhighway (open 2013)
  - Cycle superhighway (open 2015)
  - Thames Path
  - Pedestrian routes
  - Limits of Land to be Acquired or Used
  - Local authority boundary



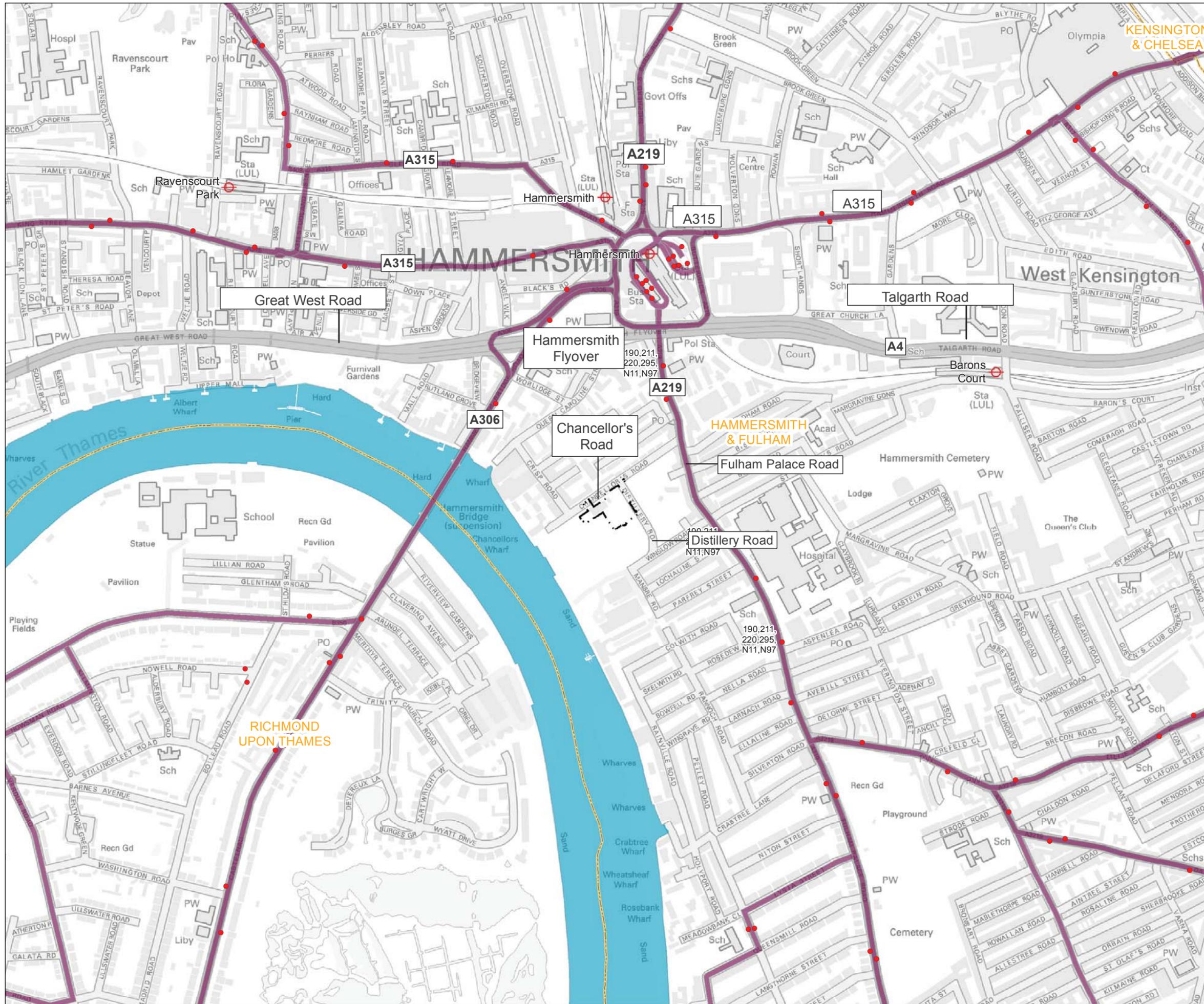
## FOR INFORMATION

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Transport - pedestrian and cycle network

Vol.5 Figure 12.4.2  
 1PL03-TT-50421  
 January 2013





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- Key
- TFL bus stops
  - ⊗ London underground stations
  - TfL bus routes
  - Limits of Land to be Acquired or Used
  - Local authority boundary



## FOR INFORMATION

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Transport - public transport

Vol.5 Figure 12.4.3  
 1PL03-TT-50429  
 January 2013

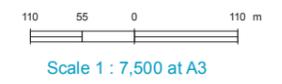




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- Key
- Private car parking
  - Coach parking
  - City Car
  - Hertz on Demand
  - Zip Car
  - Controlled Parking Zones and hours of operation
  - Limits of Land to be Acquired or Used
  - Local authority boundary



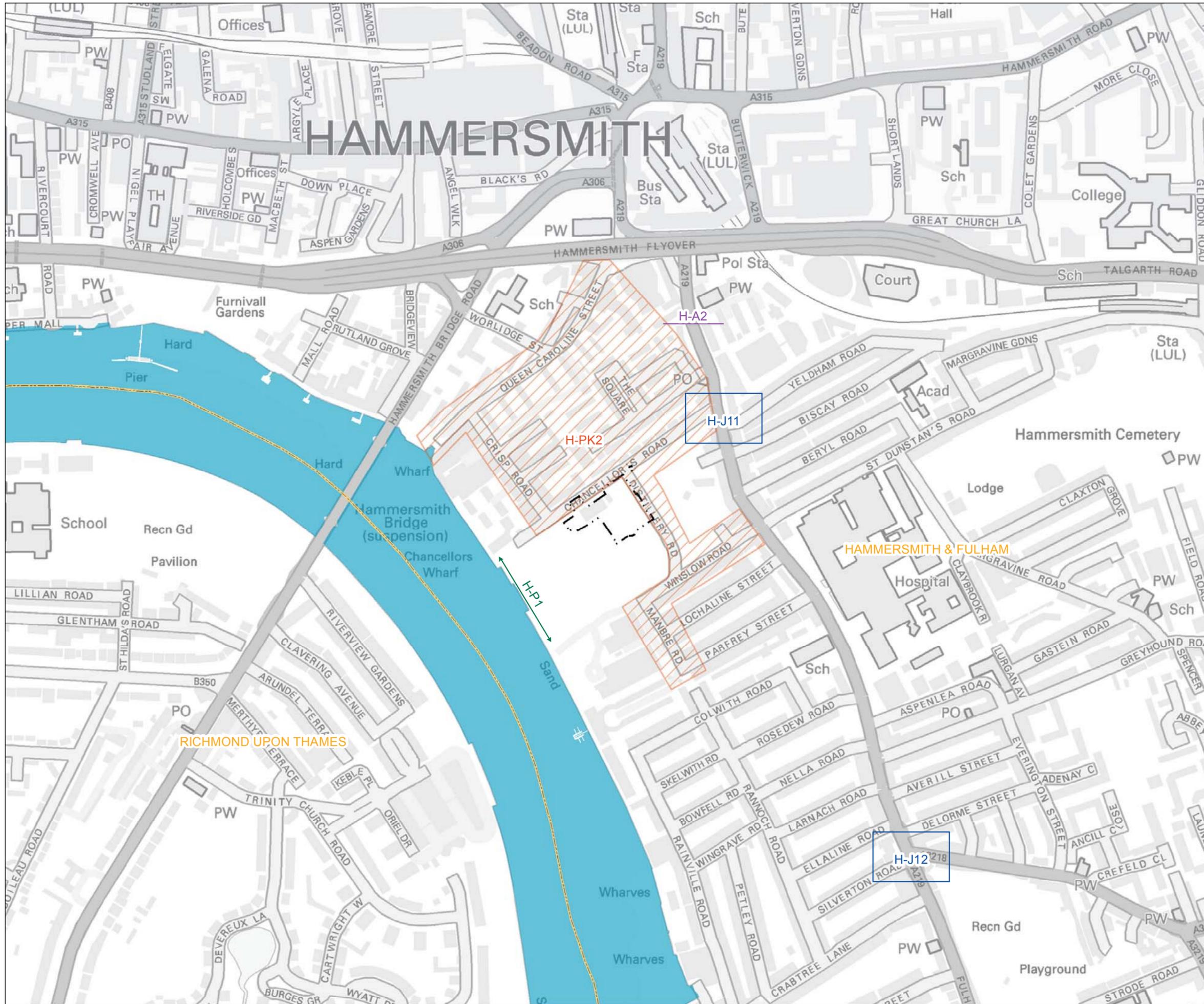
## FOR INFORMATION

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Transport - parking

Vol.5 Figure 12.4.4  
 1PL03-TT-50437  
 January 2013

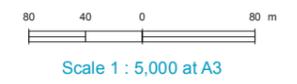




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- Key**
- Automatic traffic count surveys
  - Pedestrian and cycle surveys
  - Junction surveys
  - Parking surveys
  - Limits of Land to be Acquired or Used
  - Local authority boundary



## FOR INFORMATION

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Transport - survey locations

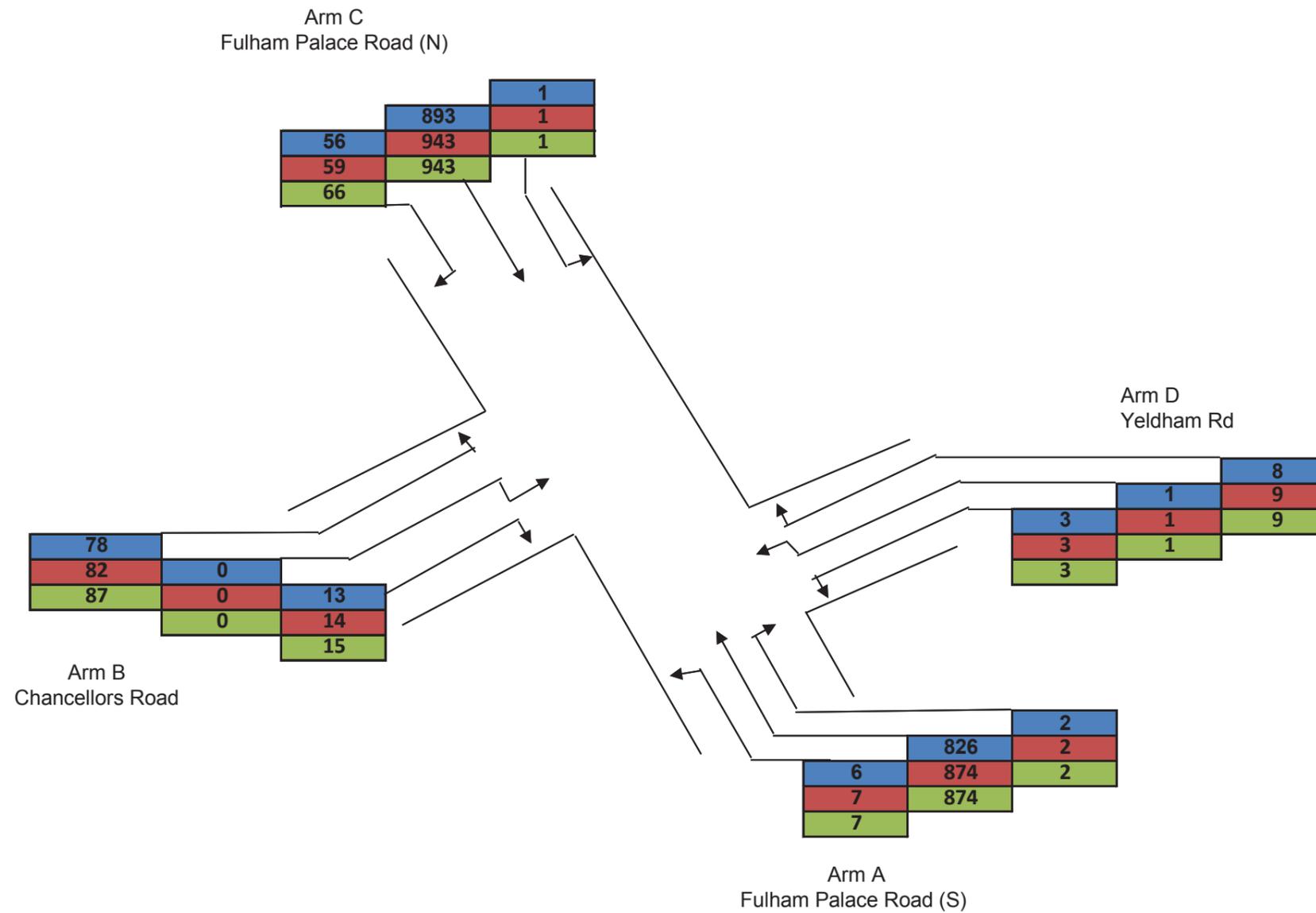
Vol.5 Figure 12.4.5  
 1PL03-TT-50445  
 January 2013



**Site:** Hammersmith PS  
**Borough:** Hammersmith & Fulham  
**Junction:** Fulham Palace Road/ Chancellor's Rd/ Yeldham Rd  
**Junction no.:** PBA 4



**Data:** Traffic Flow in PCUs - AM Peak Hour  
 from Traffic Survey



**FOR INFORMATION**

**Location**  
**Hammersmith PS**  
 LB of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**

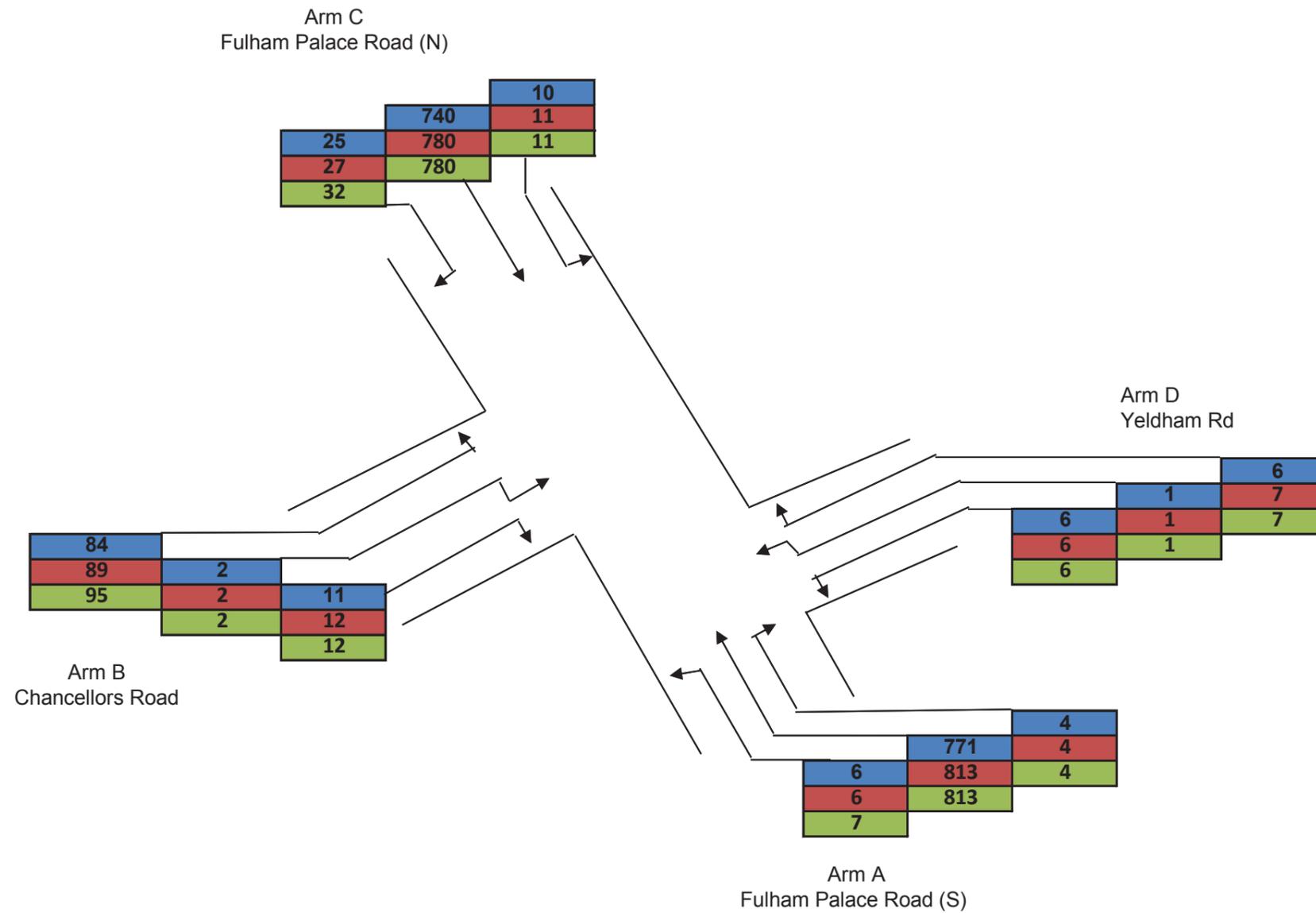
Baseline, Construction and  
 Development case traffic flow  
 (AM peak hour)

Vol. 5 Figure 12.4.6  
 1PL03-TT-50856  
 January 2013

**Site:** Hammersmith PS  
**Borough:** Hammersmith & Fulham  
**Junction:** Fulham Palace Road/ Chancellor's Rd/ Yeldham Rd  
**Junction no.:** PBA 4



**Data:** Traffic Flow in PCUs - PM Peak Hour  
 from Traffic Survey



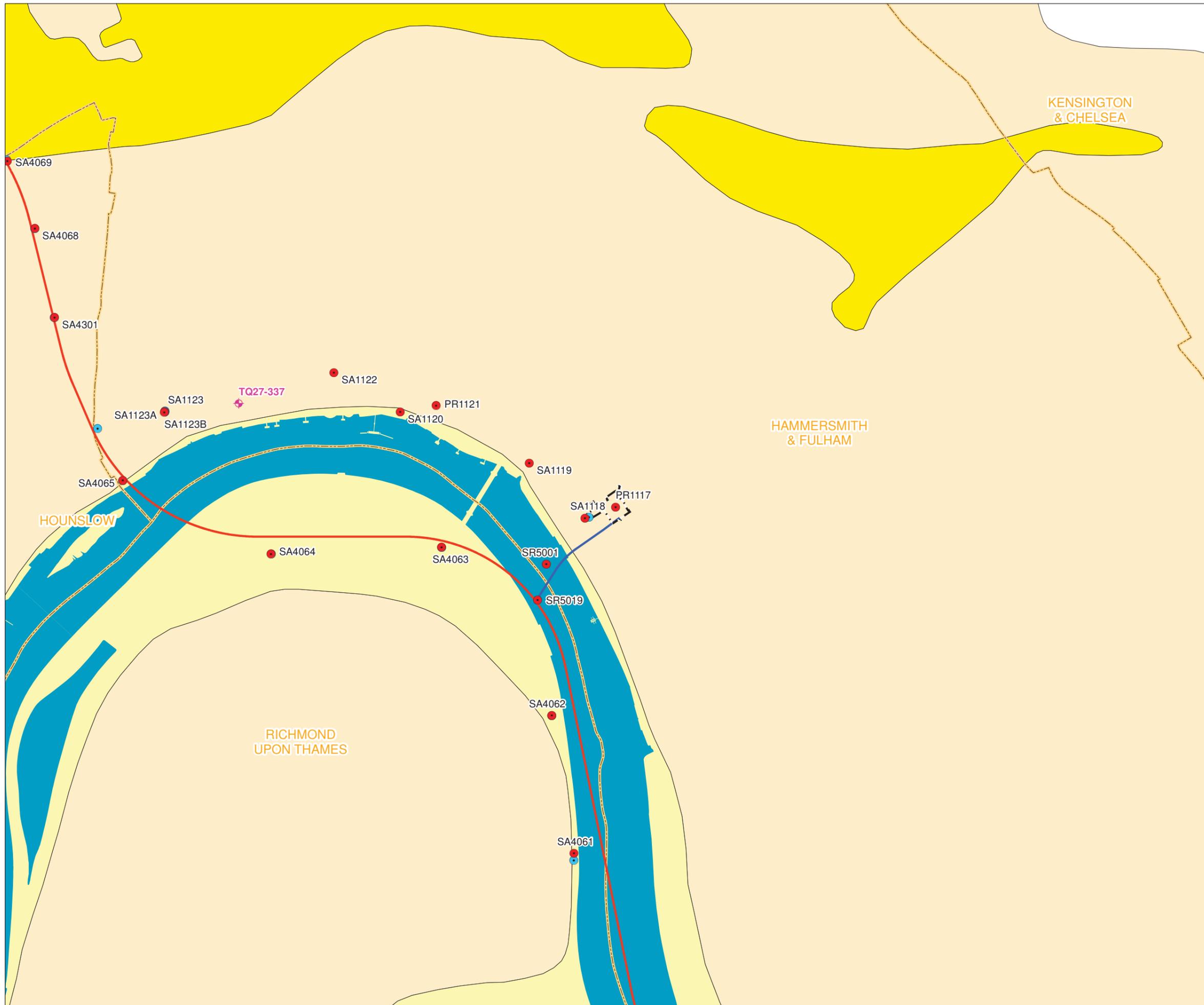
**FOR INFORMATION**

**Location**  
**Hammersmith PS**  
 LB of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**

Baseline, Construction and  
 Development case traffic flow  
 (PM peak hour)

Vol. 5 Figure 12.4.7  
 1PL03-TT-50880  
 January 2013



**Key**

- Limits of Land to be Acquired or Used
- : Acquired or Used
- Thames Tideway Tunnel**
  - Main Tunnel
  - Connection Tunnel
- Local Authority Boundary
- Drilled Boreholes**
- Depth (m)
  - 0 - 10
  - 10 - 30
  - 30+
- Proposed Boreholes**
  - Land
- EA Groundwater Level Monitoring Locations**
  - ◆ Historical Data Available
- Superficial Geology**
  - Alluvium
  - Kempton Park Gravel Member
  - Langley Silt Member

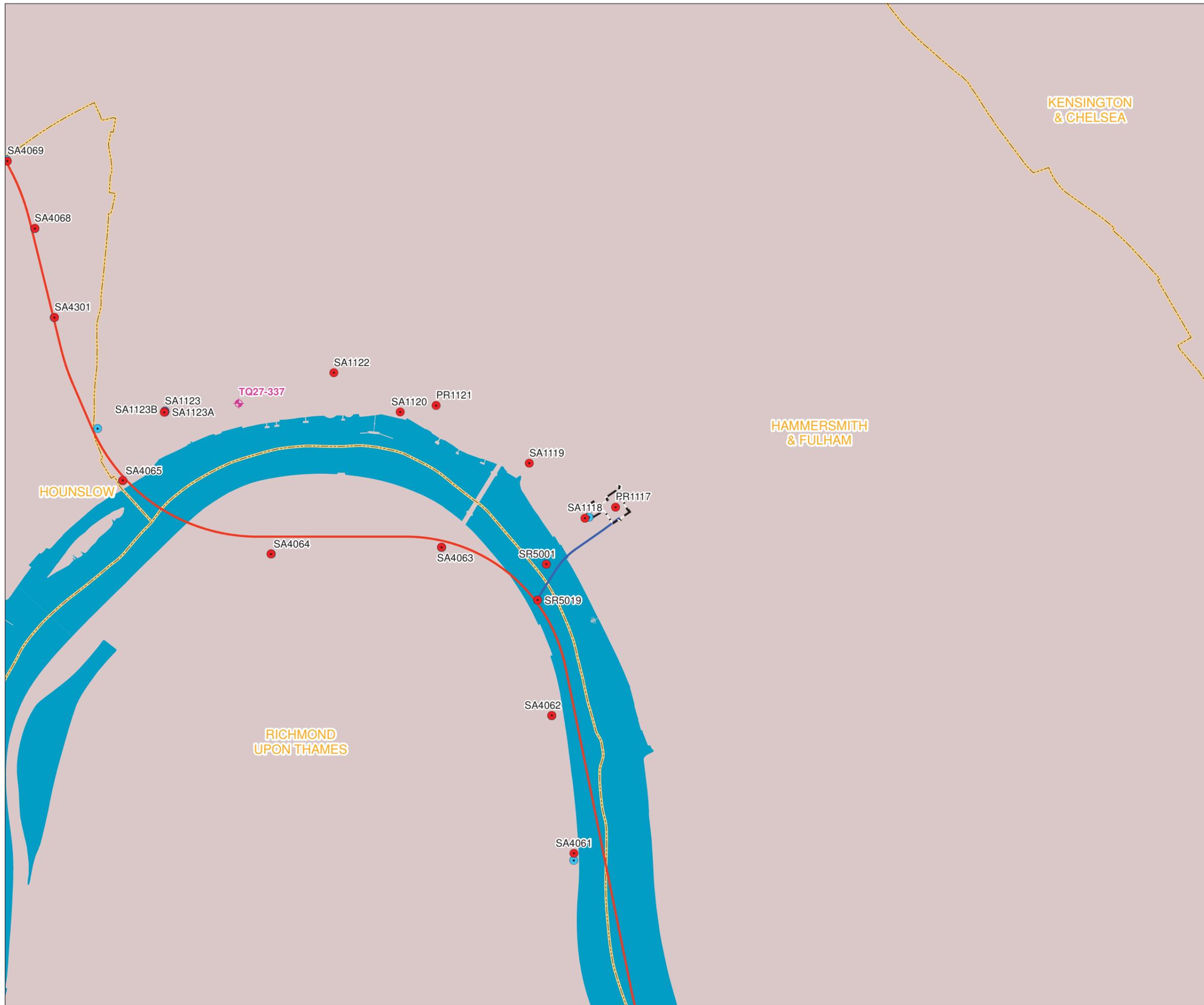
200 100 0 200 m  
Scale 1 : 10,000 at A3

**FOR INFORMATION**

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Water resources – groundwater superficial geology  
 Vol.5 Figure 13.4.1  
 1PL03-WR-20108  
 January 2013





**Key**

- Limits of Land to be Acquired or Used
- Thames Tideway Tunnel
  - Main Tunnel
  - Connection Tunnel
- Local Authority Boundary
- Drilled Boreholes**
- Depth (m)**
  - 0 - 10
  - 10 - 30
  - 30+
- Proposed Boreholes**
  - Land
- EA Groundwater Level Monitoring Locations**
  - ◆ Historical Data Available
- Solid Geology**
  - London Clay Formation



Scale 1 : 10,000 at A3

**FOR INFORMATION**

**Location**

**Hammersmith Pumping Station**  
London Borough of Hammersmith & Fulham

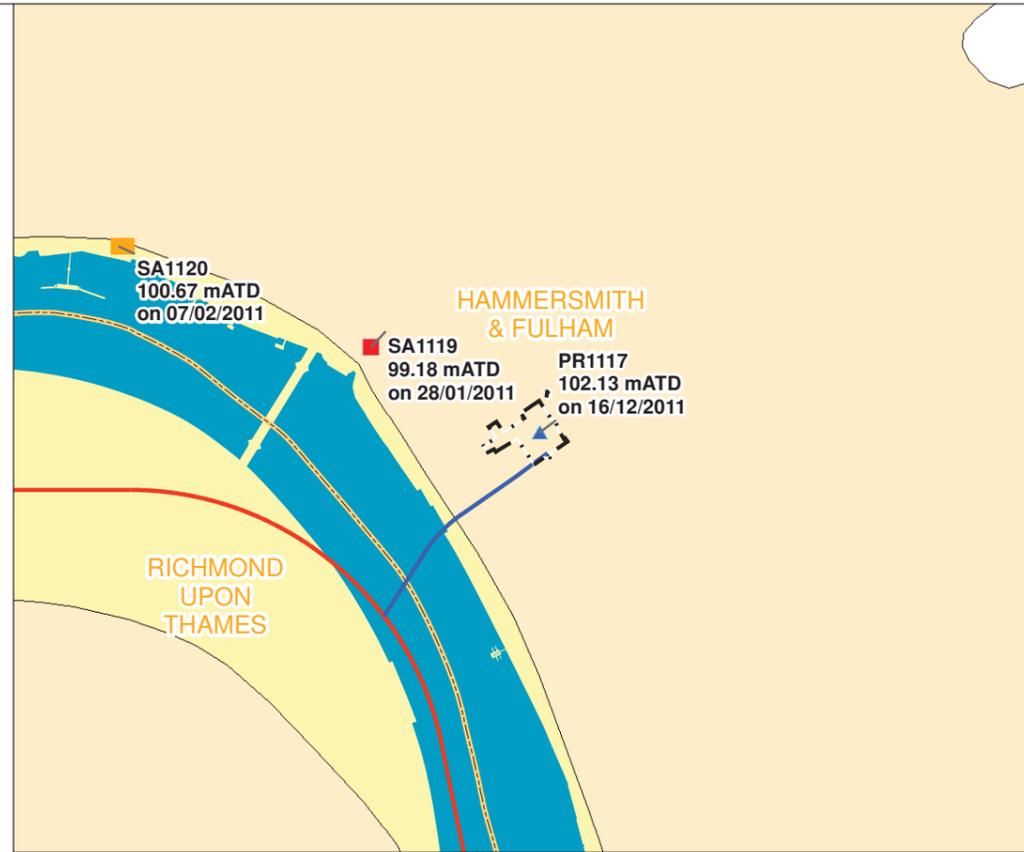
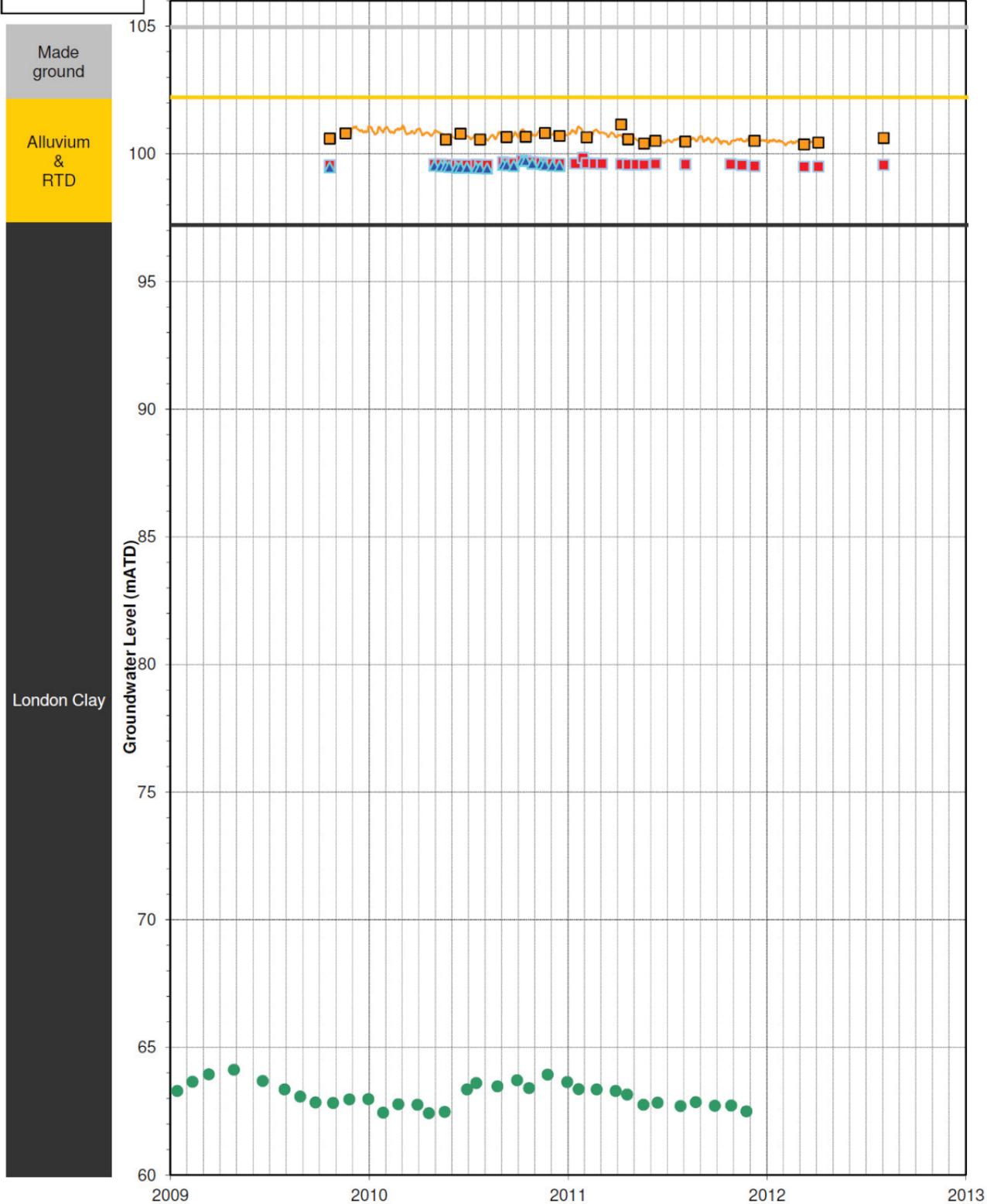
**Document Information**

**Environmental Statement**

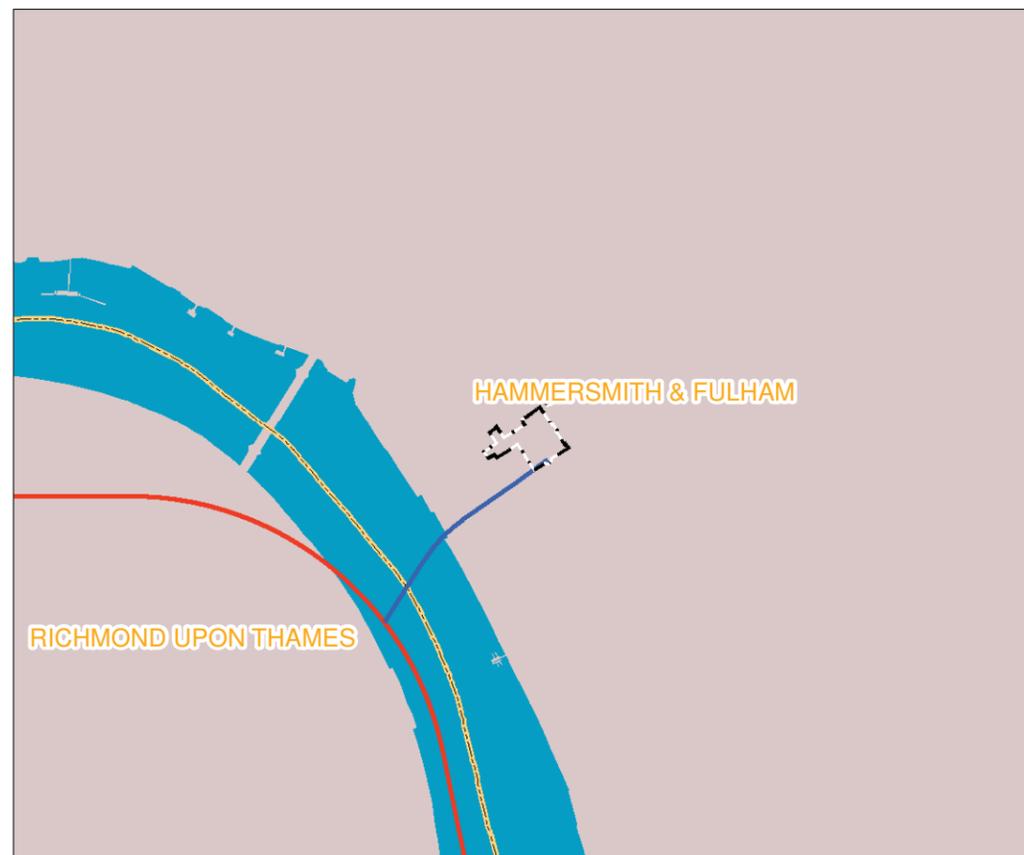
Water resources – groundwater - solid geology  
Vol.5 Figure 13.4.2  
1PL03-WR-20109  
January 2013



Geology at the Shaft Site



Upper aquifer monitoring locations

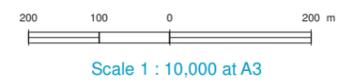


Lower aquifer monitoring locations

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- Key**
- Limits of Land to be Acquired or Used
  - Thames Tideway Tunnel
    - Main Tunnel
    - Connection Tunnel
  - ▭ Local Authority Boundary
  - Drilled Boreholes Upper Aquifer Water Levels
    - SA1120
    - ▲ PR1117
    - SA1119
  - Superficial Geology
    - Alluvium
    - Kempton Park Gravel Member
  - Solid Geology
    - London Clay Formation



**FOR INFORMATION**

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Water resources – groundwater - monitoring locations  
 Vol.5 Figure 13.4.3  
 1PL03-WR-20110  
 January 2013



Keyplan:



Key

- Limits of Land to be Acquired or Used
- Automatic Quality Monitoring Station Locations



Scale 1 : 10,000 at A3

## FOR INFORMATION

Location

**Hammersmith Pumping Station**  
London Borough of Hammersmith & Fulham

Document Information

**Environmental Statement**

Water resources - surface water - water quality monitoring points  
Vol.5 Figure 14.4.1

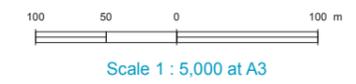
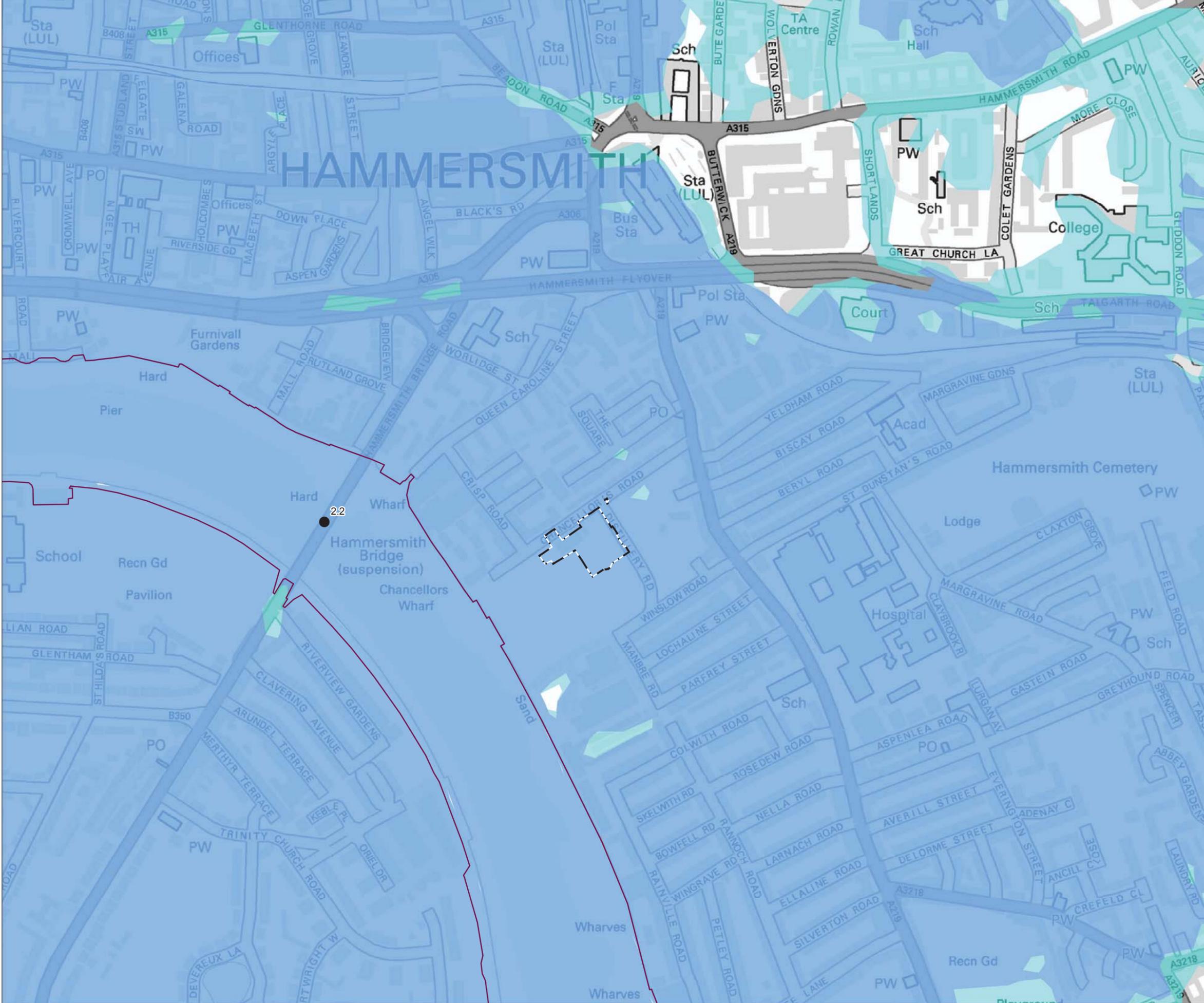
1PL03-WR-21002  
January 2013



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- Key
- Limits of Land to be Acquired or Used
  - Water Level Node
  - Thames Tidal Defences
  - EA Flood Zone 3
  - EA Flood Zone 2
- Note: Water Level Node - Thames Tidal Joint Probability Extreme Water Levels 2008



## FOR INFORMATION

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

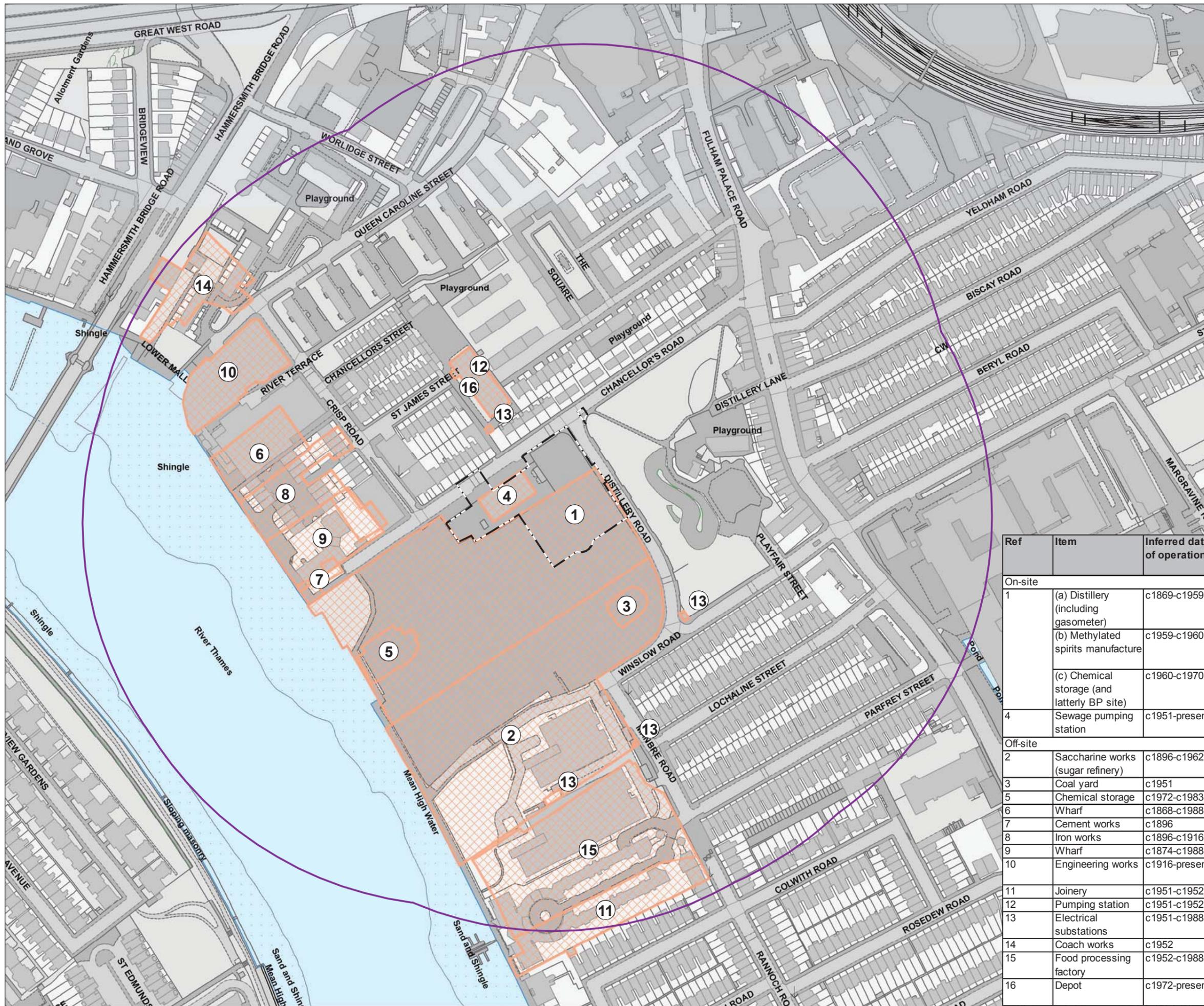
**Document Information**  
**Environmental Statement**  
 Flood risk - EA flood zones

Vol.5 Figure 15.3.1  
 1PL03-FL-20128  
 January 2013





- Key
- Limits of Land
  - - - to be Acquired or Used
  - Limit of Land 250m Buffer
  - ▨ Potentially Contaminating Land-Uses



Ref	Item	Inferred date of operation
<b>On-site</b>		
1	(a) Distillery (including gasometer)	c1869-c1959
	(b) Methylated spirits manufacture	c1959-c1960
	(c) Chemical storage (and latterly BP site)	c1960-c1970
4	Sewage pumping station	c1951-present
<b>Off-site</b>		
2	Saccharine works (sugar refinery)	c1896-c1962
3	Coal yard	c1951
5	Chemical storage	c1972-c1983
6	Wharf	c1868-c1988
7	Cement works	c1896
8	Iron works	c1896-c1916
9	Wharf	c1874-c1988
10	Engineering works	c1916-present
11	Joinery	c1951-c1952
12	Pumping station	c1951-c1952
13	Electrical substations	c1951-c1988
14	Coach works	c1952
15	Food processing factory	c1952-c1988
16	Depot	c1972-present



Scale 1 : 2,500 at A3

## FOR INFORMATION

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

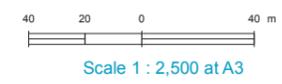
**Document Information**  
**Environmental Statement**

Land quality - potentially contaminating land-uses  
 Vol.5 Figure F.1.1  
 1PL03-LQ-30129  
 January 2013





- Key**
- Drilled Boreholes
- Depth (m)
- 0 - 10
  - 10 - 30
  - 30+
- Limits of Land  
 - - - to be Acquired or Used  
 □ Limit of Land 250m Buffer

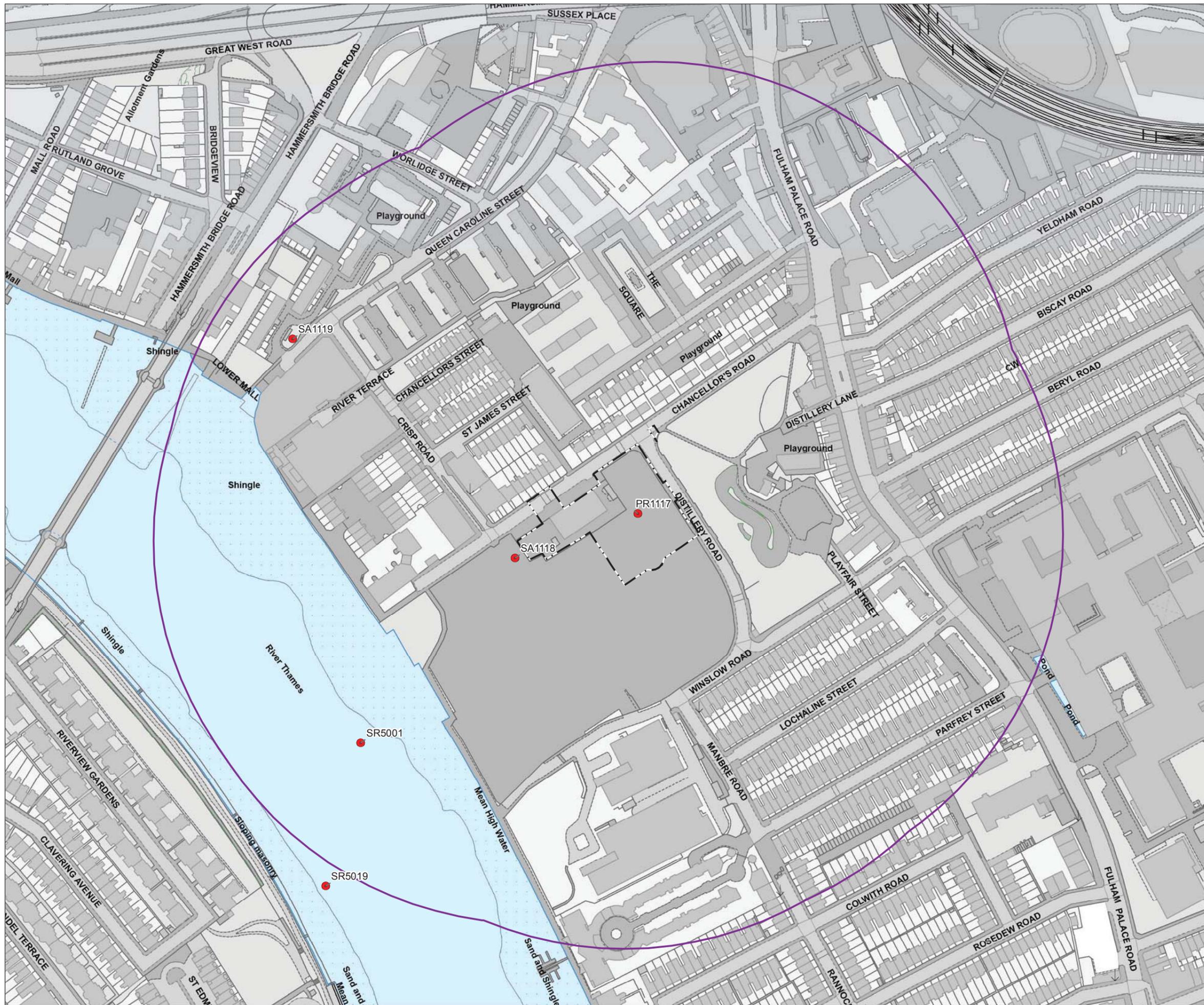


## FOR INFORMATION

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Land quality - borehole locations

Vol.5 Figure F.1.2  
 1PL03-LQ-30127  
 January 2013



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Keyplan:



Key

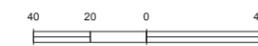
- Limits of Land
- - - to be Acquired or Used
- Limit of Land 250m Buffer

Waste

- ▲ Past Potential Contaminated Industrial Uses
- Registered Waste Treatment or Disposal Sites

Hazards

- Pollution Incidents to Controlled Waters
- LA Pollution Prevention & Controls
- ▲ Past Potentially Contaminated Industrial Uses



Scale 1 : 2,500 at A3

## FOR INFORMATION

Location

**Hammersmith Pumping Station**  
London Borough of Hammersmith & Fulham

Document Information

**Environmental Statement**

Land quality - hazard and waste sites

Vol.5 Figure F.1.3

1PL03-LQ-30128

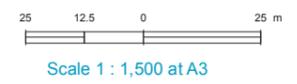
January 2013

Thames Tideway Tunnel  
Creating a cleaner, healthier River Thames





- Key**
- Limits of Land to be Acquired or Used
  - Local Authority Boundary
  - Noise survey Locations
    - Attended
    - Attended + Unattended



## FOR INFORMATION

**Location**  
**Hammersmith Pumping Station**  
 London Borough of Hammersmith & Fulham

**Document Information**  
**Environmental Statement**  
 Noise and vibration - noise survey locations

Vol.5 Figure G.1  
 1PL03-NV-40148  
 January 2013



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### **Thames Water Utilities Limited**

Clearwater Court, Vastern Road, Reading RG1 8DB

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